United States Department of the Interior
Bureau of Land Management

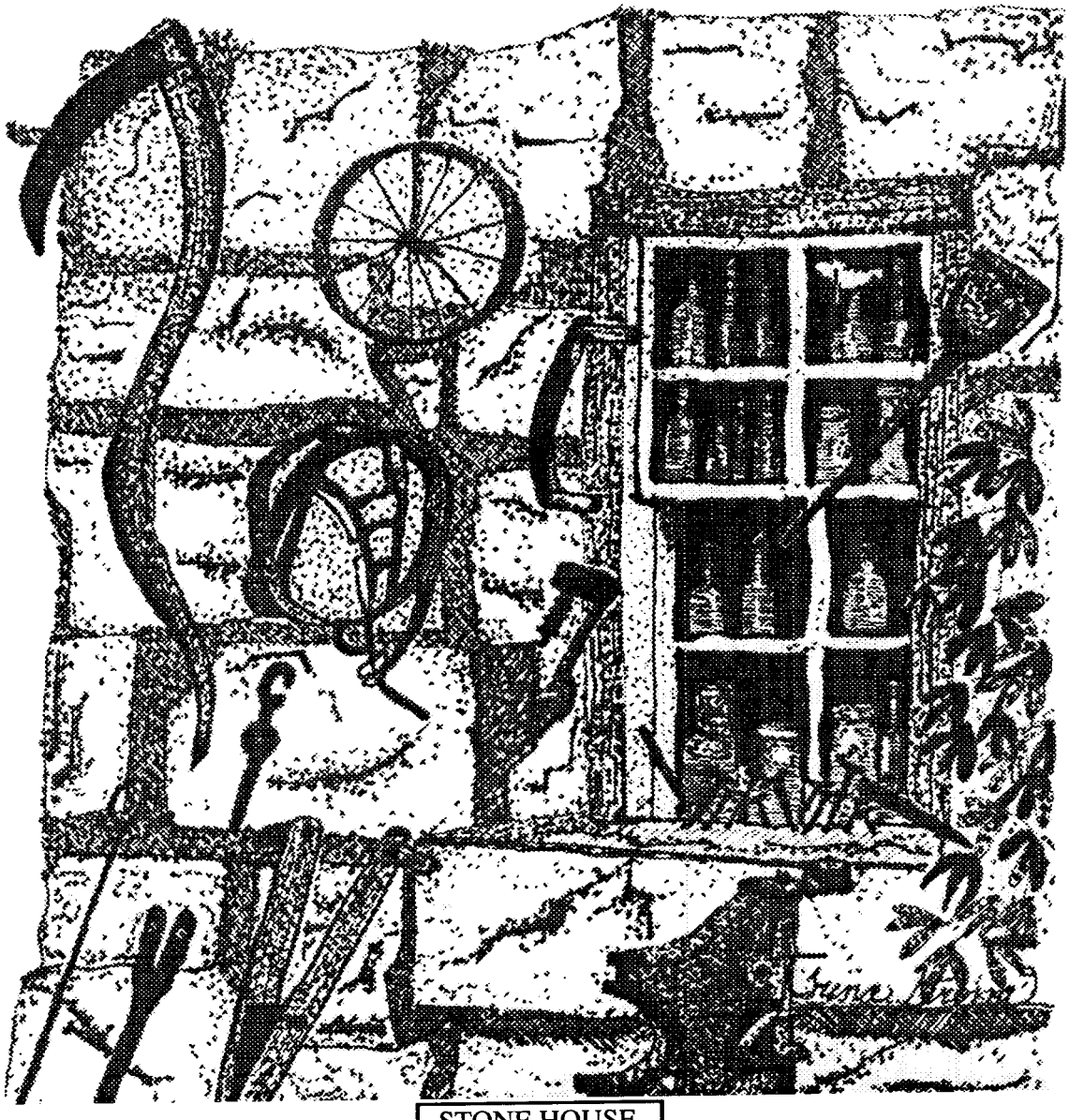
FINAL

Vernal District Office

Spring 1993

Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Volume I



STONE HOUSE
JARVIE RANCH

The Bureau of Land Management is responsible for the stewardship of our public lands. It is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people for all times. Management is based on the principles of multiple use and sustained yield of our nation's resources within a framework of environmental and scientific technology. These resources include recreation; rangelands; timber; minerals; watershed; fish and wildlife; wilderness; air; and scenic, scientific, and cultural values.

Index Number BLM/UT/PT-93/018+1610

DIAMOND MOUNTAIN RESOURCE AREA

PROPOSED
RESOURCE MANAGEMENT PLAN AND
FINAL ENVIRONMENTAL IMPACT STATEMENT

VOLUME I:

Summary, Purpose, and Need,
Proposed Plan and Alternatives,
Affected Environment,
Environmental Consequences,
Appendices, Glossary, and References

Prepared by

Department of the Interior
Bureau of Land Management
Vernal District
Spring 1993

David E. Little
District Manager
Vernal District

June 14, 1993
Date

James M. Parker
State Director
Utah State Office

June 17, 1993
Date

DIAMOND MOUNTAIN RESOURCE AREA

PROPOSED RESOURCE MANAGEMENT PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT

Draft ( ) Final (X)

The United States Department of the Interior, Bureau of Land Management

1. Type of Action: Administrative (X) Legislative ( )

2. Abstract: This proposed resource management plan and final environmental impact statement addresses management of all resources on approximately 709,000 acres of public land administered by the Bureau of Land Management, Diamond Mountain Resource Area, Vernal District, in Daggett, Duchesne, and portions of Uintah Counties, in northeastern Utah.

3. Any part of this proposed plan may be protested only by parties who participated in the planning process. Protests must pertain to issues that were identified in the plan or through the public comment process. Protests must be sent to:

   Director (760)
   Bureau of Land Management
   1800 C Street, N.W.
   Washington, DC 20240

   Protests must be postmarked within 30 days after the Environmental Protection Agency publishes the filing notice for this final EIS in the *Federal Register*.

4. For further general information contact:

   District Manager
   Bureau of Land Management
   170 South 500 East
   Vernal, UT 84078

   Area Manager
   Bureau of Land Management
   170 South 500 East
   Vernal, UT 84078

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
324 SOUTH STATE, SUITE 301
SALT LAKE CITY, UTAH 84111-2303

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
1616.10

Dear Reader:

This Proposed Resource Management Plan/Final Environmental Impact Statement (RMP/EIS) for the Diamond Mountain Resource Area is presented for your review. The draft Resource Management Plan and Environmental Impact Statement was published in December 1990, followed by a 90-day public comment period. Changes to the draft, based on public comments and further agency review, have been incorporated into this document. This document portrays the proposed plan, analysis of the proposed plan's and alternatives' impacts, and public comments and BLM's response. Thus, this two-volume set replaces the draft RMP/EIS.

Any part of this proposed plan may be protested only by parties who participated in the planning process. Protests must pertain to issues that were identified in the plan or through the public comment process. Protests must be sent to the Director (760), Bureau of Land Management (MS 302LS), 1849 C Street, N.W., Washington, DC 20240. Protests must be postmarked within thirty (30) days after the Environmental Protection Agency publishes the filing notice for this final EIS in the *Federal Register*. Protests must minimally contain the following information:

- The name, mailing address, telephone number, and interest of the person filing the protest.
- A statement of the issue or issues being protested.
- A statement of the part or parts being protested and a citing of pages, paragraphs, maps, etc., of the proposed RMP, where practical.
- A copy of all documents addressing the issue(s) submitted by the protester during the planning process or a reference to the date when the protester discussed the issue(s) for the record.
- A concise statement as to why the protester believes the BLM State Director's decision is incorrect.

At the end of the 30-day protest period, the proposed plan, excluding any portion under protest, will become final. Approval will be withheld on any portion of the plan under protest until final action has been completed on such protest.

Sincerely,

James M. Parker
State Director

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Phone (801) 789-1362

FAX (801) 781-4410

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
1616.10

Dear Friend:

People who live, work, or visit northeastern Utah recognize it as an integral part of the Intermountain West. The Diamond Mountain Resource Management Plan (RMP) directs and guides BLM to play an active role in keeping this area a great place to live, work, or visit.

This RMP is important because it will direct all activities on 709,000 surface acres and 854,000 total acres of federal mineral estate, administered by BLM, into the Twenty-first Century. As the term "public land" indicates, these lands belong to you - the public. As such, you have a direct voice in how these lands are managed. Obviously, we cannot satisfy everyone all of the time, but your help becomes essential as we attempt to meet resource condition standards and balance the multitude of sometimes conflicting demands between resource use and protection.

We sincerely appreciate your input throughout the development of this RMP, and assure you that we will maintain an open view of your future concerns and needs. Your input and comments have been extremely valuable, and have influenced many of the decisions in this plan. In the future, the best way to ensure local benefits from management direction and decisions is to work together at the local level.

With your help, we have developed a plan with an appropriate balance of multiple uses. The RMP outlines a good framework to improve or maintain resource conditions we will work toward over the next 10-15 years. It also provides the criteria within which to evaluate future proposals. The plan embraces opportunities to meet the needs of users, including the local public, and promotes the wise use and conservation of our natural resources.

As we implement this plan, we look forward to continuing to work together. We have a good start, but we will continue to need your involvement. Partnerships between BLM, the public, and other agencies are the best way for us to accomplish our goals.

Thank you for your interest and help in developing this RMP.

Sincerely,

David E. Little

David E. Little
District Manager

Conservation is a state of harmony between men and land.

All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in that community, but his ethics prompt him also to co-operate (perhaps in order that there may be a place to compete for).

The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.

A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity.

-- Aldo Leopold
in *A Sand County Almanac*

SUMMARY

HOW THIS DOCUMENT WAS DEVELOPED

CHANGES MADE FROM THE DRAFT RMP/EIS

This proposed Resource Management Plan and final Environmental Impact Statement (RMP/EIS) documents the process by which the Diamond Mountain Resource Area (DMRA) has evaluated alternative management plans and identified the proposed plan.

As a member of the public affected by this choice, your review of this document is critical. Any part of this proposed plan may be protested only by parties who participated in the planning process. Protests must pertain to issues that are identified in the plan or through the public comment process. Protests must be sent to the Director (760), Bureau of Land Management, within 30 days after the Environmental Protection Agency publishes the filing notice for this final EIS in the *Federal Register.* You are also referred to the State Director's letter at the front of this document for specific information on filing protests.

It is critical that the reader understands the management priority concept; it is the foundation of this RMP/EIS.

THE MANAGEMENT PRIORITY AREA CONCEPT

The Diamond Mountain RMP/final EIS is based on the concept of management priority areas. It is critical that the reader understand the management priority concept; it is the foundation of this RMP/EIS. First, the capabilities of the land are evaluated in a resource inventory. Then objectives for alternative resource management plans are devised based on issues, management concerns, and scoping as well as analysis of management opportunities. Based on these alternative objectives, public lands are placed into one of four general management groups or levels. Although these levels may result in geographic or spacial differences, the intensity of management for each level is quite similar across the alternatives:

LEVEL 1 identifies those lands requiring *the most restrictive management.* These lands generally would be closed to all activities except those specifically devised to enhance those values which placed the area in level 1.

LEVEL 2 identifies those lands that under the proposed plan or subject alternative require *careful management.* These lands would be open to activities that do not detract from those values which placed the area in level 2.

LEVEL 3 identifies those lands that under the proposed plan or subject alternative require *active management.* These lands would be open to most activities which may be constrained somewhat to protect those values which placed the lands in level 3.

LEVEL 4 identifies those lands that under the proposed plan or subject alternative require *open management.* These lands normally would be open to all legal uses and activities.

Specific management prescriptions were then matched to the management level for each alternative, including the proposed plan. The proposed plan and all the alternatives are compatible with the multiple use management directives of the BLM, but each gives emphasis to different resources.

Please refer to the proposed plan and four alternative maps (Map Packets #3 through 7) to view the graphic descriptions of management priority area assignments under the proposed plan and the alternatives.

Areas of Critical Environmental Concern (ACECs) and other special emphasis areas are also developed using the management priority area concept. The most important, significant features and resources which merit special management consistent with the proposed plan and each alternative, are mapped. These areas are then combined, where possible, and exterior boundaries are drawn. Thus, ACECs proposed and analyzed in the RMP/EIS do not cover a single high quality resource value but, in most cases, cover multiple high quality resource values.

Management prescriptions are then established for the proposed plan and alternatives to guide multiple use management for each ACEC, relating directly to the management levels as outlined above. Within one ACEC, for example, there could be three different levels of management from the most restrictive to open management. In general, the specific management prescriptions for resource values and uses within the ACEC are the same as management objectives outside the ACEC. However, to enhance or protect the combination of high value resources within these areas, some further specific refinements and/or clarifications may be necessary. These refinements may include additional time restrictions, or closures to specific uses (for example, OHV, mineral leasing, or agricultural leasing). Further clarifications deal with the extent and/or type of vegetation treatments, mitigation measures to ensure high quality visual resources, etc.

Dividing the resource area into different management priority areas makes it possible to anticipate types of general resource development in any particular area. An oil and gas operator, for example, will know where oil and gas development will have the least restrictions and where more restriction would be required for development. Utility companies can look at the planning map and determine where a right-of-way will encounter the fewest restrictions. Areas where rangeland or wildlife improvements can occur with the least threat of later conflict with other resource development can easily be determined.

By inviting the public, resource users, the Ute Indian Tribe, and local, state, and other federal agencies to participate in this planning process, BLM affords interested parties the opportunity to participate in the land-use planning process. The Diamond Mountain Resource Management Plan will be the guiding influence for management decisions until amended or rewritten.

HOW THE PROPOSED DIAMOND MOUNTAIN RMP/FINAL EIS DIFFERS FROM THE DRAFT.

Changes to the draft RMP respond to public and agency comments and include changes to improve clarity, or to correct weaknesses, and modifications to the draft's preferred alternative and the environmental analysis. Most changes are made in response to or were triggered by public comments.

It would be impractical to highlight every change made in the document. In certain cases, significant amounts of new information were added (i.e., socioeconomics) that may complicate the readability and thus confuse the understanding of this proposed plan/final EIS. However, because of the important nature of Chapter 2, the areawide decision table (Table 2-15); special emphasis management decisions (Tables 2-16 through 2-20); and the summary of impacts (Table 2-21) do indicate all changes made (highlighted in bold text). Following is a brief summary of some of the major changes.

Editorial changes were made to Chapter 1 to improve readability. In response to a concern expressed by the Uintah and Ouray and Uncompaghre Indians, the reservation boundary has been added to all maps.

Clarification or expanded wording was added to the Management Guidance Common to the Proposed Plan and the Alternatives sections in Chapter 2. These changes were prompted by questions from the public and recent changes in bureau policy or direction. Again, please refer to the major tables of this chapter for specific changes outlined in bold type. Qualifying wording was added to numerous decisions involving fish and wildlife habitat management. The proposed plan offers a change from the draft's preferred alternative dealing with the reintroduction of black-footed ferrets.

Changes to Chapter 3, Affected Environment, involve primarily the Fish and Wildlife Habitat Management, Lands and Realty Management, and Socioeconomics sections. Changes to these sections result directly from public requests for additional justification/data to support the proposed decisions.

Chapter 4, Environmental Consequences, was strengthened and clarified throughout, based on questions or data raised by the public. Socioeconomics was significantly strengthened and expanded at the request of the public.

HOW THE PROPOSED DIAMOND MOUNTAIN RMP/FINAL EIS IS ORGANIZED

This section of the proposed RMP/final EIS gives a brief description of the entire document. The resources and programs are arranged alphabetically within this document.

Two volumes are needed to present the proposed plan/ final EIS. Volume I contains the Summary, Chapters 1 through 4, the Appendices, Glossary, References, and Index. Volume II contains Chapter 5 and Map Packets #1 through 10.

Chapter 1. Purpose and Need

This chapter describes the planning process and lists the issues developed through the scoping process and by discussions with those affected by the RMP. The plan deals primarily with these concerns. Criteria by which the proposed plan and the alternatives were evaluated are also listed in this section.

Chapter 2. Proposed Plan and Alternatives

This chapter is the heart of the resource management plan. It gives a detailed description of the management for the proposed plan and each of four alternatives. There are two sets of decisions: resource areawide decisions for each of the proposed ACECs (as they apply to the proposed plan and each alternative).

Chapter 3. Affected Environment

This chapter describes the Diamond Mountain Resource Area and its resources as they presently exist and as they relate to the proposed plan and the alternatives presented. Refer to the Management Situation Analysis (MSA) for a detailed discussion of the resources and current management programs within the resource area. (A copy of the MSA is available for review in the Vernal District Office).

Chapter 4. Environmental Consequences

This chapter is the heart of the environmental impact analysis. It analyzes the changes that may occur if the proposed plan or one of the alternatives were implemented, and attempts to assign the relative significance of each change, both beneficial and adverse.

Chapter 5. Consultation and Coordination

This chapter lists the agencies, organizations, and individuals from which consultation was sought during development of this document. Included is a list of individuals contributing to this document and their qualifications. Also included are the individual public comments to the draft RMP/EIS and BLM's response to the comments.

Appendices

These sections contain additional information you may need to understand the RMP/EIS.

Glossary, References, and Index

These sections are provided to aid the reader in finding and understanding the material contained in this document.

Map Packet

This section provides oversized maps depicting important aspects of the RMP/EIS. The status of all lands within the resource area are displayed on the ownership map (Map Packet #1). Grazing allotments and major roads are displayed in Map Packet #2. The management priority areas for the proposed plan and each alternative, along with the special emphasis areas associated with the proposed plan or each alternative, are depicted in Map Packets 3 through 7. Mineral leasing categories as defined by the proposed plan are displayed in Map Packet #8 (oil and gas) and Map packet #9 (solid minerals). OHV designations, as defined by the proposed plan, are displayed in Map Packet #10.

PROPOSED PLAN AND ALTERNATIVES

The proposed Diamond Mountain RMP and final EIS addresses future management options for approximately 709,000 surface acres and 854,000 total acres of federal mineral estate administered by the Bureau of Land Management (BLM) through its Diamond Mountain Resource Area (DMRA) office in Vernal, Utah.

Although the exterior boundary of DMRA encompasses some 3.8 million acres of land in Daggett, Duchesne, and Uintah (portion) Counties of northeastern Utah, 81 percent of these lands are owned or managed by other entities, such as the State of Utah, the U.S. Forest Service, the Ute Indian Tribe (see Chapter 1), or private lands.

When approved, the Diamond Mountain RMP will provide a comprehensive framework for managing public land and allocating resources in the resource area until it is replaced. However, this RMP/EIS primarily focuses on three broad issues and the decisions needed to address each issue. The broad issues defined during the scoping process involve the management of natural resources such as vegetation, soils, and watershed; special emphasis areas including wild and scenic rivers and ACECs; and resource uses such as minerals, woodlands, and other land uses.

Five alternatives were considered in the draft document. One represented "no action" which means a continuation of current management direction. The other four alternatives provide a range of choices from those emphasizing environmental guardianship to those emphasizing resource uses.

Proposed Plan

The proposed plan replaces the draft document's preferred alternative (Alternative E). The proposed plan reflects modifications to the preferred alternative as a result of public comment and further analysis. This proposed plan involves changes to improve clarity, correct weaknesses and modifications to the preferred alternative and environmental analysis, or it provides a compromise on a preferred alternative decision, either selecting a decision from another alternative or developing a new decision. All modifications are within range of alternatives discussed and analyzed in the draft document.

The proposed plan focuses on open management with flexibility for enhancement and protection of special areas. All lands within the resource area would be open for development uses and mineral leases, however, some special areas would be protected by attaching no-surface-occupancy stipulations to mineral leases.

Highly erodible and saline soils, municipal water sheds, crucial wildlife habitat, VRM Class II, riparian habitat, important watersheds, and potential recreation sites would be protected by seasonal or avoidance restrictions. Special areas such as cultural sites eligible for or listed on the *National Register of Historic Places,* special status plant and animal species, developed recreation sites, crucial deer winter habitat, and semi-primitive nonmotorized areas would be afforded a higher level of protection than under Alternative A. The following areas would be designated and managed as ACECs: Browns Park Complex, Lears Canyon, lower segment of the Green River, Nine Mile Canyon, Pariette Wetlands, Red Creek Watershed, and Red Mountain-Dry Fork Complex.

The proposed plan includes Wild and Scenic River recommendations for two segments of the Green River.

Alternative A

This alternative focuses on open management with flexibility for limited enhancement and protection of special areas. All lands within the resource area would be open for development uses and mineral leases. However, highly erodible and saline soils, municipal watersheds and floodplains; crucial wildlife habitat; VRM Class II; and cultural sites eligible for or listed on the *National Register of Historic Places,* would be afforded protection. Seven areas would continue to be earmarked for special management; however, five would be without special designation. These include the Green River Scenic Corridor ACEC, the Red Creek Watershed ACEC, Pariette Wetlands, Nine Mile Canyon, Red Mountain and the lower and middle segments of the Green River.

Alternative B

This alternative emphasizes protective management, highlighting special values. These values include high density cultural and paleontological areas, highly erodible and saline soils, floodplains, municipal watersheds, crucial wildlife habitat, VRM Class II areas, semi-primitive nonmotorized areas, waters found to possess Wild and Scenic River values, relict vegetation communities, riparian habitat, and cultural sites eligible for or listed on the *National Register of Historic Places.* These values would be afforded a high level of protection. Uses and development could occur where featured values were not present. Development and uses could also occur if they were compatible with the highlighted values or where mitigation would retain the integrity of these values. Special areas would be earmarked, under this alternative, for special designation and management as ACECs: Browns Park Complex, Lears Canyon, Lower and Middle Segments of the Green River, Nine Mile Canyon, Pariette Wetlands, Red Creek Watershed, and Red Mountain-Dry Fork Complex.

Wild and Scenic River recommendations would include two segments of Nine Mile Creek, one segment of Argyle Creek, and three segments of the Green River.

Alternative C

This alternative features forage production for livestock. All lands within the resource area would be open for development and uses which either enhance or do not detract from forage production. Riparian resources, crucial wildlife habitat, highly erodible or saline soils, critical watersheds, special status plant and animal habitat, potential or development recreation sites, relict vegetation communities, and cultural sites eligible for or

listed on the *National Register of Historic Places*, would be managed to maintain their special qualities by the use of conditions of approval. Five special areas would be highlighted for special designation as ACECs: Green River Scenic Corridor, Red Creek Watershed, and three relict vegetation communities (Castle Cove, Red Mountain, and Lears Canyon).

Alternative D

This alternative emphasizes development opportunities. All lands within the resource area would be open for development and uses. Riparian resources, crucial wildlife habitat, highly erodible or saline soils, federally-listed special status plant and animal habitat, VRM Class II areas, developed recreation sites, and cultural sites eligible for or listed on the *National Register of Historic Places*, would be managed to maintain their special qualities with seasonal or avoidance restrictions. Only the Green River Scenic Corridor would be selected for special management as an ACEC.

TABLE OF CONTENTS

Summary i

How This Document was Developed i
How the Proposed RMP Differs from the Draft ii
How the Proposed RMP/Final EIS is Organized iii

Chapter 1 ..... 1.1

Purpose and Need 1.1
Description of the Resource Area 1.2
Issues and Management Concerns 1.2
Planning Criteria 1.6
The Planning Process 1.14
Computer Mapping 1.16

Chapter 2 ..... 2.1

Management Guidance Common to Proposed Plan & Alternatives 2.2
Descriptive Summaries of the Proposed Plan & Alternatives 2.18
Areawide Decisions for Proposed Plan & Alternatives 2.40
Special Emphasis Areas Decisions, Proposed Plan & Alternatives 2.68
Summary of Impacts 2.140

Chapter 3 ..... 3.1

Air Resources 3.1
Climate 3.1
Cultural and Paleontological Resources 3.1
Fish and Wildlife Habitat 3.7
Hazardous Materials 3.24
Lands and Realty Management 3.24
Livestock Management 3.25
Mineral Resources 3.27
Recreation 3.43
Riparian Resources 3.50
Socioeconomics 3.52
Soils and Water 3.55
Special Emphasis Areas 3.64
Vegetation 3.67
Visual Resource Management 3.71
Woodlands 3.73

Chapter 4 . . . . . 4.1

Assumptions 4.1
Direct and Indirect Impacts from Implementing Proposed Plan 4.13
Cumulative Impacts from Implementing Proposed Plan 4.28
Direct and Indirect Impacts from Implementing Alternative A 4.32
Cumulative Impacts from Implementing Alternative A 4.43
Direct and Indirect Impacts from Implementing Alternative B 4.45
Cumulative Impacts from Implementing Alternative B 4.60
Direct and Indirect Impacts from Implementing Alternative C 4.63
Cumulative Impacts from Implementing Alternative C 4.73
Direct and Indirect Impacts from Implementing Alternative D 4.75
Cumulative Impacts from Implementing Alternative D 4.84

Chapter 5 . . . . . 5.1, V.II

Public Participation 5.1
Distribution of RMP/EIS 5.2
Public Comment on the Draft RMP/EIS 5.4
List of Preparers 5.5
Public Comment Letters & BLM Response, Beginning on 5.23

Appendices . . . . . A.i

Appendix 1 - Cultural/Paleontological A1.1
Appendix 2 - Fish and Wildlife A2.1
Appendix 3 - Lands A3.1
Appendix 4 - Minerals A4.1
Appendix 5 - Recreation A5.1
Appendix 6 - Riparian A6.1
Appendix 7 - Special Emphasis Areas A7.1
Appendix 8 - Vegetation and Livestock Management A8.1
Appendix 9 - Watershed A9.1
Appendix 10 - Socioeconomics A10.1

Glossary G.1

References R.1

Index I.1

LIST OF TABLES

2-1 Management Priority Areas by Proposed Plan & Alternative (surface) 2.19
2-2 Management Priority Areas by Proposed Plan & Alt (subsurface and surface) 2.20
2-3 Comparison of MPA Levels to Mineral Categories & OHV Use Designations 2.21
2-4 Oil and Gas Category Assignments by Mineral Potential for Proposed Plan 2.23
2-5 Diamond Mountain Resource Area OHV Designations 2.24
2-6 Proposed Plan Seasonal Restrictions 2.25
2-7 Oil and Gas Category Assignments by Mineral Potential, Alternative A 2.28
2-8 Alternative A Seasonal Restrictions 2.29
2-9 Oil and Gas Category Assignments by Mineral Potential, Alternative B 2.31
2-10 Alternative B Seasonal Restrictions 2.32
2-11 Oil and Gas Category Assignments by Mineral Potential, Alternative C. 2.34
2-12 Alternative C Seasonal Restrictions 2.35
2-13 Oil and Gas Category Assignments by Mineral Potential, Alternative D 2.37
2-14 Alternative D Seasonal Restrictions 2.39
2-15 Areawide Decisions for Proposed Plan and Alternatives 2.41
2-16 Proposed Plan Prescriptions for Special Emphasis Areas 2.71
2-17 Alternative A Prescriptions for Special Emphasis Areas 2.97
2-18 Alternative B Prescriptions for Special Emphasis Areas 2.109
2-19 Alternative C Prescriptions for Special Emphasis Areas 2.129
2-20 Alternative D Prescriptions for Special Emphasis Areas 2.139
2-21 Summary of Impacts 2.142
3-1 Cultural Resource Properties 3.5
3-2 Highly Sensitive Formations for Paleontological Resources 3.5
3-3 DMRA Management Indicator Species and Their Associated Habitats 3.7
3-4 Special Status Animal Species Occurring or Having Potential to Occur Within DMRA 3.8
3-5 Big Game Populations and Acres of Habitat in DMRA 3.14
3-6 Priority Fisheries Habitat in DMRA 3.21
3-7 Withdrawals and Classifications in DMRA 3.25
3-8 Selective Management Categories for Livestock Allotments 3.26
3-9 Rangeland Projects Through 1990 ..... 3.26
3-10 Oil and Gas Lease Acreage 3.31
3-11 Estimated Resources in DMRA Special Tar Sands Areas 3.34
3-12 Locatable Mineral Development Potential 3.39
3-13 Mining Claims Occurring in DMRA 3.39
3-14 Recreation Opportunity Spectrum Acres 3.43
3-15 Developed Recreation Sites and Facilities 3.49
3-16 Potential Recreation Sites 3.46
3-17 OHV Designation in DMRA 3.49
3-18 Ecological Condition of Riparian Vegetation Along Select Perennial Streams 3.50
3-19 Gross Receipts to the Tri-Counties from Mineral Royalties 3.54
3-20 Vegetation Zones in DMRA 3.68
3-21 Undesirable Plant Species in DMRA 3.70
3-22 Special Status Plant Species Occurring or Having Potential within DMRA 3.71
3-23 Estimated Ecological Condition by Vegetation Zone and Community 3.71
3-24 Visual Resource Management Classes 3.73
4-1 Potential Mineral Material Sites 4.10
4-2 Potential Blow Sand Common Use/Community Pit Areas 4.11
4-3 Potential Black-Footed Ferret Reintroduction Areas--Proposed Plan 4.19
4-4 Estimated Annual Oil and Gas Revenues Foregone by the Community, Proposed Plan 4.24
4-5 Summary of Cumulative Impacts to Oil and Gas Activities, Proposed Plan 4.29
4-6 Potential Black-Footed Ferret Reintroduction Areas--Alternative A 4.35
4-7 Estimated Annual Oil and Gas Revenues Foregone by the Community, Alternative A 4.39

LIST OF TABLES (Continued)

4-8	Summary of Cumulative Impacts to Oil and Gas Activities, Alternative A	4.43
4-9	Potential Black-Footed Ferret Reintroduction Areas--Alternative B	4.51
4-10	Comparison of Allowable Surface Disturbance Versus Projected Oil and Gas Surface Use Needs	4.51
4-11	Estimated Annual Oil and Gas Revenues Foregone by the Community, Alternative B	4.57
4-12	Summary of Cumulative Impacts to Oil and Gas Activities, Alternative B	4.61
4-13	Estimated Annual Oil and Gas Revenues Foregone by the Community, Alternative C	4.69
4-14	Summary of Cumulative Impacts to Oil and Gas Activities, Alternative C	4.74
4-15	Estimated Annual Oil and Gas Revenues Foregone by the Community, Alternative D	4.82
4-16	Summary of Cumulative Impacts to Oil and Gas Activities, Alternative D	4.85
5-1	List of Comment Letters on Draft RMP/EIS	5.8
A1-1	Paleontological Mitigation Levels	A1.2
A1-2	Suggested Paleontological Classification System for Geologic Formations	A1.3
A2-1	Wildlife Forage Assignments by Allotment	A2.4
A3-1	Utility Corridor Routes Overlaying Other Resource Values for Proposed Plan	A3.1
A3-2	Utility Corridor Routes Overlaying Other Resource Values	A3.6
A3-3	Isolated Tracts Considered for Sale or Exchange, Proposed Plan	A3.14
A3-4	Community Expansion Tracts Considered for Sale or Exchange, Proposed Plan	A3.15
A4-1	Total Oil and Gas Field Production in DMRA	A4.11
A4-2	DMRA Reservoirs, Oil/Gas Traps, Source Rocks	A4.12
A4-3	Reasonable Foreseeable Oil and Gas Development and Associated Surface Disturbance	A4.15
A4-4	Oil and Gas Production Data: Myton Bench-Nine Mile Canyon Region	A4.18
A4-5	Oil and Gas Production Data: Horseshoe Bend-Ashley Valley	A4.21
A4-6	Spacing for Oil and Gas Wells: Horseshoe Bend-Ashley Valley	A4.22
A4-7	Gas Production Data: Clay Basin-Manila Region	A4.26
A4-8	Oil and Gas Production Data: Indian Reservation Region	A4.27
A4-9	Spacing and Wells per Section: Split Estate on Indian Reservation	A4.28
A5-1	ROS Setting Factors	A5.1
A7-1	Initial Eligibility Assessment of ACEC Nominations	A7.2
A7-2	Special Areas Carried Forward for Further (ACEC) Consideration	A7.4
A7-3	Streams and Rivers Considered for Wild and Scenic Eligibility	A7.8
A7-4	Eligibility Assessment for Rivers Identified for Possible WSR Inclusion	A7.9
A8-1	Comprehensive Grazing Allotment Information	A8.2
A8-2	Existing Riparian Information by Grazing Allotment	A8.12
A8-3	Problems, Conflicts, and Opportunities in Rangeland Management	A8.18
A8-4	Proposed Rangeland Improvements by Alternative and Allotment	A8.21
A8-5	Priority for New Allotment Management Plans and Revisions	A8.36
A8-6	Record of Allotment Categorization	A8.38
A10-1	1990 Economic Values	A10.73
A10-2	Estimated Rangeland Improvement Costs, including Labor	A10.75

LIST OF MAPS

1-1	General Location Map	1.3
1-2	Wilderness Study Areas	1.13
2-1	Proposed Access Locations	2.49
2-2	Semi-Primitive Nonmotorized Areas Under Proposed Plan	2.60
2-3	Proposed Plan Special Emphasis Areas	2.70
2-4	Alternative A Special Emphasis Areas'	2.96
2-5	Alternative B Special Emphasis Areas	2.108
2-6	Alternative C Special Emphasis Areas	2.128
2-7	Alternative D Special Emphasis Areas	2.138
3-1	Archeological High Sensitivity (Density) Zones	3.2
3-2	Historic Trails	3.4
3-3	Paleontological High Sensitivity Zones	3.6
3-4	Potential Black-Footed Ferret Habitat	3.10
3-5	Rocky Mountain Elk Habitat	3.13
3-6	Mule Deer Habitat	3.15
3-7	Pronghorn Antelope Habitat	3.17
3-8	Sage Grouse Habitat	3.19
3-9	Potential Bighorn Sheep Habitat	3.22
3-10	Surface Geology	3.29
3-11	Oil and Gas Potential Areas	3.30
3-12	Oil and Gas Production Regions	3.32
3-13	Ashley/Brush Creek Known Phosphate Leasing Area	3.35
3-14	Gilsonite Potential	3.37
3-15	Locatable Mineral Development Potential	3.38
3-16	Lode Claim Distribution	3.40
3-17	Placer Claim Distribution	3.41
3-18	Mineral Material Development Potential	3.42
3-19	Recreation Opportunity Spectrum Classification	3.44
3-20	Designated Special Recreation Management Areas and Developed Recreation Sites	3.45
3-21	OHV Designations	3.47
3-22	Riparian Areas	3.48
3-23	Highly Erodible Soils	3.57
3-24	Saline Soils	3.58
3-25	Important Watersheds	3.59
3-26	100-Year Floodplains	3.60
3-27	Municipal Watersheds	3.61
3-28	Sediment Yields	3.63
3-29	Special Emphasis Areas - Wild and Scenic Eligible/Suitable and WSA	3.65
3-30	Existing ACECs and Special Emphasis Areas Other Areas	3.66
3-31	Vegetation Zones	3.69
3-32	VRM Classes	3.72
3-33	Productive Woodlands	3.74
A4-1	Uinta Basin and NE Utah Oil and Gas Plays	A4.10
	Land Status	Map Packet #1
	Grazing Allotments and roads	Map Packet #2
	Proposed Plan Priority Management Areas	Map Packet #3
	Alternative A Priority Management Areas	Map Packet #4
	Alternative B Priority Management Areas	Map Packet #5
	Alternative C Priority Management Areas	Map Packet #6
	Alternative D Priority Management Areas	Map Packet #7
	Oil and Gas Leasing Categories for the Proposed Plan	Map Packet #8
	Solid Mineral Categories for the Proposed Plan	Map Packet #9
	OHV Use Designations for the Proposed Plan	Map Packet #10

LIST OF FIGURES

1-1	Surface Land Status	1.4
2-1	BLM Non-Point Pollution Source Strategy	2.17
3-1	Geologic Correlation Diagram	3.28
3-2	Oil and Gas Potential on BLM-Administered Surface Lands	3.31
3-3	Oil and Gas Leasing Category Types	3.33
3-4	Comparison of Satisfactory and Unsatisfactory Riparian Habitat	3.51
A4-1	Phases of Oil and Gas Operations	A4.2
A4-2	DMRA Oil and Gas Development 1920-1990	A4.14
A4-3	DMRA Oil Producing Formations	A4.15
A4-4	DMRA Gas Producing Formations	A4.15
A4-5	Myton Bench-Nine Mile Region Oil and Gas Development	A4.16
A4-6	Myton Bench-Nine Mile Region Oil Producing Formations	A4.17
A4-7	Myton Bench-Nine Mile Region Gas Producing Formations	A4.17
A4-8	Horseshoe Bend-Ashley Valley Region Oil and Gas Development	A4.20
A4-9	Horseshoe Bend-Ashley Valley Region Oil Producing Formations	A4.21
A4-10	Horseshoe Bend-Ashley Valley Region Gas Producing Formations	A4.21
A4-11	Diamond Mountain Plateau Region Oil and Gas Development	A4.24
A4-12	Clay Basin-Manila Region Oil and Gas Development	A4.26
A4-13	Clay Basin-Manila Region Gas Producing Formations	A4.25
A10-1	Unemployment Rates, State of Utah	A10.3
A10-1a	Unemployment Rates, Daggett County	A10.4
A10-1b	Unemployment Rates, Duchesne County	A10.5
A10-1c	Unemployment Rates, Uintah County	A10.6
A10-2	Labor Force, State of Utah	A10.7
A10-2a	Labor Force, Daggett County	A10.8
A10-2b	Labor Force, Duchesne County	A10.9
A10-2c	Labor Force, Uintah County	A10.10
A10-3	Job Sector, Agriculture, State of Utah	A10.11
A10-3a	Job Sector, Agriculture, Daggett County	A10.12
A10-3b	Job Sector, Agriculture, Duchesne County	A10.13
A10-3c	Job Sector, Agriculture, Uintah County	A10.14
A10-4	Job Sector, Construction, State of Utah	A10.15
A10-4a	Job Sector, Construction, Daggett County	A10.16
A10-4b	Job Sector, Construction, Duchesne County	A10.17
A10-4c	Job Sector, Construction, Uintah County	A10.18
A10-5	Job Sector, FIRE, State of Utah	A10.19
A10-5a	Job Sector, FIRE, Daggett County	A10.20
A10-5b	Job Sector, FIRE, Duchesne County	A10.21
A10-5c	Job Sector, FIRE, Uintah County	A10.22
A10-6	Job Sector, Government, State of Utah	A10.23
A10-6a	Job Sector, Government, Daggett County	A10.24
A10-6b	Job Sector, Government, Duchesne County	A10.25
A10-6c	Job Sector, Government, Uintah County	A10.26
A10-7	Job Sector, Manufacturing, State of Utah	A10.27
A10-7a	Job Sector, Manufacturing, Daggett County	A10.28
A10-7b	Job Sector, Manufacturing, Duchesne County	A10.29
A10-7c	Job Sector, Manufacturing, Uintah County	A10.30
A10-8	Job Sector, Mining, State of Utah	A10.31
A10-8a	Job Sector, Mining, Daggett County	A10.32
A10-8b	Job Sector, Mining, Duchesne County	A10.33
A10-8c	Job Sector, Mining, Uintah County	A10.34
A10-9	Job Sector, Services, State of Utah	A10.35

LIST OF FIGURES (Continued)

A10-9a Job Sector, Services, Daggett County A10.36
A10-9b Job Sector, Services, Duchesne County A10.37
A10-9c Job Sector, Services, Uintah County A10.38
A10-10 Job Sector, TCPU, State of Utah A10.39
A10-10a Job Sector, TCPU, Daggett County A10.40
A10-10b Job Sector, TCPU, Duchesne County A10.41
A10-10c Job Sector, TCPU, Uintah County A10.42
A10-11 Job Sector, Trade, State of Utah A10.43
A10-11a Job Sector, Trade, Daggett County A10.44
A10-11b Job Sector, Trade, Duchesne County A10.45
A10-11c Job Sector, Trade, Uintah County A10.46
A10-12a Population, Daggett County A10.47
A10-12b Population, Duchesne County A10.48
A10-12c Population, Uintah County A10.49
A10-13 Estimated Per Capita Income and Forecasts, State of Utah A10.50
A10-13a Estimated Per Capita Income and Forecasts, Daggett County A10.51
A10-13b Estimated Per Capita Income and Forecasts, Duchesne County A10.52
A10-13c Estimated Per Capita Income and Forecasts, Uintah County A10.53
A10-14 Percentage of Total Non-Agricultural Jobs, State of Utah A10.54
A10-14a Percentage of Total Non-Agricultural Jobs, Daggett County A10.55
A10-14b Percentage of Total Non-Agricultural Jobs, Duchesne County A10.56
A10-14c Percentage of Total Non-Agricultural Jobs, Uintah County A10.57
A10-15 Payments in Lieu of Taxes, Daggett, Duchesne and Uintah Counties A10.58
A10-16a Recreation, Flaming Gorge NRA, Daggett County A10.59
A10-16b Recreation, Gross Taxable Room Rents, Daggett County A10.60
A10-16c Recreation, Starvation SP, Duchesne County A10.61
A10-16d Recreation, Ashley National Forest, Uintah County A10.62
A10-16e Recreation, Gross Taxable Room Rents, Duchesne County A10.63
A10-16f Recreation, Dinosaur National Monument, Uintah County A10.64
A10-16g Recreation, Utah Field House SP, Uintah County A10.65
A10-16h Recreation, Steinaker SP, Uintah County A10.66
A10-16i Recreation, Red Fleet SP, Uintah County A10.67
A10-16j Recreation, Gross Taxable Room Rents, Uintah County A10.68
A10-17a Royalty Disbursements, Daggett County A10.69
A10-17b Royalty Disbursements, Duchesne County A10.70
A10-17c Royalty Disbursements, Uintah County A10.71

PURPOSE AND NEED 1

This proposed Resource Management Plan/Final Environmental Impact Statement (RMP/EIS) evaluates the proposed plan and the alternative land use plans for the management of public lands and resources administered by the Bureau of Land Management (BLM) in the Diamond Mountain Resource Area (DMRA) of the Vernal District, Utah. The proposed plan and each of the alternatives analyzed in detail represent a complete and reasonable plan which could be used to guide the management of the DMRA.

The proposed RMP is a comprehensive land-use plan establishing land-use decisions for specific areas (referred to as management priority areas). "Priority" means that a given resource or use receives management emphasis, and that certain uses are restricted in order to reduce conflicts.

The management priority areas depicted on the proposed plan map in the map packet of this document may include areas of split-estate (non-federal surface over federal subsurface minerals or vice versa) lands. However, the management priority areas and discretionary decisions apply only to surface and federal mineral estate on lands managed by BLM. Private, state, Indian allotment or trust lands, or other nonfederal lands would not be affected by the discretionary decisions put forth in this RMP. Non-discretionary decisions, those decisions driven by law, regulation, executive order, or bureau national policy, would be applied to non-BLM administered lands where BLM has been designated as the authorizing federal agency. For example, the responsibilities outlined in the National Environmental Policy Act, the Endangered Species Act, the Antiquities Act, etc., or the bureau's current national policy on protection of Category 1 and 2 special status species, will be applied on split estate lands where BLM has been assigned the authority to approve or deny a federally approved proposed action, e.g. drilling of an oil or gas well.

In addition, valid existing rights take precedence over any management decisions depicted on the proposed plan or alternative maps. Nothing on these maps should be interpreted as challenging those rights.

This RMP will provide a framework within which management will make future on-the-ground decisions. It is not an activity-specific plan intended to make specific program decisions for all individual resources; rather, it is designed to provide overall multiple-use objectives and management direction for all the resources contained within the Diamond Mountain Resource Area. It will be similar to a traditional master plan or comprehensive land-use plan. While it makes some program-specific decisions, it also identifies policy and criteria under which some future decisions will be made at the project level through an activity plan (i.e. allotment management plans, habitat management plans, etc.).

The process for the development, approval, maintenance, and amendment of resource management plans and their associated environmental impact statements was initiated under the authority of Section 202(f) of the Federal Land Policy and Management Act of 1976 (FLPMA) and Section 202(c) of the National Environmental Policy Act of 1969 (NEPA). The current planning process is guided by Bureau of Land Management planning regulations in Title 43 of the Code of Federal Regulations, part 1600 (43 CFR 1600), and the Council on Environmental Quality Regulations (40 CFR 1500).

After its final approval, the Diamond Mountain RMP will be kept current through minor plan adjustments, amendments, or total plan rewrite as determined by demand, resource changes, or new information.

PURPOSE AND NEED

The major purpose in preparing this RMP is to provide a comprehensive framework for managing and allocating

uses of the public lands and resources in the Diamond Mountain Resource Area.

Resource management for the Diamond Mountain Resource Area is currently guided by three management framework plans (MFPs) that have been amended or altered by various plans and documents listed later in this chapter. This RMP/EIS considers and analyzes the consequences of the current and alternative management of the resource area; attempts to resolve the resource issues; and provides direction for site-specific activity planning and implementation of future management actions. The approved RMP will supersede the existing management framework plans.

DESCRIPTION OF THE RESOURCE AREA

The Diamond Mountain Resource Area, in the Vernal District of northeastern Utah, is responsible for management of BLM-administered lands and minerals in all of Daggett and Duchesne Counties and that portion of Uintah County northwest of the Green River (see Map 1-1). Portions of the Ashley National Forest, the Flaming Gorge National Recreation Area, and the Dinosaur National Monument, fall within the borders of the Diamond Mountain Resource Area. However, lands and minerals within those entities are excluded from BLM planning authority. The surface estate within the Ouray National Waterfowl Refuge is also excluded from this plan; however, the plan will cover management of those federal minerals under BLM jurisdiction within the refuge. Lands and minerals of the Uintah and Ouray Indian Reservation, held in trust for the Ute Tribe, in DMRA borders are excluded from the plan. There are a few isolated tracts where BLM has acquired administrative responsibility for minerals (or portions of the minerals) subsequent to the formation of the reservation. In total, DMRA is administratively responsible for 854,000 acres of surface and subsurface lands.

Land ownership patterns within the resource area range from large blocks of BLM-administered public land to small, disjointed blocks with several owners (see Map Packet #1). Ownership is further complicated by split-estate lands which cover 145,000 acres, or 17 percent, of the total BLM-administered lands within DMRA. Land ownership and surface administration responsibilities are displayed on Figure 1-1.

General responsibility for managing recreation use on the Green River is shared between BLM and the State of Utah on those parts of the river crossing public lands. Current management of the upper Green River in Browns Park is guided by a 1985 management plan signed by the State of Utah, BLM, U.S. Forest Service, and Bureau of Reclamation.

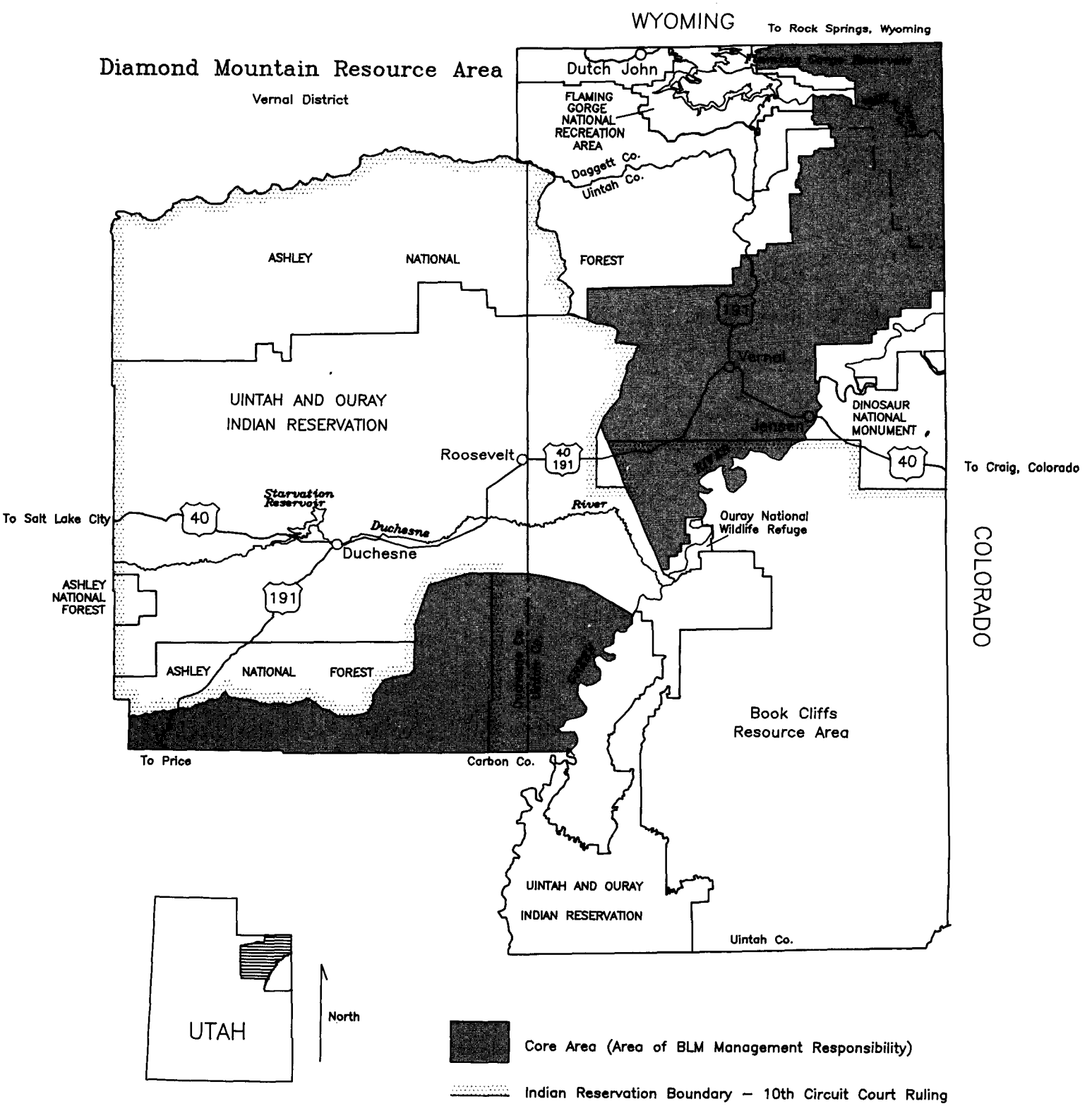
ISSUES AND MANAGEMENT CONCERNS ADDRESSED IN THE DIAMOND MOUNTAIN RMP/EIS

The BLM planning regulations focus land-use planning on the identification and resolution of issues and management concerns arising over the use and management of public lands and resources. A planning issue can be defined as an unrealized opportunity, an unresolved conflict or problem, or a value being lost. In addition to issues, other land use problems of a less controversial nature are also evaluated. These are referred to as management concerns and are resolved in the same manner as issues to improve management of the public lands. Not all issues are related to resource management; therefore, not all issues can be resolved through a resource management plan. Some must be resolved administratively, i.e, revisions of national laws and policies, changes in national prioritization.

The Diamond Mountain RMP focuses on resolving three broad planning issues identified early in the planning process. Throughout the month of November 1988, DMRA conducted meetings and initiated a letter campaign encouraging participation and scoping issues from BLM personnel, the public, the Ute Indian Tribe, and other federal, state, and local agencies. The issues and management concerns presented and analyzed in this RMP were developed with the input gathered during this scoping period.

RESOURCE USES AFFECTING VEGETATION, SOILS, AND WATERSHED VALUES

This issue involves the conflicting demands for consumptive and nonconsumptive uses of the vegetation, soil, and watershed resources within the Diamond Mountain Resource Area. The basic challenge is protecting resources such as rangeland values, air and water quality, soils productivity, vegetation cover, riparian areas and wildlife habitat while allowing, to the extent possible, uses that affect these resources. Conflicting uses could include: livestock grazing, woodland product harvest, off-highway vehicle use, recreation development,



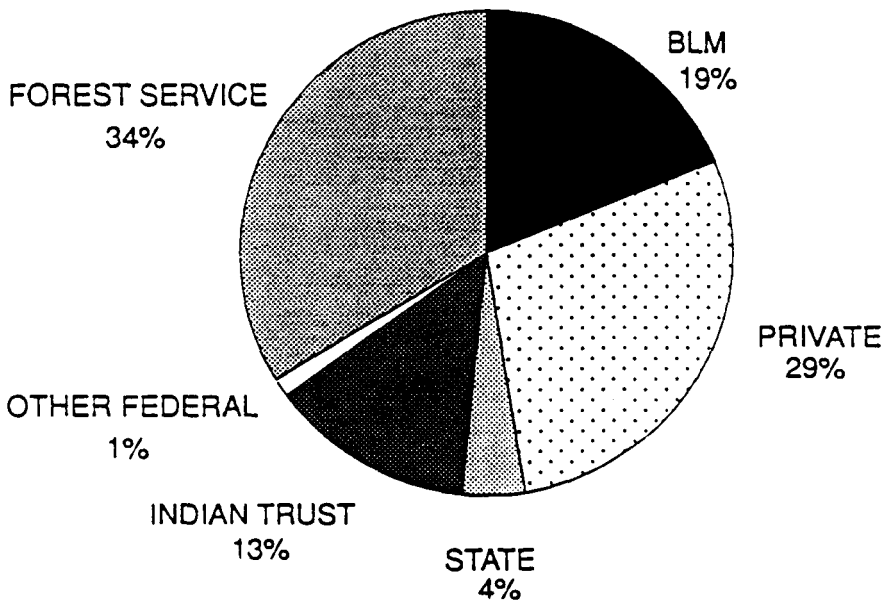
GENERAL LOCATION MAP

MAP 1–1

FIGURE 1-1

DIAMOND MOUNTAIN RESOURCE AREA
SURFACE LAND STATUS
(rounded acreage)

FEDERAL LANDS		**2,505,000**
BLM	709,000	
Forest Service	1,266,000	
National Park Service	28,700	
Fish and Wildlife Service	8,300	
Bureau of Reclamation	4,000	
Indian Trust (BIA Oversight)	489,000	
STATE LANDS		**160,000**
Division of Wildlife Resources	17,000	
Division of Lands and Forestry	143,000	
PRIVATE LANDS		**1,112,000**
TOTAL ACRES IN DMRA		**3,777,000**



oil and gas development, and mining activities. The following questions are answered in the plan.

- *How should soil, water and vegetation be managed to best meet livestock, wildlife, and watershed needs?*
- *How should soil, water and vegetation be managed to best meet the demand for woodland products, mineral resources, and recreational opportunities?*
- *What areas are suitable for livestock grazing? What areas should be closed to livestock grazing? What management practices should apply, and when and where should they be applied?*
- *What management practices or use restrictions are needed to maintain or improve wildlife habitat, especially crucial habitat, and to provide adequate habitat quality to support sensitive species? Where will these management practices or restrictions be applied?*
- *What management practices should be applied to provide essential habitat for special status wildlife and plant species? In what parts of the resource area should these practices be applied?*
- *What vegetation uses and management practices should be allowed on wetland/riparian areas, and when should they be allowed?*
- *What management practices are needed to reduce accelerated soil erosion?*
- *What conditions of use should be applied to activities which cause, or have the potential to cause, adverse effects on air quality and surface and subsurface water quality and quantity?*
- *Where should corrective actions be taken to improve water quality in the Green River drainage or other places where the quality of surface water or groundwater is unsatisfactory?*
- *Where and under what conditions should fire be used as a vegetation management tool? In what parts of the resource area should prescribed use of fires be applied?*

SPECIAL MANAGEMENT EMPHASIS AREAS

This issue addresses areas, values, or resources in the Diamond Mountain Resource Area that meet the criteria for protection under special management designations and which may not be adequately managed without special management prescriptions or restrictions. These are areas that contain unique resources or values that are in danger of being lost. Some of these areas would be suitable for special management emphasis under designation as "Areas of Critical Environmental Concern" (ACECs). Some areas contain prime recreational values which would be suitable for intensive recreation management emphasis as special recreation management areas (SRMAs). There are also areas along the Green River which may be suitable for Wild and Scenic River Act designation. There are areas attractive to off-road motorists which may be suitable for off-highway vehicle (OHV) designation. The following questions about these areas are answered in the plan.

- *What management practices are needed in the Diamond Breaks or Cold Springs Wilderness Study Areas if they are not designated as wilderness?*
- *What areas would require special management emphasis and designation such as Areas of Critical Environmental Concern (ACECs); Special Recreation Management Areas (SRMAs); Off Highway Vehicle Areas (OHV); or Wild and Scenic Rivers? What special management practices should be implemented and what restrictions should be placed on non-compatible uses?*
- *What management practices and restrictions are needed to protect unique or important recreation values?*

RESOURCE AVAILABILITY AND ACCESSIBILITY

The resource area contains multiple resources for which there is a demand for development. The development or use of oil and gas, other minerals, woodland products, recreation opportunities, and tracts of public land should be managed in a manner which ensures resource availability while protecting resource values.

The value or usability of some resources is enhanced by improved accessibility. To be used, resources must be accessible in terms of legal and/or physical access and manageable in terms of ability to apply constraints or requirements to benefit other resources.

Too much availability or accessibility could lead to excessive development or use that would degrade the value of such resources as visual resources, cultural/paleontological resources, wildlife habitat, vegetation, soils, air, and water, etc. Therefore, availability and accessibility must be balanced to maintain or improve usability and ensure protection of limited resources. The following questions are answered in the plan.

- *Where should access be obtained and/or designated to provide recreational opportunities to currently inaccessible areas? Are there areas where vehicle access should be restricted or denied?*
- *Where should corridors be designated for communications and utility facilities? What areas should be avoided?*
- *Which public land tracts are considered suitable for disposal through transfer from BLM administration by state selection, exchange, sales, or Recreation and Public Purposes Act (R&PP) disposal? What lands should be made available for community development, expansion or facilities? What lands, if any, should be made available for waste management?*
- *Which areas should be recommended for protective withdrawal?*
- *Which land areas and mineral estates may be suitable for acquisition? To what areas or under what circumstances should physical or legal access, or both, be acquired?*
- *Which areas are suitable for woodland product harvest and what amounts should be cut each year?*
- *Which deposits of federal phosphate, tar sands, and "Gilsonite", within the resource area are suitable for exploration, leasing and development? What conditions should be applied on these leases?*
- *What areas should be available for oil or gas leasing exploration and development, including geophysical activities? Where should "no surface occupancy" or other conditions of use be applied? What areas should be closed to oil and gas leasing, exploration or development, including geophysical activities?*
- *Where should sand, gravel, and other mineral material sites be developed or disallowed? What conditions should be applied to development of these sites?*
- *Where are mining claims most likely to occur? Where should associated facilities (access, utilities) be located to support mineral development on claims or sites? Are there areas currently withdrawn from mineral entry which should be opened?*

PLANNING CRITERIA

Planning criteria are the constraints or ground rules by which the RMP and associated EIS were developed. These are used to guide and direct the RMP process. Planning criteria can reflect legal matters, policy guidelines, administrative or managerial decisions, use of existing data, acknowledgment of data scarcity, and specific reasonable requests. The criteria is used at four stages of the planning process: 1) pre-plan, 2) resource inventory, 3) management situation analysis, and 4) alternative selection.

OVERALL PLANNING CONSIDERATIONS

General planning considerations include:

- Laws, executive orders, and regulations.
- Directives prescribed in BLM manuals for land-use planning.
- BLM's Director and Utah State Director guidance applicable to the resource area.
- Results of public participation and coordination with other federal agencies, local governments, and the Ute Indian Tribe.
- Analysis of available data and information and the need for additional inventories.

Management concerns, issues, and problems are discussed in the RMP when:

- Existing or proposed management of one resource significantly constrains or curtails existing or proposed use of another resource.
- Agency guidance requires land use allocations, not now in place, to be made through the planning process.
- Existing land use allocations conflict with current agency resource management policies or guidance.
- Existing resource management practices conflict with management plans, policies, and guidance of land management agencies, landowners.
- There is significant documented public concern regarding the management of a specific resource.

Planning criteria, based on Section 202 of FLPMA, include:

- Use and observation of the principles of multiple use and sustained yield.
- Use of an interdisciplinary approach to integrate consideration of physical, natural, biological, and social-economic sciences.
- Give priority to the consideration of ACECs.
- Rely on existing inventories of public lands, their resources, and other values.
- Consider present and potential uses of the public lands.
- Consider the relative scarcity of the resource values involved and the availability of alternative means and sites to enhance those values.
- Weigh long-term benefits and costs against short-term benefits or costs.
- Provide for compliance with applicable pollution control laws.
- To the extent possible, coordinate land use inventory, planning and management of public lands with the land-use planning and management programs of other federal agencies and state and local governments.

GENERAL PLANNING CRITERIA

Decisions in existing documents are revised and adjustments made to reflect current or anticipated resource use. The RMP supersedes the following documents:

- Oil and Gas Developments, Myton Bench Environmental Assessment, 1976, as amended
- Land Exchange Amendment to Diamond Mountain Resource Area Management Framework Plans, 1986
- Off-Road Vehicle Designations, Vernal District, 1986 (DMRA Portion Only)
- Vernal District Oil and Gas Environmental Assessment, 1981 (DMRA Portion Only)
- Diamond Mountain Management Framework Plan, 1981
- Browns Park Management Framework Plan, 1981
- Ashley-Duchesne Management Framework Plan, 1984

The RMP supercedes the following documents for forage allocations:

- Three Corners Grazing Impact Statement, 1979 (Updated by Rangeland Program Summary, 1987)
- Ashley Creek Grazing Impact Statement, 1982 (Updated by Rangeland Program Summary, 1989)

The RMP supercedes the following documents for assignment of mineral leasing categories:

- Uintah Basin Synfuels Development EIS, 1983
- Utah Combined Hydrocarbon Leasing EIS, 1984

The RMP is for public lands and minerals management within the Diamond Mountain Resource Area as a whole. The RMP will be used as the basic planning document to guide management of and budget requests for the resource area until it is revised or rewritten.

The proposed plan and alternatives recognize the existence of valid existing rights. Nothing in the

management options identified would preclude those rights.

Nothing in the management options identified would preclude valid existing rights.

The RMP includes criteria by which future lands placed under BLM management either through withdrawal revocation, exchange, or purchase, will be evaluated and brought under multiple use management.

The RMP does not address the following proposals:

- Wilderness designations already analyzed in the existing Colorado and Utah Wilderness Environmental Impact Statements
- Uintah and Ouray and Uncompahgre Indian Reservation boundary issues

  [NOTE: The Tenth Circuit Court ruling dated September 17, 1985, regarding the Indian Reservation boundary did not impose land ownership changes. Therefore, BLM's administration of the public lands has not been changed by the ruling. Future land use planning decisions on these public lands within the Uintah and Ouray and Uncompahgre Reservations will be made through the land use planning process in consultation and coordination with Ute tribal government, the Bureau of Indian Affairs, and in accordance with current laws, regulations, and policies.
- Livestock grazing fees
- Mineral estate within National Forest System lands (BLM will issue mineral leases within NFS lands pursuant to the planning guidance contained in the 1986 Ashley National Forest Land and Resource Management Plan, as amended.)

Restrictions on use of resources or limitations on use of federal lands . . . are considered only where an analysis demonstrates a clear need and there is no practical way to avoid adverse impacts without them.

Restrictions on use of resources or limitations on use of federal lands administered by BLM are considered only where an analysis demonstrates a clear need and there is no practical way to avoid adverse impacts without them.

Implementation of BLM activities and BLM permitted activities are controlled through stipulations and monitoring for compliance with applicable federal and state standards.

The RMP provides reasonable, feasible, and practical guidance for management of the public lands and resources within the entire resource area, without addressing unrealistic changes in personnel, budget, facilities, services, or scope of management.

The following national environmental issues are considered within the scope of this RMP and are discussed with the resource or program discussions which best address the concern:

- Proper management of vegetation, with protection and enhancement of the vegetation resources, can positively effect current trends involving global climate changes and acid rain.
- Management planning which emphasizes intensive management of riparian habitat and saline or erodible soils can positively effect and improve water quality.
- Management planning which balances demand with available resources anticipates changing needs from increased population pressures and/or resource demands.
- Proper management which results in the reduction of salinity and water pollution to the waters that empty into, and become part of, the Colorado River.

SPECIFIC PLANNING CRITERIA

Cultural and Paleontological Resource Management

Cultural and paleontological resources within DMRA are identified. Decisions outline protective measures and stabilization activities, including research projects. Cultural and paleontological resource management strategies, including quantifiable implementation objectives, are formulated to address data collection, research design, projects, and long-term program goals. Areas of significant cultural and paleontological properties are identified where site-disturbing activities such as location of facilities, mineral sales and permits, range improvements, recreation activities, and wildlife projects, may have a detrimental effect.

Fish and Wildlife Habitat Management

All known existing and potential habitats for special status animal species and raptors are identified. Objectives for management and protection of these areas are identified. All areas requiring temporary or permanent closure or restrictions to livestock grazing and/or surface-disturbing activities are identified.

All wildlife management objectives established in existing planning documents were reviewed on a grazing-allotment basis. These objectives are modified or new objectives developed for the purpose of improvement on priority habitats for: fisheries, big game, waterfowl, raptor, and upland game habitat, and other high interest species habitat as identified by Utah Division of Wildlife Resources.

Big game habitat condition and carrying capacities are reviewed on a grazing allotment basis and compared to existing herd numbers and possible future objective herd numbers.

Constraints on land use or development and human influence are identified for purposes of habitat protection and improvement.

Land and Realty Management

Land Tenure Adjustment. The RMP identifies, by alternative, lands that are considered as potentially suitable for disposal under methods such as sale, R&PP, State Selection, or exchange. Lands considered suitable for sale have been identified by specific tracts and those considered for disposal by other methods have been identified in more general terms, usually associated with management priority areas.

Lands identified for disposal by sale include only those which are considered to have met one or more of the following listed disposal criteria required under Sec. 203 of the Federal Land Policy and Management Act of October 21, 1976 (34 U.S.C. 1713):

- Lands which are difficult or uneconomical to manage;
- Lands which were acquired for a specific purpose for which they are no longer required;
- Lands whose disposal would serve important public objectives.

Lands identified for disposal through exchange have not been identified by specific parcels, rather, in more general terms associated with the objectives of each individual alternative. Under no circumstances would lands be exchanged out of Federal ownership unless it was clear that the public interest would be well served by making the exchange as required under Sec. 206 of the Federal Land Policy and Management Act of October 21, 1976 (43 U.S.C. 1716).

Specific areas have been targeted for future acquisition to coincide with the management objectives of each respective alternative. However, acquisitions would not be limited to these areas. Generally, emphasis on acquisitions would be placed on those lands considered to possess significant resource values or those whose acquisition would contribute significantly to the enhancement of riparian and wildlife habitats, recreational opportunities, etc.

Withdrawals. Each alternative addresses areas where protective withdrawals would be established for the protection of various resource values; the purpose for these withdrawals and environmental impacts are discussed under the appropriate chapters for the respective resource(s) such as recreation, relict vegetation, special management areas, etc. Any withdrawals proposed in the RMP would be implemented in accordance with the provisions under Sec. 204 of the FLPMA (43 U.S.C. 1714).

To the extent possible, existing withdrawals and classifications on BLM administered lands received a cursory review to determine if they are consistent with and practical for current management practices.

Land Use Authorizations. Preferred locations, areas that should be avoided, and areas that would exclude future land use authorizations have been identified by alternative. These locations were based on the premise that those resource values considered significant to the management objectives of the respective alternative would receive adequate protection while ensuring public needs would continue to be provided for.

Designated corridors which would be the preferred location for all future major right-of-way projects have been identified. These corridor locations were based on the location of existing transportation and utility corridors, the anticipated needs for mineral and industrial development, expanding population centers, and socioeconomic considerations. Those existing transportation and utility corridors identified in the management situation analysis that have been excluded from future designation were eliminated in order to protect resources such as highly erodible soils, critical watershed areas, aesthetics, etc.

New transportation corridors will not be addressed in the RMP as there are no current formal proposals within

DMRA for major roads other than the Ouray to I-70 Highway which is being analyzed under a separate EIS. In addition, there are no proposed transportation corridors currently identified by the adjoining land management agencies (i.e., Ashley National Forest, Uintah and Ouray Indian Reservation, and the BLM Price Resource Area) to which any new DMRA proposed corridors could connect. Environmental analysis will be completed on any future proposals for major transportation corridors and plan amendments completed, if deemed appropriate.

Unauthorized Use. Areas with a history of unauthorized use and those areas which are considered to be prone to unauthorized use are addressed in the RMP, along with the objectives for resolution. Those areas targeted for future resolution and the methods to be employed have been prioritized to coincide with the objectives of each management alternative.

Livestock Management

Existing management decisions that affect livestock grazing, i.e. forage allocations, grazing strategies, management category assignments, and rangeland improvements were reviewed. Changes to these existing decisions are based on livestock monitoring data collected since the date of these decisions. Various levels of livestock grazing, forage allocation, season of use, management categories, and rangeland improvements are considered on a grazing allotment basis.

Minerals Management

The RMP identifies BLM-administered lands open for the exploration and development of mineral resources. Present and future public needs for mineral resources were considered. All alternatives contain measures for the protection of important nonmineral resources.

Areas with high, moderate and low potential for mineral exploration and development are identified. The RMP identifies and categorizes areas with oil and gas (including coal bed methane, tight gas reservoirs, and tar sands), and nonenergy leasables ("Gilsonite" and phosphate), and mineral materials as to "open subject to standard terms and conditions" (Category 1), "open subject to seasonal or other minor constraints" (Category 2), "open subject to no surface occupancy and similar major constraints" (Category 3), or "closed" (Category 4). Lands are categorized as open or closed to location or claims (for locatable minerals) or sites.

Oil shale-bearing formations occur throughout the Uinta Basin, but deposits in DMRA are generally not of commercial value. It is likely that over the life of the RMP oil shale development, if it occurs, would occur outside the resource area. Similarly, coal resources within DMRA are not of sufficient quantity or quality and/or mineability to warrant consideration of leasing, exploration, or conventional development. As such, both oil shale and coal resources will not be addressed further in this plan.

The mineral estate administered by BLM within the National Forest System is not addressed. For lands where BLM may issue mineral leases under nonfederal surface, the plan identifies reasonable measures to avoid adverse (surface and subsurface) impacts that may result from federally authorized mineral lease activities.

Recreation Management

Off-highway vehicle (OHV) use areas are identified and categorized as either "open", "limited use", or "closed," in order to maintain consistency with other resource objectives and provide opportunities for OHV users.

The RMP identifies a variety of recreational opportunities and activities. These would include, but are not be limited to: development of facilities such as campgrounds, picnic areas, sanitation stations, and interpretive sites as well as establishment of non-consumptive recreation programs such as back-country byways and watchable wildlife. These types of opportunities and activities are evaluated by the RMP. Areas for both motorized and non-motorized recreational opportunities are identified. All areas where special recreation management is needed are identified.

Public needs and demands were considered in determining the types of facilities and opportunities required. All areas where use should be limited to protect resource values or meet other resource objectives are identified.

Intensive (developed) or extensive (primitive) recreation management areas are identified. Necessary facilities and opportunities within these areas are determined in order to enhance recreational experiences and protect public health and resource values.

Special natural features such as scenic areas, water-based and/or scarce recreation resources are identified with strategies for their protection and enhancement.

A 1986 study for the President's Commission on Americans' Outdoor, found that 43 percent of American adults identified driving for pleasure as a favorite leisure pursuit. Next to walking, pleasure driving is America's most popular form of recreation. In 1988, the Bureau

made a commitment to support a national effort to participate in the National Scenic Byways program.

Although the Bureau's primary focus is to emphasize use of primitive back-country roads on public lands, it is additionally committed to designate major road systems that pass through scenic areas on public lands. The former road designations are referred to as back-country byways; the latter as scenic byways.

The RMP identifies a number of back-country byways for designation. These byways highlight the area's special scenic and recreation values and further serve to increase public awareness of their lands and resources. They provide alternatives to congested highways and effectively disperse motorists to remote, lesser-used routes. In cases where the proposed byway crosses other agency lands, the Bureau would seek the other agency's cooperation to jointly designate the route. Procedures for signing, interpretation, brochures, and maps related to designated byways would be identified later as specific management actions in support of the RMP.

Riparian Management

The RMP identifies and establishes ecological condition of inventoried riparian ecosystems within the resource area. Management prescriptions were designed to meet or exceed the current BLM policy of achieving 75 percent or more of riparian ecosystems in a "proper functioning condition" by 1997 (BLM, 1990).

The plan identifies management actions necessary to maintain or improve the existing ecological condition and habitat quality. It specifies the preferred method of vegetation manipulation, types of livestock grazing use strategies, and rangeland improvements. The plan also identifies riparian areas requiring temporary or permanent closures or restrictions on grazing use and/or surface-disturbing activities.

Management actions for these areas are identified and priorities are assigned on a grazing allotment basis.

Soil, Water, and Air Management

Watershed conditions and management objectives are identified for public lands within DMRA. The following resource values are identified and specifically considered in the plan: Critical watersheds, highly erodible and saline soils, floodplains and wetlands, and surface and ground-water quality maintenance.

Water quality (both surface and ground) is classified according to current Utah Water Quality Standards as agreed upon by the Environmental Protection Agency (see Appendix 9). Non-point Best Management Practices will be applied to management activities for recreation, mining, livestock, wildlife, lands, etc. The best water quality control technology, jointly determined by BLM and the Utah Water Pollution Control Committee will be applied as needed to meet water quality standards.

The plan considers the suitability of public lands within DMRA for rights-of-way and/or disposal (sale or exchange) to accommodate produced water problems. Criteria includes, but is not limited to, alternative types of produced water facilities, geologic and hydrologic conditions, and estimated volume of produced water from existing, developing, and potential oil and gas fields.

Air quality conditions and current Utah air quality standards for DMRA are identified. Management objectives for air pollution activities, including, but not limited to, recreational uses, mining operations, major construction projects, and vegetation-control burning, are established. The best air quality control technology, provided by the Utah Bureau of Air Quality, will be applied as needed to meet air quality standards.

Special Management Emphasis Areas

The plan evaluates high resource value areas, including the 11 initial Areas of Critical Environmental Concern nominated. It considers areas meeting the criteria for relevance and significance in one or more of the alternatives. (A record of the analysis process for both ACEC and Wild and Scenic River nominations is contained in Appendix 7.)

Existing and future public needs and demands for the resource(s) present are considered, including but not limited to, existing mining claims, mineral leases, woodland products, grazing permits, and rights-of-way.

The decisions strive to balance resource uses while ensuring the protection and preservation of the significant and other relevant resources present.

Some alternatives consider special designation for the lower and middle segments of the Green River. Both of these river segments are navigable rivers and the water and land up to the mean high water line is owned by the State of Utah. Therefore, should these designations be established, implementation of this plan would include a coordinated activity plan with the State of Utah and other appropriate landowners.

Areas of Critical Environmental Concern. The plan identifies as Areas of Critical Environmental Concern

(ACECs) those areas where special management attention is needed to protect and prevent irreparable damage to important historic, cultural, and scenic values; fish and wildlife resources or other natural systems and processes; or to protect people from natural hazards. The Federal Land Policy and Management Act (FLPMA) of 1976 provides that designation of ACECs be given priority in the development of land use plans.

Wild and Scenic Rivers. Section 5d of the Wild and Scenic Rivers Act of 1968 directs the Bureau to identify and evaluate all river segments on public land as potential additions to the National Wild and Scenic Rivers System. Any segments determined by BLM to be suitable would be recommended to the Secretary of the Interior for transmittal to Congress and the President.

Although many people perceive a wild and scenic river as a large, bouldery, cascading river, Congress provided a broader definition of the river types that should be considered for the national system. Section 16 of the act defines the term river as "a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams,creeks, runs, kills, rills, and small lakes."

The RMP evaluates all waters in DMRA for potential addition to the national system. The four-step process is outlined below:

- Eligibility Determination - In order to be eligible for designation, a river must be "free-flowing" and possess one or more outstandingly remarkable values.
- Classification - This step provides the river segment with a tentative classification of wild, scenic, or recreational, based on river condition and adjacent lands as they exist at the time of the study.
- Suitability Determination - In this final step, such factors as manageability, land ownership, and conflicts with other resources are analyzed to determine which eligible river segments are suitable for designation into the national system. This analysis occurs in Chapter 4 and the determination is documented in Appendix 7.
- Recommendation - Any river segment found to be suitable for designation is recommended to the Secretary of the Interior for transmittal to Congress and the President.

The following river segments were determined to be eligible for further study for inclusion in the National Wild and Scenic River System, with a provisional classification as follows:

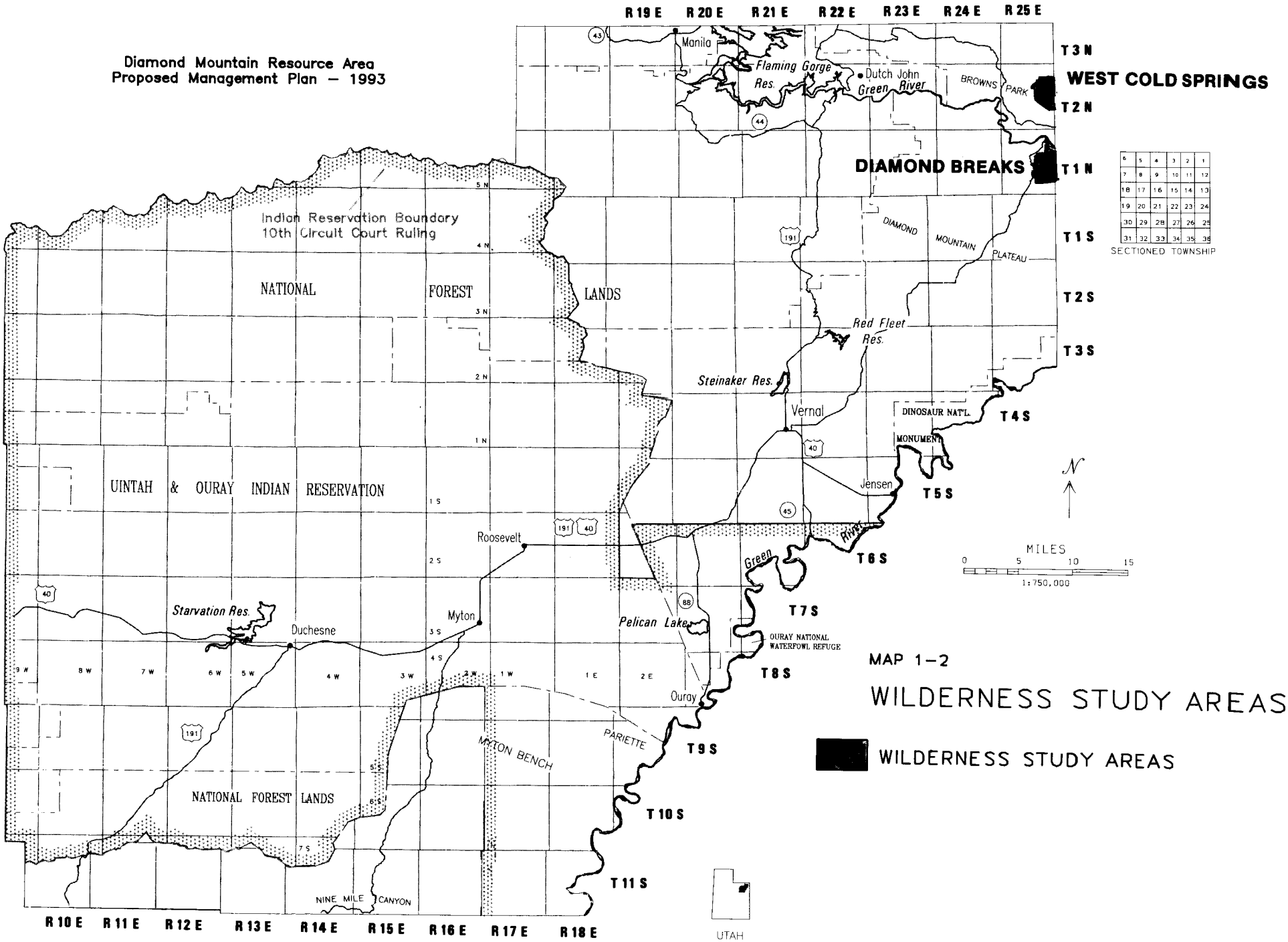
- Upper Green River (Segment between Little Hole and the Utah-Colorado state line) - scenic
- Middle Green River (Segment between Dinosaur National Monument and the public land boundary north of Ouray, Utah) - recreational
- Lower Green River (Segment between the public land boundary south of Ouray, Utah, and the Uintah-Carbon County line) - scenic
- Nine Mile Creek (Segment that lies within Duchesne County between Green River and Gate Canyon) - scenic
- Argyle Creek (headwaters to the Carbon County border) - recreational
- Nine Mile Creek (Segment between Carbon County line and the confluence with Gate Canyon that lies within Duchesne County) - recreational

Wilderness Study Areas. The Diamond Breaks and West Cold Springs Wilderness Study Areas (WSAs) are, and will be, managed under the Interim Management Policy until such time as they are either designated as wilderness by Congress or dropped from wilderness consideration. The location of these two WSAs are depicted on Map 1-2. The RMP identifies management practices for the Diamond Breaks (UT-080-113; 3,900 acres) and West Cold Springs (UT-080-103; 3,200 acres) WSAs should these areas be dropped from wilderness consideration. If these areas are designated as wilderness by Congress, a site-specific management plan will be prepared for each designated area in cooperation with the BLM Craig District, Colorado. No new wilderness will be evaluated in this plan in accordance with Section 603 of the Federal Land Policy and Management Act (FLPMA).

Vegetation Management

Sensitive vegetation communities (crucial special status plant habitat, relict areas or areas in unsatisfactory ecological condition) are identified and strategies developed to maintain or improve them. All areas requiring temporary or permanent closures or restrictions of grazing use and/or surface disturbing activities are identified.

All major vegetation communities within the resource area are identified along with their ecological conditions.


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
WEST COLD SPRINGS
DIAMOND BREAKS
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NATIONAL FOREST LANDS
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 1–2
WILDERNESS STUDY AREAS
WILDERNESS STUDY AREAS

These include, but are not limited to, the following broad categories:

- Desert Shrub
- Sagebrush
- Pinyon-Juniper
- Mountain Browse
- Conifer
- Aspen
- Riparian/Wetland
- Badlands/Rock Outcrop

Initial forage allocations were reviewed from existing grazing EIS's and the 1989 Ashley Creek Rangeland Program Summary Update. Where necessary, forage allocation changes are incorporated in the RMP. Conflicts between wildlife and livestock forage use are identified in terms of range carrying capacity.

Woodland Products Management

All lands to be available for woodland product harvest are identified. Criteria for annual firewood cutting are established on a sustained-yield basis. Christmas tree and cedar post cutting may be managed on either a sustained-yield basis or by supply and demand. The RMP determines which of these methods best meets resource objectives. All alternatives contain measures for protection of important woodland resources.

THE PLANNING PROCESS

To help assess the need for an RMP for Diamond Mountain Resource Area, public "scoping" meetings were held in November, 1988, in Manila, Vernal, Duchesne, and Salt Lake City, Utah. The objective of these meetings was to ascertain the issues of the various public land users regarding management of the public lands within the resource area. During this same period, various federal, state, and local agencies, and the Ute Tribe were also queried.

The analysis of these meetings and contacts revealed the three existing management framework plans were inadequate or outdated in addressing the concerns of the public land users and adjoining land-managing agencies. Analysis of bureauwide policies, goals, and objectives also revealed these MFPs provided often conflicting or minimal management guidance for certain programs. These concerns also needed attention.

Initial planning criteria, planning issues, and management concerns were developed in September, 1989, and reviewed by the public. The formal Notice of Intent to develop the Diamond Mountain Resource Management Plan was published in the *Federal Register* of January 26, 1989 (54 FR 3866). During the period September 1989, through January 1991, all applicable data were gathered and opportunities for change and improvement were identified.

In January, 1991, preliminary alternatives were mailed to all interested individuals and organizations for their review and formal input. These alternatives were then refined, analyzed, and presented for formal public review in the draft RMP/EIS. The 90-day public comment review began with the publication of its availability by the Environmental Protection Agency notice in the *Federal Register* of January 2, 1992 (57 FR 287). Closure of the public comment period was April 1, 1992.

Since that time the RMP team has collected and analyzed additional data, made appropriate changes and revisions to the draft RMP/EIS in response to this public review.

The development of this RMP will continue in this on-going process of continual improvement and refinement. The plan's relevancy will be based on monitoring data and evaluation of the plan's overall effectiveness. Throughout this entire process public involvement has and will continue to be actively sought and encouraged. Any changes or exceptions to the RMP will be made through formal plan amendments, accompanying environmental analyses, and public review.

COMPUTER MAPPING

To support this resource management planning effort, DMRA utilized a computer technology known as Geographic Information System (GIS). All of the maps in this document were produced using GIS. Acreage and other statistical tables can be generated from the map data. Output maps generated from the system can be produced at any scale, and retain the accuracy of the original maps. Furthermore, the data stored on computer disks and tapes will not degenerate with use, and will be accessible for future use.

A GIS system consists of not only numbers organized into records and fields like a conventional database, but contains "layers" of mapped information. The layers consist of information that would normally be located and drawn on a map such as vegetation, land ownership, or road locations. The advantage of having information computerized in electronic layers is that it can be overlaid, manipulated, scale changed, or intersected to produce maps and statistical tables. The information can also be changed or appended easily. For this document, some 60 layers of information drawn on nearly 2,000 overlays were entered into the system.

The GIS capabilities and products are utilized in three critical areas of this RMP's development: the consistent

depiction of spatial data (e.g., the map product); the consistent compilation of numerical data (e.g., acreage figures) for use in impact analysis and comparison between resource values; and, the refinement of certain restrictions to more specific areas (e.g., spatial modeling).

An example of this last capability may be demonstrated. The proposed plan outlines specific decisions for specific raptor species, their nest sites and habitat. In the "pre-GIS" days, the graphic depiction of such a decision most likely would have been an extensive general area simply labeled "raptor habitat." The resultant restriction would have applied across the "raptor habitat", without regard to site-specific variances; this stipulation and/or notice wording could be confusing or misleading. With the GIS capabilities, a more specific map can be produced, detailing vegetation, topographic and other specific habitat needs for the specific raptor species under discussion. Such capabilities allow for a more accurate and revealing map, indicating more specifically where raptor restrictions would be imposed. This refinement of restrictions allows the manager and public land users to have a better grasp of what management decisions and/or restrictions are imposed for a given area. Thus making it possible to better anticipate management prescriptions applied to resource development while protecting critical resource values.

Of the federal, state, and local agencies with jurisdiction in the Uinta Basin, the Diamond Mountain Resource Area is the first to fully implement computer mapping. All the adjacent agencies have responded favorably to our efforts to coordinate our future mapping needs with them. The benefits will be greatly increased as we share data and equipment with adjacent jurisdictions.

PROPOSED PLAN & ALTERNATIVES 2

This chapter describes the proposed plan and the four alternatives for multiple-use land management in the Diamond Mountain Resource Area.

This proposed plan reflects modifications to the draft RMP/EIS' preferred alternative as a result of public comment and further agency analysis. This proposed plan involves changes to improve clarity, correct weaknesses, and modifications to the preferred alternative and environmental analysis, or it provides a compromise on a preferred alternative decision, either selecting a decision from another alternative or developing a new decision. All modifications are within the range of alternatives discussed and analyzed in the draft RMP/EIS. Refer to Chapter 5 for a general discussion of the comments as well as the reproduction of the original comment documents and BLM's specific responses.

. . . assigning management priority areas for particular resources does not, in most cases, exclude other resources.

Definitions of management priority area levels identified on the proposed plan and alternative maps are listed in the Summary section, at the beginning of this document. It is important to note that assigning management priority area levels for particular resources does not, in most cases, exclude other resource uses. However, to meet the planning criteria for two resource programs, the management priority area concept had to be translated into the current oil and gas and solid minerals category system, and OHV use designations. The management priority area levels must be considered applicable to surface renewable resources and resource programs; however, they are generalized restriction levels as they relate to the locatable minerals and OHV programs.

Refinements to the management priority area levels for minerals programs were necessary to present the specific implications of a management decision or prescription into one of the four given mineral leasing categories. For this reason, please study the proposed plan's "Management Priority Area" and "Oil and Gas and Combined Hydrocarbon Leasing" and "Solid Mineral Leasing" maps provided in Map Packets #3, 8, and 9 respectively. Accompanying and made a part of the approved RMP and Record of Decision, will be a map and table depicting by aliquot part, the plan's decisions as they effect the minerals leasing program.

Also for the general public, and ease of management by BLM, the management priority area levels for the proposed plan have been translated into the current OHV use designations. An interim OHV designation map is provided in Map Packet #10. The designation boundaries were adjusted from the management priority area level boundaries to more easily recognizable topographic features and/or human-developed structures (e.g., fences, roads, etc.) to aid on-the-ground OHV users. When interagency OHV maps are prepared covering DMRA, the depiction of management decisions and prescriptions of the RMP will be finalized into the statewide OHV mapping standards. Minor boundary adjustments may be necessary to clarify management's intent.

Management priority area boundaries, in many cases, have not been finalized on the ground. Before specific activity planning decisions are made, or project locations are determined, locations of the management priority area boundaries will be determined on the ground, to the extent necessary, based on the resource information used to place the boundary on the map. For example, a priority management area may be based on an important watershed, crucial wildlife habitat, and sensitive riparian areas. The boundary could be determined by a combination of elevation, vegetation types, topography, and drainage patterns. In the case of a proposed

management action designed to enhance wildlife habitat, a professional judgement may be necessary to determine where actual wildlife use is taking place. Management priority area boundaries or definitions of compatible and excluded uses may also be adjusted within the scope of this plan, based on new resource data or proposals for site-specific actions. Any action not in conformance with the RMP would require an amendment.

The five alternatives discussed in the draft RMP/EIS covered a broad range of resource management options. The Current Management Alternative (No Action Alternative, Alternative A) describes the management of the planning area as it exists today and how this management would continue under existing plans. The Ecological Systems (Alternative B), Forage Production (Alternative C), and Development Opportunities (Alternative D) alternatives portray multiple-use management under different sets of management emphasis. The Preferred Alternative (Alternative E) was the optimum combination of management options, given current priorities, for resolution of the planning issues and management concerns identified during the planning process.

The proposed plan responds to public and BLM management comments on the alternatives presented in the draft RMP/EIS. The proposed plan is developed based primarily on clarifications or corrections to Alternative E. The proposed plan thus replaces the draft RMP/EIS Alternative E. However, no individual decision outlined in the proposed plan is outside the range of the alternatives analyzed in the draft RMP/EIS.

The proposed plan and the alternatives have been developed in accordance with the Federal Land Policy and Management Act (FLPMA) of 1976 and National Environmental Policy Act (NEPA) regulations of 1969; principles of multiple use and sustained yield; and other applicable laws, regulations, and standards.

In order to understand the full spectrum of resource and management decisions for the proposed plan and the alternatives, consult the specific management priority area maps provided in Map Packets #3 through 7, the following sections on common management guidance and plan/alternative summaries, and the resource areawide decisions outlined in detail on Table 2-15. Management prescriptions for specific special emphasis areas within the proposed plan and the alternatives are outlined in Tables 2-16 through 2-20 respectively. Table 2-21 provides a comparative summary of impacts of the proposed plan and the alternatives.

MANAGEMENT GUIDANCE COMMON TO THE PROPOSED PLAN AND THE ALTERNATIVES

This section summarizes the guidance required by law, regulation, bureau policy, or existing approved program-specific plans that must be applied to actions in DMRA under all the alternatives. It is included to avoid unnecessary repetition in the description of the individual alternatives and to assist the reader in understanding the underlying requirements that led to the decisions for each of the alternatives. These requirements do not represent decisions made in the plan, but are guidance that must be considered in applying the individual program areawide or special area decisions made in the plan. If new, nondiscretionary legislation is passed by Congress, the direction contained in the law will be applied to the application of the plan decisions.

In compliance with National Environmental Policy Act and Council on Environmental Quality regulations, BLM will prepare site-specific environmental reviews before some actions proposed in this RMP/EIS are implemented. Environmental reviews will provide site-specific assessments of the impacts of implementing these actions. As appropriate, these reviews will be documented in categorical administrative reviews, exclusion reviews, environmental assessments and decision records, or environmental impact statements. The review determines mitigation needed to reduce or eliminate the adverse impacts of implementing a proposed action. To the extent practical, subsequent environmental reviews will utilize the information already presented in this RMP/EIS.

. . . exceptions to the decisions identified in this plan, except for those legislatively mandated, may be granted by the authorized officer if, after a site-specific analysis through an environmental assessment or environmental impact statement and public review, he/she determines that the proposed action would be consistent with the expressed intent of the final RMP.

The decisions and analyses in this RMP, in many cases, are necessarily rather broad in nature. It is reasonable to assume that in some situations there are areas where local site-specific conditions or features, such as topography or soils, would adequately mitigate or eliminate anticipated impacts. Therefore, execptions to the decisions identified in this plan, except for those legislatively mandated, may be granted by the authorized

officer if, after a site-specific analysis through an environmental assessment or environmental impact statement and public review, he/she determines that the proposed action would be consistent with the expressed intent of the final RMP.

Any action involving a change in land ownership or resulting in an adverse decision will be coordinated fully with adjoining landowners, local governments, and anyone with a valid existing right on the land (i.e., grazing permittee, mineral lessee).

Land use planning decisions involving issues sensitive to the Uintah and Ouray Tribal government or Bureau of Indian Affairs (BIA) on public lands within the extended Indian reservation boundary, will be coordinated with the Tribal government and BIA and will be in accordance with current laws, regulations, and policies.

The final RMP will be put into a monitoring and tracking system. such a system will include the following elements:

Implementation. All future resource management authorization and actions, including budget proposals, will conform with the RMP, or as amended. All operations and activities under existing permits, contracts, cooperative agreements, or other instruments for occupancy and use will be modified, if necessary, to conform with this plan within a reasonable period of time, subject to valid existing rights.

Valid existing rights are those claims or rights to public land that take precedence over actions in the plan. For instance, an oil and gas lease in existence before this plan was approved, will remain valid. Any subsequent application to drill a well will have to comply with the requirements of this RMP to the extent they do not conflict with the specific stipulations of the lease. A proposal to upgrade or modify a road within an existing right-of-way across an area of critical environmental concern (ACEC) will be allowed, to the extent of the rights established by the right-of-way grant, even though management prescriptions for the ACEC may not be met.

Decisions in this plan will be implemented as identified in the implementation plan which will be formulated within one year of approval of this plan. In most cases, more detailed and site-specific planning or environmental analysis may be required before an action can be taken. The EIS prepared in association with this plan will be used as a base for tiering and incorporation by reference in any additional site- or program-specific environmental analysis.

Priorities will be established in the implementation plan for those decisions that will be implemented after adoption of the RMP. These priorities are intended to guide the order of implementation and will be reviewed annually to help develop the annual work plan (budget) commitments for the coming year. The priorities may be revised based upon changes in administrative policies, Departmental directions, or Bureau goals.

Any person adversely affected by a specific action being proposed to implement any portion of this plan may appeal such action pursuant to 43 CFR 4.400 at the time the specific action is proposed for implementation.

Monitoring and Evaluation. The effects of implementing the Diamond Mountain RMP will be monitored and evaluated annually to ensure the desired results are being achieved. Monitoring will determine whether original assumptions were correctly applied and impacts correctly predicted, whether mitigation measures are satisfactory, whether conditions or circumstances have significantly changed, or whether new data are significant to the plan. Monitoring will help to establish long-term use and resource condition trends and provide information for future planning. Annual monitoring will aid to forecast annual funding needs and to determine when changes in the plan are necessary.

Plan Maintenance. The RMP can be modified through plan maintenance, plan amendment, or plan revision, all of which will be documented. Documentation consists of making RMP changes available to the public at BLM's Utah State Office, Vernal District Office, and the Diamond Mountain Resource Area Office. Plan amendments and plan revisions will be made with public involvement and the appropriate level of environmental analysis.

AIR QUALITY MANAGEMENT

Objectives of BLM's air/climate resource program are: to maintain or improve air quality within National Ambient Air Quality Standards; to achieve state implementation goals for non-attainment areas, and prevention of significant deterioration requirements for attainment areas; to reduce emissions from point/non-point pollution sources; and, to improve BLM's ability to understand and predict the effects of changing climatic regimes and atmospheric conditions that may cause ecological changes in climate-stressed environments.

The control of airborne dust and pollution are addressed in Utah Air Conservation Regulations R446-1. The requirements of these regulations govern various uses on public lands. BLM will address these requirements by designing projects and permitted uses that comply with

R446-1. The best air quality control technology, provided by the Utah Bureau of Air Quality, will be applied as needed to meet air quality standards.

UAC Regulation R446-1-4.5.3 prohibits the use, maintenance, or construction of roadways without taking appropriate dust abatement measures. BLM will comply with this regulation through special stipulations as a requirement on new projects and through the use of dust abatement control techniques in problem areas.

Control measures on mining activities are addressed in UAC Regulation R446-1-4.5.4. The need for dust abatement will be addressed in mining plans of operation and environmental assessments or impact statements.

UAC Regulation R446-1-2.4.4 directs users to follow permitting procedures before setting any fire, including prescribed burns. The Utah Division of Air Quality will be contacted before any prescribed burns. The current Memorandum of Understanding between BLM, U.S. Forest Service, and Utah Division of Air Quality requires BLM to report size, date of burn, fuel type, and estimated air emissions from each prescribed burn. DMRA will comply with this Memorandum of Understanding.

Any actions that may result in a temporary reduction of existing air quality (i.e., prescribed burns, large construction projects) visible from Dinosaur National Monument will be coordinated with the National Park Service and Utah Division of Air Quality before action is initiated.

CULTURAL AND PALEONTOLOGICAL MANAGEMENT

An array of laws and regulations mandate the protection and management of cultural resources on public lands. Three of the most important laws are the National Historic Preservation Act (NHPA) of 1966, as amended; the Archeological Resources Protection Act (ARPA) of 1979, as amended; and the American Indian Religious Freedom Act (AIRFA) of 1978. Executive Order 11593 also provides necessary guidance on protection and enhancement of cultural resources. Under NHPA, criteria for inclusion of sites and districts to the *National Register of Historic Places* are defined. Comment and coordination with the State Historic Preservation Officer (SHPO) is also authorized under this act. Measures to avoid or mitigate those impacts are developed in consultation with the Utah SHPO and the Advisory Council on Historic Preservation.

NHPA requires that consultation occur with the SHPO regarding identification of historic properties, evaluating significance, determination of effect, as well as mitigating measures of a proposed action. Utah BLM has a Memorandum of Understanding (1990) with the SHPO to trigger such a consultation process without a formal request when a permitted consultant submits an inventory report. DMRA will comply with this Memorandum of Understanding.

ARPA prohibits the attempt or actual excavation, removal, damage, or trafficking of archeological resources from public land by unauthorized persons and provides for the authorized removal and excavation of cultural resources through a permitting process. Under ARPA, civil penalties may be assessed for unauthorized removal of antiquities from public lands.

AIRFA requires that BLM consider native peoples' rights to express their traditional religious beliefs including access to sacred sites and collection of objects and resources important to religious ceremonies and traditional lifeways. DMRA will coordinate with the Ute Tribe on these values.

E.O. 11593 requires the Secretary of the Interior to prepare plans to determine the nature and extent of archeological resources and schedule land surveys in areas likely to contain the most scientifically valuable archeological resources.

In Utah, BLM operates under a policy which guides inventory and data recovery procedures for sites on all public lands. This policy will be coordinated with the SHPO, the Utah Professional Archeological Council, and independent contractors.

BLM policy is to have a cultural resource specialist analyze the consequences of BLM actions on properties affected by its decisions. Cultural reviews describe results of previous inventories and evaluate the probability of cultural resource occurrence in the project area. Usually a field inventory is then conducted. Should significant, in terms of *National Register* eligibility, cultural resources be found during the inventory, impacts to them would be mitigated, generally through avoidance. Should it be determined the cultural resources cannot be avoided, consultation with the SHPO would be initiated. If the cultural resources values are found to be *National Register* eligible, a program of mitigation would be developed through consultation between BLM, the SHPO, and the Advisory Council on Historic Preservation in accordance with the NHPA and 36 CFR 800. Responsibility for inventory, evaluation, and mitigation of impacts to cultural resources rests with BLM. Through this process, all cultural resources of *National Register* quality will be protected or impacts to them mitigated.

The DMRA cultural resource management objectives are to protect the information potential of sites, enhance the public values of sites, and manage sites, when applicable, for conservation. As a continuation of the planning process, DMRA will prepare cultural resource management plans, in which cultural resources will be allocated to specific use categories assuring management for their most appropriate uses. Certain sites will be selected for cultural resource project plans that will implement specific activities to achieve the objectives and uses of the RMP and cultural resource management plans.

The 1989 "Jarvie Historic Site Management Plan" contains actions for the protection, stabilization, and reconstruction of the site. The 1979 "Desolation and Gray Canyons of the Green River Management Plan", contains management actions to protect the Desolation Canyon National Historic Landmark within DMRA (Sand Wash to the Carbon County border - 1 mile on either side of the Green River). The management decisions outlined in these plans will be continued under the approved RMP.

Two laws mandate protection of paleontological resources: FLPMA and the American Antiquities Act of 1906. Protection of paleontological localities is also incorporated into various acts concerning other resources.

BLM policy is to review all surface-disturbing activities on public lands. Paleontological reviews describe results of previous inventories and evaluate the probability of resource occurrences in the project area. Determination of a locality's paleontological significance will be made by BLM following professional consultation. Should significant resources be found during the inventory, impacts to them would be mitigated, generally though avoidance. (See Appendix 1 for mitigation procedures for paleontological resources.) Should it be determined the paleontological resources cannot be avoided, a program of mitigation would be developed through consultation between BLM and the Utah State Paleontologist. Responsibility for inventory, evaluation, and mitigation of impacts to paleontological resources rests with BLM. Through this process, all significant paleontological resources will be protected or impacts to them mitigated.

FIRE MANAGEMENT

Approved in November 1989, the "Vernal District Fire Management Activity Plan" describes the current district policy for fire management in DMRA. The plan may be reviewed at the Vernal District Office. The following

objectives and criteria will be adhered to:

Overall Fire Management Goals

- To allow fire to maintain its natural role in the ecosystem, to prevent buildup of hazardous fuels that could cause large unacceptable fires detrimental to natural resources.

- To implement management and suppression techniques that retain the values of wilderness, wilderness study areas, and other special emphasis areas.

- To implement full suppression when fires have reached a 1/4- to 1/2-mile protection zone around private land or structures, or when human life or property is threatened.

Fire Suppression Guidelines

During November through April, the typical non-fire period, fires in non-critical areas may be monitored as directed by management. During May through October, and any time in critical areas (i.e. critical wildlife habitat, adjacent or threatened private land, etc.), full suppression activities will be implemented unless burning indices (e.g., Energy Release Components as determined by the National Fire Danger Rating System) indicate the burn could be managed as an approved and funded prescribed fire, and therefore, monitored. A fire may also be monitored if an escaped fire situation analysis form is approved identifying the options for suppression, of which one may involve a monitoring action. In order to allow a fire to burn, a qualified Line Officer, Resource Advisor, or Fire Management Officer must be on the scene to make the decision.

Priority Suppression Areas

Priority areas where fire suppression is required to prevent unacceptable resource damage are:

- Sage grouse strutting grounds
- Crucial deer winter range in Browns Park
- Cottonwood vegetation associated with the Green River

Prescribed Fire

The use of prescribed fire to achieve management objectives would be subject to development of a site-specific prescribed fire plan and NEPA review prior to initiating the action. These plans would allow natural or human-induced fires to burn when approved prescriptions are established for specific burn areas and when burning conditions meet the approved burn prescriptions. Suitable areas where this type of treatment may be considered include pinyon-juniper woodlands and decadent stands of brush throughout the resource area.

Constraints

The following restrict and constrain fire suppression activities on public lands.

- Wilderness Study Areas. All suppression activities in WSAs will be conducted in compliance with BLM Interim Management Policy (IMP) on minimum tool use and limited use of motorized equipment.
- Special Status Species Habitat. Sensitive habitat for special status species must be protected. Special tactics will be utilized to limit the damage or disturbance to such habitat.
- Cultural and/or Paleontological Properties. All sites must be protected from disturbance. If heavy equipment is used to construct fire lines, an archeologist and/or paleontologist, if available, will work in conjunction with the heavy equipment operator to protect the site.
- Air Quality. Any prescribed burning which may temporarily reduce air quality and visibility from Dinosaur National Monument, will be coordinated with the National Park Service and Utah Division of Air quality before ignition.

Emergency Fire Rehabilitation

When wildfire occurs within DMRA, procedures for rehabilitation outlined in BLM Manual Handbook H-1742-1 will be implemented. These procedures include formation of an interdisciplinary team to assess both on- and off-site resource damage and potential for future damage. The team will also prescribe measures necessary to minimize resource losses following wildfire. Available resource inventory data and land use planning objectives will be used in this assessment. Consideration will be given to sensitive resource values in preparation of the rehabilitation plan, including wilderness, special emphasis areas, critical soils, cultural resources, and special status species habitat. Rehabilitation measures may include, but will not be limited to seeding, water barring of fire lines, scattering of litter, construction of water catchments, or diversion structures, and control of grazing by livestock and wildlife. The need for emergency rehabilitation measures will be discretionary dependent on the size of the area burned and the expected natural revegetation.

FISH AND WILDLIFE HABITAT MANAGEMENT

Management of fish and wildlife habitat on public lands is the responsibility of BLM. Management of the resident fish and wildlife populations are the responsibility of the Utah Division of Wildlife Resources (UDWR). The lead for management of migratory and federally listed threatened and endangered fish and wildlife species is the responsibility of the U.S. Fish & Wildlife Service (USF&WS). Wildlife species of special concern to Utah are managed in cooperation with UDWR.

Legislation including FLPMA, the Endangered Species Act, the Public Rangelands Improvement Act, and Sikes Act have directed BLM to manage habitat to meet wildlife needs in the face of increasing demands for basic energy supplies, building materials, food products, and recreational opportunities. DMRA will continue to recognize opportunities to maintain, improve, and expand wildlife habitat for both consumptive and nonconsumptive use and identify critical wildlife resources deserving special attention. DMRA will also assist state agencies in completing fish and wildlife resource plans.

Habitat management within the resource area will be prioritized as follows: special status animal species, Management Indicator Species (MIS), and riparian (including fisheries).

Recently developed documents also provide program guidance to BLM's wildlife habitat management program. These documents include "Fish and Wildlife 2000", "Waterfowl Habitat Management on Public Lands: A Strategy for the Future"; and the "Raptor Habitat

Management Plan". These documents are available for public review at the Vernal District Office.

Special Status Animal Species

Any federally authorized, funded, or implemented actions that may affect listed or proposed for listed species will be reviewed in consultation with the U.S. Fish and Wildlife Service (USF&WS). This could include such actions as mineral development, recreational developments (camp-grounds, hiking, and biking trails, byways, turnouts), grazing plans, road construction, rights-of-way, communication sites, rangeland improvements, and vegetation treatments.

Management of special status species is guided by the Endangered Species Act, subsequent regulations and policy, habitat management plans and recovery plans in cooperation with state and federal agencies and affected parties.

The Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531, et seq.), as amended, is the authority to conserve endangered and threatened species on public lands. Section 4(f) of the Act directs the Secretary of the Interior to develop and implement recovery plans for the conservation and survival of endangered species. Section 7(a)(1) of ESA requires BLM to carry out proactive measures to recover listed species and Section 7(a)(2) insures that any action authorized by BLM is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of their habitats.

BLM policy for special status candidate species is contained in BLM Manual 6840. BLM must carry out management consistent with multiple use for conservation of candidate species (category 1 and 2 only) and their habitats and must ensure that BLM actions do not contribute to the need to list any of these species as threatened or endangered. It is also policy to systematically gather data on candidate species to determine if a species needs to be listed.

It is the objective of management actions contained in the RMP to assist in the recovery of these populations and to remove the species from special status designation. No action will be authorized in suitable habitat for threatened and endangered species if it would jeopardize the continued existence of the species or result in severe modification of the habitat. However, it may be possible to permit activities within the mapped area if a site-specific inventory demonstrates that suitable habitat for threatened and endangered species would not be adversely affected.

Protection and management of all special status species will continue. Inventory for federal and state candidate species will continue, and monitoring programs will be implemented on known populations of listed and candidate species. Where monitoring finds threats to these populations, actions will be taken to protect the species and its habitat. Activity plans will be written on any federally-listed species not presently covered by a recovery plan. If any federally-listed or candidate species are delisted or removed from special status, any restrictions pertinent to the species would be revoked.

Presently DMRA may provide habitat or potential habitat for 33 special status animal species. Management of these habitats will continue to be coordinated with UDWR and USF&WS, as appropriate.

Actions proposed in this RMP adhere to objectives stated in the USF&WS's bald eagle, peregrine falcon, whooping crane, Colorado squawfish, humpback chub, bonytail chub, and black-footed ferret recovery plans. The razorback sucker does not have a recovery plan; however, BLM will consider the protection and recovery of the razorback sucker and its habitat before approving such actions. When revising or developing resource activity plans, specific objectives and actions stated in the recovery plans will be incorporated.

Colorado cutthroat trout habitat management will follow the general guidance present in BLM's Special Status Fishes Habitat Management Plan and UDWR's Native Cutthroat Trout Management Plan, presently being developed. In addition, habitat maintenance objectives on current satisfactory streams would include monitoring of vegetation with low level infra-red photography, continued macroinvertebrate sampling, and water quality analysis to acquire additional water rights to supply a more consistent summer water flow, decreased livestock grazing pressure to improve early and mid seral riparian zones and the planting of additional shrubs and trees. Habitat expansion objectives would involve the isolation of streams with fish barriers to prevent hybridization and contamination with nonnative fish and then the habitat improvement previously mentioned.

New powerlines will be built to "electrocution-proof" specifications (BLM Handbook 2800), and existing powerlines will be modified to improve raptor habitat.

Animal Damage Control

Animal damage control on public lands is guided by U.S. Department of the Interior policy under a Memorandum of Understanding with the Animal Plant Health Inspection Service's Animal Damage Control (ADC) section and the

State of Utah (BLM, 1991), as revised or amended. The ADC has the responsibility for overseeing the program and supervises all control activities. BLM has approval authority for all specific control actions on public lands under the annual ADC plan.

DMRA will be further guided by the Vernal District Animal Damage Control Plan (as revised or amended) and the annual Vernal District Animal Damage Control Operation Plan (copies are available for review in the Vernal District Office).

This plan authorizes a directed program of animal damage control on public lands to minimize damage to dependent agricultural production, with necessary restraints to mitigate impacts to other uses and resources. The program, administered and implemented by APHIS-ADC, will be in conformance with this plan and terms of the MOU. DMRA will provide input to APHIS-ADC as a member of the ADC interdisciplinary team. Such input will be an important factor in the development of the annual plan of operations.

Habitat Management

Habitat management plans (HMPs) are developed in an effort to improve wildlife habitat. Existing habitat maintenance, improvement, and expansion objectives are outlined in each of the HMP plans for priority species. New management objectives are outlined in Table 2-15. DMRA's existing HMPs, Browns Park, Myton, and Diamond Mountain-Ashley Creek, will continue to be implemented. Existing HMPs are on file and open to public review at the Vernal District Office. HMPs are periodically evaluated to determine if management direction and actions are adequate and if HMP objectives are being met. BLM will update and revise HMPs jointly with UDWR and USF&WS, considering monitoring data, changes in policies and direction, and wildlife and other resource program needs.

Management actions outlined in current activity plans improve habitat for species such as raptors, antelope, deer, and elk, and to accommodate reintroduction of bighorn sheep, river otter, and upland game birds. The plan will provide adequate habitat for predators, fisheries, upland game and non-game species.

The Browns Park HMP allows for reintroductions of bighorn sheep and river otter. Some of these reintroductions have taken place. These objectives are reassessed within the RMP. The management actions outlined in the Myton HMP for waterfowl and upland antelope habitats are adequate and will be implemented under all alternatives. In crucial antelope habitat the objective will be to maintain existing water sources, and where possible and practical, provide water sources at a density of approximately one per square mile.

The Vernal District "Rocky Mountain Bighorn Sheep Guidance Plan" places significant emphasis on bighorn sheep and their habitat. This plan incorporates management and protection requirements to be considered whenever activities are proposed within the habitat. Permanent human occupation or dwellings will not be allowed within bighorn sheep habitat. If activities do affect the habitat, mitigation will be required to provide habitat improvements to compensate for habitat loss.

Detailed estimates of current and potential wildlife forage needs are contained in Appendix 2. Monitoring of habitat will continue to be the basis for modifying future management.

Wildlife habitat for MIS species will continue to be enhanced throughout the resource area by taking opportunities to create water facilities, maintain or create raptor nesting sites, and to design vegetation treatments outlined in this RMP, and specified in the activity plans with these species in mind.

Rangeland management practices and rangeland improvements, including prescribed burns, will be designed or modified to maintain or improve important wildlife habitat. Livestock grazing management will incorporate the needs of key plant species important to wildlife and safe to use by wildlife in accordance with BLM standards (BLM Manual Supplement 6516 and BLM Handbook H-1741-1).

All new fences will be built to allow for wildlife passage in accordance with BLM fence standards contained within BLM Handbook 1741-1. Any existing fences obstructing wildlife movements on public land will be brought into conformance with these standards, or removed. Fence adjustments involving public and private lands will be coordinated with landowners in the area.

Wildlife escape devices will be installed on all new and existing water tanks or troughs built in DMRA.

Roads, except county and state rights-of-way, may be permanently or seasonally closed where human/wildlife conflicts exist or are expected, or when roads are no longer necessary.

HAZARDOUS MATERIALS MANAGEMENT

The three laws most commonly associated with hazardous materials include the Resource Conservation and Recovery Act (RCRA) (1976), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (1980), otherwise known as the Super Fund Act; and the Super Fund Amendment Reauthorization Act (SARA) (1986). BLM responsibilities under these acts include conformance with RCRA enforcement regulations pertaining to the storage, handling, and disposal of hazardous materials; and reporting, removal, and remediation of unpermitted hazardous substances release under the provisions of CERCLA.

Actions by BLM employees on hazardous material matters will be limited to reporting hazardous incidents, maintaining site security, and coordinating procedural steps. The Utah State Division of Solid and Hazardous Wastes has the overall responsibility, under agreement with Environmental Protection Agency (EPA), to ensure that all hazardous materials incidents are properly abated on federal lands.

All proposed actions occurring on public land will be analyzed for their potential to release hazardous materials into the environment. Appropriate stipulations will be incorporated into permitting documents to ensure prevention of hazardous incidents.

The Vernal District's "Hazardous Materials Contingency Plan Handbook" (1988) covers public lands in DMRA. It is subordinate to plans developed by EPA, Utah State Division of Solid and Hazardous Wastes, and the BLM Utah State Office. This document is available for review in the Vernal District Office.

This district plan provides the guidance for district and DMRA employees: to act in the event of a hazardous materials incident, to ensure public and employee health and safety, protect the environment, and comply with state and federal laws. If there is no identifiable responsible party or they refuse to take action, BLM will act to effect a clean up. Cleanup actions are to include limiting access to the site to ensure safety of Bureau employees and the public, contracting for the cleanup/removal of the materials, and gathering evidence to assist in future litigation of the responsible parties. At no time will DMRA employees remove or transport hazardous materials.

The two existing landfills on public land leased from BLM will be either closed or transferred. Closure plans will be prepared for each site and guidance in the plan will be followed. In order to minimize impacts to local governments, BLM will work with them to find alternative sites.

Any unauthorized disposal sites on public lands will be cleaned up and hazardous wastes removed to an approved disposal area.

LANDS AND REALTY MANAGEMENT

Land Tenure Adjustment

Disposals (General). Public lands within DMRA could be considered for disposal through methods such as sale, exchange, state indemnity selection, and Recreation & Public Purpose Act patent. Prior to the actual disposal of any lands, a comprehensive environmental analysis would be completed by BLM to determine resource impacts and to ensure conformance with the overall management objectives of the RMP. Resources receiving consideration would include, but not be limited to, cultural and paleontological resources, threatened or endangered plant and animal species, wildlife habitat, recreation, minerals, watershed, riparian, water quality and current land uses. All disposal actions would be coordinated with adjoining landowners, local governments, and current land users.

Sales. Public lands that have been identified as potentially suitable for sale under Sec. 203 of the Act of October 21, 1976 (43 U.S.C. 1713) have been identified on Map 3-10 and Tables A3-3 and A3-4. The lands may be made available for public sale through either competitive, modified competitive, or direct sale at not less than fair market value as provided in 43 CFR 2710. The lands identified may also be disposed of through exchange, R&PP, State Selection, etc. Any lands to be disposed of by sale that are not identified in the RMP would require a plan amendment.

In completing land sales, the disposition of the mineral estate of the public land would be evaluated using the following criteria:

- If the public lands proposed for sale are determined to have "known values" for locatable, leasable, or saleable minerals, one of the following courses of action may be taken: Reject the offer to purchase or cancel the offer of sale, or dispose of the surface estate and reserve all or part of the mineral estate to the United States.

- If the public lands have no "known mineral values", the mineral estate could be disposed of

pursuant to the authority of Section 209(b) of FLPMA.

In instances where the surface estate is already in private ownership and the mineral estate is reserved to the United States, the surface owner may purchase the reserved mineral estate provided that the criteria under 43 CFR 2720 are met.

Exchanges/Acquisitions. Public lands will be considered for disposal by exchange pursuant to Section 206 of the Act of October 21, 1976; 43 U.S.C. 1716, provided the exchange will result in more efficient federal management of the public lands and provided further that the values and management objectives which the federal lands and interests to be conveyed may serve if retained in federal ownership are not more than the values of the non-federal lands or interests and the public objectives they could serve if acquired by the United States.

Generally, lands disposed of through exchange would be confined to those specific management priority areas identified under the individual alternatives. In cases of proposed exchanges involving public lands within ACECs or other special management areas, public lands would be available for disposal only in the event that there is a clear and overriding benefit to the public which would outweigh the identified ACEC or special resource values.

Non-federal lands would be considered for acquisition through exchange of suitable public land on a case by case basis where acquisition of the non-federal lands would contain higher resource values than the public lands being exchanged. Such acquisitions will be from willing givers or sellers.

Non-federal lands to be acquired through both Bureau and public initiated exchanges must have at least one of the following characteristics:

- Acquisition would facilitate access to public lands and resources and/or contribute to a more efficient and manageable landownership pattern.
- Acquisition would facilitate implementation of the RMP/EIS management actions.
- Acquisition of the non-Federal lands would maintain or enhance public uses and values with priority given to acquiring riparian/wetlands, lands with high recreation use and/or wildlife values, and lands with significant cultural sites and/or paleontological localities.

Lands acquired through exchange would be managed in accordance with the management objectives identified for the adjoining public lands.

In completing land exchanges the disposition of the mineral estate of the public land would be evaluated using the following criteria:

- Public lands that do not have "known mineral values" may be offered in exchange without any mineral reservation to the United States. This would apply whether or not the nonfederal party in an exchange controls the mineral estate under their offered land.
- If the public lands have some potential for mineral development, the mineral estate or interest(s) thereto may be disposed of provided the values of both the public and private lands are equivalent overall or equalized through the payment of cash, not exceeding 25% of the total value of the public lands.
- Public lands with known values for locatable minerals could be conveyed only if there are no existing mining claims and a determination is made that the exchange of the surface and mineral estate would clearly serve an important public benefit. The surface and mineral estate of public lands with known values for leasable or saleable minerals could be conveyed with a reservation of the valuable mineral provided that a determination is made that disposal of the surface estate would not interfere with the potential mineral development.

In all exchanges, effort will be made to keep the surface and mineral estate intact on both the lands disposed of and acquired, where possible.

Other Methods of Acquisition. In addition to acquiring non-Federal lands through land exchanges, the BLM could acquire lands by direct purchase utilizing programs such as the Land and Water Conservation Fund (LWCF), when funding is available, and by donation.

State Indemnity Selections. BLM will attempt to satisfy the State of Utah's requests for indemnity selections. Requests would be processed on a case by case basis, with consideration given to the decisions of the approved RMP. Generally, disposal actions would be limited to those areas identified for open and active management.

Recreation & Public Purpose. Lands conveyed to local governments and non-profit organizations under the Recreation and Public Purposes Act may include those

identified on Map 3-10 and in the tables contained in Appendix 3. In addition, requests for lands other than those identified could be considered for disposal provided that the proposed use would provide a greater public benefit than that which the current management provides and that the action is consistent with the decisions of the RMP. To insure proper development of the lands for public purposes, BLM may require that the lands be leased and developed prior to patent.

Access

Access needed to support RMP management objectives will generally involve easement acquisition or acquisition through exchange by the BLM utilizing appropriated funds and will concentrate on areas of high recreational use and securing access to large blocks of isolated public land. Access efforts will coordinated with federal, state, and local governments, private organizations and individual landowners. Access acquisitions involving private land will be from willing givers or sellers. Existing roads within DMRA are depicted on Map Packet #2.

Withdrawals

Proposed land withdrawals, the purpose for such withdrawals, and the segregative effects of the withdrawals on the public land laws are identified by alternative in the RMP. Should these proposed withdrawals be established, the lands would be made available for other public purposes to the fullest extent possible, consistent with the intent of the withdrawal.

Existing withdrawals and classifications on BLM administered lands, identified on Table 3-7 in Chapter 3, will be subject to future review by the BLM to determine their consistency with the intent of the withdrawal in accordance with Section 204(l) of FLPMA and recommendations to continue, modify, or terminate would follow. Withdrawals for indian reservations and national parks, forests, and wildlife refuges within DMRA are depicted on the land status map (refer to Map Packet #1) and are not subject to review under Section 204(l) of FLPMA.

Any withdrawals no longer meeting their intended purpose will be terminated in accordance with the procedures established under regulations 43 CFR Part 2300. Any lands becoming unencumbered by withdrawals or classifications will come under the direction of the approved RMP and would be managed in a manner consistent with the adjoining public lands. If the unencumbered lands fall within two or more management priority levels where future planning criteria may not be clear, a plan amendment may be required.

Where deemed appropriate, existing withdrawals may also be modified or terminated to facilitate disposal actions and implement the objectives of the approved RMP.

Land Use Authorizations

General. Land use authorizations will be approved in accordance with the decisions contained in the approved RMP and pursuant to the following listed authorities:

- FLPMA, Section 302 43 U.S.C. 1732; 43 CFR 2900 for leases and permits; and Title V (43 U.S.C. 1761-1771), 43 CFR 2800 for rights-of-way, excluding oil and gas pipelines
- The Mineral Leasing Act, as amended, Section 28 (30 U.S.C. 185, 43 CFR 2880 for oil and gas pipeline rights-of-way
- The Act of August 27, 1958, as amended, Title 23 U.S.C., for federal aid to highways
- The Recreation and Public Purposes Act, as amended, 43 U.S.C. 869, 43 CFR 2740 and 2912, for public purposes leases

Land use authorizations will not be approved in exclusion areas identified under the alternatives for the purposes of protecting other significant resource values. Land use authorizations in avoidance areas may be authorized provided they are considered consistent with the current management objectives; those which are not would either be rejected or would necessitate a plan amendment prior to approval. In addition, land use authorizations will not be approved for landfills, hazardous waste disposal sites, or commercial surface water disposal sites.

Rights-of-Way. The designated corridors that have been identified would be 1/4 mile in width unless constrained by environmental features and unavoidable resource protection areas. Mitigation which would be required for rights-of-way approved within the designated corridors is listed on Table A3-1, Appendix 3. These approved corridors would be the preferred location for future major linear rights-of-way which meet the following criteria:

- Pipelines with a diameter of 15 inches or greater.
- Transmission lines (not distribution) with a voltage capacity of 69 kV or greater.
- Paved roads or roads consisting of more than two lanes.
- Railways, excluding spurs off of mainlines to a designated point.

Significant canals, ditches, or conduits requiring a permanent width greater than 50 feet.

These corridor designations would be the preferred location for all future major linear rights-of-way. In most cases, major linear rights-of-way proposed outside of the designated corridors will require a plan amendment.

Applications for all major and minor rights-of-way would be processed on a case by case basis, with consideration given to the decisions established in the RMP. Generally, rights-of-way would be allowed in open management levels, would be discouraged in avoidance areas, and would be disallowed in exclusion areas unless specifically mandated by law.

Communication Sites. Communication sites would generally be limited to designated mountain peaks with existing facilities. Applications for new facilities would be handled on a case by case basis.

Site management plans for existing sites would be developed to ensure that current facility holders would not be largely impacted by additional users. If the site management plans indicate that adverse impacts would occur with additional users, the new proposals would be rejected.

Unauthorized Use. DMRA will actively pursue the identification, resolution, and prevention of unauthorized use. Essentially, unauthorized use will be resolved through methods such as lease, sale, exchange or removal. Land use permits will be utilized only to provide temporary authorization until the appropriate method of long term resolution can be determined. The method of resolution for each individual trespass case will largely be determined in accordance with the decisions of the approved RMP.

LIVESTOCK MANAGEMENT

DMRA's grazing program is managed under provisions of the Taylor Grazing Act of 1934, FLPMA, and Public Rangelands Improvement Act (PRIA) of 1978. These acts authorize the issuance of grazing permits, use supervision, unauthorized use detection and abatement, livestock grazing management, range improvement facilities and treatments, and other actions.

In some cases private or State of Utah lands are intermingled within BLM grazing allotment boundaries. This mix of lands present opportunities for a coordinated management approach with the involved landowners and management.

DMRA's current management of rangeland resources is guided by the Ashley Creek (1982) and the Three Corners (1979) Grazing EISs and their associated rangeland program summaries. These statements did not clearly analyze the forage needs for objective (desired future) wildlife levels. Analyses were based on current wildlife populations, thus dating their usefulness.

The grazing EISs respond to NEPA and FLPMA requirements and cover all public land under the RMP. These EISs provide guidance for DMRA's grazing management program with the following objectives:

- To restore and improve rangeland condition and productivity,
- To provide for use and development of rangeland,
- To maintain and improve habitat for wildlife,
- To direct future rangeland management actions, and
- To promote sustained yield and multiple use.

Livestock grazing, where authorized, will be conducted in a manner to maintain healthy watersheds and vegetation communities, and may be used as a management tool in achieving specific resource objectives established at the activity plan level.

All DMRA grazing allotments have been assigned to one of three management categories on the basis of present resource condition and management needs, forage potential, conflicts with other resource uses, and economic potential for improvement. (For a more detailed description of DMRA's current rangeland management program and opportunities for improvements, see Appendix 8.)

Categorization established priorities for distributing rangeland management funds to achieve cost-effective improvement of rangeland conditions and production. The three categories are "M" - Maintain, "I" - Improve, and "C" - Custodial. The current 38 "M" category allotments are managed to maintain satisfactory

conditions, 39 "I" allotments are managed to improve unsatisfactory conditions, and 31 "C" allotments receive custodial management to prevent resource deterioration. Efforts are concentrated in allotments where monitoring and evaluation find management actions are needed to improve the basic resource to resolve serious resource-use conflicts, or to reach forage production potential. DMRA recategorized allotments due to changes in objectives or potential for improvement. (See "Allotment Categorization" section in Appendix 8 for criteria used and documentation made for current allotment management categorizations.)

DMRA will manage rangelands in accordance with the grazing prescriptions, rangeland improvements, including prescribed burned, and management actions set forth in this RMP (see Appendix 8, "Rangeland Improvements Opportunities"). Activity plans will be developed or revised to reflect any needed changes as determined through monitoring studies and allotment evaluation. Methods are also prescribed to control undesirable plants or to control vegetation-damaging insect infestations.

All fences will be designed and built for compatibility with wildlife and other multiple resource objectives. Livestock water facilities will be built or modified to provide safe access for wildlife.

Changes in class and kind of livestock and dual use by cattle and sheep could be completed on a case-by-case basis through a site specific analysis.

Wild Horses

Existing monitoring data indicate wild horses have not used that portion of the Range Creek Herd Management Area within DMRA for the past ten years. DMRA will recommend the Range Creek HMA boundary (Herd No. UT641) be adjusted to exclude that portion of the HMA within DMRA. No other wild horse herd management areas will be designated. Any wild horses detected within DMRA will be removed in compliance with the Wild Horse and Burro Act. Until the recommendation has been approved, DMRA will continue to provide 49 AUMs for wild horses in this HMA.

MINERALS MANAGEMENT

Mineral exploration and development will be encouraged on public land in keeping with BLM's multiple-use concept.

Under this plan, mineral exploration and development stipulations would serve to translate planning goals and prescriptions into actual protective requirements, applied to mineral exploration and development.

Fluid mineral development and combined hydrocarbon development will be governed by stipulations provided in Appendix 4 and graphically depicted on the "Oil and Gas and Combined Hydrocarbon Leasing" map provided in Map Packet #8.

Solid mineral development, including both mineral materials and solid leasables, will be governed also by stipulations developed out of the final plan (refer to Table 2-3 and the "Solid Minerals Leasing" category map provided in Map Packet #9). However, DMRA recognizes that in some instances some stipulations, such as seasonal closures, effectively preclude some types of solid mineral development. At the same time, DMRA recognizes that in some cases other mitigation measures may be effectively imposed which will allow for both development and resource maintenance or enhancement.

Leasable Minerals

The Mineral Leasing Act of 1920, and federal regulations (43 CFR 3100-3500), provide the legal and regulatory framework for issuing prospecting permits and mineral leases. These regulations apply where public interest exists for the exploration and development of oil, gas, phosphate, "Gilsonite", tar sands, and other leasable minerals. Where required, stipulations will be attached to permits and leases to mitigate impacts to sensitive species, cultural areas, and other resources susceptible to impacts from leasing-related activities. It will usually be necessary to apply the same standards for environmental protection of split estate lands as would be used for federal surface. DMRA will consider carefully the views of the surface owner and the effect on the owner's use of the surface from implementation of possible mitigation measures as well as the effect such measures would have on attaining other program goals.

Locatable Minerals

The General Mining Law of 1872, as amended, and federal regulations 43 CFR 3802 and 3809 provide for locatable mineral exploration and development in conjunction with other resource management. In the context of this document, the term "locatable minerals" is generally meant to include "sites" as well as "mining claims." Lands within the resource area that are not withdrawn are available for the location of claims and sites. However, on those lands identified as special emphasis areas or as having valuable resources, DMRA will work with mining operators to assure that

unnecessary or undue degradation of valuable resources and areas does not occur.

Mineral Materials

The Material Sale Act of 1947 and federal regulations (43 CFR 3600) provide for the disposal and regulation of mineral materials. Sales of mineral materials to the public will continue to be administered by establishment of community pits or contract sales on a case-by-case basis. Mineral materials will be sold at market prices. Free use permits will continue to be issued to state and federal agencies, local communities, and nonprofit organizations. Stipulations will be attached to mineral material permits or sales to assure that unnecessary or undue degradation of valuable resources and areas does not occur.

Flagstone in the West Wrinkles Road Common Use Area, above Nine Mile Canyon, will continue to be available to the public.

RECREATION MANAGEMENT

Recreation programs are managed according to multiple use principles unless otherwise specified by law or BLM policy. The mission of the program is to ensure the continued availability of quality outdoor recreation opportunities and experiences that are not readily available from other sources. Recreation use as well as capital investments in facilities are managed to protect the health and safety of visitors; to protect natural, cultural, and other resources; to encourage public enjoyment of public lands; and to resolve user conflicts. All developed recreation sites within DMRA will continue to be closed to firearm use.

A range of outdoor recreation opportunities such as hiking, camping, rock collecting, sight seeing, hunting, recreation vehicle camping, mountain bicycling, climbing, picnicking, and recreation 4-wheeling, will continue to be provided. Developed recreation sites, interpretive sites, trails, and roads will continue to be maintained and developed where needed to enhance recreation opportunities and allow public use (refer to Chapter 3 for a discussion of existing sites and facilities).

BLM manual guidance (BLM Handbook H8310-1) sets up the Recreation Opportunity Spectrum (ROS) in which lands are classified as urban, rural, roaded-natural, semi-primitive motorized, semi-primitive nonmotorized, and primitive. DMRA was classified under ROS in 1989. Potential impacts to these ROS classifications are analyzed in an environmental review by BLM for planned activities. Special protection measures or construction methodologies may be required so the ROS classification remains unchanged.

Only nonmotorized activities will take place within the semi-primitive, nonmotorized areas. These areas would be closed to OHV use and motorized surface-disturbing activities (e.g., heavy motorized equipment).

The Bureau has placed emphasis on the recreational opportunities with the "Recreation 2000" and the "Legacy 99" programs. These programs deal with expanding the recreational opportunities on public lands to meet the needs of the public, and with upgrading and maintaining existing facilities.

If cave resources are identified on public lands, appropriate action will be taken to inventory and protect them from damage.

RIPARIAN MANAGEMENT

Legal authority for BLM management of riparian areas is based on numerous laws and Executive Orders, including the Taylor Grazing Act of 1934, Endangered Species Act of 1973, FLPMA, the Emergency Wetland Resources Act of 1986, Water Quality Act of 1987, Clean Water Act of 1987, Executive Order 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands). On January 22, 1987, BLM issued its national riparian area management policy which defined the term riparian area, set management objectives, and outlined specific policy direction. This policy is the basis for BLM Manual 1737 (Riparian-Wetland Area Management), the Bureauwide "Riparian-Wetland Initiative for the 1990s" and the 1988 BLM Utah and Vernal District riparian policies (see Appendix 6).

The overall objective is to achieve an advanced (late-climax seral stage) ecological status, except where resource management would require an earlier ecological status for such purposes as vegetation diversity.

In addition, BLM's strategy plans outline seven implementation strategies to meet the objective:

- Inventory/Classification. Collect, compile, and evaluate baseline information to determine current status, potential, and condition.

- Activity Plan Preparation/Revision. Develop/revise plans that involve riparian-wetland areas prescribing actions to meet management objectives. The goal of the program is to implement management, protection, and restoration efforts to achieve 75 percent or more

of the riparian ecosystems in a late seral or potential natural stage by the year 2007.

- Project Development/Maintenance. Complete projects such as fences, water developments, tree planting, and habitat improvement structures to create, improve and/or maintain riparian-wetland conditions. Maintain projects to continue their beneficial use.

- Monitoring. Monitor to determine if management action is meeting specific objectives for riparian-wetland areas.

- Protection/Mitigation. Avoid or mitigate the impact of surface-disturbing activities on riparian-wetland areas. Riparian habitat will be protected by limiting surface-disturbing activities to established right-of-way corridors and crossings and by restricting grazing. Where grazing is allowed on riparian areas, the objective is to maintain an average minimum herbage stubble height of 3 inches after livestock grazing to provide sufficient herbaceous biomass to meet requirements of plant vigor, maintenance, bank protection, and sediment entrapment. Cottonwood and willow growth along major riparian areas and other water sources is targeted for restoration and reestablishment.

- Acquisition/Expansion. Acquire and expand riparian-wetland areas through exchange, donation, or purchase as opportunities arise.

- Public Outreach. The development and presentation of workshops to the citizens of Utah including school children, livestock interests, and conservation groups. The intent of the workshops will be to educate the public and to gain their support for BLM riparian management efforts.

These strategies will be implemented on an interdisciplinary team basis. Since numerous highly valued resources depend on riparian-wetlands, it is important that specialists such as hydrologists, wildlife biologists, soil scientists, range conservationists, and recreation planners work cooperatively to develop management strategies to allow areas to be used and yet meet the identified objective.

DMRA will continue working with the Uintah Basin Riparian Coalition (a chapter of the Utah Riparian Coalition). This organization's major goal is to provide a forum for discussion, education, and consistent consideration of the impacts of riparian management.

SOIL AND WATER MANAGEMENT

Several laws provide authority for managing soil and water on public land. FLPMA requires that public lands be managed to protect scientific, environmental, and water resources. It also requires land use plans to comply with pollution control laws, including state and federal water or other pollution standards.

FLPMA requires compliance with the Soil Conservation and Domestic Allotment Act of 1935; the Watershed Protection and Flood Control Act of 1954; the Colorado River Basin Salinity Control Act of 1974; Wild and Scenic Rivers Act of 1968; the Federal Pollution Control Act of 1972, as amended; Water Quality Act of 1987; and the Safe Drinking Water Act of 1977; and the Federal Manual for Identifying and Delineating Jurisdictional Wetlands subject to Section 404 of the Clean Water Act of 1987. BLM Manual 7000 and several executive orders provide field guidance in managing soil and water.

Soils

Management practices will be designed to meet vegetation standards which maintain or improve watershed conditions. Mitigation will feature upgrading maintenance of existing BLM roads, closing and rehabilitating roads no longer necessary, maintaining or increasing vegetation cover or construction of erosion control structures where possible to reduce critical erosion conditions. New roads will be constructed to standards that will maintain or improve watershed conditions.

Activity plans will be written for areas having moderate to critical erosion conditions or other problems and where more attention is needed than is provided through other program activity plans. Currently, plans exist for the Pariette Wetlands, the Red Creek Watershed, and the Castle Peak Salinity Reduction Project.

Executive Order 11988 directs federal agencies to "avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development whenever there is a practicable alternative" (44 CFR 60, 1978).

Water

Objectives of the water resource program are: to ensure the physical presence and legal availability of water on

public lands, to ensure that those waters meet or exceed established federal and state water quality standards for specific uses, and mitigate activities to prevent water quality degradation.

The water resource program is divided into four sections: Water Inventory, Water Rights, Water Quality, and Water Power Inventory.

Water Inventory. Current BLM policy is to inventory all water sources on public lands it administers and to document and store this data in its Watershed Data Management System. The objective in DMRA will be to complete the data base and keep it up-to-date and accurate, giving priority to water sources associated with riparian areas.

Water Rights. Current BLM policy is to file for water rights on all water sources on public and acquired lands in accordance with State of Utah water laws. Special emphasis will continue to be placed on securing instream flow water rights for selected streams. BLM will continue to file for water rights for recreation use, riparian habitat, watershed protection, wildlife, livestock, and other uses. Water right acquisition will be made from willing sellers and in accordance with Utah state laws.

Water Quality. Water quality will be monitored to assess resource impacts from specific activities and to obtain baseline resource information. Areas receiving priority for monitoring include riparian areas, recreational sources, and critical watersheds. Produced water from oil and gas wells will continue to be disposed of by authorized method which could include injection, removal to nonfederal disposal pits, or onlease disposal pits.

The Colorado River Basin Salinity Control Act of 1974, as amended, directs the U.S. Department of the Interior to identify necessary improvements and to develop a program to reduce salinity and water pollution in waters obligated to Mexico.

Watershed condition will be maintained or improved by application of Best Management Practices (BMPs) using current Utah State Water Quality Standards for turbidity and total suspended solids. Instream flows on perennial or intermittent drainages will be maintained or enhanced to protect fishery values. Sediment and salinity production will be reduced on important watersheds and critical soils through intensive management and construction measures to reduce water degradation of the Green and Colorado Rivers. BLM will continue to work closely with the U.S. Fish and Wildlife Service, the Bureau of Reclamation, and the U.S. Geological Survey in monitoring boron and selenium levels at problem areas on BLM-administered lands, implementing Best Management Practices and solutions to mitigate water quality problems and meet resource objectives. The Middle Green River Basin Study and EIS is being conducted by these agencies covering the lower Ashley Creek and Stewart Lake complexes. Protection of water rights and water power withdrawals will be provided to meet water quality standards.

BLM manages non-point sources of pollution as defined by Section 319 of the Water Quality Act of 1987 (P.L. 100-4). Utah's Department of Environmental Quality, Division of Water Quality, is designated by the Environmental Protection Agency (EPA) to coordinate management of non-point source pollution control on public lands in Utah. The Division of Water Quality reports water quality status to EPA annually. The BLM Non-point Management Strategy calls for design and selection of practices that protect beneficial uses, application of practices, monitoring, evaluation of effectiveness, mitigation of problems, and adjustment of practices (see Figure 2-1). Specific Best Management Practices that will be applied to management activities on controlling non-point pollution are "state-of-the-art" practices for each resource program described in current BLM handbooks and manuals. The State of Utah's Non-Point Source Management Plan will be used as a standard to reduce potential non-point impacts. This strategy is incorporated into BLM management plans through mitigating measures identified in project planning and NEPA review. BLM will coordinate with the Division of Water Quality (refer to Appendix 9 for current water quality standards).

Water Power Inventory. BLM will inventory all water power and reservoir resource values on public lands. Lands identified as having water power values (as defined by the objectives of the RMP) will be protected by a water power withdrawal. Lands already withdrawn that lack water power values or are inconsistent with the objectives of the approved RMP will be reviewed and recommended for termination.

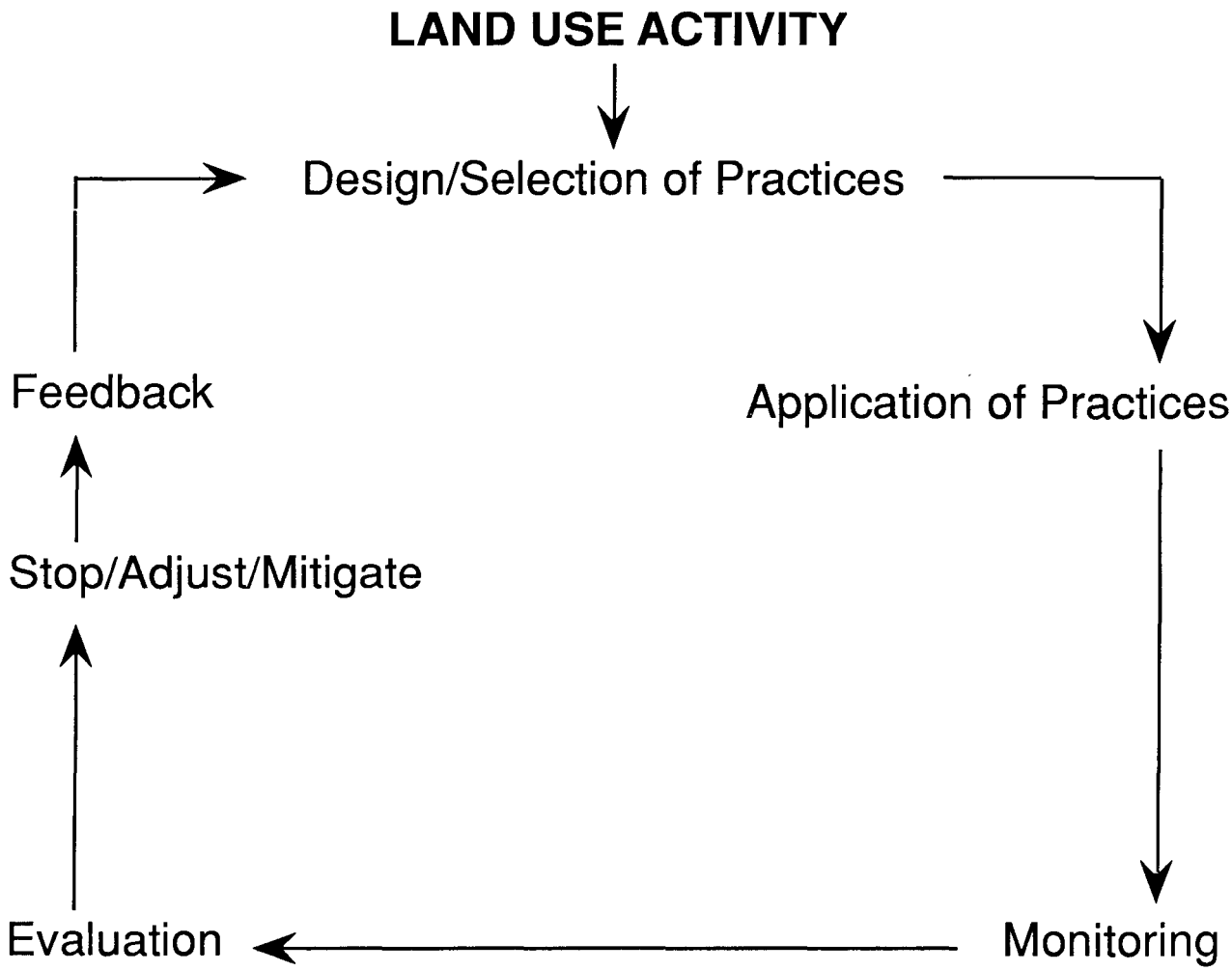
SPECIAL EMPHASIS MANAGEMENT AREAS

The Diamond Breaks and West Cold Springs WSAs will be managed under the guidance of the Bureau's Interim Management Policy until formally designated by congress or dropped from further consideration.

When a river segment is determined suitable for possible inclusion in the National Wild and Scenic River System and given a tentative classification (i.e., wild, scenic, and/or recreational), its identified outstandingly remarkable values will be afforded adequate protection,

FIGURE 2-1

BLM NON-POINT POLLUTION SOURCE STRATEGY



subject to valid existing rights. Until the suitability determination is superseded, management activities and authorized uses will not be allowed to adversely affect either suitability or the tentative classification (BLM Manual 8351.32).

Coordinated resource management or activity plans will be prepared on all ACECs designated in the RMP.

VEGETATION RESOURCES

Vegetation treatment will be implemented where plant species diversity, watershed conditions and forage production are below potential; to achieve a desired ecological stage or plant community; to control noxious weed or insect infestations; or to meet activity plan objectives. Such treatments include mechanical treatments (chaining), chemical treatment (herbicide applications), biological treatments (grazing), prescribed fire, reseeding, and construction of control structures (see Appendix 8). Vegetation treatment projects will be subject to NEPA review prior to initiating any action and will be guided by the Bureau's 1991 Vegetation Treatment EIS.

Temporary adjustments in use due to effects of drought would be made to livestock and/or wildlife as shown needed by monitoring.

Vegetation resources will be managed according to desired ecological stages or plant communities by allotment at the activity plan level.

Special Status Plant Species

General guidance governing management of the 14 special status plant species is the same as that outlined for special status animals in the "Fish and Wildlife" section outlined earlier in this chapter.

Actions proposed in this RMP adhere to objectives stated in the *Sclerocactus glaucus* (Uinta Basin hookless cactus) recovery plan (USF&WS, 1990). No recovery plans exist for other listed plant species within the resource area. However, actions in this plan consider the protection and recovery of these species and their habitats. When revising or developing resource activity plans, specific objectives and actions stated in the recovery plans will be incorporated.

VISUAL RESOURCES MANAGEMENT

The Federal Land Policy and Management Act (FLPMA) directs BLM to manage public lands to protect scenic values. BLM manual guidance sets up visual resource management (VRM) Classes I through IV, and provides criteria for what type of changes may occur within each class. DMRA was classified for VRM in 1979. The policy is to design all visual intrusions to maintain or enhance the area's designated VRM classification.

Potential impacts to visual resources will be analyzed in an environmental review by BLM for each project. Protection measures may be stipulated in the decision record of the environmental assessment or impact statement so that the VRM classification remains unchanged. It is the objective of the plan to improve the visual quality of the landscape.

WOODLANDS

DMRA's woodlands program is managed under the principles of multiple use and sustained yield without permanent impairment of the productivity of the land and the quality of the environment.

The amended Material Disposal Act of 1947 provides authority to dispose of timber and forest products. Surface-disturbing activities will be subject to the NEPA process and clearance and compliance with the National Historic Preservation Act and Endangered Species Act.

Woodland treatments and harvests will continue to be designed in a mosaic pattern, leaving inclusions of live and dead trees within treated or harvested areas. Irregular boundaries of treatment and harvest areas will be required to reduce the detrimental impacts to the scenic values.

In periods of low vegetation or seed production, the resource area will be closed to the collection of seeds, pinenuts, ornamental trees, shrubs, and non-barrel cactus. Collection of barrel cacti species will not be permitted.

DESCRIPTIVE SUMMARIES OF THE PROPOSED PLAN AND ALTERNATIVES

The proposed plan and alternatives presented here provide solutions to the planning issues presented in Chapter 1. The proposed plan is developed primarily from Alternative E, described and analyzed in the draft RMP/ EIS. However, the proposed plan also includes some changes and/or wording clarifications to Alternative E based on analysis of public and BLM management comments of the draft RMP/EIS. Any proposed decisions that are changes from the Alternative

E are within the range of alternatives presented and analyzed in the draft RMP/EIS.

Each alternative plan provides a complete multiple-use plan, and reasonable and feasible management decisions within reasonable budgetary limits, although each has a different focus. Each alternative is subject to all applicable laws, executive orders, and regulations, and to the continuation of valid rights for use of the public lands or resources. The public, including the Ute Tribe, state, and federal agencies, were invited to provide comments and suggestions for consideration in developing the alternative plans, and thus the proposed plan.

As discussed in the Summary at the beginning of this document, the proposed plan and alternatives were designed using the management priority area concept.

The priority areas, levels 1 through 4, were developed by combining various areas, features, and mapped resources that would require a specific level of management under that alternative's objectives. The amount of land contained in each priority level and the percentage of the whole for the proposed plan and each alternative are displayed in Tables 2-1 and 2-2.

As you read the proposed plan and each alternative description, please refer to their associated map(s) located in their respective map packets. The descriptions follow the format listed below:

- Management Theme. The management theme gives overall direction to the decisions and provides direction for addressing unforeseen proposals.
- Management Priority Areas. This section provides a listing of the resources or resource values used to map the management priority areas, levels 1 through 4.
- Decision Summary. This section briefly summarizes the land use allocations, decisions, and objectives proposed for the proposed plan or each alternative. A detailed outline of all major decisions for public lands, other than special emphasis areas, for the proposed plan and alternatives is found in Table 2-15. For proposed special emphasis areas decisions, see Table 2-16; for alternative special emphasis areas decisions, see Tables 2-17 through 2-20.
- Support Needs. These are the major follow-up actions necessary to implement the proposed plan or alternative. The support needs will help guide BLM budgeting and programming.

TABLE 2-1:
MANAGEMENT PRIORITY AREAS BY PROPOSED PLAN AND ALTERNATIVE (SURFACE ACRES)

	Proposed Plan		A		B		C		D	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Level 1	6,900	1	0		96,000	13	0	0	0	0
Level 2	82,800	12	44,400	6	318,600	45	10,500	1	4,500	<1
Level 3	507,200	71	343,000	48	210,300	30	678,000	96	520,200	73
Level 4	112,100	16	321,600	46	84,100	12	20,500	3	184,300	26
TOTAL	709,000	100	709,000	100	709,000	100	709,000	100	709,000	100

Source: Vernal District Geographical Information System (GIS)

TABLE 2-2:
MANAGEMENT PRIORITY AREAS BY PROPOSED PLAN AND ALTERNATIVE (SURFACE AND SUBSURFACE ACRES)

	Proposed Plan		A		B		C		D	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Level 1	8,500	1	0	0	113,000	13	0	0	0	0
Level 2	86,600	10	56,500	7	354,500	42	12,600	1	6,600	1
Level 3	593,000	70	374,500	44	262,100	30	774,700	91	588,200	69
Level 4	165,900	19	423,000	49	124,400	15	66,700	8	259,200	30
TOTAL	854,000	100	854,000	100	854,000	100	854,000	100	854,000	100

Source: Vernal District Geographical Information System (GIS)

PROPOSED PLAN

Management Theme

This plan is formulated principally from Alternative E as presented in the draft RMP/EIS. Like Alternative E, this plan will provide for the development of resources while protecting or enhancing environmental values. Priority will be given to special emphasis areas, while allowing development and use of resources on as much of the resource area as possible. As with Alternative E, this plan consists of a mix of certain management objectives from the other alternatives, taking public and management comments on the draft RMP/EIS into consideration.

Management priority levels for the proposed plan only have been translated into fluid and solid mineral leasing categories and OHV use designations (refer to Map Packets #8, 9 and 10 respectively). The combination of resource value and management priority area level results in levels of management protection (e.g., restrictions). These restrictions are the foundation of the mineral leasing categories and OHV use designations. As discussed at the beginning of this chapter, management priority area levels have been translated or refined to present the specific implications of a management decision into existing mineral leasing categories or OHV use designations. Table 2-3 defines those specific resource values within management priority levels 1, 2, or 3, with its resultant mineral leasing category and OHV use designation.

Management Priority Areas

Level 1 (Most Restrictive Management).

6,900 surface acres
1,600 federal split estate acres
8,500 surface and subsurface acres

- Upper Green River and its floodplain
- Relict vegetation communities at Castle Cove, Lears Canyon, and Red Mountain
- Developed recreation sites

Level 2 (Careful Management).

82,800 surface acres
3,800 federal split estate acres
86,600 surface and subsurface acres

- Riparian habitat in Browns Park, excluding the Green River, (330-foot protective buffer)
- Crucial deer winter habitat in Browns Park
- Line-of-sight up to a half-mile on the Upper and Lower Green River segments
- Sage grouse strutting grounds (with a 1,000-foot buffer)
- Sites eligible for or listed on the National Register of Historic Places
- Desolation Canyon National Historic Landmark
- John Jarvie National Historic Site
- Semi-primitive non motorized areas
- Special status plant species habitat (federally-listed species)

TABLE 2-3:
COMPARISON OF MANAGEMENT
PRIORITY AREA LEVELS TO MINERAL CATEGORIES
AND OHV USE DESIGNATIONS

RESOURCE VALUE	MPA LEVEL	SOLID MINERAL CATEGORY 1/	OIL & GAS CATEGORY	GEOPHYSICAL CONDITIONS	OHV USE DESIGNATION
Upper Green River Floodplain	L1	C4	C3	CSSDA	Limited Yearlong
Relict Vegetation Communities	L1	C4	C3	CSSDA	Limited Yearlong
Developed Recreation Sites	L1	C4	C3	CSSDA	Limited Yearlong
Riparian Habitat in Browns Park, Excluding Green River	L2	C4	C3	CSSDA	
Crucial Deer Winter Habitat in Browns Park	L2	C4/2 2/	C3	CSSDA	Limited Seasonally
Line-of-Sight up to 1/2 mi. on Upper and Lower Green River	L2	C4/2	C3	CSSDA	Limited Yearlong
Potential Recreation Sites	L2	C4	C3	CSSDA	
Sage Grouse Strutting Grounds	L2	C4	C3	CSSDA	Limited Yearlong
Listed or Eligible on National Register of Historic Places	L2	C4/2	C3	CSSDA	Limited Yearlong
Desolation Canyon NHL	L2	C4/2	C3	CSSDA	Closed
Semi-Primitive Nonmotorized Areas	L2	C4	C3	CSSDA	Closed
Federally-Listed Plant Species Habitat	L2	C4/2	C3	CSSDA	Limited Yearlong
Pelican Lake and SRMA	L2	C4	C3	CSSDA	Limited Yearlong
Nest Sites for Special Status Raptor Species	L2	C4	C3	CSSDA	
Goose Nesting Sites at Pariette & Waterfowl Habitat	L2	C4	C3	CSSDA	Limited Yearlong
Red Mountain Potential Recreation Site	L2	C4	C3	CSSDA	Limited Yearlong
Dry Fork-Ashley Creek Area within Red Mountain-Dry Fork ACEC	L3	C4	C2	SR	
Remaining Floodplains	L3	C2	C2	SR	Limited Seasonally
Remaining Riparian Areas	L3	*	*	SR	Limited Seasonally
Crucial Sage Grouse Nesting Areas	L3	C2	C2	SR	Limited Seasonally
Municipal Watersheds	L3	C2	C2	SR	Limited Seasonally
Critical Soils	L3	C2	C2	SR	Limited Seasonally
Eight Mile Flat Potential Black-Footed Ferret Site	L3	C2N 3/	C2N	SR	
High Potential Paleontology Areas	L3	C2N	C2N	SR	
Critical Winter Rutting Bighorn Sheep Areas	L3	C2N	C2N	SR	Limited Seasonally
Critical Lambing Bighorn Sheep Areas	L3	C2	C2	SR	Limited Seasonally
Antelope Fawning Areas on Antelope Flat	L3	C2	C2	SR	Limited Seasonally
Habitat for Special Status Raptor Species	L3	C2N	C2N	SR	
Crucial Elk and Deer Winter Range	L3	C2	C2	SR	Limited Seasonally
VRM Class II Areas	L3	C2	C2	SR	
Special Status Plant Species (including Pariette)	L3	C2N	C2N	SR	Limited Seasonally

1/ Includes "Gilsonite", phosphate and mineral materials
2/ C4/2 - Solid leasable category 4; mineral material case-by-case
3/ C2N - Category 2 receive lease notice

CSSDA - Closed to significant surface disturbing actions
SR - Special restrictions
* - Riparian values will be protected wherever it occurs according to Utah State Policy.

- Pelican Lake and Special Recreation Management Area
- Active nest sites with buffers for raptor species: Bald eagle, Ferruginous hawk, peregrine falcon, and golden eagle.
- Goose nesting sites at Pariette, with a 1/8 mile buffer and waterfowl nesting habitat
- Red Mountain Potential Recreation Area

Level 3 (Active Management).

507,200 surface acres
85,800 federal split estate acres
593,000 surface and subsurface acres

- Dry Fork to Ashley Creek area within Red Mountain-Dry Fork ACEC Complex
- Floodplains and riparian habitat outside Browns Park (330-foot buffer)
- Crucial sage grouse nesting habitat (2-mile radius of strutting grounds within sagebrush vegetation types)
- Municipal watersheds
- Critical soils
- Eight Mile Flat potential black-footed ferret reintroduction area
- High potential paleontological resources
- Existing and potential bighorn sheep reintroduction areas, including lambing areas
- Antelope fawning areas on Antelope Flat
- Crucial deer and elk winter habitat
- Habitat for raptor species: Bald eagle, Ferruginous hawk, peregrine falcon, golden eagle
- VRM Class II areas
- Special status plant species habitat

Level 4 (Open Management).

112,100 surface acres
53,800 federal split estate acres
165,900 surface and subsurface acres

- All remaining BLM-managed lands and resources

Decision Summary for the Proposed Plan

Like Alternative E, the proposed plan will continue the two existing ACECs and designate five new ACECs: Red Creek and the Green River Scenic corridor ACECs, and Browns Park Complex, Lears Canyon, Lower Green River, Nine Mile Canyon, Pariette Wetlands, and Red Mountain-Dry Fork Complex Areas. These ACEC nominations are consistent with the general management objectives for the proposed plan. Refer to Table 2-16 for proposed management prescriptions for these ACECs.

The decision to recommend designation of the Upper Green River for inclusion in the National Wild and Scenic River System as a scenic river will be continued. This is in support of a recommendation made in the "Wild and Scenic River Study and Environmental Statement of the Green and Yampa Rivers" published by the National Park Service in 1980. In 1983, a decision by the Secretary of the Interior concurred with the findings in the 1980 study, but delayed formal designation of the river until several key issues could be resolved. All of these issues were downstream issues and should not affect a recommendation to designate the Upper Green River segment. It will also support a decision in the Ashley National Forest "Forest Plan" that states the forest will "Encourage placing of the river into the Wild and Scenic River classification that is appropriate."

This decision to recommend designation will provide Congress the opportunity to view the entire river segment between Flaming Gorge Dam and the Utah State line as one entity in any designation decision. It will also put BLM on equal footing with the Forest Service when a determination is made to go forward with a recommendation for designation of the river.

The Lower Green River, from the public land boundary south of Ouray, Utah, to the Uintah-Carbon County line will be determined to be suitable for designation into the National Wild and Scenic River System as a scenic river. Any decision to recommend designation will be delayed and made concurrently with a decision to recommend, or not recommend, designation on the adjoining Desolation Canyon segment in the Price River Resource Area of the Moab District. This will also allow time to more fully consider the concerns expressed by the Ute Tribe on the potential effect of designation on their water rights in the Green River.

Utility corridors will be established in the resource area as depicted on the proposed plan's management priority area map (see Map Packet #3). A change from Alternative E is the deletion of the McKennan Corridor in the extreme northwest corner of the resource area. This decision was made as most of this area within the resource area involves split estate lands. A pass-through will be established near the head of Little Swallow Canyon on level 1 lands in Browns Park where four pipelines currently cross the Green River. In response to public comments, rights-of-way will be encouraged to cross the lower Green River in the Four Mile Bottom area on level 2 lands, where an existing pipeline currently crosses the river. Other proposals involving crossing the lower Green River will be considered on a case-by-case basis.

Withdrawals will be recommended on proposed Wild and Scenic River segments on the Green River and in developed and potential recreation areas (totalling 32,300 public acres). Until these lands are withdrawn, mining entries on ACECs and Wild and Scenic River suitable waters would require a plan of mining operations, except for casual use. Development will be restricted by stipulations designed to protect the river segment and recreation site values from undue and unnecessary degradation within the parameters of the 1872 General Mining Law.

Fee title and interests in lands (e.g., water rights) will be acquired with priority placed on inholdings or lands adjacent to special emphasis areas or lands containing high resource values (level 1, 2, and 3 lands). Legal access, either motorized or non motorized will be acquired to inaccessible public lands or through private/state lands containing existing transportation routes. Access through private lands or private lands involved in land ownership transactions will be acquired from willing givers or sellers.

Under the proposed plan, the objective is to continue current livestock grazing preference at 50,299 AUMs and provide a maximum of 40,000 AUMs of wildlife forage, unchanged from Alternative E. Approximately 50 percent of the current year's growth will be reserved for maintaining plant vigor and production, vegetation community stability, maintaining/improving soil and watershed conditions, and providing habitat and cover for wildlife.

Livestock grazing would be allowed on 704,500 public acres (99 percent of the resource area). Developed recreation sites, and relict vegetation communities will be closed to livestock grazing (4,500 acres within level 1 lands). Occasional livestock grazing may be allowed within the Upper Green River Corridor for the purposes of noxious weed control and/or crucial deer winter habitat maintenance only if such use is controlled, short-duration, and does not detract from the recreation and/or riparian values along the river.

Oil and gas program activities will be allowed on 20 percent of the resource area (includes both surface and federal subsurface acres) with standard restrictions and on 69 percent of the resource area with special restrictions. Special restrictions involve seasonal closures due to wildlife, soils, and watershed concerns. Approximately 11 percent of the resource area will be open to leasing with a no-surface-occupancy stipulation or other highly restrictive stipulation to protect riparian, scenic, wildlife, or special status plant species. Based on public comments received on the draft document, that area between Ashley Creek Gorge and Dry Fork Creek in the Red Mountain-Dry Fork ACEC would be closed to phosphate exploration and development. Table 2-4 depicts the category assignments proposed by this plan. Refer to the proposed oil and gas leasing category map provided in Map Packet #8.

TABLE 2-4:
OIL & GAS CATEGORY ASSIGNMENTS
BY POTENTIAL FOR PROPOSED PLAN

Management Categories	Low Potential	Moderate Potential	High Potential	Total	%
OPEN (Category 1) Standard Stipulations	68,100	68,500	31,100	167,700	20
OPEN (Category 2) Timing Limitation/ Controlled Surface Use Stipulations	115,500	279,100	196,400	591,000	69
OPEN (Category 3) No Surface Occupancy Stipulations	40,200	41,100	14,000	95,300	11
TOTALS	223,800	388,700	241,500	854,000	100

Source: Vernal District GIS

Exploration, leasing, and development of other leasable minerals and disposal of mineral materials would be allowed on 20 percent of the resource area with standard stipulations; on 68 percent of the resource area with special restrictions; and would not be allowed on 12 percent of the resource area. Approximately 81 percent of the resource area would be open, and 19 percent of the resource area would be closed to mineral entry.

Recreation management decisions in the proposed plan would be essentially unchanged from Alternative E. The resource area will be managed to provide a variety of dispersed recreation opportunities. Recreation management emphasis will include: developing approximately 35 miles of trails for hiking, mountain bicycles and horseback riding; designating scenic byways; and interpreting natural and cultural resources. Other recreation facilities identified include: developing five new facilities (near Jones Hole, Brough Reservoir, Red Mountain, Cottonwood Grove, and Horseshoe Bend), expanding Dry Fork Canyon site, and maintaining Sand Wash at its present size. Identified potential recreation areas will be developed on a "primitive" level, i.e., providing fire rings and/or chemical toilets, as needed. In response to public comments, the Red Mountain recreation area has been delineated.

The Pelican Lake SRMA will continue to be managed to support the water-related recreation activities at the lake.

The developed recreation site will be expanded to serve anticipated increased users. The Browns Park SRMA will continue to be managed to provide for a variety of recreation opportunities and to protect the unique wildlife and scenic values found there.

The recent study entitled "Recreation Use Capacity of the Green River Corridor Below Flaming Gorge Dam" (Pratt, et al., 1991) has determined use will continue to increase and present facilities may not be sufficient. In response to this study, the proposed plan will develop recreation facilities at Cottonwood Grove; expand existing facilities at Bridge Hollow and Indian Crossing; maintain Pugmire Pocket, Red Creek, and Swallow Canyon facilities at their present size; and allow development of limited recreation facilities at identified potential sites as needed to protect health and human safety.

In the Proposed Plan, 299,600 acres will be open to OHV use and 364,200 acres will be limited to OHV use with seasonal or yearlong restrictions to designated roads and trails. Approximately 45,200 acres will be closed to OHV use. Refer to the proposed plan's interim OHV map provided in Map Packet #10. Table 2-5 provides a breakout of the acres and OHV use designations.

Two changes were made in the proposed plan involving OHV use. Approximately 960 acres on the east side of Red Mountain, that were limited seasonally to designated roads and trails, will now be limited yearlong to designated roads and trails. In addition, 3,800 acres south of Red Mountain that were limited seasonally (December 1 through April 30) to designated roads and trails, will now be limited seasonally ((December 1 through March 31) to designated roads and trails. These changes were made in response to public comments received on the draft RMP.

Riparian and floodplain decisions will remain unchanged from Alternative E under the proposed plan. New surface-disturbing activities and OHV use will be halted during periods of saturated soils (usually the spring and fall, the time most conducive to sediment loading).

Wildlife habitat will be protected and/or enhanced by implementing seasonal closures in specific areas for specific wildlife species. Vegetation treatments will be designed and implemented on 22,950 federal acres to provide additional forage and/or enhance habitat qualities.

Identified habitat determined suitable or having potential as wildlife transplant or reintroduction areas would be maintained until a specific release proposal was received from UDWR or USF&WS. Site-specific analyses will be prepared to evaluate the impacts of the proposed release on other wildlife species and resource programs.

TABLE 2-5:
DIAMOND MOUNTAIN RESOURCE AREA
OFF HIGHWAY VEHICLE DESIGNATIONS

ACRES	RESTRICTIONS
709,000	This is total surface public acres
299,600	Open to year round OHV use.
45,200	Closed to year round OHV use; to protect primitive and natural areas.
36,400	Limited OHV use year round to Designated Roads and Trails; to protect relict vegetation, scenic, and recreation values, riparian areas and sage grouse leks.
327,800	Limited OHV use seasonally to Designated Roads and Trails as specified below:
67,300	March 1 thru April 30 and September 1 thru October 31; to protect critical soils
24,500	April 15 thru June 30; to protect threatened and endangered plants
140,500	December 1 thru April 30; to protect crucial deer and elk wintering areas
3,800	December 1 thru March 31; to protect crucial deer and elk wintering areas
7,100	December 1 thru April 30 and September 1 thru October 31; to protect crucial deer and elk wintering areas and critical soils
18,900	December 1 thru June 30; to protect crucial deer and elk wintering areas, sage grouse nesting areas, and antelope fawning areas
4,700	September 1 thru June 30; to protect crucial deer and elk wintering areas, and bighorn sheep wintering, rutting and lambing areas
55,600	March 1 thru June 30; to protect sage grouse nesting areas
2,600	March 1 thru June 30 and September 1 thru October 31; to protect threatened or endangered plants and critical soils
36,400	May 1 thru June 30; to protect antelope fawning areas

Source: Vernal District GIS

The management decision proposed for the possible future reintroduction of black-footed ferrets is changed from Alternative E. The proposed plan will maintain 16,600 acres of potential habitat in Eight Mile Flat by avoiding any activities that will render the potential habitat unsuitable for future reintroductions. In the

meantime, biological studies will be completed on all five potential reintroduction areas (i.e., Eight Mile Flat, Twelve Mile Flat, Shiner, Antelope Flat, and Sunshine Bench).

Based on these studies, only one site will be selected for an experimental non-essential reintroduction. This one area will be protected as the resource area's final reintroduction area. Should Eight Mile Flat not be selected as the reintroduction area, the protective actions will be withdrawn. (Refer to Appendix 2 for the management guidelines regarding black-footed ferrets.)

Except for areas under specific fire management prescriptions, all wildfires in DMRA will be aggressively suppressed.

The allowable wood cut of 3,700 cords per year remains unchanged from Alternative E.

Seasonal restrictions established for the protection of various resources listed as level 3 lands under the proposed plan are summarized in Table 2-6.

Support Needs

There are two levels of planning decisions: RMP and activity plan decisions. Those made in the RMP are general planning decisions. They provide overall guidance for resource use and allocation. Activity plans are site-specific and identify management actions needed to meet RMP objectives. For example RMP decisions designate Areas of Critical Environmental Concern (ACECs) and establish general objectives for their management. Specific actions needed to meet those objectives will be established in ACEC management plans.

Since many site-specific actions will be required to meet RMP objectives, environmental review will be an ongoing part of the RMP implementation process. When site-specific actions or projects are proposed, site-specific environmental reviews will be conducted to analyze environmental impacts. These subsequent environmental analyses will comply with the requirements of the National Environmental Policy Act of 1969 and include appropriate public participation. The decision to allow or deny a specific action or project will be based on the environmental review process.

The following are activity plans needed to implement the decisions outlined in the proposed plan:

- A general cultural resource management plan for the resource area.
- Specific cultural resource management plans for: the Browns Park Complex, the Red Mountain-Dry Fork Complex areas, and the Nine Mile Canyon Area (prepared jointly with Moab District).
- A Habitat Management Plan for Nine Mile Canyon. Revise and update the existing and continuing plans as necessary: Browns Park, Myton, and Diamond Mountain-Ashley Creek.

TABLE 2-6:
PROPOSED PLAN SEASONAL RESTRICTIONS
TO SURFACE DISTURBING ACTIVITIES

RESOURCES PROTECTED	MONTHS RESTRICTION IS APPLIED											
	J	F	M	A	M	J	J	A	S	O	N	D
Crucial deer and elk winter range	X	X	X	X								X
Antelope fawning areas					X	X						
Sage grouse nesting habitat			X	X	X	X						
Bighorn sheep lambing areas				X	X	X						
Bighorn sheep wintering and rutting habitat	X	X	X	X	X	X			X	X	X	X
Highly erosive and high saline soils			X	X					X	X		
Floodplains			X	X					X	X		
Black-footed ferrets - when reintroduced			X	X	X	X	X	X				
Special Status Plant Species Habitat				X	X	X						

Source: Table 2-18

- Specific activity plans for the federally-listed animal and plant species currently without a recovery plan: Razorback sucker, *Spiranthes diluvialus, Schoencrambe suffrutescens,* and *Schoencrambe argillacea.* The overall objective being to manage the habitat to the level where delisting is deemed appropriate.

- New allotment management plans for: Antelope Powers, Big Wash Draw, Brush Creek, Clay Basin Meadows, Eight Mile Flat, Five Mile, McFarley Flat, Shiner, Diamond Mountain, and Willow Creek. Revise existing AMPs covering Cottonwood Springs, Goslin Mountain, Horseshoe Bend, Hoy Mountain, Little Desert, Red Creek Flat, S.J. Hatch, Taylor Flat and Wetlands Allotments.

- Activity plans for the ACECs proposed under this plan: Browns Park Complex, Red Mountain-Dry Fork Complex, Pariette, Lower Green River, Nine Mile Canyon, and Lears Canyon. Revise, as necessary, the existing Red Creek Watershed ACEC activity plan.

- A new river corridor management plan for the upper Green River in cooperation with the river's other managing agencies.

- Revise existing SMRA recreation management plans as necessary and develop recreation management plans for the Red Mountain-Dry Fork Complex area. Prepare an interpretive plan for the designated Nine Mile Back-country Byway.

Other support needs or actions that will require environmental review include:

- Wildlife reintroductions and transplants, involving coordination with USF&WS, UDWR and other agencies or groups as appropriate.

- Enhance overall vegetation production and diversity to meet wildlife, soils and watershed management objectives by treating approximately 22,950 public acres over a 15-year period.

- Classify lands, as necessary, for solid leasable minerals.

- Prepare an Implementation and Monitoring Plan for the RMP based on the following guidance.

ALTERNATIVE A (Current Management)

Management Theme

This alternative is a continuation of current management, including current level, intensity, direction, or systems of resource use and protection. It is not a static condition or point in time, but allows for logical progression following current management guidelines. Management direction is primarily from the Ashley-Duchesne, Browns Park, and Diamond Mountain Management Framework Plans (MFPs) and subsequent decisions in EAs or EISs (listed in the "Planning Criteria" section of Chapter 1 of this document).

Management Priority Areas

The management priority areas were mapped using the current MFP decisions combined with the existing category system for oil and gas leasing and special tar sand areas.

Level 1 (Most Restrictive Management).

- No lands identified.

Level 2 (Careful Management).

44,400 surface acres
12,100 federal split estate acres
56,500 surface and subsurface acres

- Upper Green River (up to ½ mile or line of sight)
- John Jarvie National Historic District
- Developed recreation sites (Pelican Lake, Dry Fork, Bridge Hollow, Indian Crossing, Red Creek, Sand Wash, and Swallow Canyon)
- Rainbow Park road
- Sage grouse strutting grounds
- Riparian habitat and water sources (includes a 600-foot protection buffer)

Level 3 (Active Management).

343,000 surface acres
31,500 federal split estate acres
374,500 surface and subsurface

- Crucial deer and elk winter range
- Red Mountain proper (8,950 acres)
- Crouse Canyon
- Red Creek ACEC
- Middle Green River
- Lower Green River

- Sites eligible for or listed on the *National Register of Historic Places*
- I & M category allotments
- Bighorn sheep habitat in Browns Park and Island Park
- Six Mile Draw roadless area
- Antelope fawning areas
- Sage grouse nesting areas
- Special status plant and animal habitat
- Critical soils (highly erodible, saline)
- Floodplains
- Municipal watersheds
- Highway 191 Scenic Byway (Drive Through the Ages)
- Wrinkles Road Area

Level 4 (Open Management).

321,600 surface acres
101,400 federal split estate acres
423,000 surface and subsurface acres

- All other BLM-managed lands and resources

Decision Summary for Alternative A

The two existing ACECs, Red Creek and the Green River Scenic Corridor, will continue. In addition, special management without special emphasis designation will continue in Crouse Canyon, Pariette Wetlands, Nine Mile Canyon, and Red Mountain. See Table 2-19 for a description of management actions proposed for these areas under current management.

The recommendation to designate the upper Green River for inclusion in the National Wild and Scenic River System will be continued. No other waterways will be recommended; however, the lands along the middle and the lower segments of the Green River will be managed so as not to jeopardize their wild and scenic river qualities. These special areas will be managed with an emphasis on recreational opportunities, historic values, waterfowl production, and riparian habitat. All activities planned, under current management, will consider these values first and strive to maintain the values in their present or an improved condition.

Lands will be available for rights-of-way, permits, leases, and transfers in support of active programs and to improve manageability (refer to Map Packet #4). Lands program actions will avoid level 2 lands plus the Six-Mile Draw roadless area, sage grouse strutting grounds, Red Mountain, municipal watersheds, and the Highway 191 Scenic Byway.

Protective withdrawals will be recommended for the Green River Scenic Corridor and the developed and potential recreation sites. Until these withdrawals are completed, mining activity other than casual use will require a plan of operations within the existing ACECs. Development will be restricted by measures designed to protect the river and recreation sites' values as well as reduce undue and unnecessary degradation of environmental features.

Under current management, livestock preference will continue at 50,299 AUMs. For both big game and non-game wildlife, the current maximum use of 35,000 AUMs will be provided. Additional AUMs (approximately 50 percent of the current year's growth) are retained for soil protection, wildlife cover, plant vigor, vegetation community stability, and watershed maintenance.

Livestock grazing will be allowed on 705,500 public acres (more than 99 percent of the resource area). Developed recreation sites and the floodplain along the upper Green River are closed to grazing (3,500 acres).

Oil and gas program activities will be allowed on 94 percent (approximately 797,500 acres of federal mineral estate) of the resource area with either special or standard restrictions. Special restrictions principally involve seasonal closures due to wildlife, soils and watershed concerns. Six percent (or 56,500 acres of federal mineral estate) of the resource area is open to mineral program activities with a no-surface-occupancy stipulation to protect the Green River Scenic Corridor, Pariette Wetlands, riparian habitat, sage grouse strutting grounds, and developed recreation sites. None of the resource area is closed to mineral program activities. Appendix 4 shows the stipulations included in current oil and gas leases.

Table 2-7 shows the category assignments for low, moderate, and high development potential minerals within DMRA.

Exploration, leasing, and development of other leasable minerals and disposal of mineral materials would be allowed on 50 percent of the resource area with standard stipulations; on 44 percent of the resource area with special restrictions; and would be allowed on 6 percent of the resource area with no surface occupancy stipulations. Approximately 50 percent of the resource area would be open, and 50 percent of the resource area would be closed to mineral entry.

The resource area will continue to be managed to provide a variety of dispersed recreation opportunities. Recreation management emphasis will include developing trails for hiking, mountain bicycles, and

horseback riding; off-highway vehicle use; designating back-country byways; developed recreation facilities; and interpreting natural and cultural resources. Other recreation facilities identified in this alternative include: developing four new facilities (near Jones Hole, Brough Reservoir, Cottonwood Grove, and Horseshoe Bend), expanding Dry Fork Canyon, and maintaining Sand Wash at its present size.

TABLE 2-7:
OIL & GAS CATEGORY ASSIGNMENTS BY MINERAL POTENTIAL FOR ALTERNATIVE A

Management Categories	Low Potential	Moderate Potential	High Potential	Total	%
OPEN (Category 1) Standard Stipulations	54,000	201,000	168,000	423,000	50
OPEN (Category 2) Timing Limitation/ Controlled Surface Use Stipulations	148,200	164,200	62,100	374,500	44
OPEN (Category 3) No Surface Occupancy Stipulations	21,800	23,800	10,900	56,500	6
TOTALS	224,000	389,000	241,000	854,000	100

Source: Vernal District GIS

The Pelican Lake SRMA will continue to be managed to support the water-related recreation activities at the lake. The Browns Park SRMA will continue to be managed to provide a variety of recreation opportunities and to protect the unique wildlife and scenic values and camping at developed or primitive recreation sites along the upper Green River.

The recent study entitled "Recreation Use Capacity of the Green River Corridor Below Flaming Gorge Dam" (Pratt, et al., 1991) has determined use will continue to increase and present facilities may not be sufficient. In response to this study, this alternative will develop recreation facilities at Cottonwood Grove; expand existing facilities at Bridge Hollow; maintain Pugmire Pocket, Red Creek, Indian Crossing, Jackson Creek, and Swallow Canyon facilities at their present size.

Off-highway vehicle use will be allowed on the entire resource area. Although approximately 52,800 acres (or 7 percent) of the resource area is limited to designated roads and trails, and 13,800 acres (2 percent) is limited to existing roads and trails. Such a restriction will not apply to state or county roadways.

Riparian habitat determined to be in early and mid ecological stages (approximately 9,500 public acres or 12 percent) will receive priority management consideration under Alternative A. Improvements necessary to meet the Bureau's riparian policy objectives involve establishing grazing systems and implementing rangeland improvements. A 600-foot protection zone will be established around all riparian areas in the resource area. Surface-disturbing activities will be allowed within the zone if designed to enhance riparian values or there is no practical alternative and if long-term impacts are fully mitigated.

Floodplains and areas with critical erosion potential or characterized by high salt content will be managed to minimize flood damage and/or sediment loading of the Green River by maximizing ground cover where feasible.

Administrative actions including proper road design and maintenance will be implemented. Surface-disturbing activities and OHV use will be halted during periods of saturated soils (the time most conducive to sediment loading).

Identified habitat determined suitable or having potential as wildlife transplant or reintroduction areas will be maintained until a specific release proposal were received from UDWR. Site-specific analyses will be prepared to evaluate the impacts of the proposed release on other wildlife species and resource programs.

Except for areas under specific fire management prescriptions, all wildfires will be aggressively suppressed.

Based on demand, 202,700 acres of public land (99 percent of the productive woodlands) will be open to the sale and/or harvest of woodland products. About 2,300 cords per year could be harvested.

Seasonal restriction established for protection of various resources listed as level 3 lands are summarized in Table 2-8.

Support Needs

Prepare a cultural resource management plan covering the resource area. Prepare site-specific management plans for Browns Park and Red Mountain-Dry Fork specifically. Prepare a cultural resource management plan jointly with the Moab District for Nine Mile Canyon.

TABLE 2-8:
ALTERNATIVE A SEASONAL RESTRICTIONS
TO SURFACE DISTURBING ACTIVITIES

RESOURCES PROTECTED	MONTHS RESTRICTION IS APPLIED											
	J	F	M	A	M	J	J	A	S	O	N	D
Crucial deer and elk winter range	X	X	X	X	X	X						X
Antelope fawning areas					X	X						
Sage grouse nesting habitat				X	X	X						
Ferruginous hawk nesting habitat			X	X	X	X	X					
Eagle and Swainson's Hawk nesting habitat		X	X	X	X	X						
Peregrine falcon nesting habitat				X	X	X	X					
Bighorn sheep lambing areas				X	X	X						
Bighorn sheep wintering and rutting areas	X	X	X	X	X				X	X	X	X
Critical soils			X	X					X	X		
Floodplains			X	X					X	X		
Black-footed ferrets - when reintroduced			X	X	X	X	X	X				
Special status plant species habitat				X	X	X						

Source: Table 2-18

Prepare an off-highway vehicle designation and implementation plan.

Coordinate wildlife reintroductions with USF&WS, UDWR, and other agencies or groups as appropriate.

Develop a Habitat Management Plan for Nine Mile Canyon. Revise and update the three existing plans as necessary.

Prepare activity plans on the federally-listed animal and plant species currently lacking recovery plans: Razorback sucker, *Spiranthes diluvialus, Schoencrambe suffrutescens,* and *Schoencrambe argillacea.* The overall objective being to manage the habitat to the level where delisting is deemed appropriate.

Evaluate for preparation of new allotment management plans for: Antelope Powers, Big Wash Draw, Brush Creek, Clay Basin Meadows, Eight Mile Flat, Five Mile, McFarley Flat, Shiner, Diamond Mountain, and Willow Creek. Revise existing AMPs covering Cottonwood Springs, Goslin Mountain, Green River Bottoms, Horseshoe Bend, Hoy Mountain, Little Desert, Red Creek Flat, S.J. Hatch, Taylor Flat, and Wetlands Allotments.

Enhance overall vegetation production and diversity to meet livestock, wildlife, soils, and watershed management objectives with vegetation treatments (involving 22,950 public acres), rangeland improvements, and management actions.

Revise existing Green River Scenic Corridor Management Plan to incorporate appropriate management recommendations outlined in the 1991 "Recreation Use Capacity of the Green River Corridor Below Flaming Gorge Dam". Revise Pelican Campground SRMA recreation management plan as necessary. Prepare an interpretive plan for the designated Nine Mile Back-country Byway.

Revise existing Red Creek Watershed ACEC activity plan.

Classify lands, as necessary, for solid leasable minerals.

ALTERNATIVE B (Ecological Systems)

Management Theme

This alternative will maintain or improve the condition of the existing ecological systems. Commodity production and intensive land uses will be more restricted and closely monitored. Wildlife habitat will be improved, scenic quality enhanced, and sensitive vegetation and other ecological systems protected or enhanced.

Management Priority Areas

The management priority areas were mapped using current information and inventories in the Vernal District GIS system combined with the team's analysis of the resource values and geographical features requiring emphasis under this alternative objective.

Level 1 (Closed).

96,000 surface acres
17,000 federal split estate acres
113,000 surface acres and subsurface

- Developed recreation sites
- Upper Green River and its floodplain
- Riparian habitat (with a 700-foot protection zone)
- Highly erodible soils
- Municipal watersheds
- Relict vegetation communities (Red Mountain, Castle Cove, Lears Canyon)
- John Jarvie National Historic District
- Sites listed or eligible for listing on the *National Register of Historic Places* (with a 200-foot protection zone)

Level 2 (Restricted Use).

318,600 surface acres
35,900 federal split estate acres
354,500 surface acres and subsurface

- Deer and elk crucial winter habitat
- Ferruginous hawk nest sites (with a one-mile protection zone)
- Eagle nest sites (with a half-mile protection zone)
- High saline soils
- Areas known to have a high density of cultural properties
- Geologic formations having highly significant fossil localities or finds, including trackways
- Sage grouse strutting grounds (including a half-mile protection zone)
- Half-mile or line of sight of Nine Mile Creek, Argyle Creek, Lower Green River, Middle Green River
- Desolation Canyon National Historic Landmark
- Green River Scenic Corridor ACEC
- Floodplains
- Semi-primitive nonmotorized areas

Level 3 (Limited Safeguards).

210,300 surface acres
51,800 federal split estate acres
262,100 surface and subsurface acres

- Crucial antelope fawning areas
- Crucial bighorn sheep wintering, breeding, and reproductive areas
- Sage grouse nesting areas (six-mile radius from strutting grounds in sagebrush vegetation type)
- VRM Class II areas
- Potential black-footed ferret transplant areas: Antelope Flat, Eight Mile Flat, Shiner, Sunshine Bench, Twelve Mile
- Critical watersheds

Level 4 (Open).

84,100 surface acres
40,300 subsurface acres
124,400 surface and subsurface acres

- All other BLM-managed lands and resources

Decision Summary for Alternative B

The two existing ACECs, Red Creek and the Green River Scenic Corridor, will be continued. Under Alternative B, eight additional ACECs will be designated: Red Mountain-Dry Fork, Lears Canyon, Nine Mile Canyon, the Lower Green River, the Middle Green River, the Browns Park Complex, and Pariette Wetlands. The recommendation to designate the Upper Green River for inclusion in the National Wild and Scenic River System will continue. In addition, two segments of Nine Mile Creek, two segments of the Green River, and one segment on Argyle Creek will be recommended for inclusion in the National Wild and Scenic River System. All these ACEC nominations are consistent with the general objectives for this alternative which is to enhance ecological systems. Refer to Table 2-20 for management actions proposed for these areas under this alternative.

Utility corridors will be designated as depicted on the Alternative B map (see Map Packet #5) to allow crossing the Browns Park Complex, Red Mountain-Dry Fork, and the Lower and Middle Green River. Elsewhere in level 2 lands, an avoidance area for lands program actions will be established. Outside the corridor in level 1 lands, an exclusion area for lands program actions will be established.

Withdrawals will be recommended on all level 1 and 2 lands to protect critical resources and features from degradation by mining activity. Until these lands are withdrawn, mining activity other than casual use in existing special emphasis areas will require a mining plan of operations. Development will be restricted by stipulations designed to protect the resources and values from undue and unnecessary degradation.

Under this alternative, forage will be managed towards wildlife objective levels which will require a maximum of 46,000 AUMs (this includes both big game and non-game species). Approximately 50 percent of the current year's growth are retained for soil protection, plant vigor,

vegetation community stability, wildlife cover, and watershed maintenance. Additional AUMs created from vegetation treatment will be provided to wildlife or retained for watershed. Livestock preference will be established at 25,007 AUMs. Vegetation will be managed to attain the ecological condition that results in at least 70 percent in a late or climax seral stage.

Livestock grazing will be allowed on 617,100 public acres (87 percent of the resource area). Developed recreation sites, the upper Green River and its floodplain, sage grouse strutting and known nest sites, within 10 miles of any potential bighorn sheep habitat, special status plant species habitat, riparian areas in early or mid seral ecological stage, relict vegetation communities, NRHP listed or eligible sites, and municipal watersheds are all closed to livestock grazing.

Mineral program activities will be allowed on 46 percent (386,500 acres of federal mineral estate) of the resource area with either standard or special restrictions. Special restrictions principally involve seasonal closures due to wildlife, soils, and watershed concerns. Another 54 percent (467,500 acres) of the resource area is open to leasing with a no-surface-occupancy stipulation to protect crucial wildlife range, critical soils, Wild and Scenic River values, high potential cultural and paleontological areas, floodplains, and semi-primitive nonmotorized areas. Refer to Table 2-9 for the category assignments proposed under this alternative.

Exploration, leasing and development of other leasable minerals, and disposal of mineral materials would be allowed on 15 percent of the resource area with standard stipulations; on 31 percent of the resource area with special restrictions; and, would be allowed on 54 percent of the resource area with no surface occupancy stipulations. Approximately 85 percent of the resource area would be open, and 15 percent of the resource area would be closed to mineral entry.

The resource area will be managed to emphasize primitive recreation opportunities. Hiking, horseback and mountain bicycle trails, and interpretive sites will be developed. Facilities necessary to maintain public health and safety will be constructed. Existing developed recreation sites will be maintained, but no additional facilities will be constructed.

The Pelican Lake SRMA will continue to be managed to support the water-related recreation activities at the lake. The Browns Park SRMA will continue to be managed to provide a variety of recreation opportunities and to protect the unique wildlife and scenic values; and camping will continue at developed or primitive recreation sites along the Upper Green River.

TABLE 2-9:
OIL & GAS CATEGORY ASSIGNMENTS
BY MINERAL POTENTIAL FOR ALTERNATIVE B

Management Categories	Low Potential	Moderate Potential	High Potential	Total	%
OPEN (Category 1) Standard Stipulations	47,200	52,100	25,100	124,400	15
OPEN (Category 2) Timing Limitation/ Controlled Surface Use Stipulations	41,700	108,700	111,700	262,100	31
OPEN (Category 3) No Surface Occupancy Stipulations	135,100	228,200	104,200	467,500	54
TOTALS	224,000	389,000	241,000	854,000	100

Source: Vernal District GIS

Under this alternative, lands in levels 1 and 2 will be essentially closed to surface-disturbing activities; only maintenance of existing facilities or development of pre-existing permits or leases, improvements for the express purpose of maintaining or enhancing the wildlife, soil, watershed, cultural, or scenic values or construction within designated crossings and corridors will be allowed.

Off-highway vehicle use will be allowed on 553,300 acres (78 percent of the resource area). Of this area, 47 percent is limited to designated roads and trails with seasonal restrictions. Semi-primitive nonmotorized areas, riparian habitat, critical soils, municipal watersheds, special status plants habitat, relict vegetation communities, and cultural sites listed or eligible for listing on NRHP (155,700 acres or 22 percent) will be closed to OHV use. These restrictions and closures will not apply to state and county roadways.

Riparian habitat in early and mid ecological stages will receive priority management consideration under this alternative. Improvements deemed necessary to meet the Bureau's riparian policy objectives involve establishing grazing systems and implementing rangeland improvements. A 700-foot protection zone will be established around all riparian areas in the resource area. Surface-disturbing activities and livestock grazing will not be allowed within this zone.

Floodplains, municipal watershed, and areas with critical erosion potential or characterized by high salt content will be managed to minimize flood damage and/or sediment loading of the Green River by maximizing

ground cover where feasible. Administrative actions including proper road design and maintenance will be implemented. Surface-disturbing activities and OHV use will be halted during periods of saturated soils (the time most conducive to sediment loading) on high saline soils and floodplains; highly erodible soils and municipal watersheds will be closed to OHV use and surface-disturbing activities.

Wildlife habitat will be protected by implementing seasonal closures. In certain areas these closures will overlap and could extend the period of closure resulting in essentially closing that area to any surface-disturbing activities.

Management actions, improvement projects, and vegetation treatments will be developed expressly to enhance or maintain the identified resources and values present. Specifically, riparian zones in early or mid ecological stage are targeted for improvement. In addition, enhancing and maintaining high potential cultural areas, special status plant habitat, and critical soil and watershed areas; providing additional wildlife habitat; and improving the existing habitat quality are also goals.

Identified habitat determined suitable or having potential as wildlife transplant or reintroduction areas will be maintained until a specific release proposal were received from UDWR. Site-specific analyses will be prepared to evaluate the impacts of the proposed release on other wildlife species and resource programs.

Except for areas under specific fire management prescriptions, all wildfires will be aggressively suppressed.

Based on an allowable cut of 1,100 cords per year, 51,300 acres of public land (25 percent of productive woodlands) will be open to the sale and/or harvest of woodland products.

Seasonal restrictions established for protection of various resources listed as level 3 lands under Alternative B are summarized in Table 2-10.

Support Needs

Prepare a cultural resource management plan covering the resource area. Develop site-specific management plans for Browns Park Complex and the Red Mountain-Dry Fork complex areas. Develop a cultural resource management plan jointly with the Moab District for Nine Mile Canyon.

Prepare an off-highway vehicle designation and implementation plan.

Coordinate wildlife reintroductions with USF&WS, UDWR, and other agencies or groups as appropriate.

Develop a habitat management plan for Nine Mile Canyon. Revise and update the three existing plans as necessary.

Prepare activity plans on the federally-listed animal and plant species currently lacking recovery plans:

TABLE 2-10:
ALTERNATIVE B SEASONAL RESTRICTIONS
TO SURFACE DISTURBING ACTIVITIES

RESOURCES PROTECTED	MONTHS RESTRICTION IS APPLIED											
	J	F	M	A	M	J	J	A	S	O	N	D
Antelope fawning areas					X	X						
Sage grouse nesting habitat			X	X	X	X						
Peregrine falcon nesting habitat		X	X	X	X	X	X	X				
Bighorn sheep lambing areas				X	X	X						
Bighorn sheep wintering and rutting habitat	X	X	X	X	X	X			X	X	X	X
High saline soils			X	X					X	X		
Floodplains			X	X					X	X		
Black-footed ferret - when reintroduced			X	X	X	X	X	X				
Special status plant species habitat				X	X	X						

Source: Table 2-15

Razorback sucker, *Lepidium barnebyanum, Schoencrambe suffrutescens, Spiranthes diluvialus,* and *Schoencrambe argillacea.* The overall objective being to manage the habitat to the level where delisting is deemed appropriate.

Evaluate for preparation of new allotment management plans for: Antelope Powers, Big Wash Draw, Brush Creek, Clay Basin Meadows, Eight Mile Flat, Five Mile, McFarley Flat, Shiner, Diamond Mountain, and Willow Creek. Revise existing AMPs covering Cottonwood Springs, Goslin Mountain, Horseshoe Bend, Hoy Mountain, Little Desert, Red Creek Flat, S.J. Hatch, Taylor Flat, and Wetlands Allotments.

Enhance overall vegetation production and diversity to meet wildlife, soils and watershed management objectives through a combination of vegetation treatments (involving 9,500 public acres), rangeland improvement projects, and management actions.

Complete a coordinated activity plan for the lower and middle segments of the Green River.

Revise existing SRMA recreation management plans as necessary and develop recreation management plans for Nine Mile Canyon and the Red Mountain-Dry Fork Complex areas. Prepare an interpretive plan for the designated Nine Mile Back-country Byway.

Classify lands, as necessary, for solid leasable minerals.

Develop activity plans for the ACECs outlined for this alternative: Browns Park Complex, Red Mountain-Dry Fork Complex, Middle and Lower Green River, Pariette, Nine Mile Canyon, and Lears Canyon. Revise, as necessary, the existing Red Creek watershed ACEC activity plan.

ALTERNATIVE C

Management Theme

This alternative will maximize forage production for livestock while maintaining/enhancing critical renewable resource systems and values within the resource area. Under this alternative the intent is to ensure existing livestock preference is maintained and wildlife numbers remain at current levels.

Management Priority Areas

Level 1 (Most Restrictive Management).

- No lands identified

Level 2 (Careful Management).

10,500 surface acres
2,100 federal split estate acres
12,600 surface and subsurface acres

- Upper Green River and its floodplain
- Relict vegetation communities (Castle Cove, Lears Canyon and Red Mountain)
- Sage grouse strutting grounds (no protection zone)
- Developed recreation sites
- Desolation Canyon National Historic Landmark
- John Jarvie National Historic District
- Sites eligible for or listed on the *National Register of Historic Places*

Level 3 (Active Management).

678,000 surface acres
96,700 federal split estate acres
774,700 surface and subsurface acres

- Sage grouse nesting areas (1000-foot radius from strutting grounds)
- Crucial deer and elk winter habitat
- Antelope Flat antelope fawning area
- Crucial antelope habitat
- Riparian habitat at Pariette Wetlands
- Riparian habitat other than Pariette (330-foot protection zone)
- Critical soils
- Municipal watersheds
- Critical watersheds
- VRM Class II areas
- Special status plant species habitat (federally-listed only)
- Raptor nest sites
- Potential recreation sites
- Areas known to have a high density of cultural properties

Level 4 (Open Management).

20,500 surface acres
46,200 federal split estate acres
66,700 surface and subsurface acres

- All remaining BLM-managed lands and resources

Decision Summary for Alternative C

Under this alternative the two existing ACECs, the Green River Scenic Corridor and Red Creek Watershed, will continue. The three relict vegetation communities,

totalling 3,740 federal acres, will be designated as areas of critical environmental concern (refer to Table 2-21). The two existing ACECs have been found to possess values consistent with the general management objectives of this alternative. The relict vegetation communities provide baseline data from which to compare the effectiveness of vegetation management strategies implemented elsewhere in the resource area.

No waterways within the resource area will be considered for inclusion in the Wild and Scenic Rivers System. The current recommendation to designate the Upper Green River for inclusion in the Wild and Scenic River System will be withdrawn.

All lands will be available for rights-of-way, permits and transfers.

Utility corridors will be established across the resource area as shown on Alternative Map C (see Map Packet #6). If possible avoid placing rights-of-way or other support facilities on 10,500 acres of level 2 lands.

Approximately 10,500 acres (less than 2 percent of the resource area) will be recommended for protective withdrawals to preclude mineral or agricultural entry. Until these lands are withdrawn, mining activities in these areas will require a mine plan. Development will be restricted by stipulations designed to protect the Upper Green River's developed recreation sites' values within the parameter of the 1872 General Mining Law.

Livestock grazing preference will be established at 50,299 AUMs, while maintaining a maximum of 27,600 AUMs for wildlife use. Additional AUMs realized through management changes and/or vegetation treatments will be assigned to livestock. Any adjustments in forage assignments to either livestock or wildlife will be based on analysis of monitoring data. Approximately 50 percent of the current year's growth will be reserved for maintaining soil protection, wildlife cover, plant vigor, vegetation community stability, and watershed maintenance.

Approximately 704,500 acres (99 percent) will be open to livestock grazing with standard or seasonal/animal number restrictions. The remaining 4,500 acres will be closed to livestock grazing to protect developed recreation sites and relict vegetation communities.

Rangeland improvements and grazing prescriptions will be designed and implemented to increase forage production and diversity to sustain livestock grazing preference.

Under this alternative no lands will be closed to oil and gas exploration and development; however, 12,600 surface and subsurface federal acres (less than 2 percent of the federal mineral estate) will be open to mineral leasing and mineral material sales with a no-surface-occupancy stipulation. Table 2-11 depicts the category assignments proposed under this alternative.

TABLE 2-11:
OIL & GAS CATEGORY ASSIGNMENTS BY MINERAL POTENTIAL FOR ALTERNATIVE C

Management Categories	Low Potential	Moderate Potential	High Potential	Total	%
OPEN (Category 1) Standard Stipulations	20,900	33,900	11,900	66,700	8
OPEN (Category 2) Timing Limitation/ Controlled Surface Use Stipulations	196,900	349,900	227,900	774,700	91
OPEN (Category 3) No Surface Occupancy Stipulations	6,200	5,200	1,200	12,600	1
TOTALS	224,000	389,000	241,000	854,000	100

Source: Vernal District GIS

Exploration, leasing and development of other leasable minerals, and disposal of mineral materials would be allowed on 8 percent of the resource area with standard stipulations; on 91 percent of the resource area with special restrictions; and would be allowed on 1 percent of the resource area with no surface occupancy stipulations. Approximately 92 percent of the resource area would be open, and 8 percent of the resource area would be closed to mineral entry.

Recreation development will continue, however at a less intense rate. Existing developed recreation sites will be maintained. No new major facilities will be constructed outside the Green River Scenic Corridor. Primitive recreational facilities (fire-ring, vault toilet and/or picnic tables) could be constructed to meet the extensive recreation demand on 698,000 acres (or 99 percent) of the resource area.

The entire resource area will be open to restricted OHV use. Such use will be restricted to designated roads and trails. Such a decision will minimize vegetation disturbance and possible harassment of livestock by OHVs and their users. This restriction will not apply to

BLM permitted uses requiring off-road travel (i.e., normal grazing operations, oil and gas maintenance operations, etc.), and will not apply to county or state roadways.

This alternative will not designate semi-primitive nonmotorized areas due to the restriction against motorized activities in areas identified as suitable for future vegetation treatment.

Riparian habitat management will meet the Bureau policy by: establishing a 330-foot protection zone around riparian areas, and designing and implementing grazing systems and rangeland improvements to enhance riparian values. Livestock grazing and surface-disturbing activities will be allowed within the protection zone if such actions will enhance and/or maintain the riparian habitat.

Floodplains and areas with critical erosion potential, or characterized by high salt content will be managed to minimize flood damage and/or sediment loading of the Green River by maximizing ground cover where feasible. Administrative actions will include proper road design and maintenance (i.e., maximize use of existing road networks, proper water barring techniques, etc.).

Wildlife habitat will be maintained and/or enhanced to meet the current demands of wildlife. Reintroductions of bighorn sheep and/or black-footed ferrets will not be allowed due to the restrictions to livestock. Wildlife transplants will be allowed if livestock preference will not be adversely affected.

Except for areas under specific fire management prescriptions, all wildfires will be aggressively suppressed. Based on an allowable cut of 4,300 acres per year, 203,300 acres (100 percent) of productive woodlands within the resource area will be open to the sale and/or harvest of woodland products.

Seasonal restrictions established for protection of various resources listed as level 3 lands under Alternative C are summarized in Table 2-12.

Support Needs

Prepare a cultural resource management plan for the resource area.

Prepare an off-highway vehicle designation and implementation plan.

Coordinate wildlife transplants with USF&WS, UDWR and other agencies or groups as appropriate.

Develop a habitat management plan for Nine Mile Canyon. Revise and update the three existing plans as necessary.

Prepare activity plans on the federally-listed animal and plant species currently lacking recovery plan: Razorback sucker, *Schoencrambe suffrutescens, Spiranthes diluvialus* and *Schoencrambe argillacea.* The overall objective being to manage the habitat to the level where delisting is deemed appropriate.

TABLE 2-12:
ALTERNATIVE C SEASONAL RESTRICTIONS
TO SURFACE DISTURBING ACTIVITIES

RESOURCES PROTECTED	MONTHS RESTRICTION IS APPLIED											
	J	F	M	A	M	J	J	A	S	O	N	D
Crucial deer and elk winter range	X	X	X	X								X
Antelope fawning habitat					X	X						
Sage grouse nesting habitat				X	X	X						
Ferruginous hawk nesting habitat			X	X	X	X	X					
Eagle nesting habitat		X	X	X	X	X						
Peregrine falcon nesting habitat				X	X	X	X					
Critical soils			X	X					X	X		
Floodplains			X	X					X	X		
Special status plant species habitat				X	X	X						

Source: Table 2-15

Evaluate for preparation of new allotment management plans for: Antelope Powers, Big Wash Draw, Brush Creek, Clay Basin Meadows, Eight Mile Flat, Five Mile, McFarley Flat, Shiner, Diamond Mountain, and Willow Creek. Revise existing AMPs covering Cottonwood Springs, Goslin Mountain, Horseshoe Bend, Hoy Mountain, Little Desert, Red Creek Flat, S.J. Hatch, Taylor Flat and Wetlands allotments.

Enhance overall vegetation production and diversity to meet livestock, wildlife, soils, and watershed management objectives by treating approximately 27,100 public acres over the life of this plan.

Revise SRMA recreation management plans as necessary. Prepare an interpretive plan for the designated Nine Mile Back-country Byway.

Classify lands, as necessary, for solid leasable minerals.

Develop activity plans for the Red Mountain, Castle Cove, and Lears Canyon ACECs. Revise and update, as necessary, the existing activity plans for the Green River Scenic Corridor and Red Creek Watershed ACECs.

ALTERNATIVE D

Management Theme

This alternative will allow for maximum mineral development opportunities, with minimal undue hardship, while maintaining/enhancing critical renewable resource systems and values within the resource area. It is based on the team members' analysis of existing information and projections of a reasonable future scenario for development of minerals in the resource area during the life of this plan.

Management Priority Areas

Level 1 (Most Restrictive Management).

- No lands identified

Level 2 (Careful Management).

4,500 surface acres
2,100 federal split estate acres
6,600 surface and subsurface acres

- *Sage grouse strutting grounds (no protection zone)*
- *Developed recreation sites (includes the Pelican Lake body of water)*
- *Desolation Canyon National Historic Landmark*
- *John Jarvie National Historic District*

Level 3 (Active Management).

520,200 surface acres
68,000 federal split estate acres
588,200 surface and subsurface acres

- Upper Green River and its floodplain
- Half-mile or line-of-sight of the Green River in Browns Park
- Sage grouse nesting areas (1000-foot radius from strutting grounds)
- Raptor nest sites
- Antelope Flat fawning area
- Crucial deer and elk winter habitat
- Potential bighorn sheep reintroduction areas: Browns Park, Island Park and Nine Mile Canyon
- Riparian habitat at Pariette Wetlands
- Riparian habitat outside Pariette Wetlands (330-foot protection zone)
- Critical soils
- Sites eligible for or listed on the *National Register of Historic Places*
- VRM Class II areas
- Special status plant species habitat (federally-listed only)

Level 4 (Open Management).

184,300 surface acres
74,900 federal split estate acres
259,200 surface and subsurface acres

- All remaining BLM-managed lands and resources

Decision Summary for Alternative D

Only one existing ACEC, the Green River Scenic Corridor, will be continued under this alternative. The existing ACEC designation for the Red Creek watershed will be removed. The watershed values in this area will be protected under the general management objectives outlined for this alternative. No other special emphasis areas are considered under this alternative. The Green River Scenic Corridor ACEC is the only nomination consistent with the general management objectives of this alternative. (Refer to Table 2-22).

The recommendation to designate the Upper Green River for inclusion in the Wild and Scenic River System will be withdrawn. No other waterways will be recommended for designation.

Lands will be available for rights-of-way, permits and transfers in support of the minerals program and improve manageability. Utility corridors will be established across

the resource area as shown on Alternative Map D (see Map Packet #7). If possible avoid placing rights-of-way or other support facilities on 6,600 public acres (includes 2,100 federal subsurface mineral acres), affecting less than 1 percent of the total BLM-administered lands within the resource area.

Protective withdrawals precluding mineral entry under the 1872 General Mining Law will not be recommended.

Current livestock grazing preference of 50,299 AUMs will continue under this alternative. Wildlife will remain at current levels, allowing a maximum of 27,600 AUMs. Additional forage obtained through vegetation treatment will be assigned to livestock on a temporary, nonrenewable basis until needed by wildlife.

Livestock grazing will be allowed on approximately 703,200 public acres (99 percent of the resource area). Developed recreation sites, NRHP listed sites, and National Historic Landmarks will be closed to livestock grazing.

Oil and gas activities will be allowed on 99 percent of the mineral estate (847,000 acres of federal mineral estate) with either standard or special restrictions. Special restrictions involve primarily seasonal closures due to wildlife, soils and watershed concerns. The remainder of the mineral estate (6,600 acres) will be open to mineral program activities with a no-surface-occupancy stipulation. Table 2-13 depicts the category assignments proposed under this alternative.

TABLE 2-13:
OIL & GAS CATEGORY ASSIGNMENTS BY MINERAL POTENTIAL FOR ALTERNATIVE D

Management Categories	Low Potential	Moderate Potential	High Potential	Total	%
OPEN (Category 1) Standard Stipulations	98,100	102,100	59,000	259,200	30
OPEN (Category 2) Timing Limitation/ Controlled Surface Use Stipulations	124,100	283,000	181,100	588,200	69
OPEN (Category 3) No Surface Occupancy Stipulations	1,800	3,900	900	6,600	1
TOTALS	224,000	387,000	241,000	854,000	100

Source: Vernal District GIS

Exploration, leasing, and development of other leasable minerals, and disposal of mineral materials would be allowed on 30 percent of the resource area with standard stipulations; on 69 percent of the resource area with special restrictions; and, would be allowed on 1 percent of the resource area with no surface occupancy stipulations. Approximately 70 percent of the resource area would be open, and 30 percent of the resource area would be closed to mineral entry.

Recreation development will be allowed within the resource area so long as their affect on the mineral program is negligible. New facilities will be constructed for Jones Hole and Brough Reservoir. Existing facilities at Dry Fork Canyon, and Pelican Lake will be expanded. Sand Wash Recreation Site will be maintained at its present size.

To support the increased recreation demand along the Upper Green River, a new facility at Cottonwood Grove will be developed, the existing facility at Bridge Hollow will be expanded, and the remaining facilities will be maintained at their present size. Only minimum new facilities needed to protect human health and safety will be provided.

All federal surface acres within the resource area will be open to OHV use. Approximately 4,500 federal acres (<1 percent of the resource area) will be open with restrictions to designated roads and trails. These seasonal closures will not necessarily apply to BLM permitted activities associated with ongoing mineral activities, nor to state and county roadways.

Riparian habitat management objectives will follow the existing Bureau riparian policy. Establish a 330-foot protection zone around existing riparian areas precluding new surface disturbance. Surface-disturbing activities will be allowed within this zone if there is no practical alternative, impacts will be short term (less than five years) or that the disturbance will enhance the riparian area.

Floodplains and areas with critical erosion potential, or characterized by high salt content will be managed to minimize flood damage and/or sediment loading of the Green River by maximizing ground cover where feasible.

Administrative actions will include proper road design and maintenance (i.e., maximize use of existing road networks, proper water barring techniques) and minimize vegetation removal in areas of low revegetation potential.

Wildlife habitat will be maintained and/or enhanced within the existing identified boundaries. The intent of this objective is to minimize wildlife restrictions to mineral exploration and development activities.

Identified habitat determined suitable or having potential as bighorn sheep reintroduction areas will be maintained

until a specific release proposal was received from UDWR. Site-specific analyses will be prepared to evaluate the impacts of the proposed release on the mineral and other resource programs as well as other wildlife species.

Based on an allowable cut of 4,300 cords per year, 203,300 acres (100 percent) of productive woodlands within the resource area will be open to the sale and/or harvest of woodland products.

Seasonal restrictions established for protection of various resources listed as level 3 lands under Alternative D are summarized in Table 2-14.

Support Needs

Prepare a cultural resource management plan for the resource area.

Prepare an off-highway vehicle designation and implementation plan.

Coordinate wildlife transplants and reintroductions with USF&WS, UDWR and other agencies or groups as appropriate.

Develop a habitat management plan for Nine Mile Canyon. Revise and update the three existing plans as necessary.

Prepare activity plans on the federally-listed animal and plant species currently lacking recovery plans: Razorback sucker, *Schoencrambe suffrutescens, Spiranthes diluvialus* and *Schoencrambe argillacea.* The overall objective being to manage the habitat to the level where delisting is deemed appropriate.

Prepare new allotment management plans for: Antelope Powers, Big Wash Draw, Brush Creek, Clay Basin Meadows, Eight Mile Flat, Five Mile, McFarley Flat, Shiner, Diamond Mountain, and Willow Creek. Revise existing AMPs covering Cottonwood Springs, Goslin Mountain, Horseshoe Bend, Hoy Mountain, Little Desert, Red Creek Flat, S.J. Hatch, Taylor Flat and Wetlands Allotments.

Enhance overall vegetation production and diversity to meet wildlife, soils, and watershed management objectives by treating approximately 27,100 public acres over a 20-year period.

Revise existing SRMA recreation management plans as necessary. Prepare an interpretive plan for the designated Nine Mile Back-country Byway. Update and revise, as necessary, the existing Green River Scenic Corridor ACEC activity plan.

Classify lands, as necessary, for solid leasable minerals.

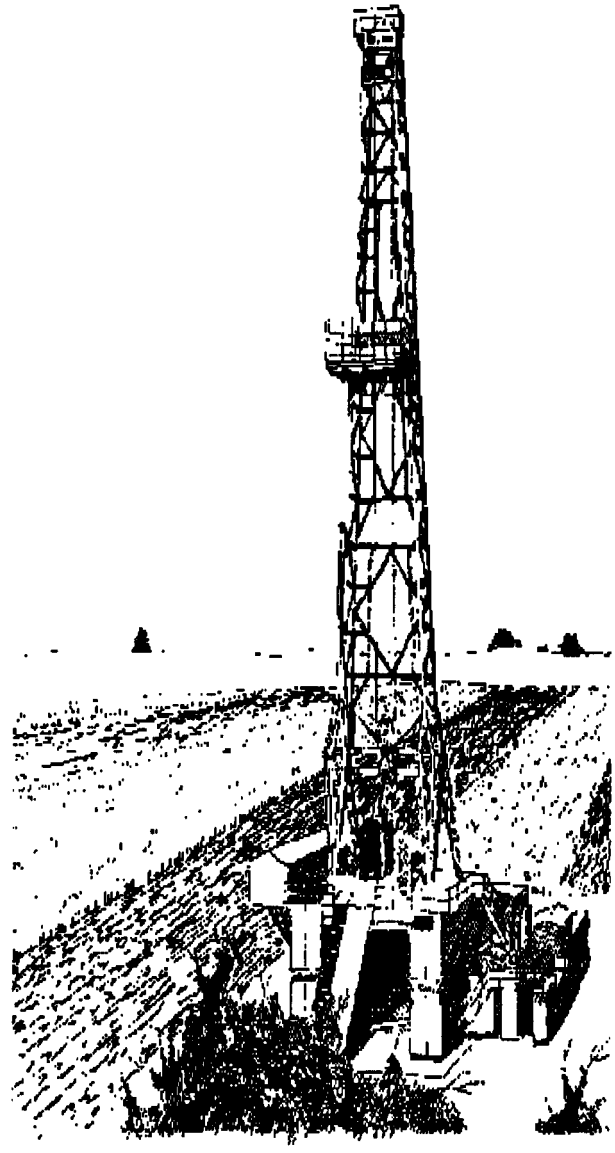


TABLE 2-14:
ALTERNATIVE D SEASONAL RESTRICTIONS TO SURFACE DISTURBING ACTIVITIES

RESOURCES PROTECTED	MONTHS RESTRICTION IS APPLIED											
	J	F	M	A	M	J	J	A	S	O	N	D
Crucial deer and elk winter range	X	X	X	X								X
Antelope fawning areas					X	X						
Sage grouse nesting habitat				X	X	X						
Ferruginous hawk nesting habitat			X	X	X	X	X					
Eagle nesting habitat		X	X	X	X	X						
Peregrine falcon nesting habitat				X	X	X	X					
Bighorn sheep lambing areas				X	X	X						
Bighorn sheep wintering and rutting habitat	X	X	X	X	X				X	X	X	X
Critical soils			X	X					X	X		
Floodplains			X	X					X	X		

Source: Table 2-15

AREAWIDE DECISIONS FOR THE PROPOSED PLAN AND THE ALTERNATIVES

Table 2-15 presents all major decisions outlined under the proposed plan and the alternatives. These decisions will apply to all BLM administered lands. Decisions specific to special emphasis areas are outlined in Tables 2-16 through 2-20. To understand the entire scope of these proposals, please refer to "Management Common to All Alternatives" outlined earlier in this chapter in association with this table.

Changes in this table, excluding the theme row, from the draft edition are noted in bold print.

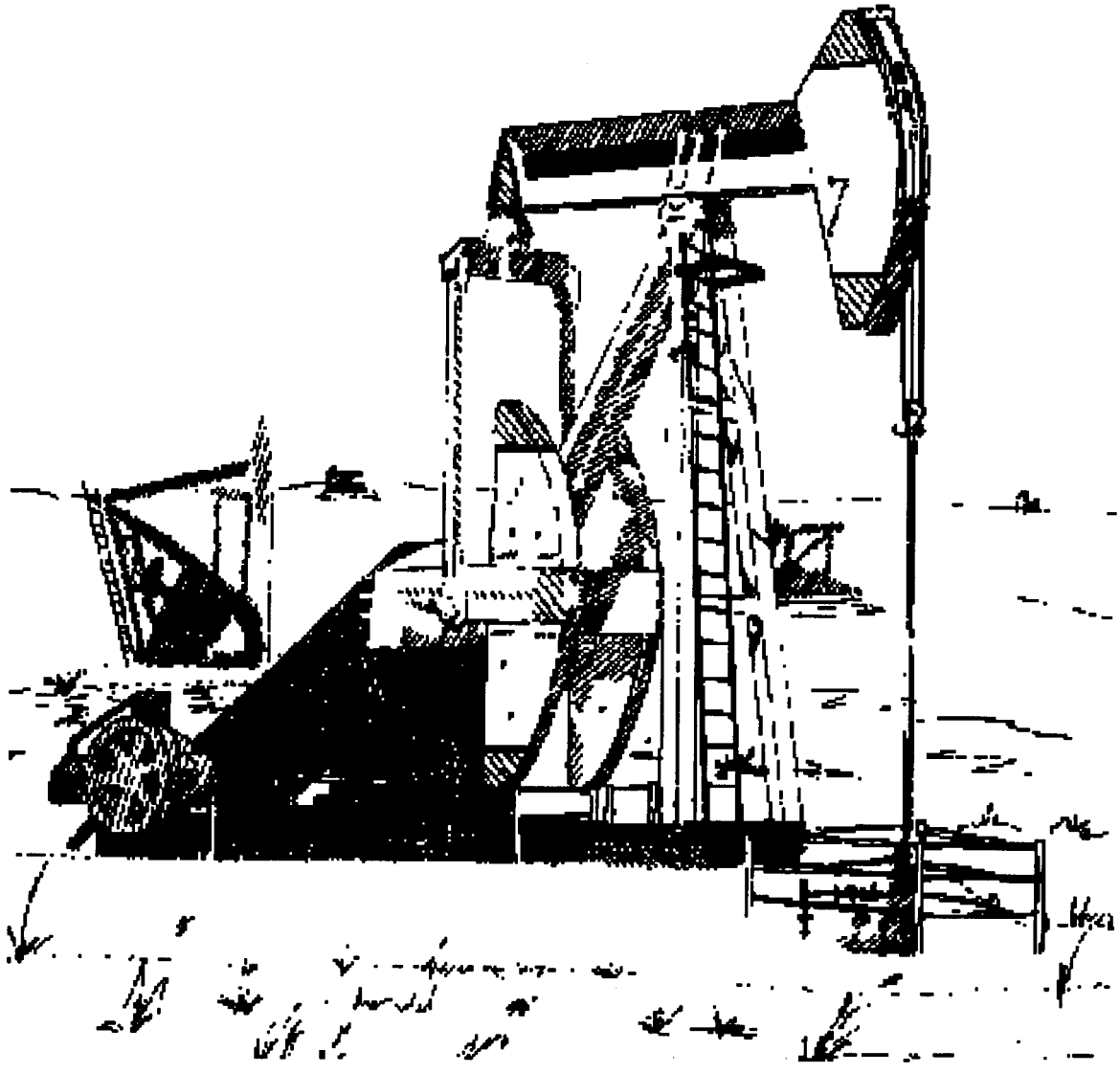


TABLE 2-15:
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Maintain or Improve Natural Resources While Managing a Combination of Varied Uses and Considering Their Effects on Environmental Interrelationships	Current Management (The No Action Alternative)	Enhance Ecological Systems and Cultural Values and Compatible Recreational Opportunities	Manage Ecological Systems for Forage Production for Livestock	Enhance Opportunities for Mineral Exploration and Development
ACECs AND OTHER SPECIAL EMPHASIS AREAS	ACECs AND OTHER SPECIAL EMPHASIS AREAS	ACECs AND OTHER SPECIAL EMPHASIS AREAS	ACECs AND OTHER SPECIAL EMPHASIS AREAS	ACECs AND OTHER SPECIAL EMPHASIS AREAS
Continue ACECs	Continue ACECs	Continue ACECs	Continue ACECs	Continue ACECs
Continue the Green River Scenic Corridor ACEC at present 19,400 acres of public land.	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan
Continue the Red Creek Watershed ACEC at present 24,020 acres of public land.	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan	Discontinue the Red Creek ACEC.
Designate ACECs	Designate ACECs	Designate ACECs	Designate ACECs	Designate ACECs
Designate 25,800 acres of public land in the Red Mountain-Dry Fork areas as an ACEC.	Manage and protect 8,950 acres in the Red Mountain area for its high values including wildlife, scenic, and cultural resources (however, would not be designated as an ACEC).	**Same as Proposed Plan**	Designate 2,200 acres of public land in the Red Mountain-Castle Cove areas as vegetation relict area ACECs	Do not designate an ACEC in the Red Mountain area.
Designate 55,700 acres in the Browns Park Complex as an ACEC (includes existing Green River Scenic Corridor ACEC, Crouse Canyon, and the two WSAs).	Manage and protect 600 acres in Crouse Canyon for its high value scenic and wildlife resources (however, would not be designated as an ACEC).	Same as Proposed Plan	Do not designate an ACEC in the Browns Park area.	Same as Alternative C
Designate 11,600 acres in the Pariette drainage as an ACEC.	Develop 9,000 acres of wetland habitat in Pariette Draw. Provide migratory wetland habitat for special status animal species (however, would not be designated as an ACEC).	Same as Proposed Plan	Do not designate an ACEC for Pariette.	Same as Alternative C
Designate 50,800 acres in Nine Mile Canyon as an ACEC.	Manage 38,500 acres in Nine Mile Canyon for the protection of historical and cultural properties (however, would not be designated as an ACEC).	Same as Proposed Plan	Do not designate Nine Mile Canyon as an ACEC.	Same as Alternative C
Designate 7,900 acres on the Lower Green River as an ACEC (see "Planning Criteria--Special Emphasis Areas" in Chapter 1).	No action under this alternative.	Designate 12,700 acres on the Lower and Middle Green River as an ACEC (see "Planning Criteria--Special Emphasis Areas" in Chapter 1).	Do not designate the lower and middle Green River segments as an ACEC.	Same as Alternative C

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Designate 1,400 acres in Lears Canyon as a vegetation relict area ACEC.	No action under this alternative.	Same as Proposed Plan	Same as Alternative B	Do not designate Lears Canyon as an ACEC.
CULTURAL/PALEONTOLOGICAL	CULTURAL/PALEONTOLOGICAL	CULTURAL/PALEONTOLOGICAL	CULTURAL/PALEONTOLOGICAL	CULTURAL/PALEONTOLOGICAL
Do not establish 200-foot extended protection zones around cultural sites and paleo-geologic formations.	Same as Proposed Plan	Establish protection zones which limit or restrict surface disturbing activities (up to 200 feet) around National Register quality sites in level 1 lands and on the Desolation Canyon National Historic Landmark. No surface disturbance or OHV use on high sensitivity archeological and paleontological areas.	Same as Proposed Plan	Same as Proposed Plan
Paleontological clearances will be required on a case-by-case basis.	**Same as Proposed Plan**	**Same as Proposed Plan**	**Same as Proposed Plan**	**Same as Proposed Plan**
Allow casual use invertebrate and flora fossil collection using hand tools in designated areas. Based on site-specific analysis, collection of vertebrate fossils by scientific institutions could be considered.	Allow casual use fossil collecting.	Open lands to fossil collection by permit only.	**Same as Proposed Plan**	**Same as Proposed Plan**
Develop interpretive facilities at the Old Rock Saloon and Nine Mile Canyon archeological sites. Develop a facility in Nine Mile Canyon to interpret and control use of the district. Develop a self-guided tour for important historic structures and locations in Browns Park Area.	No action under this alternative.	Develop interpretive facilities at the Old Rock Saloon. Develop a self-guided tour of important historic structures and locations in the Browns Park Complex.	No action under this alternative.	No action under this alternative.
Allocate cultural sites (including ethnographic properties) into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification.	No action under this alternative.	Same as Proposed Plan	No action under this alternative.	No action under this alternative.

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
FISH AND WILDLIFE	**FISH AND WILDLIFE**	**FISH AND WILDLIFE**	**FISH AND WILDLIFE**	**FISH AND WILDLIFE**
Provide 40,000 AUMs for wildlife habitat. Refer to "Vegetation" section for criteria to make changes to forage distribution.	Provide 35,000 AUMs for wildlife. Refer to "Vegetation" section for criteria to make changes to forage distribution.	Provide 46,000 AUMs for wildlife habitat. Refer to "Vegetation" section for criteria to make changes to forage distribution.	Provide 27,600 AUMs for wildlife. Refer to "Vegetation" section for criteria to make changes to forage distribution.	Same as Alternative C
Do not issue any bear baiting permits.	Allow bear baiting by permit only.	Same as Proposed Plan	Same as Alternative A	Same as Alternative A
Habitat Improvement	**Habitat Improvement**	**Habitat Improvement**	**Habitat Improvement**	**Habitat Improvement**
Improve and/or expand wildlife habitat using vegetation treatments, rangeland improvements and alternative grazing prescriptions.	**Improve and/or expand wildlife habitat using vegetation treatments and rangeland improvements.**	**Maximize wildlife habitat using vegetation treatments, rangeland improvements and alternative grazing prescriptions.**	**Maintain and improve wildlife habitat using vegetation treatments and rangeland improvements.**	**Same as Alternative C**
Within vegetation treatment areas, except for prescribed burns, (>10 acres in size), improve habitat for cavity dwelling and perching birds and animals by leaving one snag per each 10 acres with a minimum of 5 live trees around each snag.	**Within vegetation treatment areas (>10 acres in size), improve habitat for cavity dwelling and perching birds and animals by leaving one snag per each 10 acres.**	**Same as Proposed Plan**	**Within vegetation treatment areas, totally remove all live and dead trees.**	**Same as Proposed Plan**
Habitat Protection	**Habitat Protection**	**Habitat Protection**	**Habitat Protection**	**Habitat Protection**
Do not allow activities that would result in adverse impacts to deer and elk within crucial winter range (194,000 acres) from Dec 1-Apr 30. This restriction would not apply if deer and/or elk are not present or impacts could be mitigated through other management actions. This restriction would not apply to maintenance and operations of existing programs and facilities.	Restrict surface disturbing activities from Dec 1-June 15 on crucial deer and elk winter range (194,000 acres).	Do not allow activities that would result in adverse impacts to wildlife on crucial deer and elk winter range year round (194,000 acres).	Do not allow activities that would result in adverse impacts to wildlife from Dec 1-April 30 on crucial deer and elk winter range (194,000 acres). This restriction would not apply if animals are not present or impacts could be mitigated through other management actions.	Same as Alternative C

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Do not allow activities that would result in adverse impacts to antelope from May 1-June 30 on 7,800 acres of antelope fawning areas on Antelope Flat. Would not apply if antelope are not present or impacts could be mitigated through other management actions. This restriction would not apply to maintenance and operations of existing programs and facilities.	Restrict all surface disturbing activities on 7,800 acres of antelope fawning areas on Antelope Flat from May 1-June 30.	Do not allow surface disturbing activities and OHV use on 7,800 acres of antelope fawning areas on Antelope Flat from May-June 30.	Do not allow activities that would result in adverse impacts to wildlife from May 1-June 20 on 7,800 acres of antelope fawning areas on Antelope Flat. Would not apply if animals are not present or impacts could be mitigated through other management actions.	Same as Alternative C
Do not allow new surface disturbing activities within one mile of active bighorn sheep winter and rutting areas (currently 3,900 acres) between Sept 1-May 15 and active lambing areas (currently 800 acres) between April 15-June 30. This restriction would not apply if impacts could be mitigated through other management actions. This restriction would not apply to maintenance and operations of existing programs and facilities.	Same as Proposed Plan	Do not allow new surface disturbing activities within one mile of active bighorn sheep winter and rutting areas (3,900 acres) between Sept 1-May 15 and active lambing areas (800 acres) between April 15-June 30.	Same as Proposed Plan	Same as Proposed Plan
Do not allow surface disturbing activities within 1,000 feet of sage grouse strutting grounds (2,800 acres in level 2). **OHV use will be limited to designated roads and trails within this area.** This restriction would not apply if impacts could be mitigated through other management actions.	Restrict all surface disturbing activities within 1,000 feet of sage grouse strutting grounds (2,800 acres in level 2).	Do not allow grazing, OHV use, and surface disturbing activities within 2,640 feet of sage grouse strutting grounds (9,700 acres in level 2).	Do not allow surface disturbing activities or OHV use on sage grouse strutting grounds (800 acres in level 2). This restriction would not apply if impacts could be mitigated through other management actions.	Do not allow surface disturbing activities on sage grouse strutting grounds (800 acres in level 2). This restriction would not apply if impacts could be mitigated through other management actions.

TABLE 2-15 (Continued): AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Do not allow surface disturbing activities within sage grouse nesting areas (2 mile radius of sage grouse strutting grounds within the sagebrush vegetation type) from March 1-June 30 (88,500 acres in level 3 lands). OHV use would be limited to designated roads and trails during this period. Would not apply if sage grouse are not present or impacts could be mitigated through other management actions. This restriction would not apply to maintenance and operation of existing programs and facilities.	Restrict all surface disturbing activities on sage grouse nesting areas (within 1.5 miles of the strutting grounds) from Apr 1-Jun 30 (57,000 acres in level 3 lands).	Do not allow grazing, OHV use, and surface disturbing activities within sage grouse nesting areas (6 mile radius of sage grouse strutting ground within the sagebrush vegetation type) between Mar 1-June 30 (173,000 acres in level 3 lands).	Do not allow OHV use and surface disturbing activities within sage grouse nesting areas (1000 foot radius of sage grouse strutting ground within the sage brush vegetation type) between Apr 1-June 30 (2,800 acres in level 3 lands). Would not apply if animals are not present or impacts could be mitigated through other management actions.	Do not allow surface disturbing activities within sage grouse nesting areas (1000 foot radius of sage grouse strutting grounds within the sagebrush vegetation type) between Apr 1-June 30 (2,800 acres in level 3 lands). Would not apply if animals are not present or impacts could be mitigated through other management actions.
No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known golden eagle nests which would adversely affect current use or limit or preclude potential future use of the nest, or unless a permit to take is obtained from the USF&WS. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts can be mitigated through other management actions. A site specific analysis would be completed to determine if terrain features adequately protected the nest site from proposed surface disturbing activity.	Do not allow new surface disturbing activities within 1/4 mile from all active golden eagle nests from Feb 15-Jun 15 (5,500 acres in level 3). These restrictions do not apply to maintenance and operations of existing programs and facilities.	No construction, OHV use, or surface disturbing activities (including noise) that would result in adverse impacts will be allowed within 1/2 mile of golden eagle nests (19,400 acres in level 2).	Do not allow new surface disturbing activities or OHV use within 1/4 mile from all active golden eagle nests from Feb 15-Jun 15 (5,500 acres in level 3 lands).	Same as Alternative A
Modify fences on public lands where wildlife are adversely affected. With wildlife restricting fences bordering public lands, work with owners towards modifying such fences to improve natural movement of wildlife.	Same as Proposed Plan	Remove unnecessary fences that restrict wildlife migration. New fences will be constructed only when the vegetation resource would be improved.	Modify fences to wildlife specifications as long as they control livestock.	Same as Proposed Plan

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Special Status Species	Special Status Species	Special Status Species	Special Status Species	Special Status Species
No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known ferruginous hawk nests which would adversely affect current use or limit or preclude potential future use, or unless a permit to take is obtained from the USF&WS. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts can be mitigated through other management actions. A site specific analysis would be completed to determine if terrain features adequately protected the nest site from proposed surface disturbing activity.	Do not allow new surface disturbing activities within 1/2 mile of an active ferruginous hawk nest site from Mar 1-Jul 15 (700 acres in level 3). These restrictions do not apply to maintenance and operations of existing programs and facilities.	No construction, OHV use, or surface disturbing activities (including noise) that would result in adverse impacts will be allowed within 1 mile of active ferruginous hawk nests (3,300 acres in level 2).	Same as Alternative A	Same as Alternative A
No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known bald eagle nests. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts can be mitigated through other management actions. A site specific analysis would be completed to determine if terrain features adequately protected the nest site from proposed surface disturbing activity.	Do not allow new surface disturbing activities within 1/4 mile from all active bald eagle nests from Feb 15-Jun 15. These restrictions do not apply to maintenance and operations of existing programs and facilities.	No construction, OHV use, or surface disturbing activities (including noise) that would result in adverse impacts will be allowed within 1/2 mile of active bald eagle nests.	Do not allow new surface disturbing activities or OHV use within 1/4 mile from all active bald eagle nests from Feb 15-Jun 15.	Same as Alternative A

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1 mile of known peregrine falcon nests. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts can be mitigated through other management actions. A site specific analysis would be completed to determine if terrain features adequately protected the nest site from proposed surface disturbing activity.	Do not allow new surface disturbing activities within 1/4 mile of active peregrine falcon nests from Apr 1-Jul 15 (0 acres in level 3). These restrictions do not apply to maintenance and operations of existing programs and facilities.	Establish year-round raptor protection zones in which no construction or disturbing activities (including noise) will be allowed within 1 mile of occupied peregrine falcon nests from Feb 1-Aug 31 (0 acres in level 3).	Do not allow new surface disturbing activities within 1/4 mile of active peregrine falcon nests from Apr 1-Jul 15 (0 acres on level 3). Would not apply if impacts can be mitigated through other management actions.	Same as Alternative C
Provide habitat for and allow for reintroduction of Colorado cutthroat in Willow, Beaver, Sears, Crouse, Tolivers, Davenport, Jackson, and Argyle Creeks.	Provide stream habitat for Colorado cutthroat/brook trout in Sears, Beaver, and Davenport Creeks.	Same as Proposed Plan	Same as Alternative A	Same as Alternative A

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Allow an experimental non-essential black-footed ferret reintroduction on one (1) site in accordance with either the DMRA guidelines (outlined in Appendix 2) or USF&WS guidelines when they become final. Only those USF&WS guidelines conforming to DMRA guidelines, or those that are less restrictive, would apply to proposed reintroduction areas. An RMP amendment would be required if a more restrictive reintroduction proposal is designed. **Biological information available for Eight Mile Flat and Twelve Mile Flat areas indicate that the Eight Mile Flat area provides the best opportunity for a successful reintroduction. Based on this existing information, maintain 16,600 acres of potential habitat in Eight Mile Flat by avoiding any activities that would render potential black-footed ferret habitat unsuitable for future reintroduction.**	Maintain 19,300 acres of existing habitat in identified black-footed ferret reintroduction areas by avoiding surface disturbance in the following areas (see Map 3-28) in priority order: Sunshine Bench, Shiner, Antelope Flat, Twelve Mile, and Buckskin Hills. Allow only experimental non-essential ferret reintroductions in accordance with Bureau-approved final guidelines on a maximum of 2 areas (see Appendix 2 for guidelines on how these areas would be managed under Alternative A) where these reintroductions would not conflict with other current existing uses in the reintroduction area(s).	Maintain 33,500 acres of existing habitat in identified black-footed ferret reintroduction areas by avoiding surface disturbance in the following areas (Map 3-28) in priority order: Sunshine Bench, Shiner, Antelope Flat, Twelve Mile, Eight Mile Flat. Do not allow any activity that would render potential black-footed ferret habitat unsuitable for future reintroductions. Allow only experimental non-essential ferret reintroductions in accordance with Bureau-approved final guidelines on a maximum of 2 areas (see Appendix 2 for guidelines on how these areas would be managed under Alternative B) where these reintroductions would not conflict with other current existing uses in the reintroduction area(s).	Do not maintain potential black-footed ferret habitat.	Same as Alternative C

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Complete new studies on all five potential reintroduction areas (i.e., Eight Mile Flat, Twelve Mile Flat, Shiner, Antelope Flat, and Sunshine Bench) to determine their current suitability for reintroduction. Following studies, one of the five potential sites will be selected and that site will be protected from any activities that would render the site unsuitable for reintroduction of black-footed ferrets. In selecting this site, the most important consideration will be the biological parameters that define the likelihood of a successful reintroduction and a secondary consideration will be attempting to minimize conflicts with other resource uses. Should Eight Mile not be selected as the one reintroduction site, the protective actions imposed on Eight Mile Flat would be withdrawn. Following reintroduction, the selected site will be managed in accordance with the site-specific plan developed for the reintroduction.				
Wildlife Transplants	**Wildlife Transplants**	**Wildlife Transplants**	**Wildlife Transplants**	**Wildlife Transplants**
Provide habitat for and allow for reintroduction of: Pronghorn antelope (150-400 on Diamond Mountain); moose (100 on Diamond Mountain-Three Corners, Argyle Canyon, and Dry Fork-Little Mountain); bighorn sheep (300-400 in Browns Park Complex, 100-200 in Island Park, 100-200 in Nine Mile, 100-200 in Dry Fork); river otter; and upland game birds.	Provide habitat and allow present forage allocation for: river otter; upland game birds; antelope (12-Mile and Myton Bench); bighorn sheep (Bull Canyon and Devils Canyon).	Same as Proposed Plan	Provide habitat and allow for reintroduction of: river otter and upland game birds.	Same as Alternative A

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Improve or maintain habitat in bighorn sheep reintroduction areas (see Map 3-33). Actions may include vegetation treatments, road closures, and additional water source, **etc.**	Improve and maintain existing habitat in Nine Mile Canyon bighorn sheep reintroduction areas.	**Same as Proposed Plan**	Do not allow reintroduction of bighorn sheep.	Same as Alternative A
Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat by using negotiation of changes in class of livestock **(from sheep to livestock)** and alternative grazing systems, etc.	**Same as Proposed Plan**	No **domestic sheep** grazing within 10 miles of any potential bighorn sheep habitat.	Do not close potential bighorn sheep habitat to livestock use.	Same as Alternative C

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
LANDS AND REALTY **Access**	**LANDS AND REALTY** **Access**	**LANDS AND REALTY** **Access**	**LANDS AND REALTY** **Access**	**LANDS AND REALTY** **Access**
In addition to Alternative A, acquire legal vehicular (v) or foot/ mountain bicycle/horseback only (f) access for recreational and/or wildlife purposes to the following areas (see Map 2-1). **Approximately 70,700 of public lands would be opened to access:** HIGH PRIORITY: 8. Allen Draw (f) 9. Red Mountain (v) 10. South Pot Creek (v) **(since acquired)** 11. Wild Mtn - South Pot Cr (v) MODERATE PRIORITY: 12. Argyle Ridge (v) 13. Jensen Canyon (v) 14. Little Sulfur Canyon (f) 15. Ashley Creek Rec Site (f) 16. Hoy Mountain (f) 17. Dead Horse Draw (v) LOW PRIORITY: 18. Red Wash (f) 19. West Little Mountain (v) 20. Nine Mile Canyon-east end (v) 21. Nine Mile Canyon (f)	Acquire needed public vehicle access for recreational purposes identified as follows (these areas are noted on Map 2-6): HIGH PRIORITY: 1. Ashley Creek 2. Lambson Draw 3. Jackson Draw 4. Warren Draw MODERATE PRIORITY: 5. Horseshoe Bend LOW PRIORITY: 6. Sears Canyon 7. Marshall Draw	Acquire public foot access only across established roads and trails to enhance recreational opportunities in those areas identified under Alternative A.	Do not acquire any additional public access.	Same as Alternative A

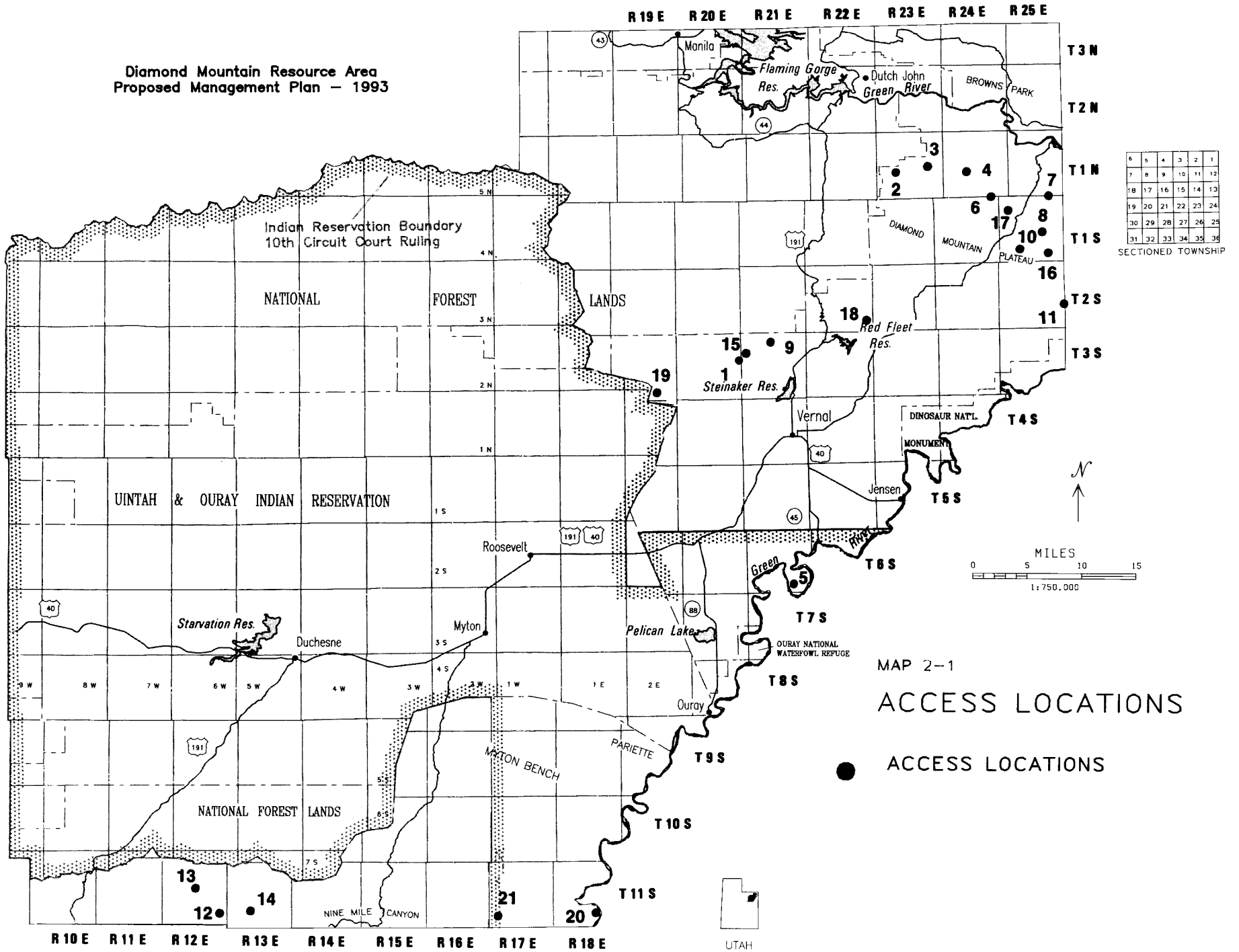

Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
Green River
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MATON BENCH
PARIETTE
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 2-1
ACCESS LOCATIONS
ACCESS LOCATIONS

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Land Use Authorization	**Land Use Authorization**	**Land Use Authorization**	**Land Use Authorization**	**Land Use Authorization**
Establish utility corridors across the resource area for placement of **major** facilities (see alternative map in map pocket). Establish level 1 lands as exclusion areas. Establish avoidance areas within level 2 lands. A pass-through will be established near the head of Little Swallow Canyon on level 1 lands in Browns Park where four pipelines currently cross the Green River. Rights-of-way will be encouraged to be placed in the Four Mile Bottom area on level 2 lands on the lower Green River, where an existing pipeline currently crosses the Green River. Make level 3 and 4 lands available to support permitted activities with special restrictions **and/**or standard conditions, **as appropriate.**	Allow placement of permitted land uses **[corridors]** that avoid Red Mountain, Six Mile Draw, Pariette Wetlands, Red Fleet, recreation sites, sage grouse strutting grounds, Jesse Ewing Canyon, Highway 191 Scenic Corridor, the Vernal watersheds, and Green River Scenic Corridor ACEC (cross only at existing crossing points).	Establish utility corridors across the resource area for placement of facilities. Establish right-of-way exclusion areas within level 1 lands. Establish right-of-way avoidance areas within level 2 lands. Allow placement of permitted land uses with restrictions on level 3 and 4 lands (see alternative map in respective map packet).	Establish utility corridors across the resource area for placement of facilities (see alternative map in map pocket). Establish right-of-way avoidance areas for level 2 lands. Allow land use authorizations on level 3 lands, if mitigation would improve forage. Allow land use authorizations on level 4 lands with standard conditions.	Establish utility corridors across the resource area for placement of facilities (see alternative map in map pocket). Provide lands (rights-of-way, permits, and land transfers) to support the minerals industry and improve manageability. Avoid placing right-of-way or other facilities on level 2 lands. Level 3 lands would be available for placement of right-of-way or other facilities with restrictions. 4 lands would be available with standard restrictions.
Lands within levels 1 and 2 and special status plant species habitat within level 3 are closed to leases and permits (142,100 acres). Lands within levels 3 and 4 may be available for consideration for leases and permits (566,900 acres).	Do not lease lands on Goslin Mountain or in Browns Park. Make 7,500 acres available for agricultural lease.	Lands within levels 1 and 2 are closed to leases and permits (414,600 acres). Lands within levels 3 and 4 may be available for consideration for leases and permits (294,400 acres).	Lands within level 2 are closed to leases and permits (10,500 acres). Lands within levels 3 and 4 may be available for consideration for leases and permits (698,500 acres).	Lands within level 2 are closed to leases and permits (4,500 acres). Lands within levels 3 and 4 may be available for consideration for leases and permits (704,500 acres). Do not allow leases that would conflict with mineral development.
Allow new major communication sites on Goslin Mountain, Little Mountain, and Asphalt Ridge.	Allow new major communication sites on Goslin Mountain and Little Mountain only. New sites on Asphalt Ridge will not be allowed.	Same as Proposed Plan	Same as Proposed Plan	Same as Alternative A

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Level 3 and 4 lands are available for major water development rights-of-way with special restrictions. Outside of these areas, water development rights-of-way may be permitted if the project is consistent with ACEC or other land management prescriptions.	Consider all lands within the resource area, except ACECs and waters suitable for wild and scenic river designation, as available for major (>1 acre-foot) water development rights-of-way with restrictions.	Do not approve any rights-of-way or withdrawals for major water developments. Water developments could be permitted if a site-specific analysis showed the project was consistent with ACEC or other management prescriptions and identified resource values.	Allow rights-of-way for major water developments on the lower and middle segments of the Green River and their tributaries (level 3 lands).	Same as Alternative C
On level 1 lands, trespass resolution would be limited to removal and restoration. Resolution of trespass on levels 2, 3, and 4 lands could include **authorization under right-of-way, lease, sale, exchange, or removal, as appropriate.** Priority for trespass resolution **would be:** HIGH PRIORITY: Level 1 and 2 lands; previous trespass presently under a 3-year (or less) agricultural permit; airport trespasses at Willow Creek and Taylor Flat. MODERATE PRIORITY: Level 3 and 4 lands.	Resolve trespass airports near Willow Creek and Taylor Flat.	Resolve agricultural and occupancy trespass at Brush Creek; resolve airport trespasses at Willow Creek and Taylor Flat.	Same as Alternative A	Same as Alternative A
Withdrawals	**Withdrawals**	**Withdrawals**	**Withdrawals**	**Withdrawals**
Recommend protective withdrawals or other protective measures that would preclude mineral **and** agricultural entry on (in priority order) the Green River Scenic Corridor (19,400 acres), the relict vegetation areas (3,600 acres), the Lower Green River ACEC (7,900 acres), and developed and potential recreation sites (5,000 acres).	Recommend protective withdrawals for all developed or potential recreation sites (5,000 acres) and 19,400 acres on the Green River Scenic Corridor ACEC.	Recommend protective withdrawals on level 1 and 2 lands, and black-footed ferret potential reintroduction areas in Sunshine Bench, Shiner, Antelope Flat, Twelve Mile, and Eight Mile Flat to preclude entry under the 1872 mining law or agricultural entry (414,600 acres).	Recommend protective withdrawals that preclude mineral **and** agricultural entry on level 2 lands (10,500 acres).	Recommend withdrawals that preclude agricultural entry only on level 2 lands (4,500 acres).

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Land Tenure and Adjustment	**Land Tenure and Adjustment**	**Land Tenure and Adjustment**	**Land Tenure and Adjustment**	**Land Tenure and Adjustment**
All lands and interests in lands in levels 2, 3, and 4 could be considered for disposal by exchange or other methods except sale (see "planning criteria–lands" in Chapter 1).	**Exchange** 65,550 acres identified.	294,400 acres (level 3 and 4 lands) could be considered for exchange.	All lands and interests in lands in the resource area would be considered for exchange. Do not exchange lands that would result in a loss of livestock grazing.	All lands and interests in lands in the resource area could be considered for exchange. Do not exchange lands that would adversely affect mineral development.
24,000 acres of isolated tracts and community expansion lands in level 3, outside of ACECs, and 4 would be considered potentially suitable for sale (see Appendix 3).	4,300 acres of isolated tracts and community expansion lands (i.e., landfills) would be considered potentially suitable for sale.	No lands would be considered suitable for sale.	Same as Alternative B	23,676 acres of isolated tracts and community expansion lands in level 3 outside of ACECs and 4 would be considered potentially suitable for sale (see Appendix 3).
Acquire fee title or interest in lands (e.g., water rights, scenic easements) with a priority placed on level 1, 2, and 3 lands.	Acquire fee title or an interest in lands (e.g., water rights) on the following level 2 lands with high value riparian or scenic resources: Nine Mile Canyon (1,100 acres); Beaver, Davenport, Galloway, Jackson, Sears, Ashley, and Willow Creeks (5,300 acres); Pariette drainage (100 acres); and Crouse Canyon (1,000 acres).	Acquire fee title or interest in lands (e.g., water rights) within or adjacent to level 1 areas.	Acquire fee title or interest in lands (e.g., water rights) to enhance livestock management on a case by case basis.	Same as Alternative A
LIVESTOCK	**LIVESTOCK**	**LIVESTOCK**	**LIVESTOCK**	**LIVESTOCK**
Maintain existing livestock grazing preference at 50,299 AUMs. Refer to "Vegetation" section of this table for criteria established to make changes to forage distribution.	Same as Proposed Plan	Establish livestock grazing preference at **25,007** AUMs. Refer to "Vegetation" section of this table for criteria established to make changes to forage distribution.	**Same as Proposed Plan**	**Same as Proposed Plan**

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
704,500 acres in levels 2, 3, and 4 lands would be open to grazing. No grazing would be allowed on relict vegetation sites and developed recreation sites within level 1 lands (4,500 acres). Occasional livestock grazing may be allowed within the Upper Green River Corridor for the purposes of noxious weed control and/or crucial deer winter habitat maintenance only if such use is controlled, short-duration, and does not detract from the recreation and/or riparian values along the river.	321,600 acres in level 4 lands are open to grazing. 383,900 acres in level 3 lands and the Pariette Wetlands would be open to grazing with special conditions. The remaining 3,500 acres are closed to grazing.	84,100 acres in level 4 lands would be open to grazing. 528,900 acres within level 2 and 3 lands would be open to grazing under improved grazing strategies to enhance or maintain identified wildlife, watershed, soil, visual, and vegetation resources. 96,000 acres in level 1 lands are closed to grazing except for those riparian areas in late or climax ecological condition where grazing is presently taking place (1,900 acres).	20,500 acres in level 4 lands would be open to grazing. 684,000 acres in level 2 lands (except for the relict vegetation areas and the developed recreation sites) and on level 3 lands would be open to grazing with number/seasonal restrictions. No grazing on relict vegetation areas and developed recreation sites (4,500 acres).	Same as Alternative C
Allow use on winter grazing permits after April 1, only when spring grazing can be rotated or periodic deferment or rest is attained.	Allow use on winter grazing permits on level 2, 3, and 4 lands after April 1.	Allow use on winter grazing permits in levels 2, 3, and 4 lands after April 1, only when spring grazing can be rotated or periodic deferment or rest is attained.	Same as Alternative A	Same as Alternative A
Manage allotments under the category system (See Appendix 8): 52 Improve (533,500 ac) 28 Maintain (144,600 ac) 28 Custodial (30,900 ac) The increase in proposed "I" allotments is due primarily to high potential for wildlife habitat improvement.	Manage allotments under the category system (See Appendix 8): 39 Improve (422,000 ac) 38 Maintain (256,900 ac) 31 Custodial (30,100 ac)	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Allow rangeland improvements and grazing prescriptions to maintain or improve the values present: 10 AMPs 12 AMP revisions 63 guzzler/spring developments 22,950 acres vegetation treatment 687 reservoirs 57 miles fence 35 miles pipelines	Same as Proposed Plan	Develop rangeland improvements only to maintain integrity of level 1 and 2 lands. Develop rangeland improvements and grazing prescriptions on level 3 and 4 lands to enhance forage production and diversity. For the resource area: 10 AMPs 12 AMP revisions 48 guzzlers-springs 9,550 ac vegetation treatment 442 reservoirs 115 miles fence 23.5 miles pipeline	Develop rangeland improvements and grazing strategies to increase livestock forage production and diversity, to sustain preference, and to provide additional forage: 10 AMPs 12 AMP revisions 61 guzzlers-springs 27,100 ac vegetation treatment 657 reservoirs 44 miles fence 35 miles pipelines	Same as Alternative C
Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat by using negotiation of changes in class of livestock, (from sheep to cattle) alternative grazing systems.	**Same as Proposed Plan**	No **domestic sheep** grazing within 10 miles of any potential bighorn sheep habitat.	Do not close potential bighorn sheep habitat to livestock use.	Same as Alternative C
MINERALS	**MINERALS**	**MINERALS**	**MINERALS**	**MINERALS**
Oil and Gas and Combined Hydrocarbon Activities	**Oil and Gas and Combined Hydrocarbon Activities**	**Oil and Gas and Combined Hydrocarbon Activities**	**Oil and Gas and Combined Hydrocarbon Activities**	**Oil and Gas and Combined Hydrocarbon Activities**
Level 4 lands (167,900 acres) would be open to leasing with standard conditions (category 1), level 3 lands (591,000 acres) would be open to leasing with special conditions (category 2), level 2 lands (95,000 acres) would be open to leasing with NSO stipulations. See map in Map Packet #8.	Level 4 lands (423,000 acres) would be open to leasing with standard conditions (category 1), level 3 lands (374,500 acres) would be open to leasing with special conditions (category 2), level 2 lands (56,500 acres) would be open to leasing with NSO stipulation (category 3).	Level 4 lands (124,400 acres of mineral estate) would be open to leasing with standard conditions (category 1), level 3 lands (262,100 acres of mineral estate) would be open to leasing with special conditions (category 2), 467,500 acres of mineral estate (level 1 and level 2 lands) would be open to leasing with NSO stipulations (category 3).	Level 4 lands (66,700 acres of mineral estate) would be open to leasing with standard conditions (category 1), level 3 lands (774,700 acres of mineral estate) would be open to leasing with special conditions (category 2), level 2 lands (12,600 acres of mineral estate) would be open to leasing with NSO stipulation (category 3).	Level 4 lands (259,200 acres mineral of estate) would be open to leasing with standard conditions (category 1), level 3 lands (588,200 acres of mineral estate) would be open to leasing with special conditions (category 2), level 2 lands (6,600 acres of mineral estate) would be open to leasing with NSO stipulation (category 3).

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Level 4 lands (112,100 acres of surface estate) will be open to geophysical exploration with standard conditions. Level 3 lands (507,200 acres of surface estate) will be open to geophysical exploration with special conditions. Level 1 and 2 lands (89,700 acres of surface estate) will be closed to significant surface disturbing activities.	All lands open to geophysical exploration with restrictions.	Level 4 lands (84,100 acres of surface estate) would be open to geophysical exploration with standard conditions, level 3 lands (210,300 acres of surface estate) would be open to geophysical exploration with special restrictions, level 1 and 2 lands (414,600 acres of surface estate).	Level 4 lands (20,500 acres of surface estate) would be open to geophysical exploration with standard conditions, level 2 and 3 lands (688,500 acres of surface estate) would be open to geophysical exploration with special restrictions, level 1 lands (0 acres) would be closed to geophysical exploration.	Level 4 lands (184,300 acres of surface estate) would be open to geophysical exploration with standard conditions. Level 2 and 3 lands (524,700 acres of surface estate) would be open to geophysical exploration with special restrictions. Level 1 lands (0 acres) would be closed to geophysical exploration.
Other Leasable Minerals	**Other Leasable Minerals**	**Other Leasable Minerals**	**Other Leasable Minerals**	**Other Leasable Minerals**
Restrictions placed on the lease or subsequent Conditions of Approval would not apply to maintenance and production of existing facilities. **Restrictions from other resource decisions will be applied to new leases, or at time of lease renewal for existing leases.**	**Same as Proposed Plan**	Restrictions placed on the lease or subsequent Conditions of Approval would apply to maintenance and production activities.	**Same as Proposed Plan**	**Same as Proposed Plan**
169,400 acres would be category 1; 581,600 acres would be category 2; 0 acres would be category 3; and 103,000 acres would be category 4.	Level 4 lands (423,000 acres) would be open to leasing with standard conditions, level 3 lands (374,500 acres) would be open to leasing with special conditions, level 2 lands (56,500 acres) would be open to leasing with NSO stipulation, 0 acres would be closed to leasing.	Level 4 lands (124,400 acres mineral estate) would be open to leasing with standard conditions, level 3 lands (262,100 acres mineral estate) would be open to leasing with special conditions, level 1 and 2 lands (467,500 acres mineral estate) would be open to leasing with NSO stipulation, 0 acres would be closed to leasing.	Level 4 lands (66,700 acres mineral estate) would be open to leasing with standard conditions, level 3 lands (774,700 acres mineral estate) would be open to leasing with special conditions, level 2 lands (12,600 acres) would be open to leasing with NSO stipulation, 0 acres would be closed to leasing.	Level 4 lands (259,200 acres mineral estate) would be open to leasing with standard conditions, level 3 lands (588,200 acres mineral estate) would be open to leasing with special conditions, level 2 lands (6,600 acres mineral estate) would be open to leasing with NSO stipulation, 0 acres would be closed to leasing.

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Exploration and development of phosphate within crucial deer and elk winter range would be allowed year round, but would require management actions designed to mitigate both short and long-term loss of habitat.	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan
Mineral Materials	**Mineral Materials**	**Mineral Materials**	**Mineral Materials**	**Mineral Materials**
169,400 acres will be category 1; 581,600 acres will be category 2; 0 acres are category 3; and 103,000 acres will be category 4. Category 4 lands may be open for mineral material site development based on a case-by-case analysis.	Allow mineral material disposals on 423,000 acres in level 4 lands with standard conditions, allow mineral material disposals on 374,500 acres in level 3 lands with special restriction, 56,400 acres in level 2 lands and Crouse Canyon, Jones Hole and Red Mountain (of level 3) are closed to mineral material disposals.	Allow mineral material disposals on 124,400 acres of mineral estate in level 4 lands with standard conditions, allow mineral material disposals on 262,100 acres of mineral estate in level 3 lands with special restrictions, allow no mineral material disposals on 467,500 acres of mineral estate in level 1 and 2 lands.	Allow mineral material disposals on 66,700 acres of mineral estate in level 4 lands with standard conditions, allow mineral material disposals on 774,700 acres of mineral estate in level 3 lands with special restrictions, allow no mineral material disposals on 12,600 acres of mineral estate in level 2 lands.	Allow mineral material disposals on 259,200 acres of mineral estate in level 4 lands with standard conditions, allow mineral material disposals on 588,200 acres of mineral estate in level 3 lands with special restrictions, allow no mineral material disposals on 6,600 acres of mineral estate in level 2 lands.
Locatables	**Locatables**	**Locatables**	**Locatables**	**Locatables**
Apply mitigating measures to 686,200 acres of mineral estate to level 1, 2 and 3 lands to protect identified values.	Apply restrictions to 431,000 acres of mineral estate on level 2 and 3 lands to protect identified values.	Apply restrictions to 729,670 acres of mineral estate to level 1, 2, and 3 lands to protect identified values.	Apply restrictions to 787,300 acres of mineral estate to level 2 and 3 lands to protect identified values.	Apply restrictions to 594,800 acres of mineral estate to level 2 and 3 lands to protect identified values.

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
RECREATION	RECREATION	RECREATION	RECREATION	RECREATION
OHV	OHV	OHV	OHV	OHV
299,600 acres in level 3 and 4 lands are open to OHV use, 364,200 acres in level 3 are limited to OHV use with seasonal or yearlong restrictions to designated roads and trails; and 45,200 acres in level 1 and 2 lands are closed to OHV use (refer to Map Packet #10). These closures and limitations will not apply to BLM permitted uses that require off-road travel (e.g., grazing permit operations.)	642,400 acres in level 2, 3 and 4 lands are open to OHV use, **52,800** acres in Pariette, the Red Creek ACEC, and Green River Scenic Corridor ACEC are open to OHV use on designated roads and trails, 13,800 acres in the Wrinkles Road area are open to OHV use on existing roads. These closures and limitations would not apply to BLM permitted uses that require off-road travel (e.g., grazing permit operations).	294,400 acres in level 3 and 4 lands are open to OHV use, 258,900 acres in level 2 lands (except for the semi-primitive non-motorized), the 5 black-footed ferret reintroduction areas, and the developed recreation sites in level 1 are open to OHV use on designated roads and trails **seasonally or year long** 155,700 acres in the semi-primitive non-motorized areas and the remaining level 1 lands are closed to OHV use. These closures and limitations would not apply to BLM permitted uses that require off-road travel (e.g., grazing permit operations).	20,500 acres in level 4 lands are open to OHV use, 688,500 acres in level 2 and 3 lands are **limited** to OHV use on designated roads and trails. These closures and limitations would not apply to BLM permitted uses that require off-road travel (e.g., grazing permit operations).	**489,000** acres in level 3 and 4 lands are open to OHV use, **220,000** acres of level 3 lands are **limited** to OHV use on designated roads and trails. These limitations would not apply to BLM permitted uses that require off-road travel (e.g., grazing permit operations).

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Recreation Development	**Recreation Development**	**Recreation Development**	**Recreation Development**	**Recreation Development**
Develop recreation facilities at: near Jones Hole, Brough Reservoir, and Red Mountain (outside the relict vegetation site), Cottonwood Grove, Horseshoe Bend. Expand facilities at: Bridge Hollow, Pelican Lake, Dry Fork Canyon, Indian Crossing. Maintain recreation facilities at the present size: Pugmire Pocket, Red Creek, Sand Wash, Swallow Canyon, Jackson Creek. Provide facilities at Pariette Wetlands. Allow development of limited facilities at identified potential sites (see Table 3-14) and along the upper Green River needed to protect health and human safety.	Develop recreation facilities at: near Jones Hole, Brough Reservoir, Cottonwood Grove, Horseshoe Bend. Expand recreation facilities at: Bridge Hollow, Pelican Lake, Dry Fork Canyon. Maintain recreation facilities at their present size: Indian Crossing, Pugmire Pocket, Red Creek, Sand Wash, Swallow Canyon, Jackson Creek. Provide minimum facilities to protect human health and safety at Pariette Wetlands.	Maintain recreation facilities at their present size: Bridge Hollow, Pelican Lake, Dry Fork Canyon, Indian Crossing, Jackson Creek, Pugmire Pocket, Red Creek, Sand Wash, Swallow Canyon. Develop facilities to protect natural systems on hiking, horseback, and mountain bicycle trails, along the Green River, and in other primitive recreation use areas.	Maintain existing recreational facilities. Allow no new major facilities in level 3 and 4 lands, may establish primitive (fire-ring, vault toilet and/or picnic table) recreational facilities to meet public demand in level 3 and 4 lands.	Same as Alternative A except do not develop Horseshoe Bend as a recreation site.
Developed recreation sites would be closed to grazing and surface disturbing activities not related to recreation development. **OHV use would be limited to designated roads and trails.**	**Developed** recreation sites would be closed to grazing and surface disturbing activities not related to recreation development.	**Same as Alternative A**	**Same as Alternative A**	**Same as Alternative A**
Continue Special Recreation Management Area (SRMA) status for the Green River Scenic Corridor and Pelican Lake. Establish an SRMA for the Red Mountain-Dry Fork Complex and Nine Mile Canyon Areas.	Continue Special Recreation Management Area (SRMA) status for the Green River Scenic Corridor and Pelican Lake.	Same as Proposed Plan	Same as Alternative A	Same as Alternative A

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Develop interpretive facilities at Diamond Hoax, Taylor Flat, Pariette Wetlands, Clay Basin Gas Field, and Brush Creek.	Develop interpretive sites at Diamond Hoax, Taylor Flat, Pariette Wetlands and Clay Basin Gas Field.	Develop interpretive facilities at Diamond Hoax, Taylor Flat, Pariette Wetlands, Clay Basin Gas Field, Brush Creek, and Sand Pockets. Do not place any permanent recreation facilities on big horn sheep habitat; reroute existing trails away from crucial bighorn sheep habitat.	Same as Alternative A	Same as Alternative A
Do not issue any bear baiting permits.	**Allow bear baiting by permit only.**	**Same as Proposed Plan**	**Same as Alternative A**	**Same as Alternative A**
Develop 55 miles of hiking and/or horseback trails along the Green River and on Dry Fork, Ashley Creek, Beaver, Willow, Nine Mile and other places in the resource area. Establish 12 miles of mountain bicycle trails using existing rural roads and trails. Establish a non-motorized trail along Sears Canyon.	Develop 15 miles of hiking trails along Beaver, Willow, Ashley, Dry Fork and other creeks in the resource area. Develop Sears Canyon as a hiking/horseback trail.	Establish 20 miles of hiking, mountain bicycle, and horseback trails.	Same as Alternative A	Same as Alternative A
Maintain the character and values of 43,200 acres (includes 6,800 acres in Six Mile Draw) of identified semi-primitive nonmotorized areas by closing the areas to OHV use and motorized surface disturbing activities. See Map 2-2.	Maintain 6,800 acres at 6-Mile Draw for its primitive values.	Maintain the character and values of 60,700 acres of identified semi-primitive non-motorized areas (see Map 3-20) by closing the areas to OHV use and motorized surface disturbing activities.	Do not maintain Semi-Primitive, Non-Motorized areas.	Same as Alternative C
Establish the Jones Hole road, the Diamond Mountain-Browns Park-Clay Basin Loop and the Red Cloud Loop as Back-Country Byways. Continue the established Nine Mile Canyon Back-country Byway designation.	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan	Do not establish any more Back-country Byways. Continue the established Nine Mile Canyon Back-country Byway designation.

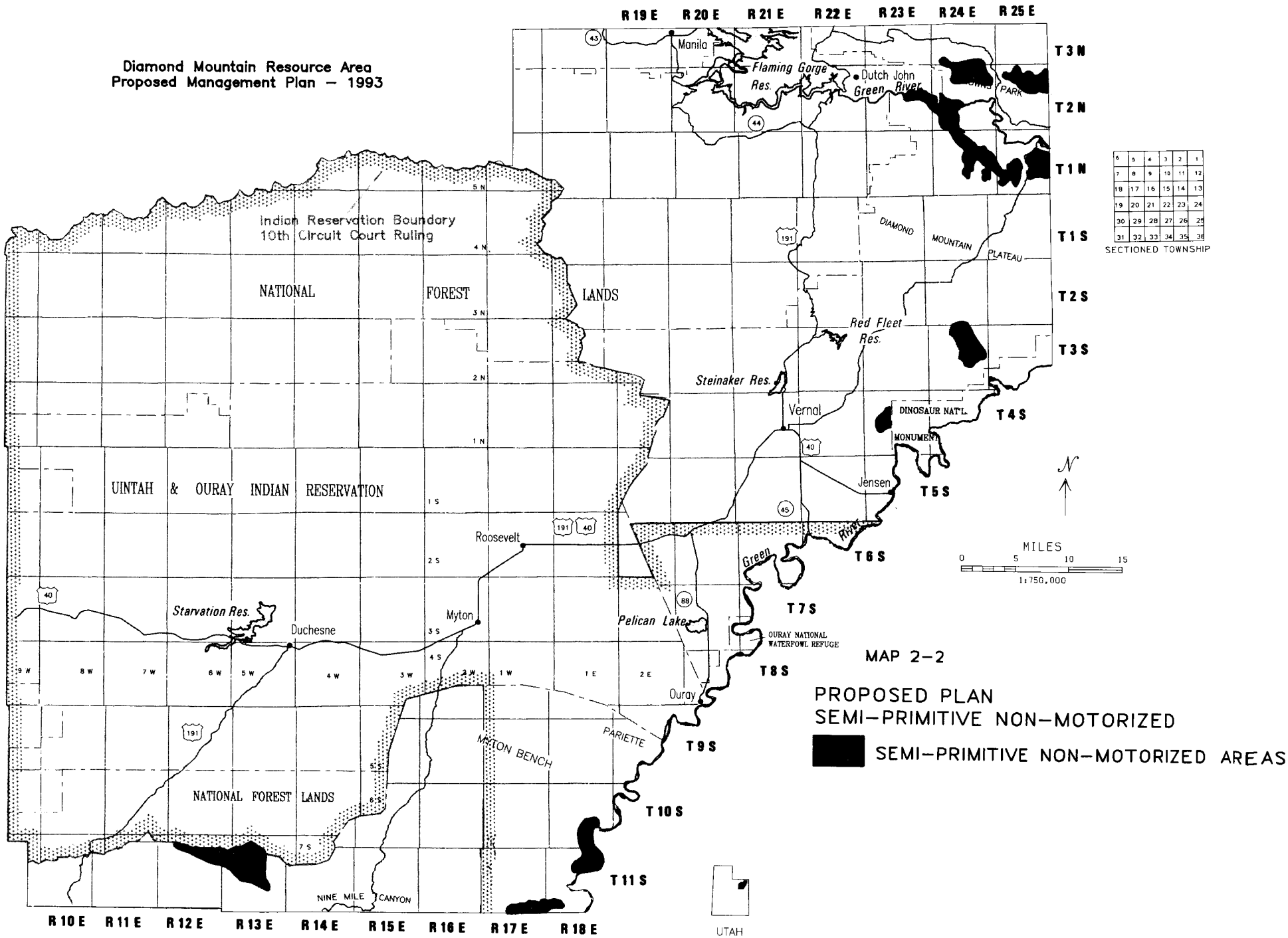

Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
DINOSAUR NAT'L. MONUMENT
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
Jensen
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NINE MILE CANYON
Green River
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 2–2
PROPOSED PLAN
SEMI–PRIMITIVE NON–MOTORIZED
SEMI–PRIMITIVE NON–MOTORIZED AREAS

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
RIPARIAN	**RIPARIAN**	**RIPARIAN**	**RIPARIAN**	**RIPARIAN**
7,200 acres of riparian habitat in early and mid ecological stages would be improved by establishing grazing systems and implementing rangeland improvements designed to enhance the riparian values. **Necessary improvements would be:** 12.5 miles of fence and 9 miles of pipeline. Close to livestock grazing, those riparian areas that do not satisfactorily respond to improved grazing management.	**Same as Proposed Plan**	Riparian habitat in early and mid ecological stage would be improved by closing **20,000** acres (requires 84 miles of fence) to grazing and **20,000** acres to OHV use. Riparian areas in late and climax ecological condition (1900 acres) where grazing is presently taking place will continue to be open to grazing. Construct rangeland improvements on 9,500 acres designed to enhance riparian values.	**Same as Proposed Plan**	**Same as Proposed Plan**
Allow new surface disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long term impacts are fully mitigated or that the construction is an enhancement to the riparian area.	Allow new surface disturbing activities outside a 600-foot buffer of live water or perennial streams. Allow surface disturbing activities within the 600-foot buffer, if designed to enhance riparian values or if there is no practical alternative.	Allow no livestock grazing, OHV use and new surface disturbing activities within a 700-foot buffer of riparian areas **in early and mid ecological stage.**	Allow surface disturbing activities and grazing designed to enhance or maintain riparian objectives within the 330-foot riparian buffer.	**Same as Proposed Plan**
SOIL AND WATER	**SOIL AND WATER**	**SOIL AND WATER**	**SOIL AND WATER**	**SOIL AND WATER**
Allow new surface disturbing activities on critical soils on **75,000** acres within level 3 lands if watershed values are maintained.	Upland mountain areas (**greater than** 12" precipitation) are open to surface disturbance from May 1 to Oct 31. Slopes of **less than** 40% are open to surface disturbance.	Allow surface disturbance on level 3 and 4 lands if watershed protection is maintained. Activities designed to enhance or maintain soil or water values will be allowed on level 1 and 2 lands.	Allow new surface disturbing activities on critical soils within level 3 lands if watershed values are maintained.	Same as Alternative C

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Level 3 and 4 lands are available for major water development, rights-of-way, or other authorization with special restrictions. Outside of these areas, major water developments could be permitted if the project is consistent with ACEC or other land management prescriptions.	All lands except the ACECs and rivers determined to be eligible for the National Wild and Scenic River System would be available for major (> 1 acre-foot) water development, rights-of-way, or other authorization with restrictions.	No lands would be available for major water developments, rights-of-way, or other authorization. Water developments could be permitted if a site-specific analysis showed the project was consistent with ACEC or other management prescription and identified resource values.	The lower and middle segments of the Green River and their tributaries (level 3 lands) would be available for major water development, rights-of-way, or other authorization.	Same as Alternative C
Limit OHV use to designated roads and trails and allow no new surface disturbing activities during periods of saturated soils on areas of critical soils, floodplains, and municipal watersheds.	Preclude OHV use and surface disturbing activities in areas of critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains).	Preclude OHV use and surface disturbing activities in areas of highly erodible soils and on municipal watersheds. Preclude OHV use and surface disturbing activities in areas of other critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains).	Same as Alternative A	Same as Alternative A
Wild and Scenic Rivers	**Wild and Scenic Rivers**	**Wild and Scenic Rivers**	**Wild and Scenic Rivers**	**Wild and Scenic Rivers**
Determine to be suitable and continue to recommend for designation as a scenic river, the Upper Green River between Little Hole and the Colorado State Line in the Wild and Scenic River System.	**Same as Proposed Plan**	**Same as Proposed Plan**	Withdraw recommendation to include the upper Green River in the Wild and Scenic River System.	Same as Alternative C
Recommend the lower Green River segment for suitability as a scenic river under the Wild and Scenic Rivers Act (see "Planning Criteria--Special Emphasis Areas" in Chapter 1). Drop the middle Green River segment from further consideration.	Continue to manage the lower and middle Green River segments for their wild and scenic rivers values (see "Planning Criteria--Special Emphasis Areas" in Chapter 1).	Recommend the lower Green River segment for designation as a scenic river and the middle Green River for designation as a recreational river under the Wild and Scenic Rivers Act (see "Planning Criteria--Special Emphasis Areas" in Chapter 1).	Do not recommend the lower or middle Green River for designation under the Wild and Scenic Rivers Act.	Same as Alternative C

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Do not recommend any segments of Argyle Creek or Nine Mile Creek for suitability or designation under the Wild and Scenic Rivers Act.	**No action under this alternative.**	Recommend Argyle Creek (headwaters to the Carbon County border) and Nine Mile Creek (segment between Argyle Creek and the Carbon County border) as recreational rivers under the Wild and Scenic Rivers Act. Recommend Nine Mile Creek (from Gate Canyon to the Green River) as scenic under the Wild and Scenic Rivers Act.	**Same as Proposed Plan**	**Same as Proposed Plan**
Wilderness Study Areas	**Wilderness Study Areas**	**Wilderness Study Areas**	**Wilderness Study Areas**	**Wilderness Study Areas**
Continue to manage the Diamond Breaks WSA (3,940 acres) and the West Cold Springs WSA (3,300 acres) under the Interim Management Policy until formal designation has been made by congress. Should either one or both not be designated as wilderness, manage them as a semi-primitive nonmotorized areas within the Browns Park Complex ACEC.	Continue to manage the Diamond Breaks WSA (3,940 acres) and the West Cold Springs WSA (3,300 acres) under the Interim Management Policy until formal designation has been made by Congress. Should either not be designated as wilderness, return the area to multiple use management.	**Same as Proposed Plan**	Same as Alternative A	Same as Alternative A
VEGETATION	**VEGETATION**	**VEGETATION**	**VEGETATION**	**VEGETATION**
Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the resource area with restrictions to protect desired ground cover and water quality.	**Same as Proposed Plan**	Allow only biological control of noxious weeds and insect infestations within the resource area with restrictions to protect ground cover and water quality.	**Same as Proposed Plan**	**Same as Proposed Plan**

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Manage the vegetation to attain the ecological stage that would benefit wildlife in crucial habitat and manage vegetation in remaining areas which results in high vegetation species diversity. For the resource area: 60% Late Seral-Climax 35% Mid Seral 5% Early Seral Management practices in priority order: rangeland treatments **and/or** grazing prescriptions, and livestock reductions (livestock reductions could be made if needed to achieve wildlife use goals by allotment in crucial wildlife habitat).	Manage the vegetation to attain the ecological stage that would benefit wildlife in crucial habitat (while maintaining livestock preference) and manage vegetation in remaining areas which results in high vegetation species diversity. For the resource area: 60% Late Seral-Climax 35% Mid Seral 5% Early Seral Management practices in priority order: rangeland treatments, grazing prescriptions, and livestock reductions (livestock reductions could be made if needed to achieve wildlife use goals by allotment in crucial wildlife habitat).	Manage the vegetation to attain the ecological condition which results in at least 70% late to climax seral stage. Reduce livestock to achieve wildlife use. For the resource area: 70% Late Seral-Climax 25% Mid Seral 5% Early Seral Management practices in priority order: (1) rangeland treatments and (2) livestock reductions (livestock reductions could be made to achieve wildlife use goals by allotment.	Manage the vegetation to attain the ecological stage which provides the greatest amount of forage production for livestock and increase livestock preference. For the resource area: 50% Late Seral-Climax 45% Mid Seral 5% Early Seral Management practices in priority order: rangeland treatments **and/or** grazing prescriptions, and wildlife reductions (wildlife reductions could be made to maintain livestock preference).	Same as Alternative C
Maintain existing livestock preference of 50,299 AUMs. Provide a maximum of 40,000 AUMs for wildlife forage. Increase in wildlife AUMs will be realized through rangeland improvements and land acquisitions. See management practices above.	Maintain 50,299 AUMs for existing livestock preference. Provide a maximum of 35,000 AUMs for wildlife forage.	Provide a maximum of 46,000 AUMs (management objective) for wildlife forage. All additional AUMs obtained through rangeland improvements would be assigned to wildlife. **Establish 25,007** AUMs for livestock preference (see following criteria for adjustments in forage assignments).	Maintain 50,299 AUMs for existing livestock preference. Provide a maximum of 27,600 AUMs for wildlife forage.	Same as Alternative C
Manipulate **22,950** acres of pinyon-juniper woodlands and sagebrush communities to increase forage production and improve wildlife habitat and watershed.	Manipulate **22,950** acres of pinyon-juniper woodlands and sagebrush communities to increase forage production.	Manipulate **9,500** acres of pinyon-juniper woodlands and sagebrush communities to increase forage production for wildlife and watershed habitat improvement.	Manipulate 27,100 acres of pinyon-juniper woodlands and sagebrush communities to maximize forage production for livestock.	Same as Alternative C

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Provide additional AUMs (over preference) to livestock on a temporary non-renewal basis until identified for crucial wildlife needs. Additional AUMs outside crucial wildlife areas may be assigned to livestock.	Provide additional AUMs as follows: In the northern half of the resource area (Diamond Mountain and Browns Park), additional AUMs will be provided to livestock on a temporary non-renewable basis until wildlife demands require them. In the southern half of the resource area (Ashley Valley and Myton Bench), forage increases will be divided equally between livestock and big game on non-crucial wildlife areas. If this additional forage is not needed by big game, it will be given to livestock on a temporary, non-renewable basis.	Areawide, additional forage will be provided to either wildlife or watershed.	Additional forage obtained will be assigned to livestock.	Same as Alternative A, however do not allow existing wildlife habitat boundaries to expand as a result of these increases or additional restrictions imposed on minerals.

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
If monitoring indicates that forage assignments cannot be met and all management options are exhausted, reductions will be made using the following criteria: Livestock temporary non-renewable AUMs above preference will be reduced first. On wildlife crucial habitat, livestock preference will be reduced if there is a conflict between use by livestock and wildlife; **and if wildlife numbers are within the herd unit or population objective levels;** if there is no conflict and the reduction is necessary because of overuse by either livestock or wildlife, that animal's numbers will be reduced. On non-crucial wildlife habitat, livestock preference and wildlife numbers will be reduced equally. The first year, preference reductions will be made by planning unit with an initial 10 percent adjustment. Five-year agreements would be developed and signed at the same time outlining the process for phased reductions to the desired level.	**In the Ashley Creek and Three Corners Grazing EISs, big game numbers would be allowed to increase only to the point livestock preference will not be reduced.** If monitoring shows that reductions are necessary because of livestock use, temporary non-renewable livestock AUMs would be reduced first, then livestock preference would be reduced. The first year, preference reductions would be made by planning unit with an initial 10 percent adjustment. Five-year agreements would be developed and signed at the same time outlining the process for phased reductions to the desired level.	If monitoring indicates forage assignments cannot be met and all other management options are exhausted, livestock preference would be reduced. Adjustments would be attained by decision or agreement. The first year, preference reductions would be made by planning unit with an initial 10 percent adjustment. Five-year agreements would be developed and signed at the same time outlining the process for phased reductions to the desired level.	If monitoring indicates forage assignments cannot be met and all other management options are exhausted, wildlife use would be reduced.	Same as Alternative C.
Special Status Species	**Special Status Species**	**Special Status Species**	**Special Status Species**	**Special Status Species**
Do not allow surface disturbing activities on 48,000 acres of special status plants and their habitats. A site specific analysis would be completed to determine if site characteristics excluded potential habitat from proposed surface disturbing activity.	Do not allow surface disturbing activities on special status plants within 48,000 acres of special status plant habitat if it is determined that individuals would be destroyed.	Close 48,000 acres of special status plant habitat to all surface disturbing activities, grazing and OHV use.	Same as Alternative A.	Same as Alternative A.

TABLE 2-15 (Continued):
AREAWIDE MANAGEMENT DECISIONS FOR PROPOSED PLAN AND ALTERNATIVES

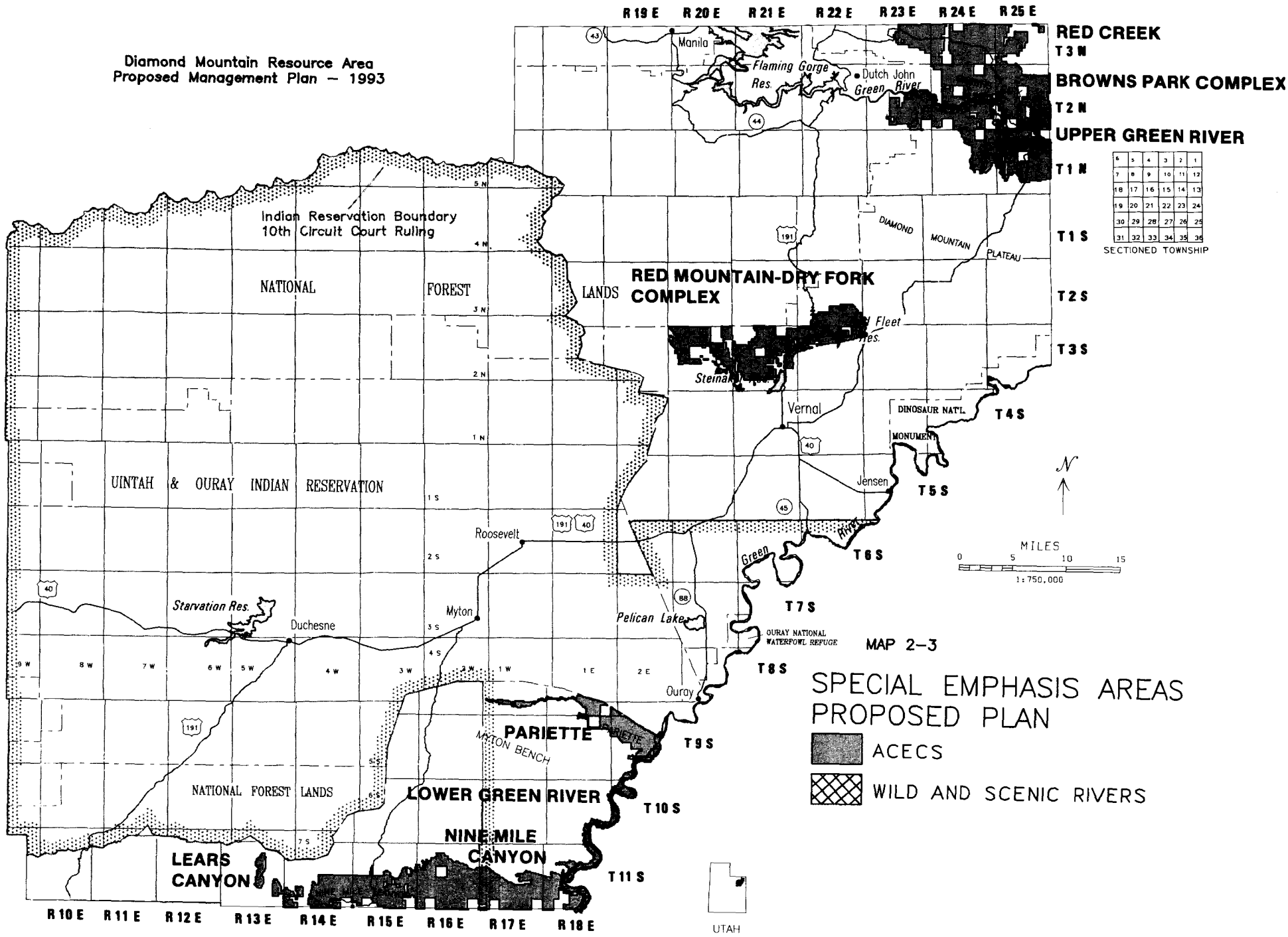
PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
VISUAL	**VISUAL**	**VISUAL**	**VISUAL**	**VISUAL**
Maintain the natural/primitive qualities of the VRM Class II areas. Allow only short-term or mitigable visual intrusions on VRM Class II lands and within line of sight or 1/2 mile (whichever is less) of the Upper and Lower Green River.	Maintain natural/primitive qualities of the VRM Class II areas. Allow only short-term or mitigable visual intrusions within 1/2 mile or line-of-sight (whichever is smaller) in Green River Scenic Corridor ACEC and within 1/4 mile or line-of-sight of the Browns Park-Jones Hole Road or other VRM class II areas. Allow no surface disturbance which would detract from the natural/ primitive qualities of the Rainbow Park road.	Protect natural/primitive qualities of the VRM class II areas. Allow only mitigable visual intrusions on VRM Class II lands and within 1/2 mile or line-of-sight of the Green River.	Maintain natural/primitive qualities of the VRM class II areas. Allow only short-term or mitigable visual intrusions within 1/2 mile or line-of-sight of the upper Green River.	Same as Alternative C
WOODLANDS	**WOODLANDS**	**WOODLANDS**	**WOODLANDS**	**WOODLANDS**
172,800 acres of productive woodlands in level 3 and 4 lands are open to pinyon-juniper harvest with restrictions, not to exceed sustained yield on productive woodland areas. This equates to an allowable cut of 3,700 cords per year. Level 2 lands are closed to pinyon-juniper (both green and dead/down) harvest.	Allow harvest of pinyon-juniper firewood (green and dead/down) by permit to meet demand (averages 2,300 cords per year). Do not sell firewood in Crouse Canyon (600 acres) in level 2.	51,300 acres of productive woodlands in level 3 and 4 lands are open to pinyon-juniper (green and dead/down) harvest subject to special or standard conditions, not to exceed sustained yield on productive woodland areas. This equates to an allowable cut of 1,100 cords per year. Level 1 and 2 lands are closed to pinyon-juniper harvest.	203,264 acres of productive woodlands in level 3 and 4 lands are open to pinyon-juniper harvest with restrictions, not to exceed sustained yield on productive woodland areas. This equates to an allowable cut of 4,300 cords per year. Level 2 lands are closed to pinyon-juniper (both green and dead/down) harvest.	Same as Alternative A
On a case-by-case basis, to meet other resource management goals on 85,900 acres of level 3 and 4 lands sell ponderosa pine, cottonwood, other large conifer, and aspen firewood.	The resource area is closed to the harvest of ponderosa pine, cottonwood, other large conifers, and aspen firewood.	Same as Alternative A	Based on demand, 83,700 acres in level 3 and 4 lands are open to the harvest of ponderosa pine, other large conifers, and aspen firewood. Cottonwoods would not be sold.	Based on demand, 101,200 acres in level 3 and 4 lands are open to the harvest of ponderosa pine, other large conifers, cottonwoods and aspen firewood.
Based on public demand, 621,900 acres within levels 3 and 4 lands are open for the harvest/collection of common native seed, Christmas trees, juniper fence posts, and pinyon pinenuts, live trees, and non-barrel cactus.	Based on public demand, 202,700 acres within the resource area are open to the harvest of pinyon-juniper Christmas Trees, juniper fence posts, pine nuts and the digging of live trees and non-barrel cactus with restrictions.	Based on public demand, 294,400 acres within levels 3 and 4 lands are open for the harvest-collection of common native seed, Christmas trees, juniper fence posts, pinyon pinenuts, live trees and non-barrel cactus.	Based on public demand, 698,500 acres within levels 3 and 4 lands are open for the harvest-collection of common native seed, Christmas trees, juniper fence posts, and pinyon pinenuts, live trees and non-barrel cactus.	Based on public demand, 704,500 acres within levels 3 and 4 lands are open for the harvest-collection of common native seed, Christmas trees, juniper fence posts, and pinyon pinenuts, live trees and non-barrel cactus.

SPECIAL EMPHASIS AREA DECISIONS FOR THE PROPOSED PLAN AND THE ALTERNATIVES

Tables 2-16 through 2-20 outline all major decisions for special emphasis areas for the proposed plan and the alternatives respectively. For complete understanding of the decisions proposed for a specific special emphasis area under a specific alternative, these tables must be read in conjunction with the "Management Common to All Alternatives" presented at the beginning of this chapter. Please note, text in bold print indicates changes from the draft document.

NARROW-LEAF EVENING PRIMROSE

SPECIAL STATUS


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E
RED CREEK
T 3 N
BROWNS PARK COMPLEX
T 2 N
UPPER GREEN RIVER
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
RED MOUNTAIN-DRY FORK COMPLEX
DIAMOND MOUNTAIN PLATEAU
Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
PARIETTE
MYTON BENCH
NATIONAL FOREST LANDS
LOWER GREEN RIVER
NINE MILE CANYON
LEARS CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 2-3
SPECIAL EMPHASIS AREAS
PROPOSED PLAN
ACECS
WILD AND SCENIC RIVERS

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
General Management Objective: Protect and enhance crucial deer winter range, outstanding scenic, cultural, riparian, fisheries, and special status species resource values, while enhancing recreation opportunities, and maintaining compatible uses. Incorporate the Green River Scenic Corridor ACEC and include the Crouse Canyon scenic area and the two existing Wilderness Study Areas in this management complex.	**General Management Objective:** Retain the area's present natural douglas fir-mountain browse and pinyon-juniper communities as a comparison or control area and to provide/set aside an area in a late to climax ecological stage for research and/or educational purposes within this vegetation community type.	**General Management Objective:** Enhance and protect the delicate riparian community adjacent to the Green River for special status fish, bird and plant species, while maintaining the wild and scenic river qualities of this river segment.	**General Management Objective:** Protect and enhance the cultural and special status plant species values of the canyon; while enhancing its scenic, recreation and wildlife resource values.
Total Federal Acreage: 55,700	**Total Federal Acreage:** 1,400	**Total Federal Acreage:** 7,900	**Total Federal Acreage:** 50,800
MANAGEMENT LEVELS: 1 - 3% - Green River floodplain, developed recreation sites. 2 - 52% - Crucial deer winter habitat, raptor sites, primitive/ natural areas, cultural sites eligible for or listed on the National Register of Historic Places, riparian, and sage grouse habitat. 3 - 45% - Remaining resources	**MANAGEMENT LEVELS:** 1 - 100% - Relict vegetation (supporting resource values: critical soils, crucial big game habitat, cultural and visual resources).	**MANAGEMENT LEVELS:** 2 - 30% Cultural sites eligible for or listed on NRHP, primitive/ natural areas, special status species habitat, Desolation Canyon National Historic Landmark, Sand Wash Recreation Site. 3 - 70% - Riparian habitat, raptor habitat, critical watersheds, sensitive plant species habitat, potential recreation areas, critical soils, potential bighorn sheep habitat, crucial antelope habitat and significant cultural and paleontological areas.	**MANAGEMENT LEVELS:** 2 - 20% - Cultural sites eligible for or listed on NRHP, scenic and recreational values of Nine Mile and Argyle Creeks, the existing Sand Wash Recreation Site, special status plant species habitat and primitive/natural areas. 3 - 80% - Riparian, raptor habitat, special status plant species habitats, visual resources, highly erodible soils, crucial big game winter habitat, potential bighorn sheep habitat, and high sensitive cultural areas.
MANAGEMENT PRESCRIPTIONS:	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**
Cultural - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Establish interpretive sites and trails in the Jarvie area and Little Hole. Continue to manage, interpret, stabilize and protect the historic properties at the John Jarvie Historic District. Consult with the Ute Tribe for protection of areas and items of traditional lifeways and religious significance.	**Consult with the Ute Tribe for protection of areas and items of traditional lifeways and religious significance.**	**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. **Consult with the Ute Tribe for protection of areas and items of traditional lifeways and religious significance.**	**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Develop approximately 5 miles of recreation and interpretive trails and/or facilities at selected cultural sites. Develop a facility in Nine Mile Canyon to interpret and control use of the areas. Consult with the Ute Tribe for protection of areas and items of traditional lifeways and religious significance.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
General Management Objective: Enhance and protect the wetlands community and associated habitat adjacent to Pariette and Castle Peak Washes, ensuring continued waterfowl production and no long-term deterioration of the water quality in Pariette Wash; reduce sedimentation to the Green River by stabilizing streambanks and water channels; while meeting the management objectives of the final recovery plans for the special status species associated with the area.	**General Management Objective:** Manage the watershed to continue the reduction of sedimentation into Red Creek, and the downstream Green River, by stabilizing channels and streambanks to lessen erosion, and by maintaining or increasing vegetation cover **throughout the watershed**; and enhance wildlife habitat values.	**General Management Objective:** Protect cultural sites eligible for listing on the National Register of Historic Places; protect significant paleontological sites; protect relict vegetation communities; enhance supporting resource values of wildlife habitat, municipal watershed, riparian and scenic values while allowing compatible uses.
Total Federal Acreage: 11,600	**Total Federal Acreage:** 24,400	**Total Federal Acreage:** 25,800
MANAGEMENT LEVELS: 2 - 90% - Riparian and special status species habitats, cultural sites eligible for or listed on the National Register of Historic Places (NRHP). 3 - 10% - Raptor, crucial antelope and potential black-footed ferret habitats, critical watershed, high salt-containing soils, potential recreation sites, high sensitivity archeological and paleontological areas.	**MANAGEMENT LEVELS:** 2 - 2% - Sage grouse strutting grounds, cultural sites eligible or listed on the NRHP. 3 - 93 % - High erodible and salt-containing soils, riparian, crucial big game habitat, sage grouse nesting area, potential bighorn sheep habitat, raptor nesting sites. 4 - 5% - Remaining resources.	**MANAGEMENT LEVELS:** 1 - 19% - Relict vegetation 2 - 1% - Developed recreation sites. 3 - 80% - Riparian, significant cultural and paleontological zones, watershed, critical soils, crucial big game habitat, raptor habitat, and potential recreation sites.
MANAGEMENT PRESCRIPTIONS:	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**
Cultural - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Consult with the Ute Tribe for the protection of areas and items of traditional lifeways and religious significance.	**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Consult with the Ute Tribe for the protection of areas and items of traditional lifeways and religious significance.	**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Consult with the Ute Tribe for the protection of areas and items of traditional lifeways and religious significance.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Cultural (Cont) - Develop interpretive trail and/or facilities at Taylor Flat and the old Rock Saloon. Develop a self-guided tour of important historic structures and locations in the complex.			
Paleontology: Allow casual use invertebrate and flora fossil collection using hand tools only in designated areas. Based on site-specific analysis, collection of vertebrate fossils by scientific institutions could be considered. **Paleontological clearances will be required on a case-by-case basis.**		**Paleontology: Allow casual use invertebrate and flora fossil collection using hand tools only in designated areas. Based on site-specific analysis, collection of vertebrate fossils by scientific institutions could be considered.** **Paleontological clearances will be required on a case-by-case basis.**	
Fire - Pinyon-juniper woodlands would be allowed to burn under prescribed conditions in level 2 and 3 areas to enhance or expand big game habitat. Wildfires within the sagebrush and riparian zones would be fully suppressed.	**Fire** - Maintain natural role of fire within the relict vegetation community. Large scale fires would not be allowed to kill more than 50% of the pinyon-juniper community or more than 40% of the Douglas fir-mountain browse over the life of this plan. Outside of the ACEC, allow fire to burn under prescribed conditions to support stated resource values of a vigorous, healthy vegetation community, support critical soil management goals, and critical wildlife habitat management goals.	**Fire - Allow fires to burn under prescribed conditions only to enhance the stated values.**	**Fire - Allow fires to burn under prescribed conditions only to enhance the stated values.**

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Paleontology: Allow casual use invertebratae and flora fossil collection using hand tolls only in designated areas. Based on site-specific analysis, collectionof vertebrate fossils by scientific institutions could be considered. Paleontological clearances will be required on a case-by-case basis.		Paleontology: Allow casual use invertebrate and flora fossil collection using hand tools only in designated areas. Based on site-specific analysis, collection of vertebrate fossils by scientific institutions could be considered. Paleontological clearances will be required on a case-by-case basis.
Fire - Allow fires to burn under prescribed conditions only to enhance the stated values.	Fire - Allow fires to burn under prescribed conditions only to enhance the stated values.	Fire - Maintain the natural role of fire within the relict vegetation areas; however, large-scale fires would not be allowed to kill more than 3% of the ponderosa pine on Red Mountain or 50% of the sagebrush-mountain browse in Castle Cove relict vegetation areas over the life of this RMP. Outside of the relict vegetation areas allow fires to burn under prescribed conditions only to enhance the stated values.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Fish and Wildlife - Do not allow activities that would result in adverse impacts to wintering deer from December 1 through April 30 on crucial deer winter range. Do not allow any surface-disturbing activities (does not apply to boating) during the period March 1 through May 25, the waterfowl's active nesting period in level I lands except at existing developed recreation sites e.g., Jarvie Historic Site, Bridge Hollow and Indian Crossing campgrounds. Do not allow new surface disturbing activities within 1 mile of active bighorn sheep winter and rutting areas (3,900 acres) between September 1-May 15, and identified active lambing areas between April 15-June 30 (800 acres). This restriction would not apply to maintenance and operation of existing programs and facilities. Do not allow surface disturbing activities within 1,000 feet of sage grouse strutting grounds year round that cannot be mitigated or would not enhance sage grouse habitat. OHV use will be limited to designated roads and trails. Do not allow surface disturbing activities within sage grouse nesting areas (2 mile radius of sage grouse leks within the sagebrush vegetation type) from Mar 1-Jun 30 (OHV use would be limtied to designated roads and trails during this period). Would not apply if sage grouse are not present or impacts could be mitigated through other management actions. This restriction would not apply to maintenance and operation of existing programs and facilities. Construct bald eagle perch sites within level 1 areas as necessary, while maintaining the scenic integrity of the riverway.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to wintering deer from December 1 through April 30 on crucial deer winter range.	**Fish and Wildlife** - No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known golden eagle or ferruginous hawk nests which would adversely affect current use or limit or preclude potential future use of the nest, or unless a permit to take is obtained from the USF&WS. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known bald eagle nests or 1 mile of known peregrine falcon nests. These restrictions would not apply to maintenance and operation of existing facilities. They would not apply if impacts could be mitigated through other management actions. Site specific analysis would be completed to determine if terrain features adequately protected the nest site from the proposed surface disturbing activity. Provide habitat for and allow for the reintroduction of bighorn sheep and upland game birds within the lower Green River area. Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat by using negotiation of changes in class of livestock (from sheep to cattle), alternative grazing systems, etc. Improve or maintain habitat in bighorn sheep reintroduction areas. Actions may include vegetation treatment, road closures, additional water sources, etc.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to deer & elk from December 1 through April 30 on crucial deer and elk winter range. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known golden eagle or ferruginous hawk nests which would adversely affect current use or limit or preclude potential future use of the nest, or unless a permit to take is obtained from the USF&WS. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known bald eagle nests or 1 mile of known peregrine falcon nests. These restrictions would not apply to maintenance and operation of existing facilities. They would not apply if impacts could be mitigated through other management actions. Site specific analysis would be completed to determine if terrain features adequately protected the nest site from the proposed surface disturbing activity. Provide habitat for and allow for reintroductions of Colorado cutthroat, bighorn sheep, moose and upland game birds. Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat by using negotiation of changes in class of livestock (from sheep to cattle), alternative grazing systems, etc. Improve or maintain habitat in bighorn sheep reintroduction areas. Actions may include vegetation treatment, road closures, additional water sources, etc.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Fish and Wildlife - Do not allow activities that would result in adverse impact to nesting waterfowl during the period March 1 through May 25. Do not allow surface-disturbing activities within 1/8 mile of active goose nest sites year 'round. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known golden eagle or ferruginous hawk nests which would adversely affect current use or limit or preclude potential future use of the nest, or unless a permit to take is obtained from the USF&WS. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known bald eagle nests or 1 mile of known peregrine falcon nests. These restrictions would not apply to maintenance and operation of existing facilities. They would not apply if impacts could be mitigated through other management actions. Site specific analysis would be completed to determine if terrain features adequately protected the nest site from the proposed surface disturbing activity. **Maintain that portion of the potential black-footed ferret habitat within the ACEC by avoiding any activities that would render the habitat unsuitable for possible future reintroducitons (refer to Appendix 2). Complete a new study to determine its suitability for reintroduction. Should the Eight Mile Flat area (including that portion extending into this ACEC) be selected, the pre-release guidelines would be continued. Should the Eight Mile Flat area not be selected, the protective pre-release actions would be withdrawn. Following actual reintroduction, the site will be managed in accordance with the site specific plan developed for the reintroduction.**	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to deer & elk from December 1 through April 30 on crucial deer and elk winter range. Do not allow surface-disturbing activities within 1,000 feet of sage grouse strutting grounds year round that cannot be mitigated or would not enhance sage grouse habitat. OHV use will be limited to designated roads and trails. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known golden eagle or ferruginous hawk nests which would adversely affect current use or limit or preclude potential future use of the nest, or unless a permit to take is obtained from the USF&WS. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known bald eagle nests or 1 mile of known peregrine falcon nests. These restrictions would not apply to maintenance and operation of existing facilities. They would not apply if impacts could be mitigated through other management actions. Site specific analysis would be completed to determine if terrain features adequately protected the nest site from the proposed surface disturbing activity. Provide habitat and allow for the reintroduction of bighorn sheep, and upland game birds. Improve or maintain habitat in bighorn sheep reintroduction areas. Actions may include vegetation treatments, road closures, additional water sources, etc.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to deer & elk from December 1 through April 30 on crucial deer & elk winter range. OHV use on 3,800 acres of critical deer and elk winter range in the Taylor Mountain-Spring area would be shortened to 1 month from Dec. 1 through March 31. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known golden eagle or ferruginous hawk nests which would adversely affect current use or limit or preclude potential future use of the nest, or unless a permit to take is obtained from the USF&WS. No construction or surface disturbing activities (does not apply to casual use) would be allowed year 'round within 1/2 mile of known bald eagle nests or 1 mile of known peregrine falcon nests. These restrictions would not apply to maintenance and operation of existing facilities. They would not apply if impacts could be mitigated through other management actions. Site specific analysis would be completed to determine if terrain features adequately protected the nest site from the proposed surface disturbing activity. Provide habitat and allow for the reintroductions of bighorn sheep and upland game birds. Improve or maintain habitat in bighorn sheep reintroduction areas. Actions may include vegetation treatments, road closures, additional water sources, etc.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Fish and Wildlife (Cont) - Provide habitat and allow for reintroductions of Colorado cutthroat, bighorn sheep, river otter and upland game birds. Improve or maintain habitat in bighorn sheep reintroduction areas. Actions may include vegetation treatments, road closures, additional water sources, etc.			
Lands - Establish a right-of-way exclustion area within level 1 and **avoidance areas within level** 2 **lands** of the complex. Make level 3 lands available to support permitted activities with special restrictions designed to maintain the wildlife, soils and scenic values. Priority would be given for the resolution of the existing airport trespasses at Willow Creek and Taylor Flat. Recommend protective withdrawals that preclude entry under the 1872 General Mining Law and the agricultural entry laws or other protective measures on the Green River Scenic Corridor and the developed and potential recreation areas within level 1 and 2 areas of the complex.	**Lands** - Establish a rights-of-way exclustion area covering the entire area. Recommend protective withdrawals that preclude entry under the 1872 General Mining Law and the agricultural entry laws or other protective measures for the lower Green River.	**Lands** - Establish a right-of-way avoidance area within level 2 lands, make level 3 lands available to support permitted activities with special restrictions designed to protect the identified resource values. If necessary encourage rights-of-way placement in the Four Mile Bottom area on level 2 lands, where an existing pipeline crosses the river, if visual intrusions are fully mitigated. Recommend protective withdrawals that preclude entry under the 1872 General Mining Law and the agricultural entry laws or other protective measures for the lower Green River. Acquire fee title or interest in lands (e.g., water rights) within the area as they become available.	**Lands** - Acquire needed legal motorized vehicular access to Argyle Ridge, Nine Mile Canyon-east end, and Jensen Canyon. Acquire needed non-motorized access to Nine Mile Canyon and Little Sulfur Canyon. Establish a right-of-way avoidance area within level 2 lands. Make level 3 lands available to support permitted activities with special restrictions designed to protect the stated resource values. Recommend protective withdrawals that preclude entry under the 1872 General Mining Law and the agricultural entry laws or other protective measures on identified segments of Nine Mile and Argyle Creeks. Acquire fee title or interest in lands (e.g., water rights) within the area as opportunities become available.

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Lands - Establish a right-of-way avoidance area within level 2 lands. Make level 3 lands available to placement of rights-of-way with special restrictions designed to protect the stated resource values in the area. Acquire fee title or interest in lands (e.g., water rights) within level 2 areas as opportunities develop.	**Lands** - Establish a right-of-way avoidance area in level 2 lands. Make level 3 lands available to support permitted activities with special restrictions to protect the identified resource values.	**Lands** - Acquire public non- motorized access across established roads and trails to enhance recreational opportunities along Ashley Creek. Acquire legal motorized access to Red Mountain. Establish right-of-way **exclusion area in level 1 lands and avoidance areas within level 2 lands.** Allow for the placement of permitted land uses with restrictions designed to maintain or enhance the resource values in level 3 areas. Recommend protective withdrawals to preclude entry under the General Mining Law of 1872 and the agricultural entry laws or other protective measures on the level 1 and 2 lands and the potential recreation sites. Acquire fee title or interest in lands (e.g., water rights, scenic easements) within the area as opportunities become available.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Livestock (Cont) - Level 2 lands would be open to grazing under improved grazing strategies to maintain or enhance the wildlife, riparian, and vegetation values. **Occasional livestock grazing may be allowed within the Upper Green River Corridor for the purposes of noxious weed control and/or crucial deer winter habitat maintenance only if such use is controlled, of a short-duration, and does not detract from the recreation and/or riparian values along the river.** No domestic sheep grazing would be allowed. Allow rangeland improvements which maintain or improve the wildlife, scenic and recreation values of the complex.	**Livestock** - Do not allow livestock grazing within the area. Occasional one-day livestock trailing could be authorized through the area to afford proper livestock distribution elsewhere on the grazing allotment. Develop range improvements to prevent livestock from moving or drifting onto the area.	**Livestock** (Cont) - Level 3 lands would be open to grazing. Level 2 lands would be open to prescribed grazing designed to maintain or enhance the stated resource values. Level 1 lands would be open to restricted grazing on a case-by-case basis. No grazing would be allowed in the Sand Wash Recreation Site. Allow rangeland improvements and grazing prescriptions to maintain or improve the values present on the area. Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat within the ACEC by using negotiation of changes in class of livestock, and alternative grazing systems.	**Livestock (Cont) - Level 3 lands would be open to livestock grazing. Level 2 lands would be open to grazing under improved grazing strategies to enhance or maintain the level 2 values identified above.** **No grazing would be allowed on cultural sites eligible for or listed on NRHP.** **Allow rangeland improvements and grazing prescriptions to maintain or improve the stated values within the area.** **Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat within the ACEC by using negotiation of changes in class of livestock, and alternative grazing systems.**
MINERALS **Leasables** - 2,570 acres within the ACEC would be Category 1; 20,670 acres would be Category 2; 22,260 acres would be Category 3; and 0 acres would be Category 4.	**MINERALS** **Leasables** - 0 acres within the ACEC would be Category 1; 0 acres would be Category 2; 1,400 acres would be Category 3; and 0 acres would be Category 4.	**MINERALS** **Leasables** - 0 acres within the ACEC would be Category 1; 0 acres would be Category 2; 7,900 acres would be Category 3; and 0 acres would be Category 4.	**MINERALS** **Leasables** - 21,400 acres within the ACEC would be Category 1; 22,400 acres would be Category 2; 8,500 acres would be Category 3; and 0 acres would be Category 4.
Geophysical Activities - 2,570 acres within the ACEC would be open; 20,670 acres would be restricted; 31,370 acres would be open with no significant surface disturbance; and 0 acres would be closed.	**Geophysical Activities** - 0 acres within the ACEC would be open; 0 acres would be restricted; 1,380 acres would be open with no significant surface disturbance; and 0 acres would be closed.	**Geophysical Activities** - 0 acres within the ACEC would be open; 0 acres would be restricted; 7,900 acres would be open with no significant surface disturbance; and 0 acres would be closed.	**Geophysical Activities** - 21,400 acres within the ACEC would be open; 22,400 acres would be restricted; 8,500 acres would be open with no significant surface disturbance; and 0 acres would be closed.
Mineral Materials - 2,840 acres within the ACEC would be Category 1; 20,940 acres would be Category 2; 0 acres would be Category 3; and 31,920 acres would be Category 4. Level 1 lands would be closed to mineral material disposals.	**Mineral Materials** - 0 acres within the ACEC would be Category 1; 0 acres would be Category 2; 0 acres would be Category 3; and 1,400 acres would be Category 4.	**Mineral Materials** - 0 acres within the ACEC would be Category 1; 0 acres would be Category 2; 0 acres would be Category 3; and 7,900 acres would be Category 4.	**Mineral Material** - 21,010 acres within the ACEC would be Category 1; 21,620 acres would be Category 2; 0 acres would be Category 3; and 8,170 acres would be Category 4.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Livestock - Level 3 lands would be open to grazing. Level 2 lands would be open to prescribed grazing, designed to maintain and/or enhance the wetland, watershed, and special status species habitat. Allow rangeland improvements and grazing prescriptions to maintain or improve the values present on level 2 and 3 lands.	**Livestock** - Level 3 lands would be open to grazing. Level 2 lands would be open to prescribed grazing designed to maintain or enhance the watershed and wild-life habitat values. No grazing would be allowed on cultural sites eligible or listed on NRHP. Allow rangeland improvements and grazing prescriptions to maintain or improve the values identified within the ACEC.	**Livestock** - Level 3 lands would be open to livestock grazing. Level 2 lands would open to prescribed grazing with conditions designed to maintain or enhance the area's identified resource values. No grazing would be allowed in developed recreation sites or in the relict vegetation communities. Allow rangeland improvements and grazing prescriptions to maintain or improve the values present on lands within the area. **Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat within the ACEC by using negotiation of changes in class of livestock, and alternative grazing systems.**
MINERALS **Leasables** - 20 acres within the ACEC would be Category 1; 7,640 acres would be Category 2; 3,460 acres would be Category 3; and 0 acres would be Category 4. A site specific analysis of the STSA will be conducted to determine whether a portion of the tar sands deposits can be made available without adversely affecting endangered species.	**MINERALS** **Leasables** - 530 acres within the ACEC would be Category 1; 21,300 acres would be Category 2; 2,540 acres would be Category 3; and 0 acres would be Category 4.	**MINERALS** **Leasables** - 0 acres within the ACEC would be Category 1; 25,970 acres would be Category 2; 5,960 acres would be Category 3; and 0 acres would be Category 4. **Phosphate exploration and development would not be allowed between the Ashley Creek Gorge and Dry Fork Creek.** Exploration and development of phosphate within crucial deer and elk winter range outside this area would be allowed year round, but would require management actions designed to mitigate both short- and long-term loss of habitat.
Geophysical Activities - 20 acres within the ACEC would be open; 7,630 acres would be restricted; 3,460 acres would be open with no surface disturbance; and 0 acres would be closed.	**Geophysical Activities** - 530 acres within the ACEC would be open; 21,300 acres would be restricted; 2,540 acres would be open with no surface disturbance; and 0 acres would be closed.	**Geophysical Activities** - 0 acres within the ACEC would be open; 25,970 acres would be restricted; 5,960 acres would be open with no surface disturbance; and 0 acres would be closed.
Mineral Materials - 0 acres within the ACEC would be Category 1; 7,880 acres would be Category 2; 0 acres would be Category 3; and 0 acres would be Category 4.	**Mineral Materials** - 530 acres within the ACEC would be Category 1; 21,300 acres would be Category 2; 0 acres would be Category 3; and 2,570 acres would be Category 4.	**Mineral Materials** - 0 acres within the ACEC would be Category 1; 15,000 acres would be Category 2; 0 acres would be Category 3; and 10,800 acres would be Category 4.

TABLE 2-16: PROPOSED PLAN -

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Locatables - Any mining activity other than casual use would require a mining plan of operations. Operations would be restricted by stipulations designed to protect the natural values of the area within the operating parameters of the 1872 General Mining Law and FLPMA. For the level 1 areas, the preceding would be applied until a protective withdrawal is obtained.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity other than casual use would require a mining plan of operations. Operations would be restricted by stipulations designed to protect the vegetation community in the area within the operating parameters of the 1872 General Mining Law and FLPMA.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity other than casual use would require a mining plan of operations. Operations would be restricted by stipulations designed to protect the riparian and special status species in the area within the operating parameters of the 1872 General Mining Law and FLPMA.	**Locatables** - Any mining activity other than casual use would require a mining plan of operations. Operations would be restricted by stipulations designed to protect the natural and primitive values of the area within the operating parameters of the 1872 General Mining Law and FLPMA.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Locatables - Any mineral activity other than casual use would require a mining plan of operations. Operations would be restricted by stipulations designed to protect the identified resource values.	**Locatables** - Any mineral activity other than casual use would require a mining plan of operations. Operations would be restricted by stipulations designed to protect the identified resource values.	**Locatables** - Any mining activity other than casual use would require a mining plan of operations. Operations would be restricted by stipulations designed to protect the natural values of the area within the operating parameters of the 1872 General Mining Law and FLPMA. For the level 1 areas, the preceding would be applied until a protective withdrawal is obtained.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Recreation - Level 3 lands would be open to OHV use with seasonal restrictions designed to protect wildlife habitat and watershed values; level 1 and 2 and critical soils within Level 3 would be open to OHV use on designated roads and trails. Semi-primitive, nonmotorized areas within level 2 would be closed to OHV use. These designations are explained in Table 2-5 and the OHV Designation Map in Map Packet #10. Such restrictions would not apply to permitted BLM activities or authorized administrative uses. Develop recreation facilities at Cottonwood Grove. Expand recreation facilities at Bridge Hollow and Indian Crossing. Maintain recreation facilities at Pugmire Pocket, Red Creek, **Jackson Creek,** and Swallow Canyon at their present size (all within level I). **Develop interpretive facilities at Taylor Flat. Do not place any permanent recreation facilities on highorn sheep habitat in Sears Canyon and Beaver Creek.** Allow development of limited recreation facilities along the Green River needed to protect human health and safety. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreation development. **OHV use would be limited to designated roads and trails.** Develop 40 miles of hiking and/ or horseback trails along the Green River, Beaver and Willow Creeks and other areas with conditions to protect the riparian values. In Sears Canyon develop a nonmotorized trail. Maintain the high quality recreation experience along the Green River by managing float boating and related activities in cooperation with other land managing agencies through development of a new river corridor management plan.	**Recreation** - The area would be closed to OHV use due to the clear dominance of the primitive/ natural qualities (90%) of the area. This would not apply to permitted BLM activities or authorized administrative uses.	**Recreation** - Level 3 lands, excluding the critical soils would be open to OHV use with seasonal restrictions designed to protect the resource values. Level 1, 2, excluding the primitive/natural areas, and the critical soils within level 3 would be open to OHV use on designated roads and trails. The primitive/natural area within level 2 would be closed to OHV use. **This would not apply to permitted BLM activities or authorized administrative uses.**	**Recreation** - Level 3 lands, except critical soils, would be open to OHV use with seasonal restrictions designed for watershed, soils and vegetation resource protection. Level 2 (except for the primitive/natural area) and the critical soils within level 3 would be open to OHV use on designated roads and trails. The primitive/natural areas, within level 2, would be closed to OHV use. These designations are explained in Table 2-5 and the OHV Designation Map in Map Packet #10. This would not apply to permitted BLM activities or authorized administrative uses. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreational development. Maintain the character and values of the identified primitive/natural area by closing the area to OHV use and motorized surface-disturbing activities.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Recreation - Lands would be open to OHV use on designated roads and trails. This restriction would not be applied to permitted BLM activities or authorized administrative uses. Provide recreation facilities and interpretive trails at Pariette Wetlands. Recreation sites would be closed to livestock grazing and surface-disturbing activities not related to recreation development. **OHV use would be limited to designated roads and trails.** Maintain the character and values of identified semi-primitive non-motorized areas within the area by closing them to motorized surface-disturbing activities.	**Recreation** - Level 3 lands, excluding critical soils, would be open to OHV use with seasonal restrictions for the watershed and wildlife protection; level 2 lands and critical soils in level 3 would be open to OHV use on designated roads and trails. These designations are explained in Table 2-5 and the OHV Designation Map in Map Packet #10. Develop interpretive site and/or facilities in the Clay Basin Gas field.	**Recreation** - Level 3 lands, except critical soils, would be open to OHV use with seasonal restrictions; level 1 and 2 lands and critical soils within level 3 would be open to OHV use on designated roads and trails. These designations are explained in Table 2-5 and the OHV Designation Map in Map Packet #10. Maintain existing trail on Red Mountain. If, however, OHV use occurs off trail after a reasonable program of signing and public education, close trail. Close trail to Moonshine Arch to OHV use. Limit OHV use on the 1,240-acre Red Mountain potential recreation area to designated roads and trails yearlong. Develop recreation facilities on Red Mountain outside the relict vegetation area; expand recreation facilities at Dry Fork Canyon. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreation development. **OHV use would be limited to designated roads and trails.** Develop an interpretive trail and/ or facilities along Brush Creek. Develop 6 miles of nonmotorized trails along Dry Fork, Ashley Creeks and Red Mountain. Establish 12 miles of mountain bicycle trails using existing rural roads and trails.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Recreation (Cont.) - Continue the current Special Recreation Management Area (SRMA) status along the Green River Scenic Corridor at its present 17,000-acre size. Revise as necessary the existing management plan to recommendations made by 1991 study on recreation use capacity of the upper Green River (Pratt, et al.).			**Recreation** (Cont.) - Establish a Special Recreation Management Area to cover the Nine Mile Canyon area.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
		Recreation (Cont.) - Establish a Special Recreation Management Area (SRMA) to cover the Red Mountain-Dry Fork Complex.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Riparian - Outside the Green River Scenic Corridor, allow new surface-disturbing activities and grazing, only if specifically designed to enhance or maintain riparian objectives within the 330-foot riparian buffer. Within the corridor occasional livestock grazing may be allowed for the purposes of weed control and/or crucial deer winter habitat maintenance. Such grazing would be controlled, short duration, and not detract from the riparian values of the river corridor. Provide sufficient herbaceous forage biomass to meet requirements of plant vigor maintenance, bank protection and sediment entrapment. Allow new surface-disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long-term impacts are fully mitigated or that the construction is an enhancement to the riparian area.	**Riparian** - Allow new surface-disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long-term impacts are fully mitigated or that the construction is an enhancement to the riparian area. Provide sufficient herbaceous forage biomass to meet requirements of plant vigor maintenance, bank protection and sediment entrapment.	**Riparian** - Riparian habitat in early and mid ecological states would be improved by establishing grazing systems and constructing rangeland improvements designed to enhance riparian values. Provide sufficient herbaceous forage biomass to meet requirements of plant vigor maintenance, bank protection and sediment entrapment. Allow new surface-disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long- term impacts are fully mitigated or that the construction is an enhancement to the riparian area.	**Riparian** - Riparian habitat in early and mid ecological stages would be improved by establishing grazing systems and constructing rangeland improvements designed to enhance the riparian values. Provide sufficient herbaceous forage biomass to meet requirements of plant vigor maintenance, bank protection and sediment entrapment. Allow new surface-disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long- term impacts are fully mitigated or that the construction is an enhancement to the riparian area.
Soils & Water - Allow new surface-disturbing activities on critical soils within Level 3 areas of the complex if watershed values are maintained. Preclude OHV use and new surface-disturbing activities in areas of critical soils and flood-plains during times of saturated soils (usually spring runoff and fall rains). Level 3 would be available for major (>1 acre-foot capacity) water developments with special restrictions designed to maintain the visual qualities of the area. Outside of these areas, major water developments could be permitted if the project is consistent with the area prescriptions. Areas of critical soils and floodplains are closed during periods of saturated soils (usually spring runoff and fall rains) to OHV use and surface-disturbing activities.	**Soils & Water** - Allow new surface-disturbing activities on critical soils within Level 3 areas of the complex if watershed values are maintained.	**Soils & Water** - Allow new surface-disturbing activities on critical soils within Level 3 areas of the complex if watershed values are maintained. Areas of critical soils and floodplains are closed during periods of saturated soils (usually spring runoff and fall rains) to OHV use and surface-disturbing activities. Level 3 would be available for major (>1 acre-foot capacity) water developments with special restrictions designed to maintain the visual qualities of the area. Outside of these areas, major water developments could be permitted if the project is consistent with the area prescriptions.	**Soils & Water** - Allow new surface-disturbing activities on critical soils within Level 3 areas of the complex if watershed values are maintained. Areas of critical soils and floodplains are closed during periods of saturated soils (usually spring runoff and fall rains) to OHV use and surface-disturbing activities. Level 3 would be available for major (>1 acre-foot capacity) water developments with special restrictions designed to maintain the visual qualities of the area. Outside of these areas, major water developments could be permitted if the project is consistent with the area prescriptions.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Riparian - Provide sufficient herbaceous forage biomass to meet requirements of plant vigor maintenance, bank protection and sediment entrapment. Allow new surface-disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long- term impacts are fully mitigated or that the construction is an enhancement to the riparian area.	**Riparian** - Provide sufficient herbaceous forage biomass to meet requirements of plant vigor maintenance, bank protection and sediment entrapment. Allow new surface-disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long- term impacts are fully mitigated or that the construction is an enhancement to the riparian area.	**Riparian** - Provide sufficient herbaceous forage biomass to meet requirements of plant vigor maintenance, bank protection and sediment entrapment. Allow new surface-disturbing activities within 330 feet of riparian zones only when it can be shown there is no practical alternative, that long- term impacts are fully mitigated or that the construction is an enhancement to the riparian area.
Soils & Water - Allow new surface-disturbing activities on critical soils within the level 3 lands if watershed values can be maintained. Areas of critical soils and floodplains are closed during periods of saturated soils (usually spring runoff and fall rains) to OHV use and surface-disturbing activities. Level 3 lands would be available for major (>1 acre foot capacity) with special restrictions designed to protect the stated resource values. Level 2 lands could be available for such projects if it is consistent with these prescriptions.	**Soils & Water** - Allow new surface-disturbing activities on critical soils with level 3 lands if watershed values are maintained. Areas of critical soils and floodplains are closed during periods of saturated soils (usually spring runoff and fall rains) to OHV use and surface-disturbing activities. Level 3 lands would be available for major (>1 acre-foot capacity) water developments with special restrictions. Outside of these areas, major water developments could be permitted if the project is consistent with these management prescriptions.	**Soils & Water** - Allow new surface-disturbing activities on critical soils and watersheds within level 3 lands if watershed values are maintained. Areas of critical soils, municipal watersheds and floodplains are closed during periods of saturated soils (usually spring runoff and fall rains) to OHV use and surface-disturbing activities. Close Moonshine Arch Trail to OHV use. Level 3 lands would be available for major (>1 acre foot capacity) water developments with restrictions designed to maintain or enhance the area's resource values. Outside of this level, major water developments could be permitted if the project is consistent with these management prescriptions.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Special Emphasis Areas - Wild and Scenic River - Recommend for designation the Green River, between Little Hole and the Colorado state line. The following specific management prescriptions will be used to protect the river corridors recommended for designation as wild and scenic rivers: 1. Free-flowing values - To the extent BLM is authorized by law to restrict such uses, the free flowing characteristics of the river will not be modified by stream impoundments, diversions and rip-rapping. 2. River values - Outstandingly remarkable values of the identified river segment or area must be protected (subject to valid existing rights) and, to the extent practicable, enhanced. 3. Classification impacts - Management and development of the identified river and its corridor cannot be modified, subject to valid existing rights, to the degree that its eligibility or classification would be affected (i.e., its classification cannot be changed from wild to scenic, or scenic to recreational). Wilderness Study Areas - Continue to manage the Diamond Breaks WSA and the West Cold Springs WSA under the Interim Management Policy until formal designation has been made by congress. Should either one or both not be designated as wilderness manage them as a semi-primitive nonmotirized area. Develop a coordinated activity plan for the complex.	**Special Emphasis Areas** - Develop an activity plan for the area.	**Special Emphasis Areas** - Recommend this Green River segment for designation as a scenic river under the Wild and Scenic Rivers Act. The following specific management prescriptions will be used to protect the river corridors recommended for designation as wild and scenic rivers: 1. Free-flowing values - To the extent BLM is authorized by law to restrict such uses, the free flowing characteristics of the river will not be modified by stream impoundments, diversions and rip-rapping. 2. River values - Outstandingly remarkable values of the identified river segment or area must be protected (subject to valid existing rights) and, to the extent practicable, enhanced. 3. Classification impacts - Management and development of the identified river and its corridor cannot be modified, subject to valid existing rights, to the degree that its eligibility or classification would be affected (i.e., its classification cannot be changed from wild to scenic, or scenic to recreational). Develop a coordinated activity plan for the area.	**Special Emphasis Areas** - Develop a coordinated activity plan for the area.

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX

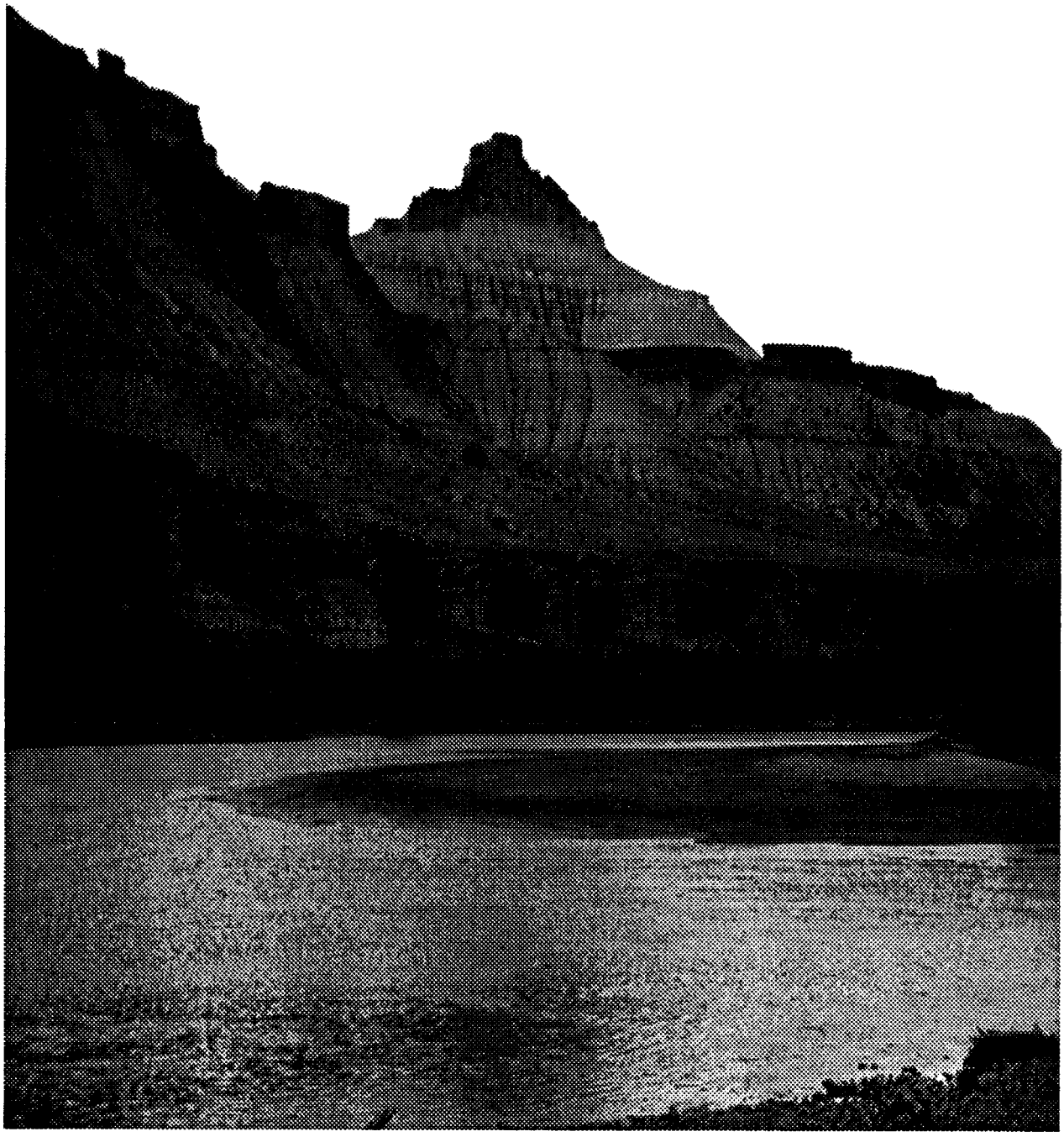
BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Vegetation - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the complex with restrictions to protect visual, wildlife habitat and watershed resources. Manage the vegetation in the complex to attain the ecological stage that would most benefit wildlife while maintaining watershed and recreational values. Do not allow the removal of sagebrush in level 2 areas unless fully mitigated. Allow for the vegetation treatment of pinyon-juniper within level 2 and level 3 areas for the expansion of big game habitat. Do not allow for the use of chaining as a vegetation treatment method in primitive/ natural areas. Manipulate 4,500 acres of pinyon-juniper woodlands to increase forage production and improve wildlife habitat. Develop an activity plan for the federally listed plant species Spiranthes diluvialus. Should the U.S. Fish and Wildlife Service develop a recovery plan, implement the objectives of that plan.	**Vegetation** - Retain the vegetation compositions in their present late to climax ecological stages. Allow biological, or chemical control of noxious weeds and insect infestation within the area with restrictions to protect the existing desired plant communities and watershed values. Do not allow mechanical control in of the area due to its high sensitivity for cultural resources, primitive/ natural qualities, and critical soil values. In the event revegetation following a major surface disturbance, such a wildfire, is deemed necessary to protect watershed and visual resource values, only site-adapted native species would be used. On small surface-disturbed areas (less than five acres) within the pinyon-juniper community, where other resource values would not be adversely affected, consider allowing natural revegetation to accomplish the vegetation community's natural recovery.	**Vegetation** - Allow mechanical, fire, biological or chemical control of noxious weeds and insect infestations within the area with restrictions designed to protect ground cover, special status plant species, water quality and the scenic values of the area. Manage the vegetation to attain the ecological stage that would most benefit special status species habitats, riparian, watershed and visual resource values. Manage vegetation in the remaining portion of the area which would result in the highest vegetation species diversity to maintain or enhance the remaining resource values. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented, where necessary.	**Vegetation** - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the area with restrictions to minimize adverse impacts to cultural sites, special status plant species habitat, scenic and watershed values. Manage the vegetation to attain the ecological stage that would most benefit the special status plant species habitat, primitive/ natural, riparian and scenic resource values. Manipulate 400 acres of pinyon-juniper woodlands to increase forage production and improve wildlife habitat. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented, where necessary. Prepare specific activity plans for the remaining special status plant species. Should USFWS develop specific recovery plans, their objectives would be implemented to the extent possible.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

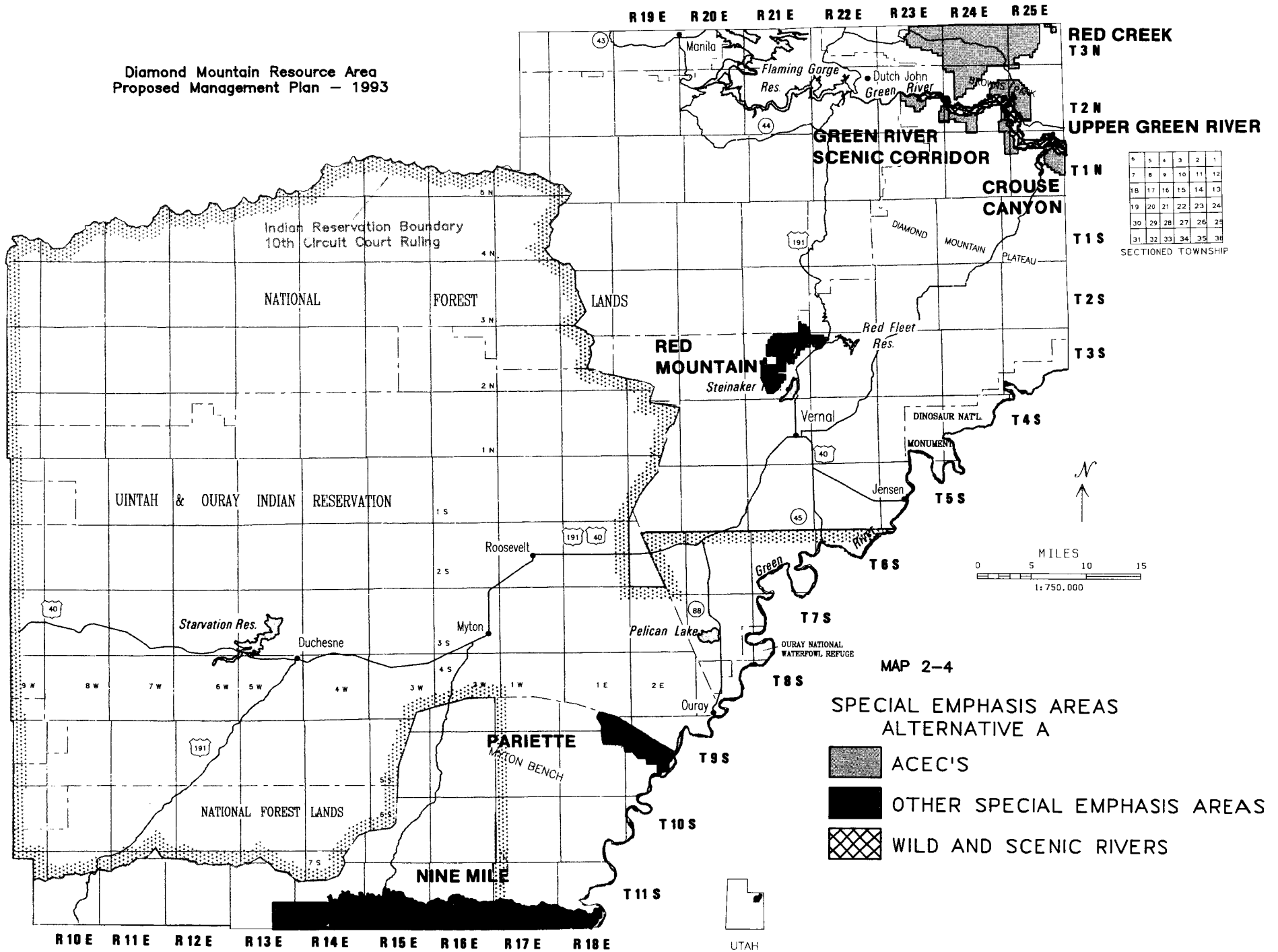
PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Vegetation - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the area with restrictions designed to protect the special status plant species and riparian habitat, desired ground cover, and water quality. Manage the vegetation to attain the ecological stage that would most benefit riparian and watershed values, and manage vegetation in the remaining area which results in the highest vegetation species diversity to meet the special status plant species, wildlife, and recreation values. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented where necessary.	**Vegetation** - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the ACEC with restrictions designed to protect the vegetation ground cover and watershed and water quality values. Manage the vegetation to attain the ecological stage that would most benefit wildlife in crucial habitat and manage vegetation in the remaining areas which results in the highest vegetation species diversity for the maintenance and enhance of the watershed resource values. Manipulate 500 acres of pinyon-juniper woodlands to increase forage production and improve wildlife habitat.	**Vegetation** - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the area, except for the relict vegetation areas, with restrictions designed to protect the watershed and water quality values and other resource values of the area. Within the relict vegetation communities, allow only biological control of noxious weeds and insect infestations. Outside of the relict vegetation communities, manage the vegetation to attain the ecological stage which results in the highest vegetation species diversity for wildlife and scenic values. Within the relict vegetation communities, allow the area to maintain their late to climax ecological stages. Manipulate 1000 acres of pinyon-juniper woodlands to increase forage production and improve wildlife habitat.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER GREEN RIVER SEGMENT	NINE MILE CANYON
Visual - Maintain the natural/ primitive qualities of the VRM Class II areas. Allow only short-term or mitigable visual intrusions on VRM Class II lands (within level 3) and level 1 areas of the complex.	**Visual** - Allow only short-term or mitigable visual intrusions on VRM Class II lands.	**Visual** - Maintain the primitive/ natural qualities of the lower Green River viewshed and other VRM Class II lands within the area by allowing only short-term or mitigable visual intrusions.	**Visual** - Maintain the natural and primitive qualities of identified segments along Argyle and Nine Mile Creeks and VRM Class II areas.
Woodlands - Level 3 lands would be open to sale and/or harvest of pinyon-juniper for firewood. level 1 and 2 areas would be closed. Level 3 lands would be open for the harvest or collection of common native seed, Christmas trees, juniper fenceposts and pinyon pine nuts, live trees and non-barrel cactus. Level 1 and 2 areas would be closed.	**Woodlands** - The area would be closed to the sale and/or harvest of woodland products.	**Woodlands** - Level 3 would be open for the sale and/or harvest of woodland productions. Level 2 lands would be closed.	**Woodlands** - Level 3 lands would be open to the sale and/or harvest of woodland products with restrictions designed to protect the stated resource values. Level 2 lands would be closed. On a case-by-case basis to meet other resource management goals allow for the sale of ponderosa pine and other large conifer and aspen on level 3. Level 2 lands would be closed.

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
		Visual - Maintain the natural/primitive qualities of the VRM Class II areas by allowing only short-term or mitigable visual intrusions.
Woodlands - On a case-by-case and to meet other resource management goals, any cottonwood trees within level 3 lands could be harvested or sold. Level 3 lands would be open for the harvest and/or collection of common native seed, excluding barrel cactus species.	**Woodlands** - Level 3 lands would be open to the sale and/or harvest of woodland products. level 2 lands would be closed.	**Woodlands** - Level 3 lands would be open to the sale and/or harvest of woodland products with restrictions designed to maintain or enhance the resource values of the level; level 2 lands would be closed to the sale and/or harvest of woodland products.



LOWER GREEN RIVER


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
RED CREEK
T 3 N
T 2 N
UPPER GREEN RIVER
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
GREEN RIVER SCENIC CORRIDOR
CROUSE CANYON
DIAMOND MOUNTAIN PLATEAU
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
RED MOUNTAIN
Steinaker
Red Fleet Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
PARIETTE
MYTON BENCH
NATIONAL FOREST LANDS
NINE MILE
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 2-4
SPECIAL EMPHASIS AREAS
ALTERNATIVE A
ACEC'S
OTHER SPECIAL EMPHASIS AREAS
WILD AND SCENIC RIVERS

CROUSE CANYON	GREEN RIVER SCENIC CORRIDOR ACEC	NINE MILE CANYON
General Management Objective: Manage and protect Crouse Canyon for its outstanding visual and related resource values. Includes a portion of the Diamond Breaks WSA in this area.	**General Management Objective:** Protect outstanding scenic, cultural, riparian, fisheries, and special status species resource values, while enhancing recreation opportunities, and maintaining compatible uses.	**General Management Objective:** Manage the Nine Mile Canyon for the protection of its historical and cultural properties.
Total Federal Acreage: 600	**Total Federal Acreage:** 19,400	**Total Federal Acreage:** 38,500
MANAGEMENT LEVELS: 2 - 100% - Visual, riparian, special status species and wildlife habitat	**MANAGEMENT LEVELS:** 2 - 45% - Floodplain, scenic, special status species. fisheries habitat, developed recreation sites, cultural resources 3 - 55% - Wildlife habitat, scenic values	**MANAGEMENT LEVELS:** 2 - 2% - Riparian 3 - 90% - sites eligible to be listed on the National Register of Historic Places (NRHP), erodible soils, potential bighorn sheep habitat 4 - 8% - Remaining resources
MANAGEMENT PRESCRIPTIONS:	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**
Consult with the Ute tribe to protect areas and items of traditional lifeways and religious significance.	**Cultural** - Continue to manage, interpret, stabilize and protect the historic properties at the John Jarvie Historic Site in accordance with the John Jarvie Cultural Management Plan. Consult with the Ute tribe to protect areas and items of traditional lifeways and religious significance.	**Cultural** - Establish interpretive sites and trails at selected sites; protect cultural values by stabilization and restoration of NRHP listed and eligible sites. Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.
Fire - Suppress fire to protect riparian values.	**Fire** - Do not allow prescribed burns within level 2 areas. Suppress wildfires within the area.	
Fish and Wildlife - Restrict surface-disturbing activities from December 1 through June 15 on crucial deer winter range. Do not allow new surface-disturbing activities within 1/4 mile of all active eagle and Swainson's hawk nests from February 15 to June 15. These restrictions do not apply to maintenance and operations of producing wells and facilities. Do not allow new surface-disturbing activities within 1/4 mile of active peregrine falcon nests from April 1 to July 15. This restriction does not apply to maintenance and operation of existing programs and facilities. Provide suitable habitat for reintroductions of Colorado cutthroat trout.	**Fish and Wildlife** - Restrict all surface-disturbing activities from December 1 through June 15 on crucial deer winter range. Construct bald eagle perch sites within level 2 areas as necessary, while maintaining the scenic integrity of the riverway. Do not allow new surface-disturbing activities within 1/4 mile of all active golden eagle nests from February 15 to June 15. These restrictions do not apply to maintenance and operations of producing wells and facilities. Do not allow new surface-disturbing activities within 1/4 mile of active peregrine falcon nests from April 1 to July 15. This restriction does not apply to maintenance and operation of existing programs and facilities.	**Fish and Wildlife** - Restrict all surface-disturbing activities from December 1 to June 15 on crucial deer and elk winter range. Do not allow new surface-disturbing activities within 1/4 mile of all active golden eagle nests from February 15 to June 15. These restrictions do not apply to maintenance and operations of producing wells and facilities. Do not allow new surface-disturbing activities within 1/2 mile of all active ferruginous hawk nests from March 1 to July 15. These restrictions do not apply to maintenance and operations of producing wells and facilities.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN
General Management Objective: Develop wetland habitat in Pariette Draw. Provide migratory wetland habitat for special status species. Provide flood and erosion control. Continue to implement the management objectives and actions outlined in the existing habitat management plan.	**General Management Objective:** Manage the watershed to continue the reduction of sediments into Red Creek, and the downstream Green River, by stabilizing channels and streambanks to lessen erosion, and by maintaining or increasing vegetation cover. Enhance wildlife habitat values.	**General Management Objective:** Manage and protect Red Mountain for its unique combination of geologic formations, existing ponderosa pine-bluegrass vegetation community, wildlife and significant cultural values.
Total Federal Acreage: 9,000	**Total Federal Acreage:** 24,400	**Total Federal Acreage:** 8,950
MANAGEMENT LEVELS: 2 - 15% - Riparian, wetlands and floodplains 3 - 15% - NRHP eligible cultural sites, critical soils, special status plant habitat 4 - 70% - Remaining resources	MANAGEMENT LEVELS: 2 - 35% - Steep slopes, riparian habitat, potential National Register cultural site. 3 - 65 % - Critical soils, crucial big game habitat, sage grouse strutting and nesting areas, potential bighorn sheep habitat, raptor nesting sites.	MANAGEMENT LEVELS: 2 - 5% - Riparian and developed recreation 3 - 95% - Crucial winter deer habitat, VRM Class II values
MANAGEMENT PRESCRIPTIONS:	MANAGEMENT PRESCRIPTIONS:	MANAGEMENT PRESCRIPTIONS:
Cultural - Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance. Allow casual use fossil collecting. Paleontological clearances will be required on a case-by-case basis.	**Cultural** - Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.	**Cultural** - Protect values by stabilization and restoration of NRHP listed or eligible sites. Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.
	Fire - Pinyon-juniper woodlands would be allowed to burn under prescribed conditions to meet watershed or wildlife conditions.	**Fire** - Prescribed burning may be allowed in level 3 areas to meet other management objectives as long as the stated resource values are not impaired.
Fish and Wildlife - Level 2 lands would be managed for nesting cover for waterfowl, shorebirds and raptors. Continue to implement the management objectives and actions outlined in the existing habitat management plan. Do not allow new surface-disturbing activities within 1/4 mile of all active golden eagle nests from February 15 to June 15. These restrictions do not apply to maintenance and operations of existing programs and facilities. Do not allow new surface-disturbing activities within 1/4 mile of all active peregrine falcon from April 1 to July 15. These restrictions would not apply to maintenance and operations of existing programs and facilities. Do not allow surface-disturbing activities within 600 feet of active goose nest sites.	**Fish and Wildlife** - Restrict all surface-disturbing activities from December 1 to June 15 on crucial deer and elk winter range. Restrict all surface-disturbing activities within 1,000 feet of sage grouse strutting grounds. Restrict surface-disturbing activities on sage grouse nesting habitat (within 2 miles of sage grouse strutting grounds) from April 1 through June 30. Do not allow new surface-disturbing activities within 1/4 mile of all active golden eagle nests from February 15 to June 15. These restrictions do not apply to maintenance and operations of existing programs and facilities.	**Fish and Wildlife** - Restrict all surface-disturbing activities from December 1 to June 15 on crucial deer and elk winter range.

CROUSE CANYON	GREEN RIVER SCENIC CORRIDOR ACEC	NINE MILE CANYON
Fish and Wildlife (Cont) - Provide habitat for the Colorado cutthroat trout.	**Fish and Wildlife** (Cont) - Provide habitat for the Colorado cutthroat trout, river otter and waterfowl.	**Fish and Wildlife** (Cont) - Do not allow new surface-disturbing activities within 1/4 mile of all active peregrine falcon nests from April 1 to July 15. These restrictions do not apply to maintenance and operations of producing wells and facilities. Modify fences in areas where wildlife would be adversely affected. Provide habitat for and allow for reintroductions of moose, upland game birds and bighorn sheep.
Lands - Acquire fee title or an interest in nonfederal lands within the Canyon.	**Lands** - Establish a window for a common river crossing at Little Swallow Canyon, Section 31, T2N, R25E, in level 2, the remainder of the area would be a right-of-way avoidance area. Recommend a protective withdrawal be established for level 2 lands within the area to preclude entry under the 1872 General Mining Law.	**Lands** - Allow placement of permitted land uses through the canyon area. Acquire fee title or an interest in lands (e.g., water rights or scenic easements) in Nine Mile Canyon as opportunities develop.
Livestock - Do not allow livestock grazing within identified canyon areas to protect riparian values. Do not allow construction of fences within the canyon proper.	**Livestock** - Level 2 lands would be closed to livestock grazing, enforced with fencing where needed (including Little Hole and Bridgeport grazing allotments). Level 3 areas would continue to be grazed in accordance with existing allotment management plans. Temporary, non-renewable livestock grazing could be allowed within level 2 areas only to enhance or maintain desired riparian vegetation production, or to control invasion of undesired plant species. Rangeland improvements associated with management of level 2 areas or areas immediately adjacent to level 2 would be allowed as long as they would not compromise the identified wild and scenic river qualities. Rangeland improvements associated with management of level 3 areas would be allowed as long as they do not compromise the scenic values of the area.	**Livestock** - No grazing would be allowed in Sand Wash Recreation Site. The remainder of the area would be open to livestock grazing with special conditions designed to protect the watershed and riparian values. Develop rangeland improvements and implement grazing prescriptions to improve livestock distribution and management. Take opportunities to eliminate domestic sheep grazing within 10 miles of identified bighorn sheep habitat within the area.

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN
Fish and Wildlife (Cont) - Do not allow surface-disturbing activities that would result in adverse impact to nesting waterfowl during the period March 1 through May 25.		
Lands - Level 2 areas would be an avoidance area for placement of new rights-of-way. If level 2 areas are needed for existing permitted activities, route along existing roads. Level 3 and 4 areas would be open for the placement of new rights-of-way with conditions designed to protect the wetlands resource values and standard conditions, respectively. No new access roads may be constructed within 600 feet of goose nesting habitat. Pariette would be a priority area for acquisition of additional water rights and private and state land title.	**Lands** - Establish a right-of-way avoidance area in level 2 lands. Make Level 3 lands available to support permitted activities with special restrictions to protect the identified resource values.	**Lands** - Establish a right-of-way avoidance area covering the entire area.
Livestock - Grazing would be allowed at existing preference levels during the period September 1 through March 30 in accordance with the existing allotment management plan. Grazing could be allowed on a case-by-case basis during the period April 1 to August 30 to enhance stated resource values. Develop rangeland improvements and implement grazing prescriptions to improve livestock distribution and management on I and M category allotments.	**Livestock** - All areas would be open to grazing. Areas within riparian zones would be open to prescribed grazing designed to maintain or enhance the watershed and wildlife habitat values. No grazing would be allowed sites listed or eligible for NRHP. Develop rangeland improvements and implement grazing prescriptions to improve livestock distribution and management on I and M category allotments.	**Livestock** - The area is open to livestock grazing with number or seasonal restrictions designed to maintain or enhance the riparian, recreational and scenic values. Develop rangeland improvements and implement grazing prescriptions to improve livestock distribution and management on I and M category allotments.

CROUSE CANYON	GREEN RIVER SCENIC CORRIDOR ACEC	NINE MILE CANYON
MINERALS **Leasables** - The canyon area would be open to leasing with a no-surface- occupancy stipulation.	**MINERALS** **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect and enhance the visual and wildlife resource values. Level 2 lands would be open to leasing with a no-surface-occupancy stipulation.	**MINERALS** **Leasables** - Level 4 lands would be open to leasing with standard conditions. Level 3 lands would be open to leasing with special conditions designed to protect the watershed, riparian and bighorn sheep habitat values. Level 2 lands would be open to leasing with a no-surface-occupancy stipulation.
Geophysical Activities - The area would be open to nonsurface-disturbing geophysical exploration activities.	**Geophysical Activities** - Level 2 areas would be open to non surface-disturbing exploration, Level 3 areas would be open to geophysical exploration with special conditions designed to enhance and/or protect the scenic and wildlife resource values and protect human safety and recreational values associated with the Green River.	**Geophysical Activities** - The entire area would be open to geophysical activities.
Mineral Materials - The canyon area would be closed to mineral material disposals.	**Mineral Materials** - Level 2 areas would be closed to mineral material disposals, the remainder of the area would be open to mineral material disposals with special conditions.	**Mineral Material** - Level 4 lands would be open to mineral material disposals with standard conditions. Allow mineral material disposals on level 3 lands with special restrictions designed to protect the stated resource values. Level 2 lands would be closed to mineral material disposals.
Locatables - Apply necessary restrictions to the area to protect the identified resource values.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activities other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the identified resource values area within the parameters of the 1872 General Mining Law.	**Locatables** - Apply necessary restrictions to the area to protect the identified resource values.
Recreation - The area would be **open** to OHV use.	**Recreation** - The entire area would be open to OHV use on designated roads and trails only. Within level 2 areas, develop facilities at Cottonwood Grove; expand Bridge Hollow; maintain facilities at Indian Crossing, Pugmire Pocket, Jackson Creek, Red Creek and Swallow Canyon. Recreational facilities would be designed to maintain riparian values and protect special status plant habitats. Continue Special Recreation Management Area (SRMA) status for this area. Revise existing SRMA plan to incorporate management recommendations of 1991 study on recreation use capacity of the Green River (Pratt et.al.).	**Recreation** - The entire area would be open to OHV use except for the Wrinkles Road area which would be open of OHV use on existing roads and trails only. These restrictions would not apply to BLM permitted uses requiring off-road travel. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreational development.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN
MINERALS **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect the stated resource values; level 2 lands would be open to leasing with a no-surface-occupancy stipulation.	MINERALS **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect or enhance the watershed and wildlife habitat values. Level 2 lands would be open to leasing with a no- surface-occupancy stipulation.	MINERALS **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect or enhance the stated resource values of the area, Level 2 lands would be open to leasing with a no- surface-occupancy stipulation. Exploration and development of phosphate within deer and elk winter range would be allowed year round, but would require management actions designed to mitigate both short- and long-term loss of habitat.
Geophysical Activities - Level 3 and 4 areas would be open to geophysical exploration with special conditions designed to minimize adverse impacts to waterfowl disturbance and wetlands habitat. Level 2 areas would be closed to geophysical exploration.	**Geophysical Activities** - Level 3 lands, excluding riparian areas, would be open to geophysical exploration with special conditions, designed to maintain or enhance the stated watershed and wildlife habitat values. Level 2 lands would be open to nonsurface-disturbing geophysical activities.	**Geophysical Activities** - Level 3 lands would be open to geophysical exploration with special conditions designed to protect or enhance the resource values.
Mineral Materials - Existing borrow areas and other designated areas would be open to mineral material disposals on level 3 and 4 lands. Level 2 areas are closed to mineral material disposals.	**Mineral Materials** - Allow mineral material disposals on Level 3 lands with special restrictions designed to maintain or enhance the stated watershed and wildlife habitat values; do not allow mineral disposals on level 2 lands.	**Mineral Materials** - Allow mineral material disposal on level 3 lands with special restrictions designed to protect or enhance the stated resource values; do not allow mineral material disposals on level 2 lands.
Locatables - Apply restrictions to the area to protect the identified resource values.	**Locatables** - Apply restrictions to the area to protect the identified resource values.	**Locatables** - Apply restrictions to the area to protect the identified resource values.
Recreation - OHV use would be limited to designated roads and trails. Establish an interpretive site and self-guided tour at Pariette Wetlands. Provide a minimum of facilities to protect human health and safety.	**Recreation** - The entire area is open to OHV use on designated roads and trails only. This would not apply to permitted BLM activities or authorized administrative uses. Develop interpretive trails and/or facilities in the Clay Basin Gas field.	**Recreation** - The area would be open to OHV use. Expand the recreation facilities at Dry Fork Canyon. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreation development. Develop 3 miles of nonmotorized trails along Dry Fork and Ashley Creeks. Establish 12 miles of mountain bicycle trails using existing rural roads and trails. Maintain existing trail on Red Mountain.

CROUSE CANYON	GREEN RIVER SCENIC CORRIDOR ACEC	NINE MILE CANYON
Riparian - Allow new surface-disturbing activities outside a 600-foot buffer of Crouse Creek. Allow new surface-disturbing activities within the 600-foot buffer if specifically designed to enhance or maintain riparian values.	Allow surface-disturbing activities outside a 600-foot buffer of live water or perennial streams. Allow surface-disturbing activities within the 600-foot buffer, if designed to enhance riparian values.	**Riparian** - Riparian habitat in early and mid ecological stages would be improved by establishing grazing systems and constructing rangeland improvements designed to enhance the riparian values. Allow surface-disturbing activities outside a 600-foot buffer of live water or perennial streams. Allow surface-disturbing activities within the 600-foot buffer, if designed to enhance riparian values.
Soil & Water - Preclude surface- disturbing activities in areas of critical soils during times of saturated soils (usually spring runoff and fall rains).		**Soil & Water** - Upland mountain areas (>12 inches annual precipitation) would be open to surface-disturbance from May 1 through October 31. Slopes of <40% would be open to surface-disturbance. All lands, unless otherwise designated, would be available for major (>1 acre-foot) water development with special conditions. Preclude OHV use and surface-disturbing activities in areas of erodible soils and floodplains during times of saturated soils (usually spring runoff and fall rains).
Special Emphasis Areas - Continue to manage the Diamond Breaks WSA under the Interim Management Policy until formal designation has been made by congress. Should it not be designated as wilderness, return it to multiple use consistent with the area.	**Special Emphasis Areas** - Wild and Scenic River - Recommend for designation as a scenic river the segment of the Green River, between Little Hole and the Colorado state line.	

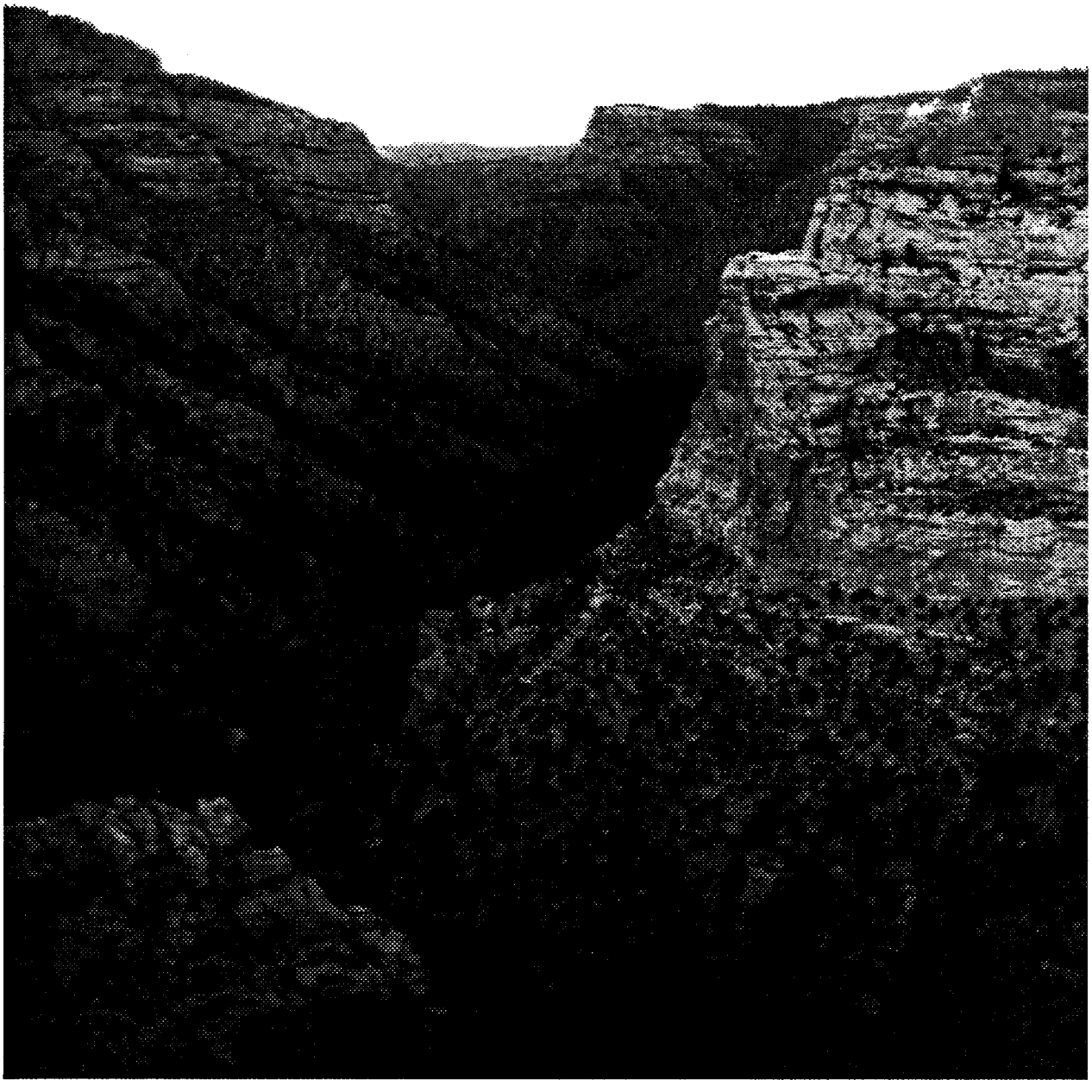
MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN
Recreation (Cont) - Recreation sites would be closed to livestock grazing and surface-disturbing activities not related to recreation development.		
Riparian - Allow surface-disturbing activities within the 600-foot buffer, if designed to enhance riparian values or if there is no practical alternative. Level 2 areas in early and mid ecological stages would be improved by refining the existing grazing system and construction of rangeland improvements designed to enhance the riparian values.	**Riparian** - Allow new surface-disturbing activities outside a 600-foot buffer of live water or perennial streams. Allow surface- disturbing activities within the 600-foot buffer, if designed to enhance riparian values or if there is no practical alternative. Riparian habitat in early and mid ecological stages would be improved by refining the existing grazing system and construction of rangeland improvements designed to enhance the riparian and watershed values.	**Riparian** - Allow new surface-disturbing activities outside a 600-foot buffer of live water or perennial streams. Allow surface-disturbing activities within the 600-foot buffer, if designed to enhance riparian values or if there is no practical alternative.
Soil & Water - Water quality would be maintained or enhanced through controlled access along drainages, construction of necessary erosion and flood control structures, proper construction and maintenance of access roads throughout the area. Maintain or increase the percent vegetation cover and reduce erosion potential on the soils with high salt content in levels 3 and 4. Preclude OHV use and surface-disturbing activities in areas of critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains).	**Soil & Water** - Slopes <40% are available to surface disturbance. Levels within the area, unless otherwise designated, would be available for major (>1 acre-foot capacity) water developments with special restrictions. Preclude OHV use and surface-disturbing activities in areas of critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains). Continue to implement and monitor management objectives in the Red Creek Watershed Management Plan; review when necessary.	**Soil and Water** - Slopes of <40% are open to surface disturbance. Preclude OHV use and surface-disturbing activities in areas of critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains). Lands within the area, unless otherwise designated, would be available for major (>1 acre-foot capacity) water developments with restrictions designed to maintain or enhance the area's resource values.

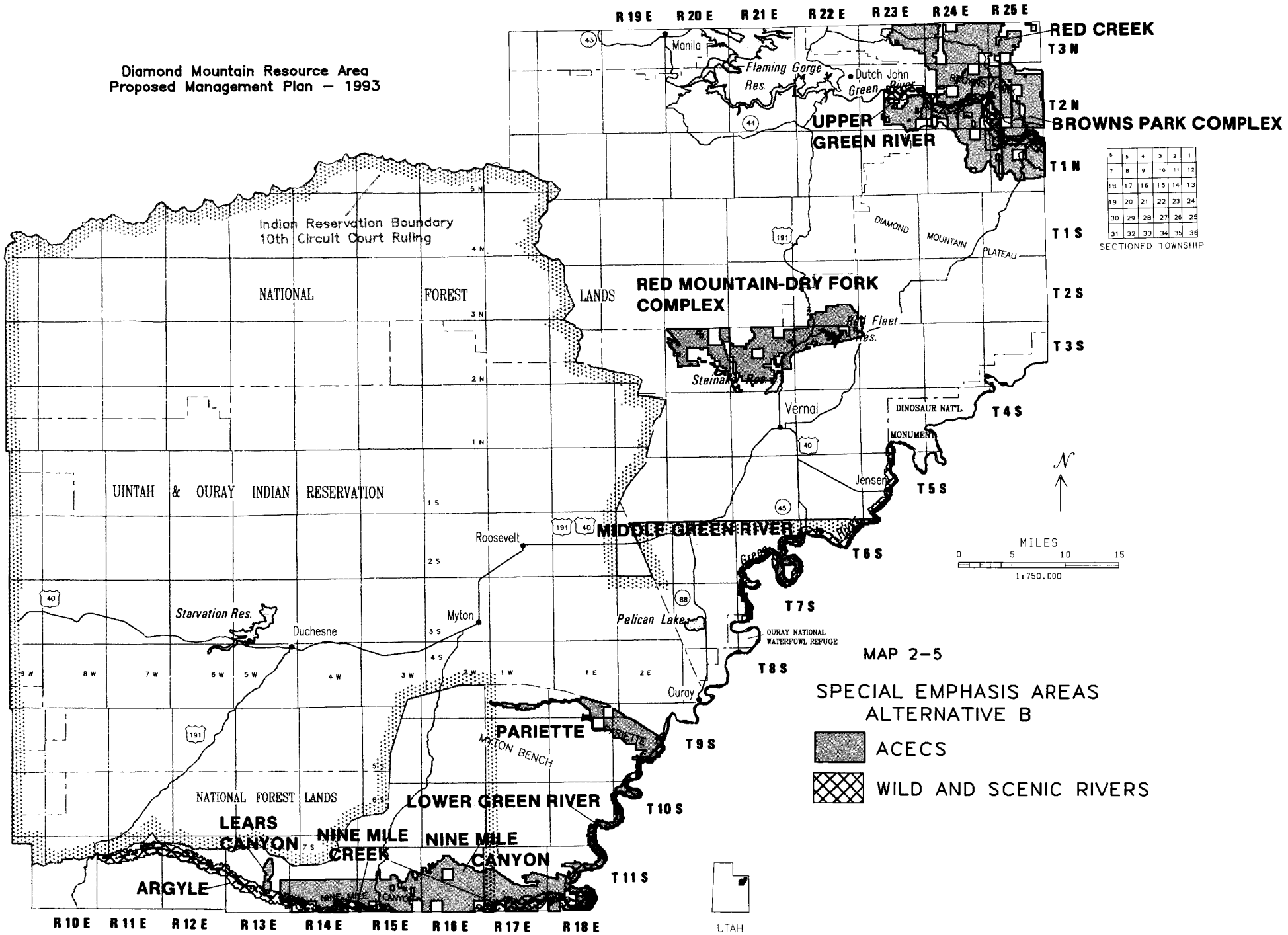
CROUSE CANYON	GREEN RIVER SCENIC CORRIDOR ACEC	NINE MILE CANYON
Vegetation - Manipulate 200 acres of pinyon-juniper woodlands outside the canyon proper to increase forage production.	**Vegetation** - Manipulate 600 acres of pinyon-juniper woodlands to increase forage production.	**Vegetation** - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the area with restrictions to protect desired ground cover and water quality. Manage the vegetation to attain the ecological stage that would most benefit riparian and wildlife in crucial habitat, and manage vegetation in the remaining areas which results in the highest vegetation species diversity. Manipulate 400 acres of pinyon-juniper woodlands to increase forage production. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented where necessary. Prepare specific activity plans for the remaining special status plant species. Should USF&WS develop specific recovery plans for these species, their objectives would be implemented to the extent practical.
Visual - Maintain the natural/primitive qualities of the visual resource within the Canyon. Allow only short-term or mitigable visual intrusions designed to protect the visual qualities.	**Visual** - All future management actions would be designed to maintain or enhance the scenic qualities of the area.	**Visual** - Maintain the natural and primitive qualities of the Lower Green River, the identified segments along the Argyle and Nine Mile Creeks and VRM Class 2 areas, and the Backcountry Byway.
Woodlands - Do not sell firewood within the Canyon.	**Woodlands** - Level 2 areas would be closed to the sale and harvest of all woodland products. Level 3 areas would be open to sale and/or harvest of pinyon and juniper for firewood on a case-by-case basis.	**Woodlands** - Allow for the harvest of pinyon-juniper firewood by permit. The area would be closed to the harvest of ponderosa pine, other large conifer, cottonwood and aspen firewood. The area would be open to the harvest of pinyon-juniper Christmas trees, fenceposts, pine nuts, and the digging of live trees and nonbarrel cactus with restrictions designed to protect the watershed values.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN
Vegetation - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the area with restrictions designed to protect the special status plant species and riparian habitat. Manage the vegetation to attain the ecological stage most benefitting waterfowl, special status plant species and watershed and soil resources. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented where necessary.	**Vegetation** - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the area with restrictions designed to protect the watershed and water quality values. Manage the vegetation to attain the ecological stage that would most benefit wildlife in crucial habitat and manage vegetation in the remaining areas which results in the highest vegetation species diversity for watershed protections and enhancement. Manipulate 500 acres of pinyon-juniper woodlands to increase forage production.	**Vegetation** - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the area, with restrictions designed to protect desired ground cover and water quality. Manage the vegetation to attain the ecological stage that would most benefit wildlife in crucial habitat and implement vegetation management in the remaining areas which results in the highest vegetation species diversity. Manipulate 200 acres of pinyon-juniper woodlands to increase forage production.
		Visual - Maintain the natural and primitive qualities of the VRM Class II areas within this area. Allow only short-term or mitigable visual intrusions within 1/4 mile or line-of-sight (whichever is smaller) of these areas.
Woodlands - Cottonwood trees within the area would not be sold or harvested for firewood. Other woodland products in the area could be sold with restrictions to protect the special status plant species, soils, waterfowl and wetland resources.	**Woodlands** - Allow harvest of woodland products by permit only, with stipulations designed to protect watershed values.	**Woodlands** - Area open to the sale and/or harvest of woodland products. The area is closed to the harvest of ponderosa pine and aspen.



ASHLEY GORGE, RED MOUNTAIN AREA


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
RED CREEK
T 3 N
T 2 N
BROWNS PARK COMPLEX
UPPER GREEN RIVER
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
Manila
Flaming Gorge Res.
Dutch John
Green River
Browns Park
DIAMOND MOUNTAIN PLATEAU
SECTIONED TOWNSHIP
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
RED MOUNTAIN-DRY FORK COMPLEX
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
MIDDLE GREEN RIVER
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
PARIETTE
MYTON BENCH
NATIONAL FOREST LANDS
LOWER GREEN RIVER
LEARS CANYON
NINE MILE CREEK
NINE MILE CANYON
ARGYLE
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
UTAH
MILES
0 5 10 15
1:750,000
MAP 2-5
SPECIAL EMPHASIS AREAS
ALTERNATIVE B
ACECS
WILD AND SCENIC RIVERS

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
General Management Objective: Protect and enhance crucial deer winter range, outstanding scenic, cultural, riparian, fisheries, and special status species resource values, while enhancing recreation opportunities, and maintaining compatible uses. Include the Crouse Canyon scenic area and the two existing Wilderness Study Areas in this management complex.	**General Management Objective:** Retain the area's present natural douglas fir-mountain browse and pinyon-juniper communities as comparison or control areas, and, to provide/set aside an area in a late to climax ecological stage for research and/or educational purposes within these vegetation community types.	**General Management Objective:** Enhance and protect the delicate BLM-administered riparian community adjacent to the Green River for special status fish, bird and plant species, while maintaining the Wild and Scenic River qualities of these river segments.	**General Management Objective:** Protect and enhance the cultural and special status plant species values of the canyon; while enhancing its scenic, recreation and wildlife resource values.
Total Federal Acreage: 55,700	**Total Federal Acreage:** 1,400	**Total Federal Acreage:** 12,700	**Total Federal Acreage:** 50,800
MANAGEMENT LEVELS: 1 - 25% - Existing recreation sites, cultural sites eligible for or listed on the National Register of Historic Places (NRHP), Green River floodplain, high visual (including Crouse Canyon), and critical soils resource values. 2 - 65% - Crucial deer winter habitat, raptor sites, primitive/ natural areas, high sensitivity archeological and paleontological areas, sage grouse strutting areas, and potential recreation areas. 3 - 10% - Potential bighorn sheep habitat, sage grouse nesting habitat, and VRM Class II areas.	**MANAGEMENT LEVELS:** 2 - 100% - Relict vegetation community (supporting resource values: critical soils, crucial big game habitat, cultural and primitive/natural resource values).	**MANAGEMENT LEVELS:** 1 - 79% River viewshed, Riparian, cultural sites eligible for or listed on NRHP, special status species habitat, highly erodible soils. 2 - 12% - primitive/ natural areas, raptor habitat, critical watersheds, potential recreation areas, high salt-containing soils, high potential archeological and paleontological values, scenic qualities, and National Historic Landmark. 3 - 9% - Remaining resources.	**MANAGEMENT LEVELS:** 1 - 10% - Cultural sites eligible or listed on NRHP, riparian habitat, special status plant habitat, potential recreation sites, highly erodible soils. 2 - 15% - Scenic and recreational values of the Green River, Nine Mile and Argyle Creeks, the existing Sand Wash Recreation Site, primitive/natural areas, raptor and crucial big game winter habitat, and high sensitivity cultural and paleontological areas. 3 - 65% - Scenic values associated with the Backcountry Byway, potential bighorn sheep habitat. 4 - 10%- Remaining resources
MANAGEMENT PRESCRIPTIONS:	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**
Cultural - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification.		**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Do not allow surface disturbance or OHV use on high cultural sensitivity (density) areas. Establish a 200-foot protection buffer around cultural sites eligible or listed on NRHP, and the Desolation Canyon National Historic Landmark.	**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Establish interpretive sites and trails at selected sites. Do not allow surface disturbance or OHV use on high cultural sensitivity (density) areas. Establish a 200-foot protection buffer around sites eligible or listed on NRHP.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
General Management Objective: Enhance and protect the wetlands community and associated habitat adjacent to Pariette and Castle Peak Washes, ensuring continued waterfowl production and no long-term deterioration of the water quality in Pariette Wash; reduce sedimentation to the Green River by stabilizing streambanks and water channels; while meeting the management objectives of the final recovery plans for the special status species associated with the area.	**General Management Objective:** Manage the watershed to continue the reduction of sedimentation into Red Creek, and the downstream Green River, by stabilizing channels and streambanks to lessen erosion, and by maintaining or increasing vegetation cover; and, enhance wildlife habitat values.	**General Management Objective:** Protect cultural sites eligible or listed on the National Register of Historic Places (NRHP), significant paleontological sites, and relict vegetation communities; enhance supporting resource values of wildlife habitat, municipal watershed, riparian and scenic values; while allowing compatible uses.
Total Federal Acreage: 11,600	**Total Federal Acreage:** 24,400	**Total Federal Acreage:** 25,800
MANAGEMENT LEVELS: 1 - 92% - Riparian and special status species habitats, potential National Register-quality cultural sites. 2 - 8% - Floodplains, raptor habitat, high salt-containing soils, potential recreation sites, high sensitivity archeological and paleontological areas. 3 - <1% - Antelope habitat and potential black-footed ferret reintroduction areas.	**MANAGEMENT LEVELS:** 1 - 10% - Highly erodible soils and riparian habitat. 2 - 50% - Crucial big game habitat, high salt-containing soils, sage grouse strutting grounds, high sensitivity cultural areas. 3 - 40 % - Sage grouse nesting area and antelope habitat.	**MANAGEMENT LEVELS:** 1 - 40% - Relict vegetation communities, developed recreation sites, municipal watershed, riparian, and highly erodible soils. 2 - 50% - High sensitivity (density) cultural zones and significant paleontological zones, high salt-containing soils, crucial big game habitat, and potential recreation sites. 3 - 10% - Potential bighorn sheep habitat, and VRM Class II resources.
MANAGEMENT PRESCRIPTIONS:	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**
Cultural - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Coordinate with the Ute Tribe to protect areas and items of traditional lifeways or religious significance.	**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Coordinate with the Ute Tribe to protect areas and items of traditional lifeways or religious significance.	**Cultural** - Allocate cultural sites including ethnographic properties into three classifications: (1) information potential, (2) public values, and (3) conservation. See Appendix 1 for a listing of which types of sites would be allocated to each classification. Coordinate with the Ute Tribe to protect areas and items of traditional lifeways or religious significance.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Cultural (Cont) - Continue to manage, interpret, stabilize and protect the historic properties at the John Jarvie National Historic District under the existing cultural resource management plan. Develop facilities at the Old Rock Saloon. Develop a self-guided tour of important historic structures and locations in the Complex. Coordinate with the Ute Tribe to protect areas and items of traditional lifeways and religious significance. Do not allow surface disturbance or OHV use on high sensitivity (density) areas. Establish a 200-foot protection buffer around sites eligible or listed on NRHP and the John Jarvie National Historic District. Paleontological - Allow fossil collection by permit only. Paleontological clearances will be required on a case-by-case basis.	Coordinate with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.	Coordinate with the Ute Tribe to protect areas and items of traditional lifeways and religious significance. Paleontological - Allow fossil collection by permit only. Paleontological clearances will be required on a case-by-case basis.	**Cultural** (cont) - Develop facilities as needed to protect the natural systems on approximately 5 miles of hiking, horseback and mountain bicycle trails in primitive recreation use areas. Include a facility to interpret and manage use.
Fire - Pinyon-juniper woodlands would be allowed to burn under prescribed conditions in level 2 and 3 areas to enhance or expand big game habitat. Wildfires within the sagebrush and riparian zones would be fully suppressed.	**Fire** - Prescribed burning may be allowed in the pinyon-juniper community to maintain a vigorous, healthy condition of the existing native vegetation community, or to support critical soil or crucial big game habitat management objectives. No more than 50% of the pinyon-juniper community or 40% of the douglas fir-mountain browse community would be allowed to burn during the life of this plan.		
Fish and Wildlife - Do not allow activities resulting in adverse impacts to wintering deer from December 1 through June 15 on crucial deer winter range. Do not allow livestock grazing, OHV use, and surface-disturbing activities within 1/2 mile of sage grouse strutting grounds or known nesting sites year- round. Within 6 miles of strutting grounds (nesting areas) allow no surface-disturbing activities from March 1 through June 30. Construct bald eagle perch sites within level 1 areas as necessary, while maintaining the scenic integrity of the Green River.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to wintering deer from December 1 through June 15 on crucial big game winter range.	**Fish and Wildlife** - Establish raptor protection zones in which no construction, OHV use or disturbing activities (including noise) would be allowed within 1/2 mile of active golden eagle nests. Establish raptor protection zones in which no construction, OHV use or disturbing activities (including noise) would be allowed within 1 mile of active ferruginous hawk nests. Establish raptor protection zones in which no construction or disturbing activities (including noise) would be allowed within 1 mile of active peregrine falcon nests.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to wildlife from December 1 through June 15 on crucial big game winter habitat. Establish raptor protection zones in which no construction, OHV use or disturbing activities, including noise, would be allowed within 1/2 mile of active golden eagle nests. Establish raptor protection zones in which no construction or disturbing activities would be allowed within 1 mile of active peregrine falcon or ferruginous hawk nests.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Cultural (Cont) - Do not allow surface disturbance or OHV use on high sensitivity (density) zones. Establish a 200-foot protection buffer around sites eligible or listed on NRHP. Paleontological - Allow fossil collection by permit only. Paleontological clearances will be required on a case-by-case basis.	**Cultural** (Cont) - Do not allow surface disturbance or OHV use on high sensitivity (density) zones. Establish a 200-foot protection buffer around sites eligible or listed on NRHP.	**Cultural** (Cont) - Do not allow surface disturbance or OHV use on high sensitivity (density) zones. Establish a 200-foot protection buffer around sites eligible or listed on NRHP. Paleontological - Allow fossil collection by permit only. Paleontological clearances will be required on a case-by-case basis.
Fire - Wildfire within the riparian ecosystem would be suppressed.	**Fire** - Pinyon-juniper woodlands would be allowed to burn under prescribed conditions to meet watershed or wildlife objectives.	**Fire** - Maintain the natural role of fire within the relict vegetation communities; however, large-scale fires would not be allowed to kill more than 3% of the ponderosa pine on Red Mountain or 50% of the sagebrush-mountain browse in Castle Cove relict vegetation communities over the life of this RMP. Outside of the relict vegetation communities allow fires to burn under prescribed conditions only to enhance the stated ACEC values.
Fish and Wildlife - Do not allow surface-disturbing activities that would result in adverse impact to nesting waterfowl during the period of March 1 to May 25. Do not allow surface-disturbing activities within 1/8 mile of active goose nest sites. Establish raptor protection zones in which no construction, OHV use or disturbing activities (including noise) will be allowed within 1/2 mile of active golden eagle nests.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to wildlife from December 1 through June 15 on crucial deer and elk habitat. Do not allow surface-disturbing activities and OHV use from May 1 to June 30 on antelope fawning areas. Do not allow grazing, OHV use and surface-disturbing activities within 1/2 mile of sage grouse strutting grounds or known nesting sites.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to wildlife from December 1 through June 15 on crucial deer and elk habitat. Provide habitat and allow for the reintroduction of upland game and bighorn sheep.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Fish and Wildlife (Cont) - Establish raptor protection zones in which no construction, OHV use or disturbing activities (including noise) will be allowed within 1/2 mile of active golden eagle nests. Establish raptor protection zones in which no construction or disturbing activities (including noise) would be allowed within 1 mile of active peregrine falcon and ferruginous hawk nests. Provide habitat and allow for reintroductions of Colorado cutthroat, bighorn sheep, river otter and upland game birds.		**Fish and Wildlife** (Cont) - Implement the management guidelines to the extent possible as outlined in the existing recovery plans for the federally-listed fish species occurring within this area. Construct as needed, eagle roost sites along the river with restrictions designed to blend with the visual resources.	**Fish and Wildlife** (Cont) - Provide habitat and allow for reintroductions of Colorado cutthroat, bighorn sheep, moose and upland game birds.
Lands - Establish a right-of-way exclusion area on level 1 lands and a right-of-way avoidance area on level 2 areas of the complex. Make level 3 lands available to support permitted activities with special restrictions designed to maintain the wildlife and scenic values. Priority would be given for the resolution of the existing airport trespasses at Willow Creek and Taylor Flat by removal and restoration or cooperative agreement only. Recommend protective withdrawals on level 1 and 2 areas within the complex to preclude entry under the 1872 General Mining Law or agricultural entry.	**Lands** - Establish a rights-of-way exclusion area covering the entire area. Recommend a protective withdrawal precluding mineral or agricultural entry on the entire area.	**Lands** - Establish a right-of-way exclusion area on level 1 lands and a right-of-way avoidance area within Level 2 lands. Recommend protective withdrawals on level 1 and 2 lands to preclude entry under the 1872 General Mining Law. Acquire, where possible, fee title or interest in lands (e.g., water rights) within or adjacent to level 1 lands.	**Lands** - Establish a right-of-way exclusion area on level 1 areas and a right-of-way avoidance area on Level 2 lands. Make Level 3 lands available to support permitted activities with special restrictions designed to protect the stated resource values. Recommend protective withdrawals on level 1 and 2 lands to preclude mineral or agricultural entry. Acquire fee title or interest in lands (e.g., water rights) within or adjacent to level 1 lands as opportunities become available.

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Fish and Wildlife (Cont) - Establish raptor protection zones in which no construction or disturbing activities (including noise) would be allowed within 1 mile of active peregrine falcon and ferruginous hawk nests. Maintain existing habitat in Eight-Mile Flat identified for black-footed ferret reintroduction by avoiding surface disturbance. Do not allow any activities that would render the habitat unsuitable of future reintroductions. Establish raptor protection zones in which no construction or disturbing activities (does not apply to rafting) would be allowed within 1 mile of occupied peregrine falcon nests from February 1 through August 31. Would not apply if impacts could be mitigated through other management actions.	**Fish and Wildlife** (Cont) - Do not allow grazing, OHV use and surface-disturbing activities within 6 miles of sage grouse strutting grounds (nesting habitat) between March 1 and June 30. Provide habitat and allow for the reintroduction of bighorn sheep, and upland game.	
Lands - Establish a right-of-way exclusion area on level 1 lands and an avoidance area on level 2 lands. Make level 3 lands available to placement of rights-of-way with special restrictions designed to protect the stated resource values in the area. Recommend protective withdrawals on level 1 and 2 lands to preclude entry under the 1872 General Mining Law or agricultural entry. Acquire fee title or interest in lands (e.g., water rights) within or effecting the Pariette drainage as opportunities develop.	**Lands** - Establish a right-of-way exclusion area on level 1 lands and an avoidance area on level 2 lands. Make level 3 lands available to placement of rights-of-way with special restrictions designed to protect the stated resource values in the area. Recommend protective withdrawals on level 1 and 2 lands to preclude entry under the 1872 General Mining Law or agricultural entry.	**Lands** - Acquire public nonmotorized access across established roads and trails to enhance recreational opportunities along Ashley Creek. Acquire legal motorized access to Red Mountain. Establish a right-of-way exclusion area on level 1 lands and an avoidance area on level 2 lands. Make level 3 lands available to placement of rights-of-way with special restrictions designed to protect the stated resource values in the area. Recommend protective withdrawals on level 1 and 2 lands to preclude entry under the 1872 General Mining Law or agricultural entry.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Livestock - Level 2 and 3 lands would be open to grazing under improved grazing strategies to maintain or enhance the wildlife, riparian, and vegetation values. Level I lands would be closed to grazing. No domestic sheep grazing would be allowed. Cattle grazing may be allowed only in areas outside identified bighorn sheep habitat. Allow rangeland improvements only to maintain or improve the level 1 and 2 resources values of the complex. Develop rangeland improvements and grazing prescriptions on level 3 lands to enhance wildlife habitat. Fence to restrict or prevent livestock from moving into the Green River floodplain or bighorn sheep habitat areas.	**Livestock** - Do not allow livestock grazing within the area.	**Livestock** - Level 3 lands would be open to grazing. Level 2 lands would be open to livestock grazing with number or seasonal restrictions designed to maintain or enhance the stated resource values. Grazing within level 1 lands would limited to those areas in late or climax ecological condition where grazing is currently taking place. No grazing would be allowed in the Sand Wash Recreation Site. Develop rangeland improvements only to maintain or improve the values present in level 1 and 2 lands. No domestic sheep grazing would be allowed within 10 miles of identified bighorn sheep reintroduction areas.	Livestock - Level 2 and 3 lands would be open to grazing under improved grazing strategies to enhance or maintain the identified values. Grazing within level 1 lands would limited to those areas in late or climax ecological condition where grazing is already taking place. No grazing would be allowed in the Sand Wash Recreation Site and cultural sites eligible for or listed on NRHP. Develop rangeland improvements only to maintain or improve the stated values within level 1 and 2 areas. No domestic sheep grazing would be allowed within 10 miles of identified bighorn sheep reintroduction areas.
MINERALS **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect the visual, wildlife, and soils resource values, all level 1 and 2 lands, except for 100 acres, would be open to leasing with no-surface-occupancy stipulations; the remaining 100 acres would be closed to leasing.	**MINERALS** **Leasables** - The area would be open to mineral leasing with a no-surface-occupancy stipulation.	**MINERALS** **Leasables** - Level 1 and 2 areas would be open to leasing with a no-surface-occupancy stipulation.	**MINERALS** **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect the stated resource values; level 1 and 2 lands would be open to leasing with a no-surface-occupancy stipulation.
Geophysical Activities - Level 2 and 3 areas would be open to geophysical exploration with special conditions designed to enhance and/or protect the values of the complex. Level 1 lands would be open to nonsurface-disturbing geophysical activities.	**Geophysical Activities** - The area would be open to nonsurface-disturbing geophysical activities.	**Geophysical Activities** - Level 2 would be open to geophysical activities with restrictions designed to protect those stated resource values. Level 1 lands would be open to nonsurface-disturbing geophysical activities.	**Geophysical Activities** - Level 3 and level 2 would be open to geophysical exploration with special conditions designed to maintain the resource values; level 1 lands would be open to nonsurface-disturbing geophysical activity.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Livestock - Allow grazing within level 2 and 3 lands with number and/or seasonal restrictions. Grazing within level 1 would be limited to those areas in late or climax ecological condition where grazing is currently taking place. Allow rangeland improvements only to maintain or improve the values present on level 1 and 2 lands. Develop rangeland improvements and grazing prescriptions on level 3 lands to enhance vegetation production.	**Livestock** - Allow grazing within level 2 and 3 lands with number and/or seasonal restrictions designed to maintain or enhance the watershed and wildlife habitat values. Grazing within level 1 lands would be limited to those areas in late or climax ecological condition where grazing is currently taking place. Develop rangeland improvements only to maintain or improve the values identified in the level 1 and 2 areas. Develop rangeland improvements and grazing prescriptions on level 3 lands designed to enhance watershed and wildlife habitat values.	**Livestock** - Allow grazing within level 2 and 3 areas with number and/or seasonal restrictions designed to maintain or enhance the stated resource values for those levels. Grazing within level 1 lands would be limited to those areas in late or climax condition where grazing is actively taking place. Develop rangeland improvements only to maintain or improve the values identified in the level 1 and 2 areas. Develop rangeland improvements and grazing prescriptions on level 3 lands designed to enhance watershed and wildlife habitat values. No domestic sheep grazing would be allowed within 10 miles of identified bighorn sheep reintroduction areas.
MINERALS **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect the stated resource values; level 1 and 2 lands would be open to leasing with a no-surface-occupancy stipulation.	**MINERALS** **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect or enhance the watershed and wild-life habitat values. All level 1 and 2 lands, except for approximately 100 acres, would be open to leasing with a no-surface-occupancy stipulation; the remaining 100 acres would be closed to leasing.	**MINERALS** **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect or enhance the stated resource values of the area; all level 1 and 2 lands, except for 100 acres, would be open to leasing with a no-surface-occupancy stipulation; the remaining 100 acres would be closed to leasing. Exploration and development of phosphate within crucial deer and elk winter range would be allowed year round, but would require management actions designed to mitigate both short- and long-term loss of habitat.
Geophysical Activities - Level 2 and 3 areas would be open to geophysical exploration with special conditions designed to enhance and/or protect the values of the area. Level 1 lands would be open to nonsurface-disturbing geophysical activities.	**Geophysical Activities** - Level 2 and 3 lands, would be open to geophysical exploration with special conditions, designed to maintain or enhance the stated watershed and wildlife habitat values. Level 1 lands would be open to nonsurface-disturbing geophysical activities.	**Geophysical Activities** - Level 2 and 3 lands, would be open to geophysical exploration with special conditions designed to protect or enhance the identified resource values; level 1 lands would be open to nonsurface-disturbing geophysical activities.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Mineral Materials - Allow mineral material disposal on level 3 lands with special restrictions designed to protect/enhance the stated values of the complex. Level 1 and 2 lands would be closed to mineral material disposals.	**Mineral Materials** - Do not allow mineral material disposal.	**Mineral Materials** - Do not allow mineral material disposals on the area.	**Mineral Material** - Allow mineral material disposals on level 3 lands with special restrictions designed to protect those stated resource values; do not allow mineral material disposals on level 1 and 2 lands.
Locatables - Any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the natural values of the area within the parameters of the 1872 General Mining Law. For the level 1 areas, the preceding would be applied until a protective withdrawal is obtained.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.	**Locatables** - Any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the natural and primitive values of the area within the parameters of the 1872 General Mining Law.
Recreation - Level 3 lands would be open to OHV use; Level 2 except for the semi-primitive non-motorized areas and the developed recreation sites in level 1 would be open to OHV use on designated roads and trails with seasonal restrictions designed to protect wildlife and soil resource values. Semi-primitive nonmotorized areas within level 2 and the remaining level 1 lands would be closed to OHV use. Such restrictions would not apply to permitted BLM activities or authorized administrative uses. Continue Special Recreation Management Area (SRMA) status along 17,000 acres of the Green River Scenic Corridor. Revise existing SRMA management plan to include recommendations of the 1991 study of recreation use capacity of the Green River (Pratt et.al.). Maintain the high quality recreation experience along the Green River by limiting the number of float boaters on the river through establishment of a reservation type system of use.	**Recreation** - The area would be closed to OHV use due to the clear dominance of the primitive/ natural qualities (90%) of the area. This would not apply to permitted BLM activities or authorized administrative uses. Maintain the primitive-natural character and values of this area by closing it to motorized surface-disturbing activities.	**Recreation** - Level 2 lands, excluding the primitive/natural area, would be open to OHV use on designated roads and trails and/or seasonal stipulations. Level 1 and the primitive/natural area would be closed to OHV use. This would not apply to permitted BLM activities or authorized administrative uses. Develop facilities to protect natural systems along non-motorized trails on the Green River segments. Maintain the character and value of the primitive/natural area within this area by closing it to OHV use and motorized surface-disturbing activities.	**Recreation** - Level 3 lands would be open to OHV use. Level 2 (except for the primitive/natural area) would be open to OHV use on designated roads and trails with seasonal restrictions designed to protect the watershed, soils and wildlife resource values. The primitive/natural areas, within level 2 and the level 1 lands, would be closed to OHV use. This would not apply to permitted BLM activities or authorized administrative uses. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreational development. Maintain the character and values of the identified primitive/natural area by closing the area to OHV use and motorized surface-disturbing activities. Establish an SRMA that would cover the subject area.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Mineral Materials - Allow mineral material disposals on level 3 lands with special restrictions designed to protect watershed values. Do not allow mineral material disposals on level 1 and 2 areas.	**Mineral Materials** - Allow mineral material disposals on Level 3 lands with special restrictions designed to maintain or enhance the stated resources values; do not allow mineral material disposals on level 1 and 2 lands.	**Mineral Materials** - Allow mineral material disposal on level 3 lands with special restrictions designed to protect or enhance the resource values of the level; do not allow mineral material disposals on level 1 and 2 lands.
Locatables - Until a protective withdrawal is in place and in force, any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.
Recreation - Level 3 lands, except critical soils, would be open to OHV use with seasonal restrictions designed to protect the watershed and soils values, level 2 lands and the critical soils within level 3 would be open to OHV use on designated roads and trails. This restriction would not be applied to permitted BLM activities or authorized administrative uses. Provide recreation facilities and interpretive trails at Pariette Wetlands. Recreation sites would be closed to livestock grazing and surface-disturbing activities not related to recreation development.	**Recreation** - Level 3 lands, excluding highly erodible soils, would be open to OHV use with seasonal restrictions for the watershed and wildlife protection; level 2 lands and the soils in level 3 would be open to OHV use on designated roads and trails. Develop interpretive trails and/or facilities in the Clay Basin Gas field.	**Recreation** - Level 3 lands, except highly erodible soils, would be open to OHV use with seasonal restrictions; level 1 and 2 lands and highly erodible soils within level 3 would be open to OHV use on designated roads and trails. Develop recreation facilities on Red Mountain outside the relict vegetation community; expand recreation facilities at Dry Fork Canyon. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreation development. Develop an interpretive trail and/ or facilities along Brush Creek. Develop 3 miles of nonmotorized trails along Dry Fork and Ashley Creeks. Establish 12 miles of mountain bicycle trails using existing rural roads and trails. Maintain existing trail on Red Mountain. If, however, OHV use occurs off trail after a reasonable program of signing and public education, close trail. Close trail to Moonshine Arch to OHV use. Establish a Special Recreation Management Area (SRMA) that would cover the subject area.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Recreation (Cont) - Maintain existing facilities at Bridge Hollow, Jackson Creek, Indian Crossing, Pugmire Pocket, Red Creek and Swallow Canyon at their present size (all within Level I). Develop facilities to protect natural systems on non-motorized (i.e., hiking, horseback, and mountain bicycle) trails along the Green River and other primitive recreation use areas within the complex. Recreation sites would be closed to grazing and surface-disturbing activities not related to recreation development. Develop 15 miles of hiking and/or horseback trails along the Green River, Sears Canyon, Beaver and Willow Creeks and other creeks with conditions to protect the riparian values. Maintain the character and values of identified primitive-natural areas within level 2 areas by closing the areas to OHV use and motorized surface-disturbing activities.			
Riparian - Construct rangeland improvements and design grazing prescriptions to enhance riparian values within the complex. The improvements would be designed to minimize adverse impacts to the visual and wildlife resource values.		**Riparian** - Riparian habitat in early and mid ecological stages would be protected by closure to grazing and OHV use. Construct rangeland improvements designed to enhance riparian values and to minimize visual and recreational disturbance. Do not allow livestock grazing, OHV use, and new surface-disturbing activities within the 700-foot riparian buffer.	**Riparian** - Riparian habitat in early and mid ecological stages would be protected by closure to livestock grazing and OHV use. Construct rangeland improvements designed to enhance riparian values. Allow no surface-disturbing activities, OHV use or grazing within the established 700-foot riparian buffer.

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Riparian - Construct rangeland improvements designed to enhance riparian values. Allow no livestock grazing, OHV use and new surface-disturbing activities within a 700-foot buffer of riparian zones.	**Riparian** - Riparian habitat in early and mid ecological stages would be protected by closure to grazing and OHV use. Construct rangeland improvements designed to enhance riparian values. Allow no livestock grazing, OHV use and new surface-disturbing activities within a 700-foot buffer of riparian zones.	**Riparian** - Riparian habitat in early and mid ecological stages would be protected by closure to livestock grazing and OHV use. Construct rangeland improvements designed to enhance riparian values. Allow no livestock grazing, OHV use and new surface-disturbing activities within a 700-foot buffer of riparian zones.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Soils & Water - Allow surface-disturbing activities on critical soils within Level 3 areas of the complex if watershed values are maintained. Surface-disturbing activities could be allowed only to enhance soil or water values on level 1 and 2 areas. Preclude OHV use and surface-disturbing activities in areas of highly erodible soils. Preclude OHV use and surface-disturbing activities in floodplains during times of saturated soils (usually spring runoff and fall rains).		**Soils & Water** - Activities designed to enhance or improve soil or water values would be allowed on the area with restrictions designed to minimize adverse impacts to the recreational and scenic values. Preclude OHV use and surface-disturbing activities in areas of critical soils and floodplains within the area during periods of saturated soils (usually spring runoff and fall rains).	**Soils & Water** - Allow surface-disturbing activities on level 3 lands if watershed values would be maintained. Activities designed to enhance or maintain soil or water values would be allowed on level 1 and 2 areas. Preclude OHV use and surface-disturbing activities in areas of highly erodible soils and floodplains during times of saturated soils (usually spring runoff and fall rains). Level 3 lands would be available for major (>1 acre foot capacity) water developments with special restrictions designed to maintain the existing resource values. Outside of these areas, major water developments could be permitted if the project is consistent with the area's prescriptions. Slopes less than 40% would be open to surface disturbance.
Special Emphasis Areas - Wild and Scenic River - Continue to recommend for designation the Green River, between Little Hole and the Colorado state line for inclusion in the system. Wilderness Study Areas - Continue to manage the Diamond Breaks WSA and the West Cold Springs WSA under the Interim Management Policy until formal designation has been made by Congress. Should either one or both not be designated as wilderness manage them as semi-primitive, nonmotorized areas within the complex. Develop a coordinated activity plan for the complex.	**Special Emphasis Areas** - Develop an activity plan for the area.	**Special Emphasis Areas** - Recommend the lower Green River segment as a scenic river and the middle Green River segment as a recreational river under the Wild and Scenic Rivers Act. Develop activity plans for these river segments.	**Special Emphasis Areas** - Recommend Argyle Creek and Nine Mile Creek (segment between Argyle Creek and the Carbon County border) as recreational rivers under the Wild and Scenic Rivers Act. Recommend the Gate Canyon to the boundary with the Lower Green River ACEC nomination segment of Nine Mile Creek as scenic river under the Wild and Scenic Rivers Act. Develop a coordinated activity plan for the area.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Soil & Water - Allow surface-disturbing activities on level 3 lands if watershed protection is maintained. Activities specifically designed to maintain or improve soil or water values would be allowed on level 1 and 2 areas. Preclude OHV use and surface-disturbing activities in areas of critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains).	**Soil & Water** - Allow surface-disturbing activities on level 3 lands if watershed protection is maintained. Activities specifically designed to maintain or improve soil or water values would be allowed on level 1 and 2 areas. Preclude OHV use and surface-disturbing activities in areas of critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains).	**Soil & Water** - Allow surface-disturbing activities on level 3 lands if watershed protection is maintained. Activities specifically designed to maintain or improve soil or water values would be allowed on level 1 and 2 areas, excluding the relict vegetation community within level 1. Preclude OHV use and surface-disturbing activities in areas of critical soils and floodplains during times of saturated soils (usually spring runoff and fall rains).
Special Emphasis Areas - Update the existing activity plan as necessary to incorporate new decisions.	**Special Emphasis Areas** - Update the existing activity plan as necessary to incorporate new decisions.	**Special Emphasis Areas** - Develop a coordinated activity plan for the area.

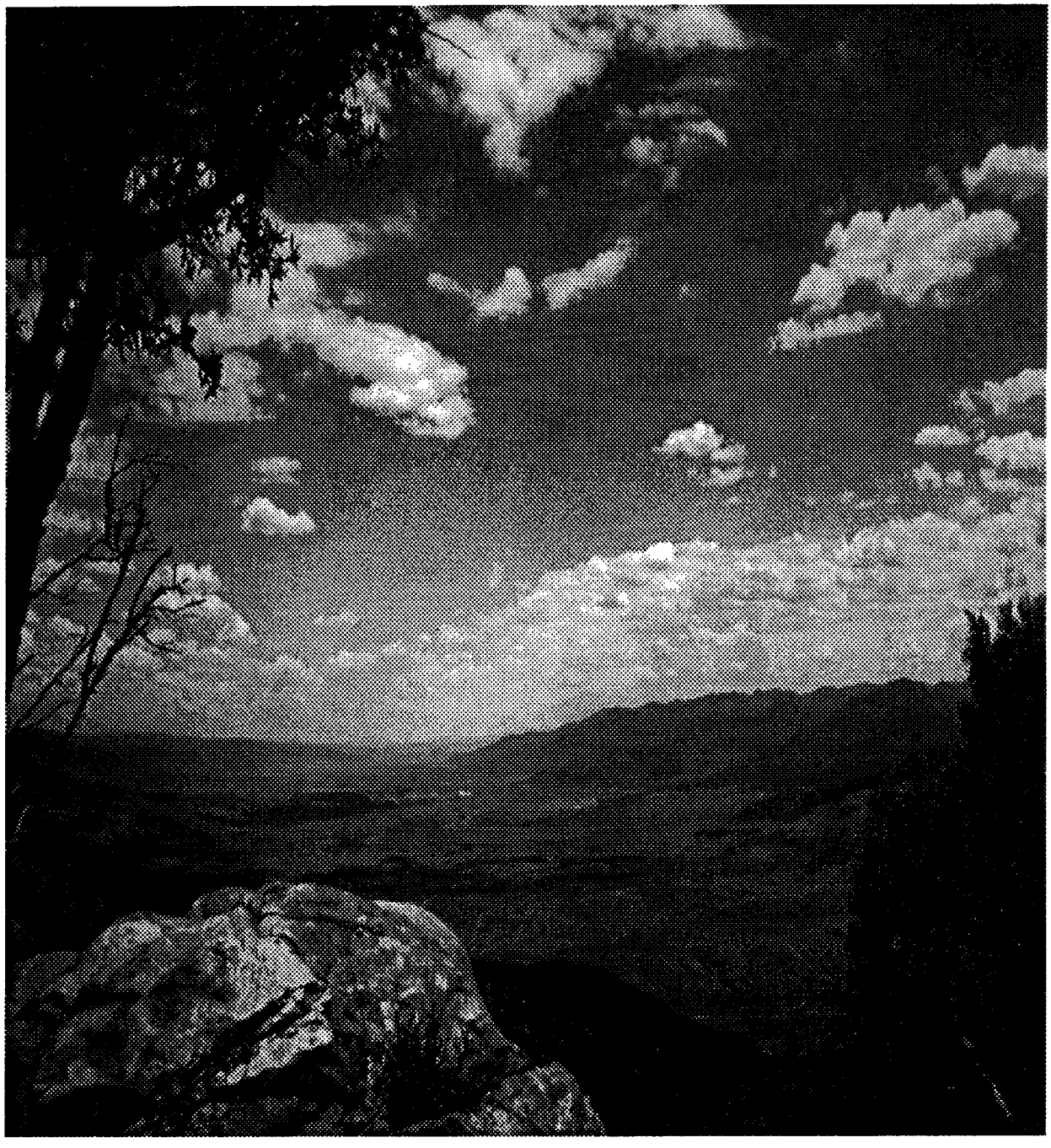
BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Vegetation - Allow only biological control of noxious weeds and insect infestations within the area with restrictions designed to protect ground cover, special status species habitat, water quality and the scenic values of the area. Manage the vegetation in the complex to attain the ecological stage which results in the highest species diversity to meet the habitat needs of wildlife and protects the critical soils values of the complex. Do not allow the removal of sagebrush in level 2 areas unless fully mitigated. Allow for the vegetation treatment of pinyon-juniper within level 2 and level 3 areas for the expansion of big game habitat. Do not allow for the use of chaining as a vegetation treatment method in primitive/ natural areas. Develop an activity plan for the federally listed plant species Spiranthes diluvialus. Should the U.S. Fish and Wildlife Service develop a recovery plan, implement the objectives of that plan. Manipulate 900 acres of pinyon-juniper woodlands for forage production and habitat enhancement.	**Vegetation** - Retain the vegetation compositions in their present late to climax ecological stages. Allow only biological control of noxious weeds and insect infestation within the area to protect watershed values. In the event revegetation following a major surface disturbance, such a wildfire, is deemed necessary to protect watershed and visual resource values, only site-adapted native species would be used. On small surface-disturbed areas (less than five acres) within the pinyon-juniper community, where other resource values would not be adversely affected, allow natural revegetation to monitor the vegetation community's natural recovery.	**Vegetation** - Allow only biological control of noxious weeds and insect infestations within the area with restrictions designed to protect ground cover, special status species habitat, water quality and the scenic values of the area. Manage the vegetation to attain the ecological stage that would result in the highest vegetation species diversity for the riparian, special status species, and visual resource values of the area. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented, where necessary.	**Vegetation** - Allow only biological control of noxious weeds and insect infestations within the area with restrictions designed to protect ground cover, special status species habitat, water quality and the scenic values of the area. Manage the vegetation to attain the ecological stage that would result in the highest vegetation species diversity for the riparian, special status species, and visual resource values of the area. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented, where necessary. Specific activity plans for the remaining special status plant species would be developed. Should the U.S. Fish and Wildlife Service develop recovery plans, their objectives would be implemented to the extent possible. Manipulate 100 acres of pinyon-juniper woodlands for forage production and habitat enhancement.
Visual - Protect natural/ primitive qualities of the VRM Class II areas. Allow only mitigable visual intrusions within 1/2 mile or line-of-sight of the Green River. All management actions would be designed to maintain or enhance the scenic qualities of the complex.	**Visual** - Protect the natural-primitive qualities of the VRM Class II areas by allowing only mitigable visual intrusions.	**Visual** - Protect primitive/ natural qualities and other VRM Class II areas within the area by allowing only mitigable visual intrusions within 1/2 mile or line-of-sight of the Green River.	**Visual** - Maintain the natural and primitive qualities of the Lower Green River, the identified segments along the Argyle and Nine Mile Creeks and VRM Class II areas. Allow only mitigable visual intrusions on these lands and within line-of-sight, up to 1/2 mile, of state or federally-listed scenic/ backcountry byways.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

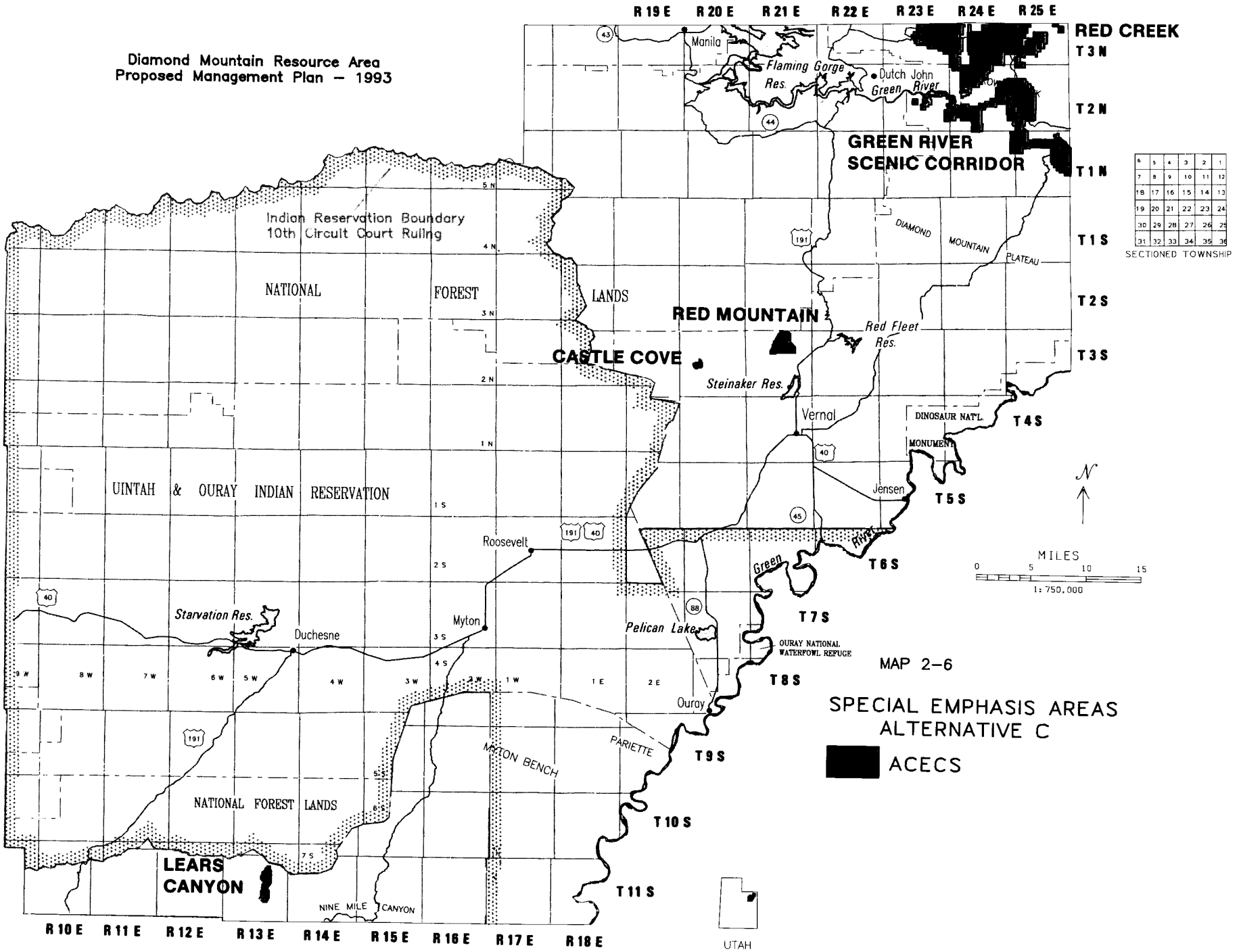
PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Vegetation - Allow only biological control of noxious weed and insect infestations within the area with restrictions designed to protect special status plant species habitat, desired ground cover and water quality. Manage the vegetation to attain the ecological stage which results in the highest vegetation species diversity for wetlands, waterfowl, soils, special status plant species, and watershed resource values. The Sclerocactus glaucus recovery plan as developed by the U.S. Fish and Wildlife Service (1990) would be implemented where necessary.	**Vegetation** - Allow only biological control of noxious weed and insect infestations within the area with restrictions to protect the watershed and water quality resources. Manage the vegetation to attain the ecological stage which results in the highest vegetation species diversity for watershed and wildlife values. Manipulate 100 acres of pinyon-juniper woodlands for forage production and habitat enhancement.	**Vegetation** - Allow only biological control of noxious weed and insect infestations within the riparian area and the relict vegetation community (level 1) with restrictions to protect the relict vegetation, riparian ground cover and water quality. Outside of the relict vegetation community, manage the vegetation to attain the ecological stage which results in the highest vegetation species diversity for wildlife and scenic values. Within the relict vegetation community, allow the area to maintain its late to climax ecological stages. In the event revegetation following a major surface disturbance, such as fire, is deemed necessary to protect watershed and/or visual resource values within the relict vegetation community, only site-adapted native species would be used. Manipulate 250 acres of pinyon-juniper woodlands for forage production and habitat enhancement.
		Visual - Protect natural/ primitive qualities of the VRM Class II areas by allowing only mitigable visual intrusions.

BROWNS PARK COMPLEX	LEARS CANYON	LOWER AND MIDDLE GREEN RIVER SEGMENTS	NINE MILE CANYON
Woodlands - Level 3 lands would be open to sale and/or harvest of woodland products with restrictions designed to maintain the stated resource values. Level 1 and 2 areas would be closed.	**Woodlands** - The area would be closed to the sale and/or harvest of woodland products.	**Woodlands** - The entire area would be closed to the sale and/or harvest of woodland products.	**Woodlands** - Level 3 lands would be open to the sale and/or harvest of woodland products except aspen, ponderosa pine, and other large conifers with restrictions designed to protect the stated resource values. Level 1 and 2 lands would be closed.

PARIETTE WETLANDS	RED CREEK WATERSHED ACEC	RED MOUNTAIN-DRY FORK COMPLEX
Woodlands - Level 3 lands would be open to the sale and/or harvest of woodland products, except for barrel cactus species. Level 1 and 2 lands would be closed to the sale and/or harvest of woodland products.	**Woodlands** - Level 3 lands would be open to the sale and/or harvest of woodland products. Level 1 and 2 lands would be closed.	**Woodlands** - Level 3 lands would be open to sale and/or harvest of woodland products. Level 1 and 2 lands would be closed.



BROWNS PARK


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
RED CREEK
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
GREEN RIVER SCENIC CORRIDOR
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
RED MOUNTAIN
CASTLE COVE
Red Fleet Res.
Steinaker Res.
DIAMOND MOUNTAIN PLATEAU
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NATIONAL FOREST LANDS
LEARS CANYON
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1: 750,000
UTAH
MAP 2–6
SPECIAL EMPHASIS AREAS
ALTERNATIVE C
ACECS

CASTLE COVE	GREEN RIVER SCENIC CORRIDOR ACEC	LEARS CANYON
General Management Objective: Retain the area's present natural sagebrush community as a comparison or control area, serving as a measuring stick for management and biological objectives practiced on other similar communities in the resource area; and, to provide/set aside an area in a late to climax ecological stage for research and/or educational purposes within this vegetation community type.	**General Management Objective:** Protect outstanding scenic, cultural, riparian, fisheries, and special status species resource values, while enhancing recreation opportunities, and maintaining compatible uses.	**General Management Objective:** Retain the area's present natural douglas fir-mountain browse and pinyon-juniper communities as comparison or control areas, serving as a measuring stick for management and biological objectives practiced on other similar communities in the resource area; and, to provide/ set aside an area in a late to climax ecological stage for research and/or educational purposes within this vegetation community type.
Total Federal Acreage: 200	**Total Federal Acreage:** 19,400	**Total Federal Acreage:** 1,400
MANAGEMENT LEVELS: 2 - 100% - Relict vegetation communities, Dry Fork critical watershed, and Class II VRM values	**MANAGEMENT LEVELS:** 2 - 2% - Developed recreation sites and cultural sites eligible or listed on the National Register of Historic Places (NRHP) 3 - 98% - Floodplain, riparian, crucial deer winter range, potential bighorn sheep habitat, scenic values, and critical soils	**MANAGEMENT LEVELS:** 2 - 100% - Relict vegetation communities (supporting resource values: critical soils, crucial big game habitat, cultural and visual resources)
MANAGEMENT PRESCRIPTIONS:	**MANAGEMENT PRESCRIPTIONS:**	**MANAGEMENT PRESCRIPTIONS:**
	Cultural - Continue to manage, interpret, stabilize and protect the historic properties at the John Jarvie National Historic District under the existing cultural resource management plan.	
Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.	Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.	Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.
Fire - Prescribed burning may be allowed only to maintain a vigorous, healthy condition of the existing native vegetation community. No more than 40% of the total area would be allowed to burn during the life of this plan.	**Fire** - Do not allow prescribed burns within level 2 areas. Aggressively suppress wildfires within the area.	**Fire** - Prescribed burning may be allowed in the pinyon-juniper community to maintain a vigorous, healthy condition of the existing native vegetation community, or to support critical soil or crucial big game habitat management objectives. No more than 50% of the pinyon-juniper community or 40% of the douglas fir-mountain browse community would be allowed to burn during the life of this plan.
	Fish and Wildlife - Restrict all surface-disturbing activities from December 1 through June 15 on crucial deer winter range. Construct bald eagle perch sites within level 2 areas as necessary, while maintaining the scenic integrity of the riverway. Do not allow new surface-disturbing activities within 1/4 mile of all active golden eagle nests from February 15 to June 15. These restrictions do not apply to maintenance and operations of producing wells and facilities. Provide habitat for the Colorado cutthroat trout, river otter and waterfowl.	**Fish and Wildlife** - Do not allow activities that would result in adverse impacts to wintering deer from December 1 through April 30 on crucial big game winter range.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

RED CREEK WATERSHED ACEC	RED MOUNTAIN
General Management Objective: Manage the watershed to continue the reduction of sedimentation into Red Creek, and the downstream Green River, by stabilizing channels and streambanks to lessen erosion, and by maintaining or increasing vegetation cover; and, enhance wildlife habitat values.	**General Management Objective:** Retain the present natural ponderosa-bluegrass community on Red Mountain as a comparison or control area, serving as a measuring stick for management and biological objectives practiced on other similar communities in the resource area; and, to provide/set aside an area in a late to climax ecological stage for research and/or educational purposes within this vegetation community type.
Total Federal Acreage: 24,400	**Total Federal Acreage:** 2,000
MANAGEMENT LEVELS: 2 - 2% - Sage grouse strutting grounds, cultural sites eligible or listed on the NRHP 3 - 80% - Highly erodible soils, riparian, crucial big game habitat, sage grouse nesting area, and archeological potential 4 - 18% - Remaining resources	MANAGEMENT LEVELS: 2 - 100% - Relict vegetation communities
MANAGEMENT PRESCRIPTIONS:	MANAGEMENT PRESCRIPTIONS:
Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.	**Cultural** - Protect cultural values by stabilization and interpretation of sites eligible or listed on NRHP. Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.
	Fire - Maintain the natural role of fire within the relict vegetation areas; however, large-scale fires would not be allowed to kill more than 3% of the ponderosa pine.
Fish and Wildlife - Do not allow activities that would result in adverse impacts to wildlife from December 1 through April 30 on crucial big game winter range. Do not allow surface disturbing activities or OHV use on sage grouse strutting grounds. This restriction would not apply if impacts could be mitigated. Do not allow OHV use and surface-disturbing activities within a 1,000 foot radius of sage grouse strutting grounds within the sagebrush vegetation type between April 1 and June 30. Would not apply if animals are not present or impacts could be mitigated through other management actions. Establish raptor protection zones in which no construction or disturbing-activities would be allowed within 1/4 mile of occupied golden eagle nests from February 15 through June 15. Would not apply if impacts could be mitigated through other management actions.	

CASTLE COVE	GREEN RIVER SCENIC CORRIDOR ACEC	LEARS CANYON
Lands - Establish a rights-of-way avoidance area for the entire area.	**Lands** - Establish a window for a common river crossing at Section 31, T2N, R25E, in level 2, the remainder of the area would be a right-of-way avoidance area. Recommend a protective withdrawal be established for level 2 lands with the area to preclude entry under the agricultural laws only.	**Lands** - Establish a rights-of-way avoidance area covering the entire area.
Livestock - Do not allow livestock grazing within the area. Develop range improvements to prevent livestock from moving or drifting onto the area.	**Livestock** - Level 2 lands would be closed to livestock grazing, enforced with fencing where needed (including Little Hole and Bridgeport grazing allotments). Level 3 areas would continue to be grazed in accordance with existing allotment management plans. Temporary, non-renewable livestock grazing could be allowed within level 2 areas only to enhance or maintain desired riparian vegetation production, or to control invasion of undesired plan species. Rangeland improvements associated with management of level 2 areas or areas immediately adjacent to level 2 would be allowed as long as they would not compromise the identified wild and scenic river qualities. Rangeland improvements associated with management of level 3 areas would be allowed as long as they do not compromise the scenic values of the area.	**Livestock** - Do not allow livestock grazing within the area. Occasional one-day livestock trailing could be authorized through the area to afford proper livestock distribution elsewhere on the grazing allotment. Develop range improvements to prevent livestock from moving or drifting onto the area.
MINERALS **Leasables** - The area would be open to mineral leasing with a no-surface-occupancy stipulation.	**MINERALS** **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect and enhance the visual and wildlife resource values. Level 2 lands would be open to leasing with a no-surface-occupancy stipulation.	**MINERALS** **Leasables** - The area would be open to mineral leasing with a no-surface-occupancy stipulation.
Geophysical Activities - The area would be open to such activities subject to special restrictions designed to minimize damage to the existing vegetation community.	**Geophysical Activities** - Level 2 areas would be open to nonsurface-disturbing geophysical activities only, level 3 areas would be open to geophysical exploration with special conditions designed to enhance and/or protect the scenic and wildlife resource values and protect human safety and recreational values associated with the Green River.	**Geophysical Activities** - The area would be open to nonsurface-disturbing geophysical activities.
Mineral Materials - The entire area would be closed to disposal of mineral materials.	**Mineral Materials** - Level 2 areas would be closed to mineral material disposals, the remainder of the area would be open mineral material disposals with special conditions.	**Mineral Materials** - Do not allow mineral material disposal.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

RED CREEK WATERSHED ACEC	RED MOUNTAIN
Fish and Wildlife (Cont) - Provide habitat and allow for the reintroduction of upland game.	
Lands - Establish a right-of-way avoidance area in level 2 lands. Make Level 3 lands available to support permitted activities with special restrictions to protect the identified resource values.	**Lands** - Establish right-of-way avoidance area for the entire relict vegetation site. Recommend protective withdrawals or other protective measures on the entire area to preclude entry under the 1872 General Mining Law or agricultural entry laws.
Livestock - Level 3 lands would be open to grazing. Level 2 lands would be open to prescribed grazing designed to maintain or enhance the watershed and wildlife habitat values. No grazing would be allowed on cultural sites eligible or listed on NRHP. Allow rangeland improvements and grazing prescriptions to maintain or improve the values identified within the ACEC.	**Livestock** - No grazing would be allowed in the relict vegetation area. Develop range improvements to prevent livestock from moving or drifting onto the area.
MINERALS **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect or enhance the watershed and wildlife habitat values. Level 2 lands would be open to leasing with a no-surface-occupancy stipulation.	**MINERALS** **Leaseables** - The area would be open to mineral leasing with a no-surface-occupancy stipulation.
Geophysical Activities - Level 3 lands, excluding riparian areas, would be open to geophysical exploration with special conditions, designed to maintain or enhance the stated watershed and wildlife habitat values. Level 2 lands and all riparian lands would be open to nonsurface-disturbing geophysical activities only.	**Geophysical Activities** - The area would be open to such activities subject to special restrictions designed to minimize damage to the existing vegetation community, watershed, and soils values.
Mineral Materials - Allow mineral material disposals on level 3 lands with special restrictions designed to maintain or enhance the stated watershed and wildlife habitat values, allow mineral disposals on level 2 lands on a case-by-case basis with restrictions to protect or enhance stated resource values.	**Mineral Materials** - The entire area would be closed to mineral material disposals.

CASTLE COVE	GREEN RIVER SCENIC CORRIDOR ACEC	LEARS CANYON
Locatables - Until a protective withdrawal is in place and in force, any mining activity except casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.	**Locatables** - Any mining activity except casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the identified resource values in the area within the parameters of the 1872 General Mining Law. The developed recreation sites would be withdrawn from mineral entry.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity except casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.
Recreation - The area would be open to OHV use on designated roads and trails with seasonal restrictions designed to minimize possible soils damage during periods of saturated soils (usually spring runoff and fall rains). Such restrictions would not necessarily apply to permitted BLM activities or authorized administrative uses.	**Recreation** - The entire area would be open to OHV use on designated roads and trails only. Continue Special Recreation Management Area (SRMA) status along the corridor. Revise, as necessary, the existing SRMA management plan to incorporate recommendations made by 1991 study on recreation use capacity of the upper Green River (Pratt et.al.). Within level 2 areas, develop facilities at Cottonwood Grove; expand Bridge Hollow; maintain facilities at Indian Crossing, Pugmire Pocket, Jackson Creek, Red Creek and Swallow Canyon. Recreational facilities would be designed to maintain riparian values and protect special status plant habitats.	**Recreation** - The area would be closed to OHV use due to the clear dominance of the primitive/ natural qualities (90%) of the area. This would not apply to permitted BLM activities or authorized administrative uses.
	Riparian - Allow new surface-disturbing activities within 330 feet of riparian zones when it can be shown there is no practical alternative, that long term impacts are fully mitigated or that the construction is an enhancement to the riparian area without adversely affecting the scenic and/or recreational values of the corridor.	
Special Emphasis Areas - Develop an activity plan for the area.	**Special Emphasis Areas** - Withdraw recommendation to include the upper Green River in the National Wild and Scenic River System. Revise existing activity plan to include recommendations of the 1991 study of recreation use capacity of the Green River (Pratt, et al.)	**Special Emphasis Areas** - Develop an activity plan for the area.

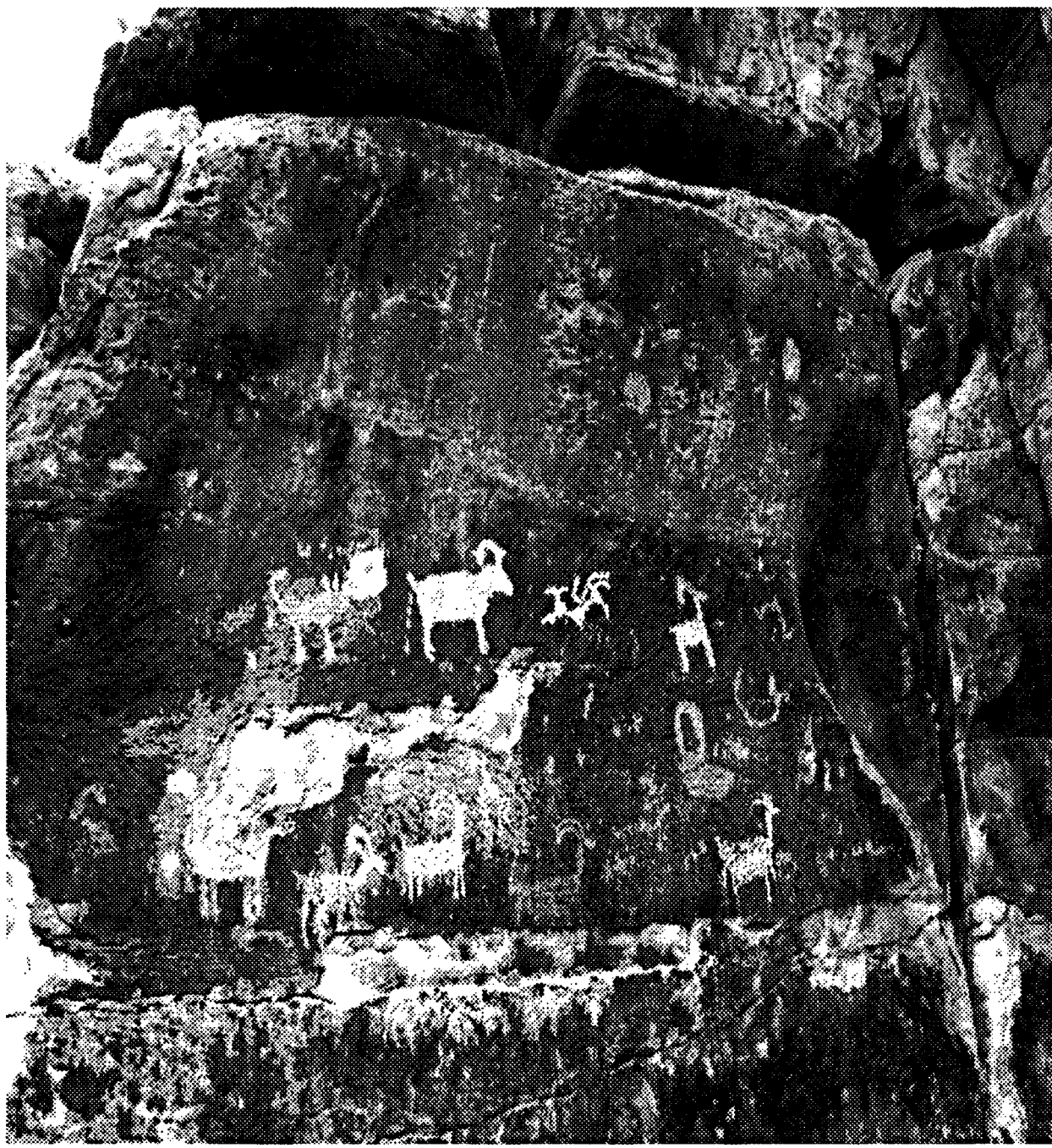
MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

RED CREEK WATERSHED ACEC	RED MOUNTAIN
Locatables - Any mineral activity except casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the identified resource values.	**Locatables** - Until a protective withdrawal is in place and in force, any mining activity except casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the vegetation community in the area within the parameters of the 1872 General Mining Law.
Recreation - Level 3 lands, excluding highly erodible soils, would be open to OHV use with seasonal restrictions for the watershed and wildlife protection; level 2 lands and highly erodible soils in level 3 would be open to OHV use on designated roads and trails. Develop interpretive trails and/or facilities in the Clay Basin Gas field.	**Recreation** - The area would be open to OHV use on designated roads and trails with seasonal restrictions designed to minimize possible soils damage during periods of saturated soils (usually the spring runoff and fall rains). Such restrictions would not necessarily apply to permitted BLM activities or authorized administrative uses.
Riparian - Allow new surface-disturbing activities within 330 feet of riparian zones when it can be shown there is no practical alternative, that long term impacts are fully mitigated or that the construction is an enhancement to the riparian area.	
Soil & Water - Allow new surface-disturbing activities on highly erodible soils with level 3 lands if watershed values are maintained. Level 3 lands would be available for major (>1 acre-foot capacity) water developments with special restrictions. Outside of these areas, major water developments could be permitted if the project is consistent with these ACEC management prescriptions.	
Special Emphasis Areas - Update the existing management plan, as necessary, to incorporate these decisions.	**Special Emphasis Areas** - Develop an activity plan for the area.

CASTLE COVE	GREEN RIVER SCENIC CORRIDOR ACEC	LEARS CANYON
Vegetation - Retain vegetation composition in its present late or climax ecological stage. Allow biological, or chemical control of noxious weeds and insect infestations within the area with restrictions to protect the existing desired native plant community and watershed values. In the event revegetation following a major surface disturbance or fire is deemed necessary to protect watershed and visual resource values, only site-adapted native species would be used. On small surface-disturbed areas (less than five acres), where other resource values would not be adversely affected, consider allowing natural revegetation to monitor the vegetation community's natural recovery.	**Vegetation** - Manipulate 900 acres of pinyon-juniper woodlands to maximize forage production for livestock. Develop an activity plan for the special status plant species found within the corridor.	**Vegetation** - Retain the vegetation compositions in their present late to climax ecological stages. Allow biological, or chemical control of noxious weeds and insect infestations within the area with restrictions to protect the existing desired plant communities and watershed values. Do not allow mechanical control in of the area due to its high sensitivity for cultural resources, primitive/ natural qualities, and critical soil values. In the event revegetation following a major surface disturbance, such a wildfire, is deemed necessary to protect watershed and visual resource values, only site-adapted native species would be used. On small surface-disturbed areas (less than five acres) within the pinyon-juniper community, where other resource values would not be adversely affected, consider allowing natural revegetation to monitor the vegetation community's natural recovery.
Visual - Allow only short-term or mitigable visual intrusions on VRM Class II lands within the area.	**Visual** - All future management actions would be designed to maintain or enhance the scenic qualities of the area.	**Visual** - Allow only short-term or mitigable visual intrusions on VRM Class II lands and within 1/2 mile or line-of-sight of state- or federally-listed scenic/back-country byways.
	Woodlands - Level 2 areas would be closed to the sale and harvest of all woodland products. Level 3 areas would be open to sale and/or harvest of pinyon and juniper for firewood on a case-by-case basis.	**Woodlands** - The area would be closed to the sale and/or harvest of woodland products.

MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

RED CREEK WATERSHED ACEC	RED MOUNTAIN
Vegetation - Allow mechanical, fire, biological, or chemical control of noxious weeds and insect infestations within the ACEC with restrictions designed to protect the vegetation ground cover and water quality values. Manage the vegetation to attain the ecological stage that would most benefit wildlife in crucial habitat. Manage vegetation in the remaining areas which results in the highest vegetation species diversity for the maintenance and enhance of the watershed resource values. Manipulate 1,400 acres of pinyon-juniper woodlands to maximize forage production for livestock.	**Vegetation** - Retain vegetation composition in its present late to climax ecological stage. Allow biological or chemical control of noxious weeds and insect infestations within the area with restrictions to protect the existing desired native plant community, watershed, and soils resource values. In the event revegetation following a major surface disturbance, such a wildfire, is deemed necessary to protect watershed and visual resource values, only site-adapted native species would be used.
	Visual - Allow only short-term or mitigable visual intrusions on VRM Class II lands within the area.
Woodlands - Level 3 lands would be open to the sale and/or harvest of woodland products. Level 2 lands would be closed.	**Woodlands** - Do not sell any ponderosa pine for commercial harvest.



PETROGLYPHS, NINE MILE CANYON

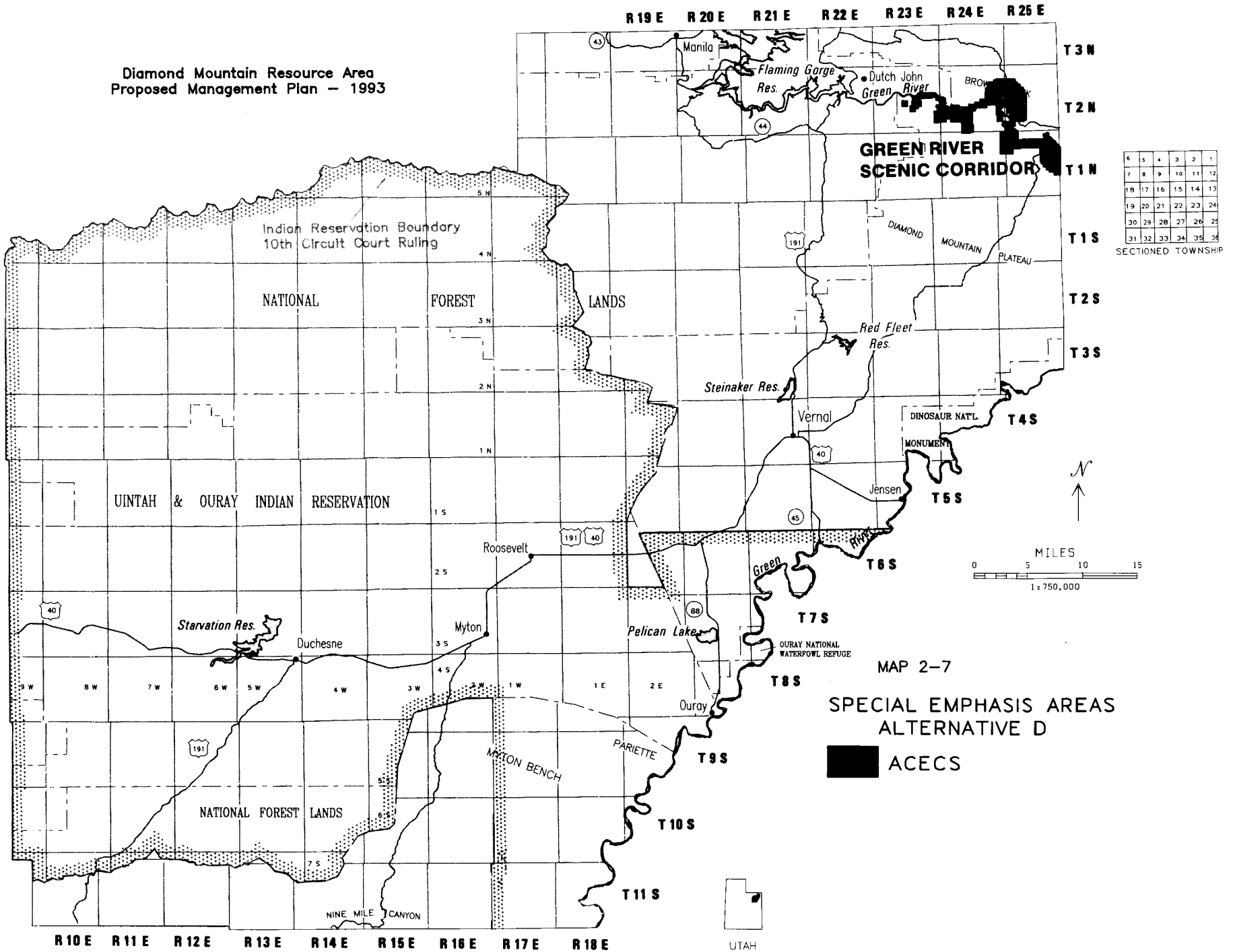

Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
GREEN RIVER SCENIC CORRIDOR
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MAYTON BENCH
PARIETTE
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 2–7
SPECIAL EMPHASIS AREAS
ALTERNATIVE D
ACECS
UTAH

TABLE 2-20: ALTERNATIVE D - MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

GREEN RIVER SCENIC CORRIDOR ACEC
General Management Objective: Protect outstanding scenic, cultural, riparian, fisheries, and special status species resource values, while enhancing recreation opportunities, and maintaining compatible uses.
Total Federal Acreage: 19,400
MANAGEMENT LEVELS: 2 - 2% - Developed recreation sites and cultural sites eligible or listed on the National Register of Historic Places 3 - 98% - Floodplain, riparian, crucial deer winter range, scenic values, and critical soils
MANAGEMENT PRESCRIPTIONS:
Cultural - Continue to manage, interpret, stabilize and protect the historic properties at the John Jarvie National Historic District in accordance with the John Jarvie Cultural Resource Plan. Protect by stabilization and interpretation sites eligible or listed on the NRHP. Consult with the Ute Tribe to protect areas and items of traditional lifeways and religious significance.
Fire - Do not allow prescribed burns within level 2 areas. Suppress wildfires within the area.
Wildlife - Restrict all surface-disturbing activities from December 1 through June 15 on crucial deer winter range. Do not allow any surface-disturbing activities, including floatboating, during the period March 1 through May 25, the waterfowl's active nesting period. Construct bald eagle perch sites within level 2 areas as necessary, while maintaining the scenic integrity of the riverway. Do not allow new surface-disturbing activities within 1/4 mile of all active golden eagle nests from February 15 to June 15. These restrictions do not apply to maintenance and operations of producing wells and facilities. Provide habitat for the Colorado cutthroat trout, river otter and waterfowl.
Lands - Establish a window for a common river crossing at Section 31, T2N, R25E, in level 2, the remainder of the area would be a right-of-way avoidance area. Recommend a protective withdrawal be established for level 2 lands to preclude entry under the agricultural laws only.
Livestock - Level 2 lands would be closed to livestock grazing, enforced with fencing where needed (including Little Hole and Bridgeport grazing allotments). Level 3 areas would continue to be grazed in accordance with existing allotment management plans. Temporary, non-renewable livestock grazing could be allowed within level 2 areas only to enhance or maintain desired riparian vegetation production, or to control invasion of undesired plant species. Rangeland improvements associated with management of level 2 areas or areas immediately adjacent to level 2 would be allowed as long as they would not compromise the identified wild and scenic river qualities. Rangeland improvements associated with management of level 3 areas would be allowed as long as they do not compromise the scenic values of the area.

TABLE 2-20 (CONTINUED): ALTERNATIVE D - MANAGEMENT PRESCRIPTIONS FOR SPECIAL EMPHASIS AREAS

GREEN RIVER SCENIC CORRIDOR ACEC
MINERALS **Leasables** - Level 3 lands would be open to leasing with special conditions designed to protect and enhance the visual and wildlife resource values. Level 2 lands would be open to leasing with a no-surface-occupancy stipulation.
Geophysical Activities - Level 2 areas would be open to nonsurface-disturbing geophysical exploration only, level 3 areas would be open to geophysical exploration with special conditions designed to enhance and/or protect the scenic and wildlife resource values and protect human safety and recreational values associated with the Green River.
Mineral Materials - Level 2 areas would be closed to mineral material disposals, the remainder of the area would be open mineral material disposals with special conditions.
Locatables - Any mining activity other than casual use would require a mining plan of operations. Development would be restricted by stipulations designed to protect the identified resource values in the area within the parameters of the 1872 General Mining Law.
Recreation - The entire area would be open to OHV use on designated roads and trails only. Within level 2 areas, develop facilities at Cottonwood Grove; expand Bridge Hollow; maintain facilities at Indian Crossing, Pugmire Pocket, Jackson Creek, Red Creek and Swallow Canyon. Recreational facilities would be designed to maintain riparian values and protect special status plant habitats. Continue Special Recreation Management Area (SRMA) status along the corridor. Revise existing SRMA management plan, as necessary, to incorporate recommendations of the 1991 study of recreation use capacity of the Green River (Pratt et al.)
Riparian - Allow new surface-disturbing activities within 330 feet of riparian areas when it can be demonstrated there is no practical alternative, that long-term impacts can be fully mitigated or that the construction is an enhancement to the riparian area.
Special Emphasis Areas - Withdraw recommendation to include upper Green River in the National Wild and Scenic River System.
Vegetation - Manipulate 900 acres of pinyon-juniper woodlands to increase forage production. Develop an activity plan for the special status plant species found within the corridor.
Visual - All future management actions would be designed to maintain or enhance the scenic qualities of the area.
Woodlands - Level 2 areas would be closed to the sale and harvest of all woodland products. Level 3 areas would be open to sale and/or harvest of pinyon and juniper for firewood on a cases-by-case basis.

SUMMARY OF IMPACTS

Table 2-21 provides a comparative summary of the impacts from the management decisions outlined for the proposed plan and the alternatives. Please refer to Chapter 4 for a complete discussion and analysis of these impacts.

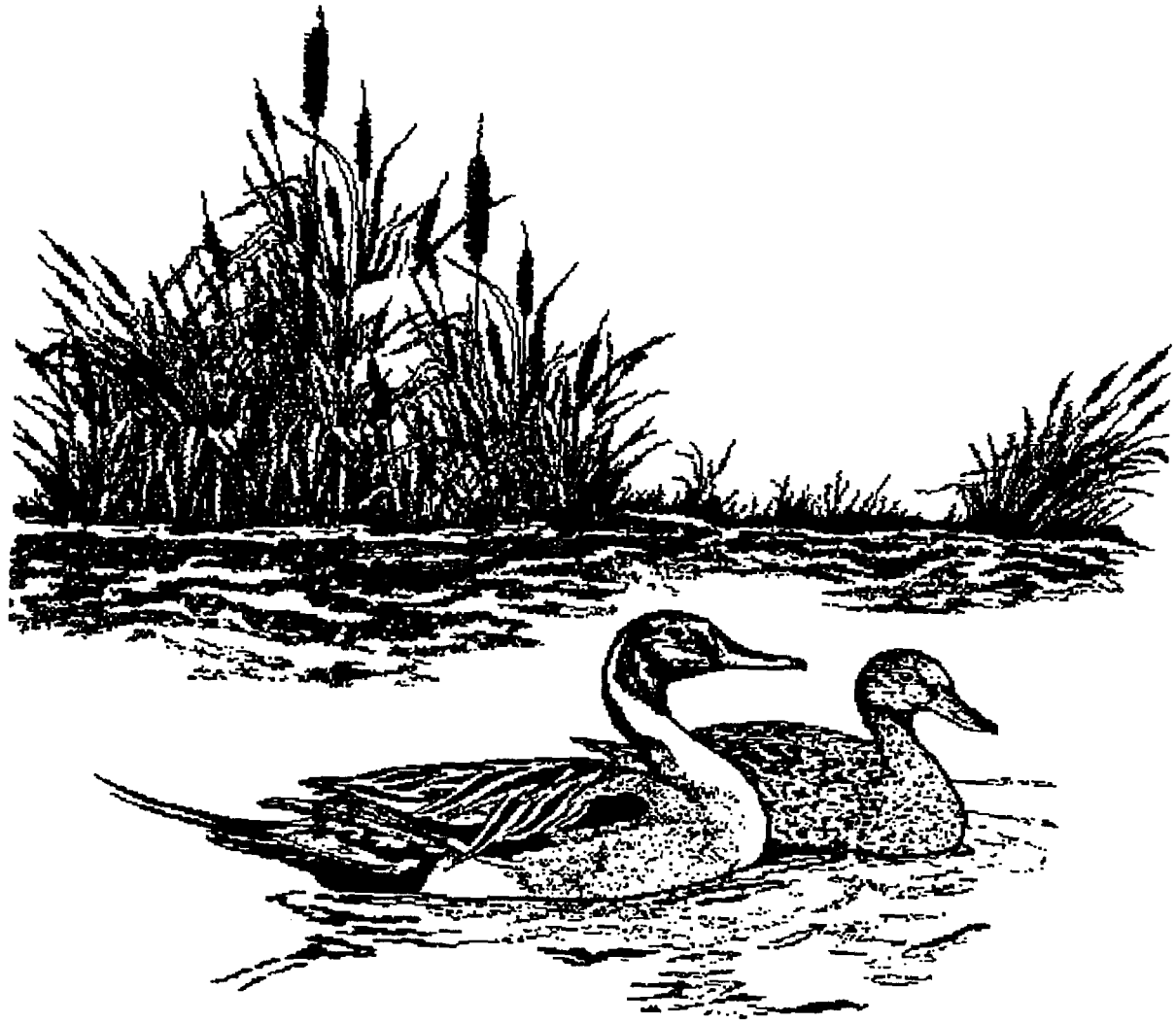


TABLE 2-21:
SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES				
Accidental disturbance to both cultural and paleontological resources would continue due to surface-disturbing activities.	Same as Proposed Plan	Accidental disturbance to both cultural and paleontological resources would continue, but would be less due to a minimum surface-disturbing activities allowed in this alternative.	Same as Proposed Plan	Same as Proposed Plan
Designation of the Nine Mile Canyon, Browns Park and Red Mountain-Dry Fork Complexes as ACECs would increase management of these areas, reducing site deterioration of important cultural and paleontological resources within DMRA.	Continuation of the Green River Scenic Corridor ACEC would increase priority management of the area, thus reducing site deterioration of important cultural resources in this area only.	Same as Proposed Plan	Same as Alternative A	Same as Alternative A
IMPACTS TO FISH AND WILDLIFE HABITAT				
Black-footed ferret reintroductions would be realized on 1 reintroduction site. Should the largest site, Eight Mile Flat, be chosen, 16,600 acres would be capable of supporting approximately 134 ferrets, thus aiding in the recovery of this endangered species.	Black-footed ferret reintroductions could be realized on 2 identified reintroduction sites totalling 19,000 acres, thus supporting approximately 153 ferrets, affording the second greatest opportunity for DMRA to aid in the recovery of this endangered species.	Black-footed ferret reintroductions could be realized on 2 identified sites totalling 33,500 acres, supporting 196 ferrets. This would afford DMRA the greatest opportunity to aid in the recovery of this endangered species.	Black-footed ferret reintroductions would not be allowed under this alternative.	Same as Alternative C
Special status raptor species nest sites would be protected year-long from permanent surface-disturbing activities, thus affording a positive, long-term benefit in the management of these species. This decision allows for mitigation and site-specific analysis, thus increasing management flexibility.	Special status raptor species' nest sites would be protected from permanent surface-disturbing activities only during the species' active reproduction periods. This would be the least beneficial option for these species.	Special status raptor species' nest sites and maintenance of suitable raptor habitat would involve year-long protection from adverse construction, OHV use, and surface disturbing activities. This alternative affords the greatest opportunity to aid in the eventual delisting of these species.	Same as Alternative A	Same as Alternative A

TABLE 2-21 (Continued): SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO FISH AND WILDLIFE (Continued)				
Big game and nongame wildlife species forage assignments would be allowed to increase 31 percent over current use, to 40,000 AUMs.	Big game and nongame wildlife species forage assignments would be allowed to increase 21 percent over current use, to 35,000 AUMs.	Big game and nongame wildlife species forage assignments would be allowed to increase 66 percent over current use, to 46,000 AUMs. This alternative affords the greatest benefit for wildlife.	Big game and nongame wildlife species forage assignments would remain at present levels (27,600 AUMs)	Same as Alternative A
88,500 acres of crucial sage grouse nesting habitat would be seasonally protected.	57,000 acres of crucial sage grouse nesting habitat would be seasonally protected.	173,000 acres of crucial sage grouse nesting habitat would be seasonally protected, offering the greatest protection to this species.	3,600 acres of crucial sage grouse nesting habitat would be seasonally protected.	Same as Alternative C
Acquiring additional public vehicle access would open 70,700 acres of presently inaccessible land, and could result in increased wildlife harassment.	Same as Proposed Plan	No additional vehicle access would be acquired; however, 48,400 additional public acres could be open to public foot access.	No additional public access would be acquired. This is a positive, long-term benefit for wildlife species sensitive to human activities in their preferred habitats.	Same as Alternative C
This alternative affords 45 miles of priority fisheries habitat protection from mineral entry with a protective withdrawal. This is seen as a beneficial impact for fisheries, but is not as extensive as Alternative B.	24 miles of priority fisheries habitat would be protected under a withdrawal excluding mineral entry. This would be a beneficial impact for fisheries and 14 of the 21 special status animal species habitats in DMRA.	This alternative offers the greatest protection to fisheries habitat and special status animal species dependent on riparian habitat by recommending a protective withdrawal on all riparian habitat within DMRA.	Same as Alternative A	Riparian areas would not be recommended for protective withdrawal; however, seasonal restrictions would be imposed to protect and enhance riparian and, thus, fisheries habitat.
123,800 acres would be open to the reintroduction of bighorn sheep. This would offer the total acres identified for the reintroduction of bighorn sheep to be managed for that purpose. Opportunities to eliminate disease transmission from domestic sheep grazing would occur through negotiations.	31,000 acres would be open to the reintroduction of bighorn sheep. Negotiating with domestic sheep permittees within a 10-mile radius of bighorn habitat would increase bighorn sheep's survivability.	123,800 acres would be open to the reintroduction of bighorn sheep. This would offer the total acres identified for the reintroduction of bighorn sheep to managed for that purpose.	Only 3,900 acres of existing bighorn sheep habitat would continue. An opportunity to reintroduce bighorn sheep into additional historical habitat areas would be lost.	Same as Alternative C

TABLE 2-21 (Continued): SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO LIVESTOCK PROGRAMS				
Livestock forage assignments would be maintained at current levels (50,299 AUMs). Additional AUMs gains through management and vegetation actions could be assigned to livestock on a temporary basis. Increased forage from range improvements to meet ecological condition goals would maintain enough forage to provide for existing livestock preference.	Livestock forage assignments would remain at current levels (50,299 AUMs). In crucial big game habitat additional AUMs gained through management and vegetation actions could be assigned to livestock on a temporary, nonrenewable basis until needed by wildlife. These AUMs would help maintain livestock preference. Preliminary monitoring data indicates no livestock preference reductions would be necessary.	Livestock forage assignments would be established at 25,700 AUMs. Additional AUMs gained through management and vegetation actions would not be available to livestock. Preliminary monitoring indicates 11,467 AUMs would be reduced due to a 66 percent increase in wildlife use.	Livestock forage assignments would be maintained at their current level. However, additional AUMs gained from rangeland improvements and management practices would be assigned to livestock. No loss in livestock preference would be realized under this alternative. This alternative affords the greatest positive opportunities for livestock management.	Same as Alternative C
Livestock grazing would continue to be closed on 3,500 public acres due to the Green River Scenic Corridor ACEC and the small, scattered unadjudicated public parcels.	Same as Proposed Plan	No livestock grazing would be allowed on 26,000 acres due to municipal watershed and riparian resource values. This would reduce livestock preference by 4,600 AUMs.	No public lands would be closed to livestock grazing; however, seasonal restrictions would be imposed to protect critical resource values in specific allotments.	Same as Alternative C
Negotiations with livestock permittees to eliminate domestic sheep grazing within 10 miles of bighorn sheep reintroduction areas could involve 10 allotments. It would result in the least adverse impacts to the involved livestock permittees.	Same as Proposed Plan	Domestic sheep would be excluded from approximately 114,000 acres of bighorn sheep management areas. This would reduce livestock use by 7,825 AUMs, affecting 10 allotments and 7 grazing permittees.	No reduction in livestock preference due to additional reintroductions of bighorn sheep would be realized as no releases have been proposed under this alternative.	Same as Alternative C
Grazing would continue on special status plant species habitat in accordance with prescribed grazing prescriptions.	Same as Proposed Plan	Grazing would be precluded on 48,000 acres of special status plant species habitat, thus reducing livestock use by 3,100 AUMs.	Same as Proposed Plan	Same as Proposed Plan

TABLE 2-21 (Continued): SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO MINERALS MANAGEMENT				
Approximately 22 percent (52,300 acres) of high potential oil and gas areas within the resource area would be open to leasing with special or standard restrictions.	Approximately 70 percent (168,000 acres) of unleased high potential oil and gas areas within the resource area would be open to leasing with special or standard restrictions.	Approximately 11 percent (25,100 acres) of high potential oil and gas areas within DMRA would be open to leasing with special or standard restrictions.	Approximately 5 percent (11,900 acres) of high potential oil and gas areas within the resource area would be open to leasing with special or standard restriction.	Approximately 24 percent (59,000 acres) of high potential oil and gas areas within the resource area would be open to leasing with special or standard restriction.
Seasonal/controlled surface use wildlife restrictions would affect 70 percent (170,000 acres) of high potential oil and gas areas resource areawide. Several of the seasonal restrictions in specific areas overlap, resulting in an extended, and in certain areas prolonged closures.	Seasonal/controlled surface use wildlife restrictions would affect 26 percent (62,100 acres) of high potential oil and gas areas resource areawide.	Seasonal wildlife restrictions would affect 46 percent (111,700 acres) of high potential oil and gas areas resource areawide. Several of the seasonal restrictions in specific areas overlap, resulting in an extended, and in certain areas prolonged closures.	Seasonal wildlife restrictions would affect 94 percent (227,900 acres) of high potential oil and gas areas resource areawide.	Seasonal wildlife restrictions would affect 75 percent (181,100 acres) of high potential oil and gas areas resource areawide.
No surface occupancy restrictions would affect 8 percent (18,700 acres) of high potential oil and gas areas resource area wide (category 3).	No surface occupancy restrictions would affect 4 percent (10,900 acres) of high potential oil and gas areas resource area wide (category 3).	No surface occupancy restrictions would affect 43 percent (104,200 acres) of high potential oil and gas areas resource area wide (category 3).	No surface occupancy restrictions would affect 1 percent (1,200 acres) of high potential oil and gas areas resource area wide (category 3).	No surface occupancy restrictions would affect 1 percent (900 acres) of high potential oil and gas areas resource area wide (category 3).
Approximately 18,300 acres of identified potential black-footed ferret habitat would have significant negative impacts on 7 percent of high potential oil and gas areas in the Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley oil and gas regions.	Approximately 1,700 of identified potential black-footed ferret habitat would have significant negative impacts to less than 1 percent of high potential oil and gas areas in the Myton Bench-Nine Mile Canyon and Horseshoe Bench-Ashley Valley oil and gas producing regions.	Approximately 26,000 acres of identified potential black-footed ferret habitat would have significant negative impacts on 12 percent of high potential oil and gas areas in the Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley oil and gas regions.	Black-footed ferret reintroductions would not be allowed under this alternative.	Same as Alternative C
Approximately 18,700 acres of high potential oil and gas areas would be precluded from using significant surface-disturbing geophysical exploration methods to protect critical resource values.	All lands would be open to geophysical exploration.	Approximately 106,000 acres of high potential oil and gas areas would be precluded from geophysical exploration due to protection of critical resource values.	All lands would be open to geophysical exploration.	All lands would be open to geophysical exploration.

TABLE 2-21 (Continued):
SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO MINERALS MANAGEMENT (Continued)				
Development of tar sands in the Pariette STSA would be precluded under this alternative. This would delay or preclude paving of roads in the Myton and Duchesne areas.	Tar sand development would be authorized on 66,200 acres of federal mineral estate, based on demand and limited by protection measures for critical resources. Such opportunities could result in increased income into the region.	Two-thirds of federal mineral estate in existing STSAs would be closed to tar sand development. This would preclude development of alternative sources of asphalt in the southern portion of the resource area.	Same as Alternative A	Same as Alternative A
7,650 acres of moderate to high grade phosphate lands would be open to development and occupancy with restrictions designed to protect crucial deer winter range and raptor habitat.	Same as Proposed Plan	95% of moderate to high grade phosphate lands would be closed to development.	Same as Proposed Plan	Same as Proposed Plan
About 1/3 of the highest potential gilsonite lands would be unavailable in this alternative. Seasonal restrictions could limit development on others.	Gilsonite deposits in the Myton area would be generally available for development.	A majority of the highest potential gilsonite lands would not be available for gilsonite disposal under this alternative.	Same as Alternative A	Same as Alternative A
Some important deposits of mineral materials would not be available under this alternative.	Most important deposits of mineral materials would be available under this alternative.	Important deposits of mineral materials would not be available under this alternative.	Same as Alternative A	Same as Alternative A

TABLE 2-21 (Continued): SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO RECREATION MANAGEMENT				
This alternative would afford the maximum number of developed recreation sites: develop 5 new sites, expand facilities at 4 existing sites, maintain 5 existing sites at their present size. Primitive recreation sites have been identified for 14 areas. Such an alternative would provide the greatest positive benefits to those recreating publics oriented to myriad forms of recreation.	Managing for both primitive and developed forms of recreation would provide the greatest diversity for the recreating public.	Recreation management would limit opportunities to those publics preferring more primitive forms of recreation. This could have a negative impact on those segments of the public preferring more developed and concentrated forms of recreation.	Recreation demand on public lands would be met by maintaining existing developed sites at their present size and providing necessary primitive recreation sites only. Like Alternative B, this would be a positive impact to those publics oriented to a more primitive recreation experience.	Recreation demand on public lands would be met with 3 new developed recreation sites and expansion of 3 existing sites. This would be a positive benefit to the recreating publics relying on a mix of recreation activities.
Approximately 299,600 acres of the resource area would be open to OHV use; 364,200 acres would be restricted to designated roads and trails seasonally or yearlong. The remaining public land within DMRA would be closed to OHV use to protect critical resource values.	DMRA would be open to OHV use; however, 12 percent (85,600 acres) would be restricted to designated or existing roads and trails to protect critical soils and municipal watershed values. Such management would adversely affect driving for pleasure and, in some areas, close access to hunting.	553,000 acres (or 78 percent) of DMRA would be open to OHV use; of which 37% would be restricted to designated roads and trails. The remaining public lands within DMRA (156,000 acres) would be closed to OHV use to protect critical resource values.	687,700 acres (97 percent) of the resource area would be restricted to designated roads and trails to reduce livestock harassment and vegetation destruction. Although no OHV closures would be in effect, this alternative is the most limiting to recreationists driving for pleasure or hunting.	99,300 acres (14 percent) of DMRA would be restricted to designated roads and trails to protect critical resource values. No OHV closures would be in effect under this alternative. This management objective would provide the greatest opportunity for driving for pleasure or hunting.
71 percent (43,200 acres) of semi-primitive, nonmotorized values would be protected for the enjoyment of primitive forms of recreation.	6,900 acres (or 11 percent) of semi-primitive, nonmotorized values would be protected for primitive forms of recreation.	100 percent (60,800 acres) of semi-primitive, nonmotorized value lands would be protected for primitive forms of recreation.	100 percent of semi-primitive, nonmotorized value lands would not be protected, and thus maintained, for primitive forms of recreation.	Same as Alternative C
Designation of all the special emphasis areas as ACECs would increase the recreation management emphasis in these areas, thus providing protection and enhancement of those resources valued by the recreating public preferring more primitive recreational experiences.	Continuation of the Green River Scenic Corridor ACEC would continue priority recreation management in the area, thus aiding to meet the increasing needs of the recreating public in this area.	Same as Proposed Plan	Same as Alternative A	Same as Alternative A

TABLE 2-21 (Continued): SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO RIPARIAN RESOURCES				
Improving 7,200 public acres of riparian habitat from its present early and mid ecological condition to a late or climax condition would be a significant positive impact to wildlife, recreation, and watershed values.	Same as Proposed Plan	Same as Alternative A; however, the fencing necessary to implement the objective would extend into non-riparian, upland sites in specific areas, extending the protection to riparian areas.	Same as Proposed Plan	Same as Proposed Plan
IMPACTS TO SOIL AND WATER RESOURCES				
Continuation of the Red Creek Watershed ACEC and designation of the Pariette special emphasis area as an ACEC would emphasize watershed management for these two watersheds, thus aiding in meeting the objectives of the Colorado River Compact.	Continuation of the Red Creek Watershed ACEC would continue to focus management on this area, thus maintaining or improving watershed conditions where possible and support the BLM Rock Springs District in meeting their management objectives for this watershed.	Same as Proposed Plan		
Over the life of this plan, approximately 22,400 acres have been identified for vegetation treatment. Vegetation treatment projects involving pinyon-juniper woodlands would result in a net long-term savings of 336,000 tons of soil per year.	Same as Proposed Plan	Vegetation treatment projects involving pinyon-juniper woodlands would result in a net long-term savings of 135,750 tons of soil per acre per year. Over the life of this plan, approximately 9,050 acres have been identified for vegetation treatment.	Vegetation treatment projects involving pinyon-juniper woodlands would result in a net long-term savings of 406,500 tons of soil per acre per year. Over the life of this plan, approximately 27,100 acres have been identified for vegetation treatment.	Same as Alternative C
4,050 acres within critical watersheds in the Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley oil and gas producing regions could be disturbed due to oil and gas activities. Such disturbances could result in accelerated erosion of approximately 20,250 tons of soil per year.	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan

TABLE 2-21 (Continued): SUMMARY OF IMPACTS FROM THE ALTERNATIVES

PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
IMPACTS TO VISUAL RESOURCES				
Designation of the Red Mountain-Dry Fork Complex, Pariette, Lower Green River, Lears Canyon and Nine Mile Canyon special emphasis areas as ACECs would significantly increase vegetation management emphasis in these areas for both special status plant species and relict vegetation communities.	Not designating any new ACECs under this alternative would limit vegetation management for both Special Status plant species and relict vegetation communities.	Same as Proposed Plan	Designation of the three relict vegetation communities as ACECs would add to the scientific knowledge of natural vegetation communities in the intermountain region. However, Special Status plant species' habitat management would be restricted to the Bureau's policy or regulation.	Same as Alternative A
1,200 acres (2 percent) of present VRM Class II areas would be adversely affected by unmitigible actions associated with the possible transmission line placement within the identified utility corridors.	1,800 acres (3 percent) of present VRM Class II areas within DMRA would be adversely affected by unmitigible actions associated with the possible transmission line placement within the identified utility corridors.	1,200 acres (2 percent) of present VRM Class II areas would be adversely affected by unmitigible actions associated with the possible transmission line placement within the identified utility corridors.	2,400 acres (4 percent) of present VRM Class II areas would be adversely affected by unmitigible actions associated with the possible transmission line placement within the identified utility corridors.	2,400 acres (4 percent) of present VRM Class II areas would be adversely affected by unmitigible actions associated with the possible transmission line placement within the identified utility corridors.
IMPACTS TO WOODLANDS MANAGEMENT				
A 45% increase in current harvest levels could be accommodated in this alternative using sustained yield principles. This would be a positive impact to the local communities dependent on public woodlands for fuelwood.	Continuing the harvest of woodland products to meet public demand would be a local benefit.	A 57% reduction in current harvest levels would be necessary to protect critical resource values. This would be a negative impact to the local communities dependent on public woodlands for fuelwood.	A 69% increase in current harvest levels could be accommodated in this alternative using sustained yield principles. This would be a positive impact to the local communities dependent on public woodlands for fuelwood.	Same as Alternative C

AFFECTED ENVIRONMENT 3

This chapter contains a description of the existing physical, biological, and socioeconomic characteristics of the resource area significantly affected by the proposed plan and alternatives described in Chapter 2. This description of the affected environment serves as a baseline for analyzing and determining the effects on resources from the proposed plan and various alternatives. These resource descriptions are discussed only in as much detail as needed to explain the effects of implementation. Where impacts would be slight or nonexistent, the descriptions are brief. Much of the information presented in this chapter is summarized from the DMRA Management Situation Analysis (MSA), incorporated here by reference. The MSA is available for review in the Vernal District Office or the Utah State Office.

AIR RESOURCES

The present air quality of DMRA is good. The air quality in the resource area is classified as an "attainment area", meaning the area meets the National Ambient Air Quality Standards' primary and secondary air quality standards. The Prevention of Significant Air Quality Deterioration regulations allow the resource area the maximum deterioration increment described under the criteria for a Class II air quality area. Class II air quality allows for some degradation associated with moderate and well-controlled growth. There are no Class I air quality areas in the resource area; however, Dinosaur National Monument is an area of special air quality concern. Presently, the Vernal District does not monitor air quality.

CLIMATE

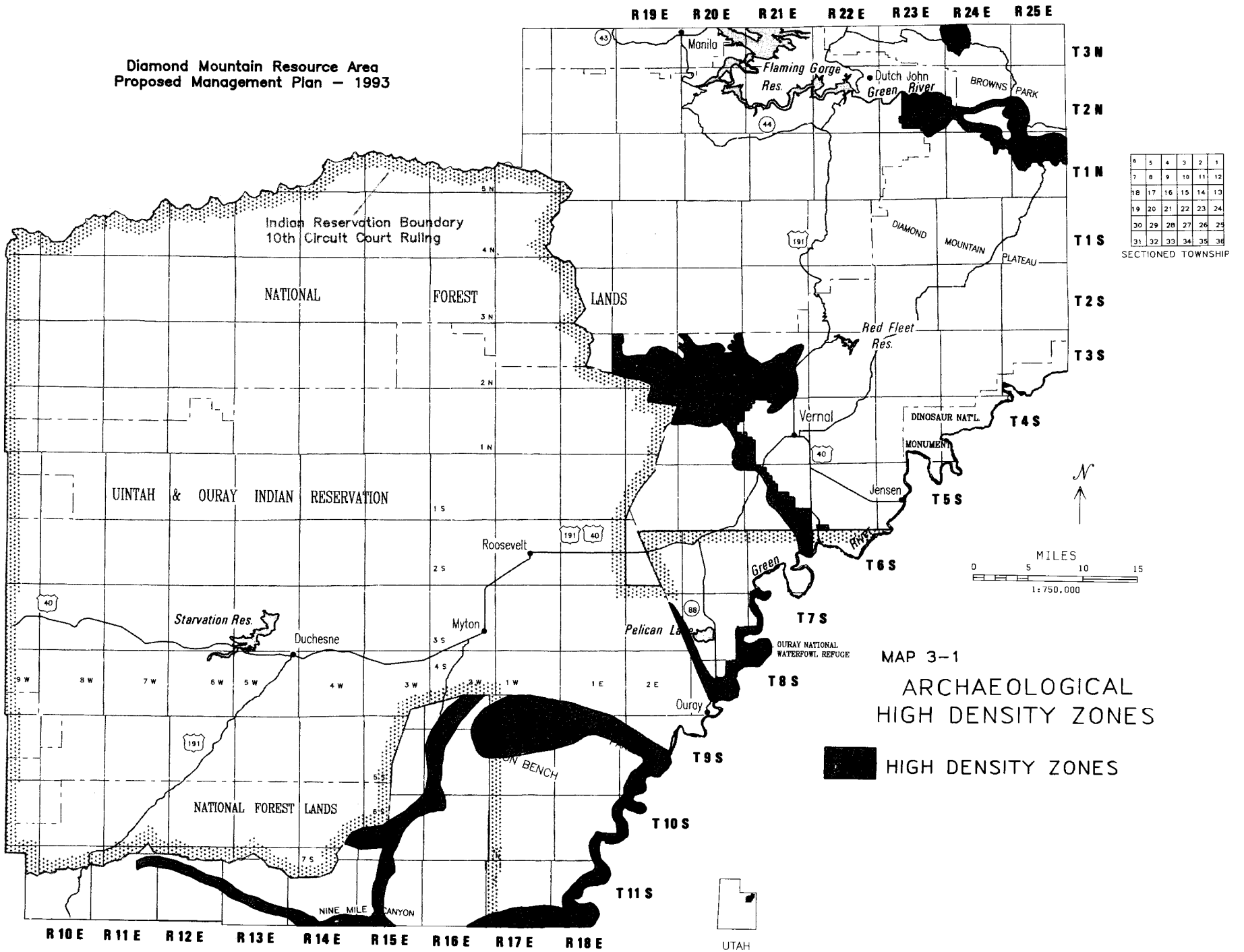
DMRA lies within both the Colorado Plateau and the Middle Rocky Mountains physiographic provinces. The climate within these provinces involves a semi-arid continental regime characterized by low relative humidity, abundant sunshine, high evaporation rates, and low to moderate precipitation. Prevailing clear skies with strong daytime insolation and rapid nighttime cooling result in wide daily temperature variations. In Browns Park the temperature extremes are moderated because of the buffering effect of the Green River. The Uinta Basin experiences a high frequency of inversion and fog during the winter months resulting from nighttime cold air draining from surrounding higher elevations. In the resource area, annual precipitation averages 6-14 inches in the lower elevations and may exceed 20 inches at the higher, mountainous elevations. Most precipitation comes from winter snowfall and intense late summer rains causing saturated soils generally in the spring and the fall.

CULTURAL AND PALEONTOLOGICAL RESOURCES

CULTURAL RESOURCES

Cultural resources in the Diamond Mountain Resource Area include both historic and prehistoric resources. Evidences of human activity or occupation are reflected in: cultural districts, sites, structures, buildings, objects, artifacts, works of art, and natural features important in human events.

Cultural resource uses are allocated through special designations, such as Areas of Critical Environmental Concern (ACECs) and identification of American Indian tribal, religious, or cultural sites. The probability of finding cultural resources in this resource area is identified and mapped by zones on Map 3-1.


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Green River
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3-1
ARCHAEOLOGICAL HIGH DENSITY ZONES
HIGH DENSITY ZONES

The ranked site density zones are based on known site densities correlated to topographic and vegetation variables. The high density zone is the area where site density varies between 10 and 40+ sites per square mile. The moderate density zone contains 10 to 1 site(s) per square mile. Low density areas have less than one site per square mile.

These rankings are based on a predictive model for site location which correlated variables from various Class II statistically-based inventories and Class III site-specific inventories.

The cultural resources in DMRA developed from centuries of human occupation, which have been divided into the following time periods: Paleo-Indian (10,850-5050 BC), Archaic (6050 BC-AD 600), Formative or Fremont (300 BC-AD 1550), and Historic (1750 AD-present) (BLM, 1996).

Cultural sites are generally concentrated near historic springs and seeps and along reliable streams such as Nine Mile Creek, Dry Fork Creek, Ashley Creek, Brush Creek and the Green River. The transition area between vegetation communities (e.g., sagebrush and pinyon-juniper woodlands, riparian and desert shrub, etc.) are also important because they provided a wide variety of plant and animal resources.

The resource area presently has approximately 1,950 recorded cultural sites. They have been initially categorized into the following BLM use categories:

Use Category	Estimated Number of Sites
Information Potential	1,460
Public Values	390
Conservation	100

The site types and numbers currently recorded in the resource area represent only the resource area's cultural resources that have been found. Only 1 percent (or 7,000 public surface acres) of the resource area has been surveyed. From an extrapolation of these figures, DMRA may have more than 150,000 sites.

While many cultural areas are known to exist in the resource area, some areas are known to contain particularly significant or high concentrations of sites. These areas are identified below, however, other areas of cultural significance also exist.

- Nine Mile Canyon is an outstanding area of archeological importance. This canyon forms the boundary between the Uinta and San Rafael Fremont variants. Site densities exceed 100 per square mile. Numerous petroglyphs, pictographs and structures occupy this area. The Ute people also occupied this canyon and left many petroglyphs unique to their culture.

- The series of sandstone hogbacks at the base of the south-facing slopes of the Uinta Mountains also have high site densities. These features have been the focus of several major Fremont rock art studies (Schaafsma, 1971; Castleton, 1978; Castleton and Madsen, 1982; and Burton, 1971). Significant rock art concentrations occur at the Red Mountain-Dry Fork Canyon area, and along Ashley Creek, Spring Creek, and Big and Little Brush Creeks. Moderate density areas for rock art include Asphalt Ridge and Steinaker Draw.

- The north-facing slopes of the Uintas in Browns Park and Little Hole have very high site densities (exceeding 40 per square mile). These areas have large, complex sites which are in good condition. They contain considerable information concerning how prehistoric peoples lived and interacted with other populations in the region. Inventories of these areas indicate prehistoric peoples focused their activities in these areas for the past 3,500 years. The Jarvie National Historic Site is here, and is a good example of the historic values of the area

- Certain areas within the pinyon-juniper woodlands, sagebrush, and riparian vegetation communities have cultural significance for present day Utes as areas of religious importance.

- Three historic trails transect the resource area: the Carter Military Trail, the Vernal to Rock Springs Road and the Price to Myton Road (refer to Map 3-2).

Sites eligible for or listed on the *National Register of Historic Places* (NRHP) within the resource area include: one NRHP Historic District, one NRHP Historic Site, and 13 other sites determined to be eligible for designation as NRHP Historic Sites by the Utah State Historic Preservation Officer (SHPO). For a description of these properties, see Table 3-1, "Cultural Resource Properties." About 350 other sites within the resource area are significant and have been recorded by the professional archeologist responsible for the inventory as eligible for listing on NRHP.

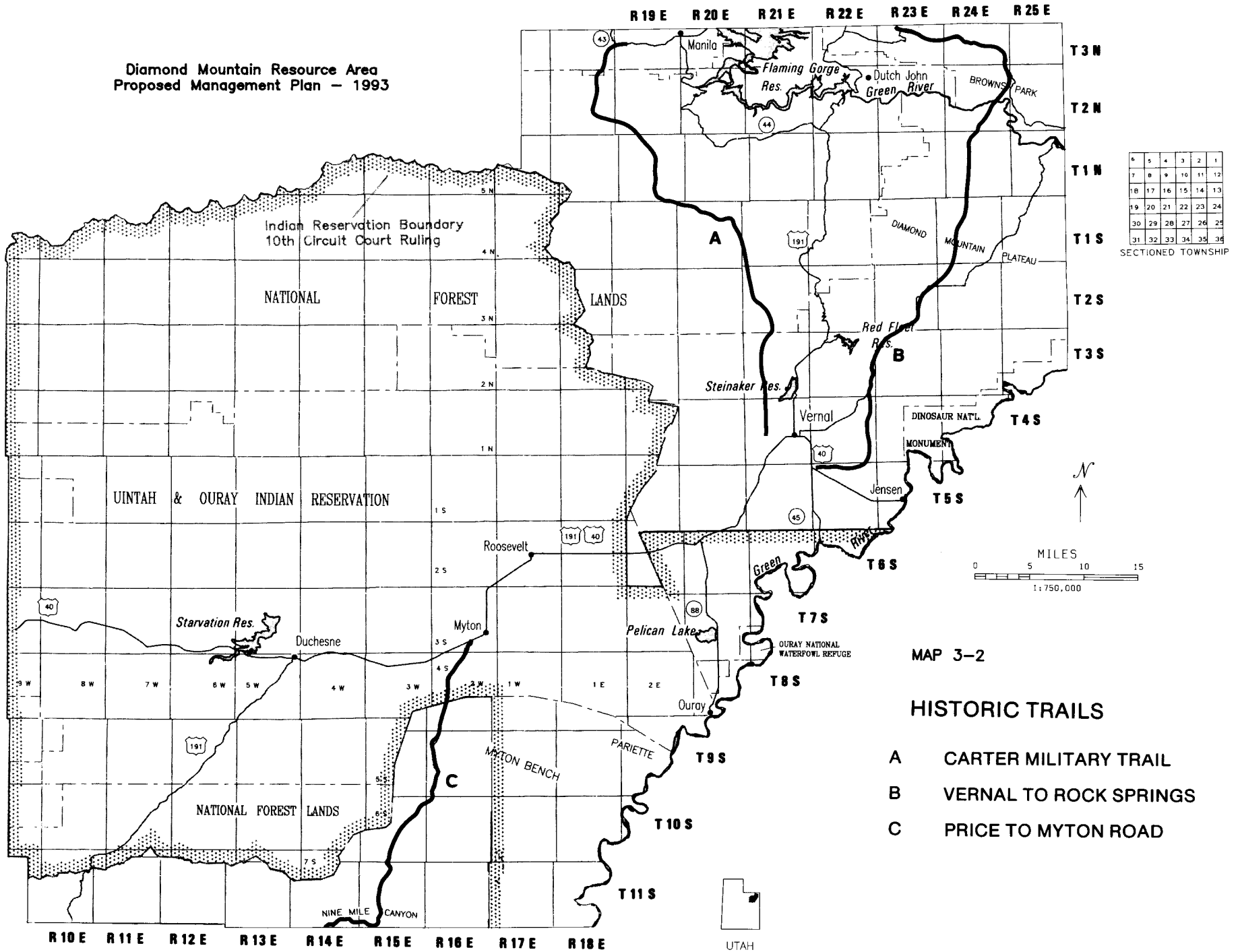

Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
Green River
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NINE MILE CANYON
A
B
C
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–2
HISTORIC TRAILS
A CARTER MILITARY TRAIL
B VERNAL TO ROCK SPRINGS
C PRICE TO MYTON ROAD

TABLE 3-1:
CULTURAL RESOURCE PROPERTIES

NATIONAL REGISTER PROPERTIES	
John Jarvie Ranch	A 19th Century Ranch in Browns Park. Restored National Historic District and reconstructed to look like it did about 1900. It is managed by Vernal District BLM and is open to the public.
Sand Wash National Historic Site	The site of a historic ferry across the Green River. It is administered by BLM's Moab District.

NATIONAL REGISTER ELIGIBLE PROPERTIES (determined eligible by Utah SHPO)		
Historic Homestead	42DA482	Consists of cabin, dugout, irrigation ditches, fence lines, corral. Post 1900.
Prehistoric Camp	42DA488	Several burned structures, Uinta grey pottery, and stone tools.
Lithic Scatter	42DA491	A mid-plains archaic period tool manufacturing site.
Prehistoric Camp	42DA404/ 455	Prehistoric camp of large size utilized to produce stone tools.
Prehistoric Quarry Site	42DA457	Prehistoric quarry and campsite where Native Americans utilized Uinta Mountain Group Quartzite to make tools.
Road	42DA395	Jesse Ewing Road. Served as a segment of Ashley Valley to Green River stage route.
Prehistoric Camp	42DA464	A lithic scatter which has an intact slab lined hearth.
Mining Project	42DA466	A small, shallow prospect.
Prehistoric Camp	42DA470	An open camp consisting of several hundred flakes, a mano, and chopper.
Prehistoric Camp	42DA471	A large camp used when quarrying stone to produce tools.
Prehistoric Camp	42DA472	A group of hearths and a lithic scatter.
Lithic Scatter	42DC585	The site of a very large tool manufacturing site.
Fremont Rock Art Site	42UN464	A series of small (<6") figures of persons and animals.

Source: Vernal District Files

The resource area has one National Historic Landmark– The Desolation Canyon, located on the lower Green River. It runs from the Sand Wash Recreation Site near Nine Mile Canyon down river into the Moab District. Current management practices are discussed in the 1979 "Desolation and Gray Canyons of the Green River, River Management Plan" (BLM, 1979).

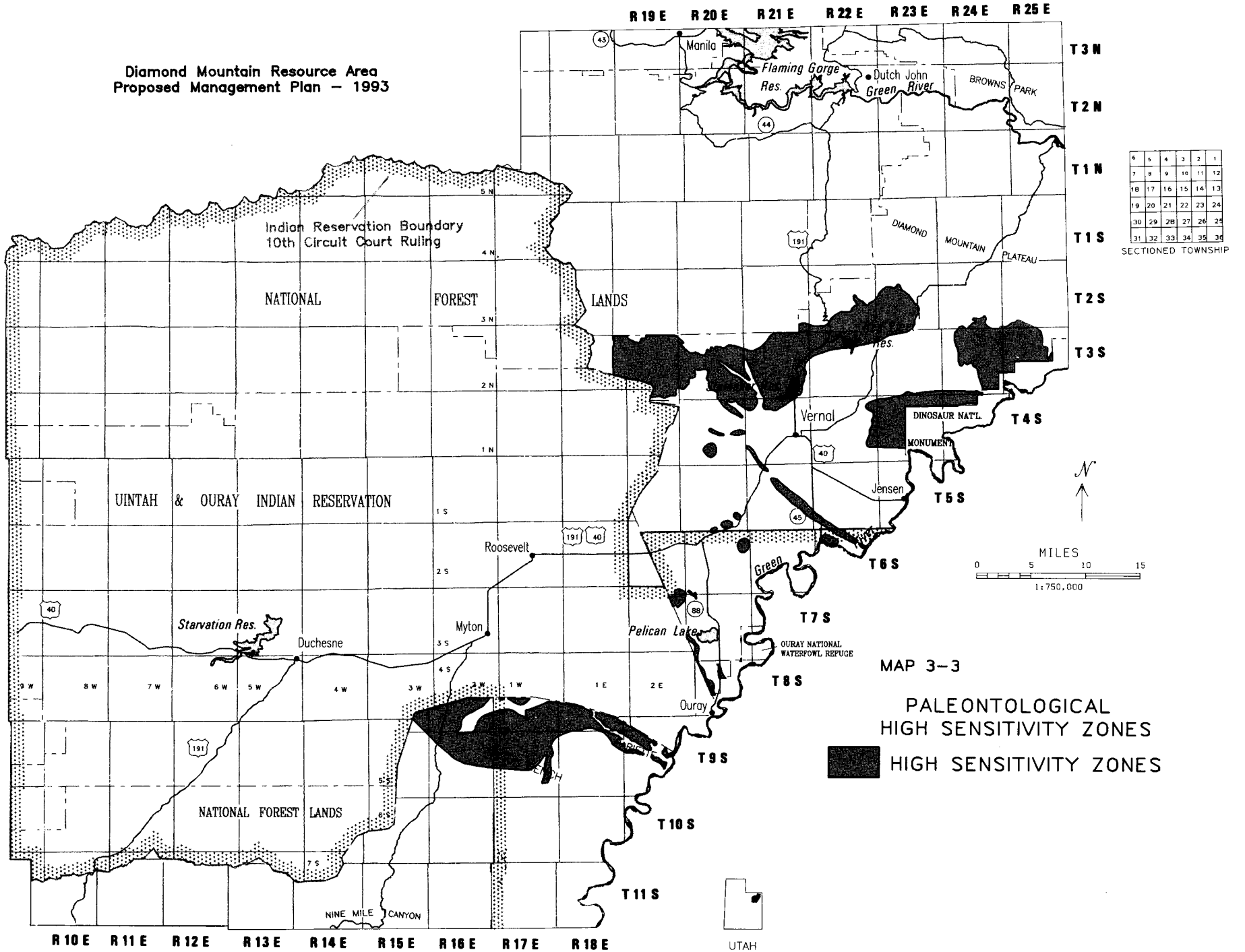
PALEONTOLOGICAL RESOURCES

Within DMRA, geologic formations have been ranked as having being Type 1, 2 or 3 for fossil-bearing potential. The formations recognized as having the highest fossil potential are identified in Table 3-2. Map 3-3 provides areas within the resource area having the highest site potential. In particular, the Mesozoic Formations in the Red Fleet area are becoming important due to diversity and density of recently uncovered dinosaur fossils and trackways. This area may be proposed for inclusion into the National Natural Landmark System. Currently about 300 paleontological sites have been found and recorded covering less than 1 percent of the resource area. (Refer to Appendix Table A1-1 for further information.)

TABLE 3-2:
HIGHLY SENSITIVE FORMATIONS FOR PALEONTOLOGICAL RESOURCES

NAME	AGE	GEOLOGIC ERA	REASON
Browns Park	Miocene	Cenozoic	Mammal fossils (Gomphothere, camel, horse, etc.)
Duchesne River	Late Eocene/ Early Oligocene	Cenozoic	Same as Green River Formation, mammal trackways.
Uinta	Upper Eocene	Cenozoic	Same as Green River Formation, mammal trackways.
Green River	Middle Eocene	Mesozoic	Fish, amphibian, bird, large and small mammals, reptiles, etc. Aided in definition of faunal ages.
Wasatch	Early Eocene	Mesozoic	Reptile and mammal fossils, some of the earliest primates. Aided in the definition of mammal ages.
Mesa Verde Gr.	Upper Cretaceous	Mesozoic	Dinosaur trackways previously unknown in this formation in this area.
Frontier	Middle Cretaceous	Mesozoic	Presence of heretofore unknown dinosaur footprints
Mowry	Early Cretaceous	Mesozoic	Presence of the first known perch (Beryciforme fish)
Morrison	Upper Jurassic	Mesozoic	World class localities for dinosaurs, reptiles, microvertebrates, etc.
Glen Canyon Gr.	Upper Triassic/ Lower Jurassic	Mesozoic	Presence of heretofore unknown dinosaur tracks
Curtis	Late Jurassic	Mesozoic	Presence of marine reptiles, both types the first found in Utah of this age. (Ichthyosaur and Pliosaur)
Carmel	Middle Jurassic	Mesozoic	Presence of heretofore unknown dinosaur footprints
Chinle	Middle/Upper Triassic	Mesozoic	Presence of heretofore unknown dinosaur tracks
Moenkopi	Lower Triassic	Mesozoic	Presence of early pre-dinosaur tracks

Source: Vernal District Files


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Vernal
DINOSAUR NATL. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
NATIONAL FOREST LANDS
NINE MILE CANYON
Green
MILES
0 5 10 15
1:750,000
SECTIONED TOWNSHIP
MAP 3-3
PALEONTOLOGICAL HIGH SENSITIVITY ZONES
HIGH SENSITIVITY ZONES
UTAH

FISH AND WILDLIFE HABITAT

DMRA offers a wide range of wildlife habitats supporting a minimum of 350 known wildlife species. Currently DMRA allocates approximately 35,000 AUMs for wildlife. At times wildlife habitat management objectives may conflict between individual species' needs. Hunters, fishing enthusiasts, bird watchers, photographers, scientists, and educators value the area's wildlife and their environs. As private native rangeland becomes developed or as more people utilize the land, it is able to support fewer wildlife species dependent on these native vegetation communities, thus making public lands more valuable as wildlife habitat.

Numerous studies (Geist, 1971, 1975; King, 1985; Brown, 1987; Brody et al., 1989) have documented sensitive wildlife species such as mountain lion, ferruginous hawk, and black bear responses to increased human activity. These responses include significant negative impacts such as displacement from preferred habitat, lower body weight, elevated metabolism, and reduced fetus survival. Roads evoke an avoidance response and associated decline in animal use of adjacent habitat as well as shifting of home ranges to areas of lower road densities (Brody et al., 1989). Because of the human pressure on existing habitat, it is extremely important that the foregoing be considered when designing any land management strategy for DMRA.

The Bureau's Fish and Wildlife 2000 Plan (BLM, 1990c), provides direction for selecting individual species for use in district planning. These Management Indicator Species (MISs) are species for which population and habitat objectives are established for monitoring the non-target effects of the Bureau's planning efforts. Table 3-3 outlines the MIS-habitat relationships for the resource area. MISs within the resource area were selected from the following categories:

- All special status animal species identified from the U.S. Fish and Wildlife Services' (USF&WS) current lists and the State of Utah's native species of special concern occurring within the resource area.
- Species of economic values (those that are hunted, fished, or trapped).
- Species with special habitat needs, including Rocky Mountain bighorn sheep and raptors (not included as special status species).
- Species whose population changes are believed to indicate effects of management on other species and/or habitats.

TABLE 3-3:
DMRA MANAGEMENT INDICATOR SPECIES AND THEIR ASSOCIATED HABITATS

WILDLIFE SPECIES	HABITAT
Elk Mule deer Goshawk	Old growth conifer
Mallard duck Macroinvertebrates River otter Woodhouse toad Leopard frog	Aquatic Marshes Lakes
Golden eagle Prairie falcon	Cliff rocks
Elk Mule deer Pronghorn antelope Prairie dog Burrowing owl	Grasslands
Elk Mule deer Warbling vireo	Deciduous woodlands
Elk Mule deer Song sparrow Rufous-sided towhee	Riparian shrub
Elk Mule deer Plain titmouse	Pinyon-juniper woodlands
Elk Mule deer Pronghorn antelope Green-tailed towhee	Mountain shrub
Elk Mule deer Pronghorn antelope Vesper sparrow Sage grouse	Sagebrush
Pronghorn antelope Loggerhead shrike	Desert shrub
Rocky Mountain Bighorn Sheep	Canyonlands, steep rock ledges
Northern flicker	Primary snag
Mountain bluebird	Secondary snag
Special status animal species	Various: Riparian, pinyon-juniper woodlands, cliffs, desert shrub
Rocky Mountain bighorn sheep	Early to mid ecological stage mountain browse sagebrush communities

Source: DMRA files (Wildlife 2000)

TABLE 3-4:
SPECIAL STATUS ANIMAL SPECIES OCCURRING OR HAVING POTENTIAL WITHIN DMRA

COMMON NAME	SCIENTIFIC NAME	STATUS	STREAM MILES OR PUBLIC LAND ACRES	PERCENT OF SUITABLE HABITAT IN RESOURCE AREA
American peregrine falcon	Falco peregrinus anatum	E	70 miles	25
Bald eagle	Haliaetus leucocephalus	E	70 miles	25
Black-footed ferret	Mustela nigripes	E	Unknown	
Bonytail chub	Gila elegans	E	Unknown	
Colorado squawfish	Ptychochellus lusius	E	22 miles	22
Humpback chub	Gila cypha	E	22 miles	22
Whooping crane	Grus americanus	E	2,500 acres	<1
Razorback sucker	Xyrauchen texanus	E	22 miles	22
Mexican spotted owl	Strix occidentalis lucida	T	Unknown	
Roundtail chub	Gila robusta	C2	Unknown	
Flannelmouth sucker	Catostomus latipinnis	C2	Unknown	
Colorado River cutthroat trout	Salmo clarki pleuriticus	C2	3 miles	3
Ferruginous hawk	Buteo regalis	C2	296,000 acres	42
Northern goshawk	Accipiter gentilis	C2	Unknown	
Long-billed curlew	Numenius americanus	C2	2,500 acres	<1
Mountain plover	Charadrius montanus	C2	296,000 acres	42
Western snowy plover	Charadrius alexandrinus nivosus	C2	Unknown	
Black tern	Chlidonias niger	C2	Unknown	
Loggerhead shrike	Lanius ludovicianus	C2	Unknown	
Spotted bat	Euderma maculata	C2	22 miles	8
White-faced ibis	Plegadis chihi	C2	3,000 acres	<1
Columbian sharp-tailed grouse	Tympanuchus phasianellus columbianus	C2	Unknown	
Great Basin silverspot butterfly	Speyeria nakomis nakomis	C2	Unknown	
KEY: E=Endangered; C1, C2, C3 = Special Status category (see glossary) T=Threatened				

Source: USF&WS, 1980

SPECIAL STATUS ANIMAL SPECIES HABITAT

Table 3-4 provides a current list of 23 special status animal species that occur, or have potential to occur, within the resource area. All species listed on this table are also listed by the State of Utah as threatened or endangered. The exception is the Great Basin silverspot butterfly, which appears only on the federal list of category species.

In addition to the 23 species listed in Table 3-4, the State of Utah also lists the following species as state sensitive: Osprey, grasshopper sparrow, double crested cormorant, American white pelican, Swainson's hawk, western bluebird, Lewis's woodpecker, yellow billed cuckoo, river otter, 13-lined ground squirrel, dwarf shrew, red bat, purple martin, and Utah milk snake. DMRA may provide existing and/or potential habitat for these species.

The State of Utah has defined sensitive to mean "any species which, although still occurring in numbers adequate for survival, has been greatly depleted or occurring in limited areas and/or numbers due to a restricted or specialized habitat" (UDWR, 1987). A management program, including protection or habitat manipulation, is therefore needed. Special status animal species recovery plans have not designated any Critical Habitats in DMRA. However, the Green River is recognized as sensitive habitat for the Colorado squawfish, bonytail chub, razorback sucker, humpback chub, flannelmouth sucker, and roundtail chub.

Black-Footed Ferret Habitat

The black-footed ferret is considered one of the rarest mammals in North America. In the last fifty years, the black-footed ferret has been in sharp decline and risks extinction. The primary reasons for the decline are: the eradication of up to 90-95 percent of prairie dogs since 1900 (the ferrets primary food source), during expanded

agricultural development, and disease (Linder et al, 1972). The black-footed ferret was rediscovered at Meeteetse, Wyoming, in 1981, and has become a nationally important species.

A successful captive breeding program resulted in the release of 49 black-footed ferrets back to the wild in Shirley Basin, Wyoming, in the fall of 1991. As of the summer of 1992, the captive breeding program has more than 240 adult black-footed ferrets and 190 kits from this year's litters. Since the release of the 49 black-footed ferrets, 7 have survived the winter, and a minimum of 4 adults with 2 litters of 2 and 4 kits have been verified (Wyoming Game and Fish, 1992). The existence of suitable habitat to continue this reintroduction process is of critical national importance if the species is to be preserved. The Uinta Basin has been identified as known historical range of the black-footed ferrets (Heilman and Clark, 1980). Sixteen unconfirmed but probable sightings of black-footed ferrets have been compiled by the USF&WS in Uintah County between 1979 and 1988 (USF&WS, 1981, 1985a, 1986a, 1987a, and 1990a).

Approximately 33,500 acres of active prairie dog towns within the resource area are classified as potential black-footed ferret habitat (refer to Map 3-4). Biological information collected in 1985, has identified Eight Mile Flat and Twelve Mile as potentially suitable for supporting a viable population of black-footed ferrets. Additionally, Sunshine Bench, Shiner, and Antelope Flat have been identified as potentially suitable for black-footed ferret reintroductions based only on USF&WS criteria. All five areas are scheduled to be evaluated, beginning in 1992, to determine their current suitability.

The Utah Black-footed Ferret Working Group, comprised of representatives from UDWR, BLM, USF&WS and APHIS, following criteria established by the Black-Footed Ferret Interstate Coordinating Committee, have selected two potential ferret reintroduction sites within the State of Utah, both outside of DMRA. The primary release site was identified as Coyote Basin, within the Book Cliffs Resource Area of the Vernal District, in eastern Uintah County. A black-footed ferret steering committee, composed of approximately 15 members from various agencies, local government, and private interests, is currently drafting a reintroduction and management plan for the Coyote Basin area, which will serve as the proposed action for NEPA analysis. An experimental, non-essential population designation, under Section 10j of the Endangered Species Act, will be requested in a final rulemaking by the USF&WS. The earliest possible release date for the Coyote Basin site would be the fall of 1994. Any sites approved by this RMP would be the first approved in Utah, ahead of the two primary reintroduction sites. If problems arose with the first two sites, any sites approved by the DMRA RMP could be used as alternates. The same steering committee procedures described above to develop a reintroduction and management plan and a request of a non-essential experimental population designation for the site would be utilized.

Other Special Status Animal Species Habitat.

The riparian ecosystem provides crucial habitat for 24 special status animal species, including raptors, shorebirds, mammals, and fish. The Green River, being the largest continuous riparian area within the resource area, is especially crucial. Loss or severe degradation of this habitat could have significant repercussions on any or all of the involved special status animal species. Cliff areas and pinyon-juniper woodlands are also important to numerous other special status animal species.

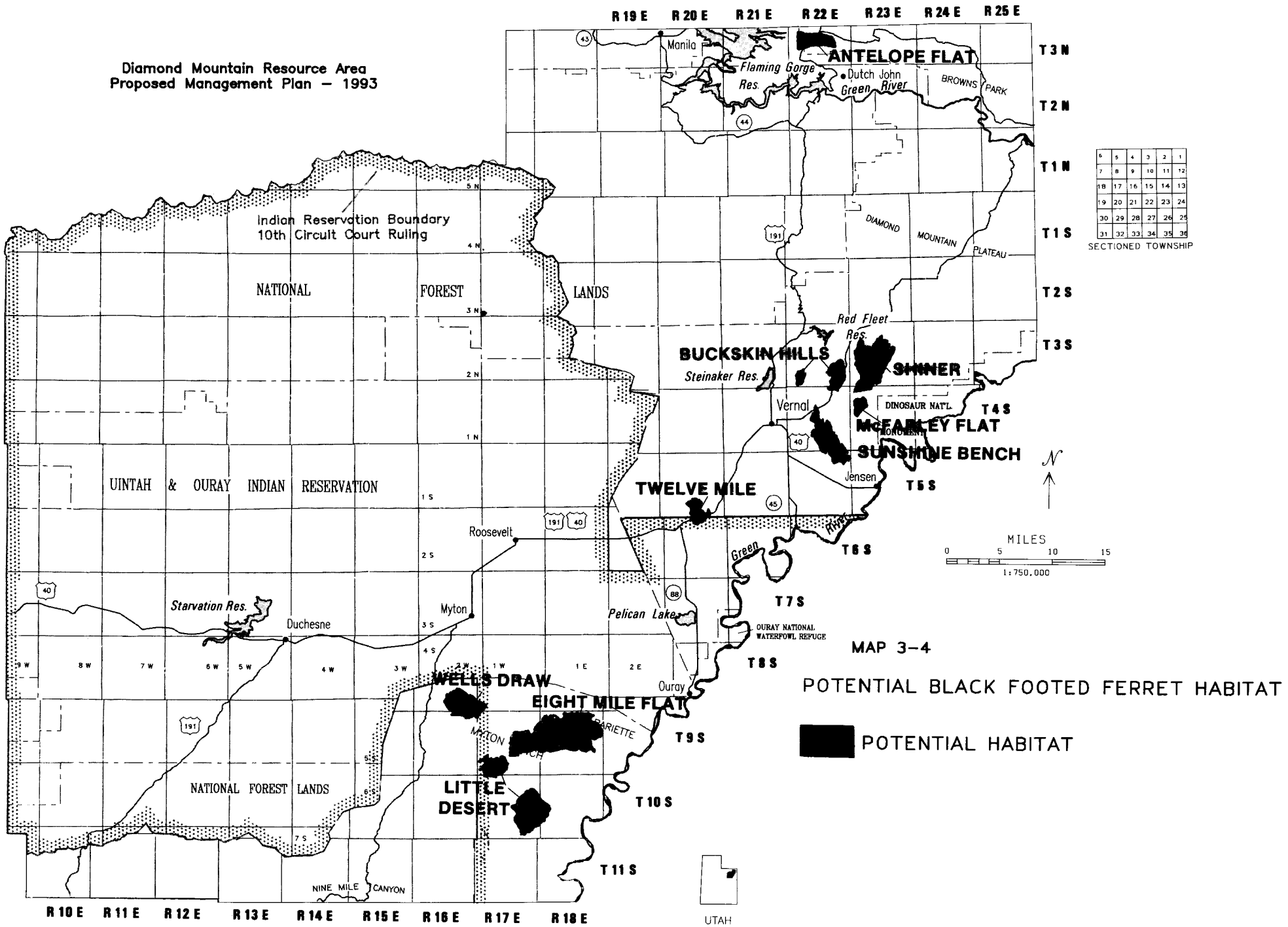
The river otter was reintroduced to the Green River at its confluence with Red Creek in 1989. A total of 55 otters have been released: 23 in Browns Park (1990), 17 in Island Park, 9 at Ouray, and 6 at Pariette, all in 1991. Monitoring data has verified the production of 2, and possibly 3 litters in 1990. Seven adults have also died from various means since 1989, so the success of the transplant is still unsure. The Green River continues to supply excellent habitat and was rated Utah's number one reintroduction site by UDWR in 1988.

Very little is known about habitat conditions for the western snowy plover, whooping crane, spotted bat, white-faced ibis, long-billed curlew, black tern, loggerhead shrike, Great Basin silverspot butterfly, and Columbian sharp-tailed grouse.

The mountain plover is found on the Myton Bench area in upland desert shrub habitat strongly associated with white-tailed prairie dog colonies. They migrate into the area in late March and April, and are usually gone by mid September to October. The mountain plover's nest usually consists of a simple scrape on open ground. Insects and seeds are the primary food source used by the mountain plover throughout the summer.

In 1982, the USF&WS listed the mountain plover as a Category 2 species defined as: listing possibly appropriate but conclusive data on vulnerability and threat are not currently available (USF&WS, 1990b). Commercial hunting and conversion of habitat to agriculture are frequently reported reasons for the apparent decline, but loss to automobiles, chemical spraying, and urbanization are also mentioned (Parrish, 1988; Graul and Webster, 1976).

A prairie dog/mountain plover inventory conducted on the Myton Bench during 1992, recorded at least seven


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
ANTELOPE FLAT
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
BUCKSKIN HILLS
Steinaker Res.
SHINER
Vernal
DINOSAUR NAT'L. MONUMENT
McFARLEY FLAT
SUNSHINE BENCH
Jensen
TWELVE MILE
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
WELLS DRAW
EIGHT MILE FLAT
MYTON BENCH
DUCHESNE
LITTLE DESERT
NATIONAL FOREST LANDS
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3–4
POTENTIAL BLACK FOOTED FERRET HABITAT
POTENTIAL HABITAT
UTAH

different mountain plovers. An additional one was also observed separately, west of the survey area. As further data is gathered, stipulations to protect habitat and nest sites would be developed.

Special Status Fish Species

The Green River from Browns Park to the Carbon County line, within the resource area boundaries, provides crucial habitat for four endangered fish: The Colorado squawfish, humpback chub, bonytail chub, and razorback sucker.

The Colorado squawfish inhabits the Green River from the confluence of the Yampa River south. The area from Jensen to Ouray has been designated a high density nursery area as well as a migration corridor for adults (USF&WS, 1989). Young-of-the-year squawfish use shoreline areas and backwaters of this same stretch of the Green River from summer through winter.

The razorback sucker occurs in the Green River between Dinosaur National Monument and the Carbon County line within the resource area (USF&WS, 1987b). The USF&WS has collected larval fish in the Green River above Jensen, Utah, indicating reproduction. A suspected spawning area is located in the Green River north of Jensen, Utah. The Ouray area of the Green River has been used as a reintroduction site for young razorback suckers (Karp, 1990).

The bonytail chub and humpback chub are the other two endangered fish that occur in the Green River. Habitat requirements of the bonytail chub are largely unknown but additional information is expected from a radio tracking study of introduced bonytails in the upper Green River in 1988 and 1989 (UDWR, 1989a). Humpback chubs are found inhabiting narrow, deep canyon areas, such as the Gray and Desolation Canyons south of the resource area boundary and in Whirlpool Canyon on the Green River between Island and Echo Parks (USF&WS, 1982, 1986b). No confirmed spawning areas exist for either of these species within the resource area (USF&WS, 1986). The roundtail chub is a Utah State sensitive species which also is found in Nine Mile Creek and the Green River within the resource area.

Potential limiting factors for the Colorado squawfish and razorback sucker include spring peak flows, overbank flooding, number of reproducing adults, and competition and predation by non-native fishes (USF&WS, 1989). Potential limiting factors for the bonytail chub were unknown as of 1989.

The Colorado cutthroat trout formerly inhabited many perennial tributaries to the Green River including Beaver, Willow, Sears, and Jackson Creeks (BLM, 1978). The primary reason for the decline has been the hybridization with rainbow and non-native cutthroat used in stocking programs (Behnke and Zarn, 1976). In July 1990, Colorado cutthroat trout from the Water Hollow Creek in the Strawberry drainage were reintroduced into Sears Creek by UDWR. Beaver, Willow, Gorge, Jackson, and Crouse Creeks have all been identified by UDWR as potential habitat for future reintroductions of Colorado cutthroat trout. (Refer to the MSA for further details on locations and biological data).

Special Status Raptor Species

The resource area provides habitat, or potential habitat, for the following eight special status raptor (birds of prey) species: bald eagle, peregrine falcon, Mexican spotted owl, ferruginous hawk, northern goshawk, osprey, and the golden eagle. All except the bald eagle and Mexican spotted owl are known to nest within the borders of the resource area.

Golden eagles do not qualify as special status species, but they are addressed in this section because they receive extensive protection under the Bald Eagle Protection Act. They are protected from unlawful "take" which includes any action resulting in harming, molesting, or disturbing eagles, their nests, eggs, or young.

A 1991 nesting raptor inventory, completed on a portion of the Myton Bench, identified 65 golden eagle nests, of which five were active; and 36 ferruginous hawk nests, of which one was active. The numerous old, inactive ferruginous hawk nests identified in this inventory indicated a probable reduction of this species in DMRA in recent years. This decline parallels similar declines throughout the western United States attributed mainly to the loss of habitat and intolerance to disturbance during the breeding season (McKibben, et al, 1989). No formal inventories have been completed on the remainder of the resource area, but 12 years of observations have identified 40 golden eagle nests (at least 4 active in 1991), 3 ferruginous hawk nests (1 active in 1991), and 1 peregrine falcon eyre active in 1991. No raptor survey routes have been established to monitor the annual trend of these species.

District observations, since 1988, have documented the abandonment of eight ferruginous hawk nests due to surface disturbing activity. The Western Area Power Administration 345 kV powerline from Craig to Bonanza, within the adjacent Book Cliffs Resource Area, crossed within 100 yards of five ferruginous hawk nests that had previously been active. Since the powerline was completed in 1989, these nests have all been inactive.

The development of an oil well in the Deadman Bench area in 1982, also resulted in the abandonment of three ferruginous hawk nests located within 1/4 mile of the well. These nests had also been active in 1981, prior to this permanent surface disturbing activity.

The nesting-reproductive season is considered to be the most critical period in the raptor life cycle because it determines population productivity, short-term diversity, and long-term trends (Fyfe and Olendorff, 1976). Most species have specific habitat requirements such as available prey base, and freedom from nest site disturbance. These requirements are key factors in nest site selection and reproductive success. White, et al., 1979, concluded that human activities at distances greater than 0.5 miles and construction activity at distances greater than 1.0 mile would not adversely affect the most sensitive pairs of ferruginous hawks. Human activities, if allowed to continue to encroach on raptor nest sites, may cause raptors to abandon nesting territories (Wagner, 1980).

A recent study (1991), completed by Peter Kung in the Duchesne oil and gas field portion of the resource area, documented that nesting attempts were abandoned by ferruginous hawks as drilling activities increased. Ferruginous hawks have not used this area since. This study indicated a threshold level of disturbance had been reached wherein the ferruginous hawk would no longer tolerate the increased oil and gas development activities.

Current raptor species management is considered inadequate because it only protects habitat and nest sites during the reproductive season. Once the young have fledged, surface disturbing activities are allowed which have caused the nest sites to be abandoned in subsequent years. Year 'round nest protection is needed to prevent further losses and the continued adverse affect on special status raptor species.

ECONOMIC SPECIES HABITAT

Table 3-5 shows population estimates by herd units and acres of habitat for the three big game management indicator species of DMRA. (Appendix 2 breaks down the current and potential big game wildlife forage needs on a grazing allotment basis.) Population estimates are from UDWR aerial trend counts for elk and antelope, and computer models for deer. Big game population estimates for public land were derived from examinations of big game seasonal occurrence throughout the resource area and from estimates of how much of that use was on public lands.

Rocky Mountain Elk

Elk are fairly common residents in the resource area and are increasing in numbers in all seven elk herd units. Table 3.5 shows more than 136,728 acres (56 percent) of crucial winter range, are on public land administered by the BLM. This is significant for the elk herds of northeastern Utah. Winter range preference is for the mountain sagebrush-browse and pinyon-juniper woodlands vegetation communities. Depending on winter severity, elk winter on the south slopes of Mosby, Dry Fork, and Taylor Mountains eastward to Diamond Mountain, on the north slopes of Diamond Mountain and the Three Corners area of the resource area. They are also typically found in the Wells Draw area of Myton Bench and the Antelope Flat-Clay Basin area north of Dutch John, Utah. Since 1992, noticeable numbers of elk have begun to winter at lower elevations in the Browns Park area.

Elk have established themselves as year 'round residents in some locations normally considered historical winter range. These areas include Diamond Rim, Five Mile, and the Deep Creek areas. Elk summer in the higher elevations of the resource area in the aspen and conifer vegetation types typified by Goslin and Diamond Mountains. Refer to Map 3-5 which shows elk habitat in the resource area.

Current elk management objectives are to maintain adequate cover and feeding habitat on crucial winter range and to reduce forage competition between elk and livestock and other big game species. Current seasonal restrictions to surface disturbing activities are used to reduce stress and disturbance on these crucial winter ranges. Studies by Green and Bear (1990), and Swift (1980), are among a few which have documented the reduction in food quality and associated reduction in elk winter activity and energy expenditures. Weather and other environmental factors also impose high energy demands not encountered by elk during other times of the year.

Utah House Bill 25, passed in 1992, mandated new elk management plans be completed on all herd units by May 1994. UDWR is presently reorganizing herd unit boundaries and may reduce the number of units present in DMRA.

Mule Deer

Mule deer are the most numerous big game species occurring throughout the resource area, with the highest concentrations in the Diamond Mountain-Goslin-Three

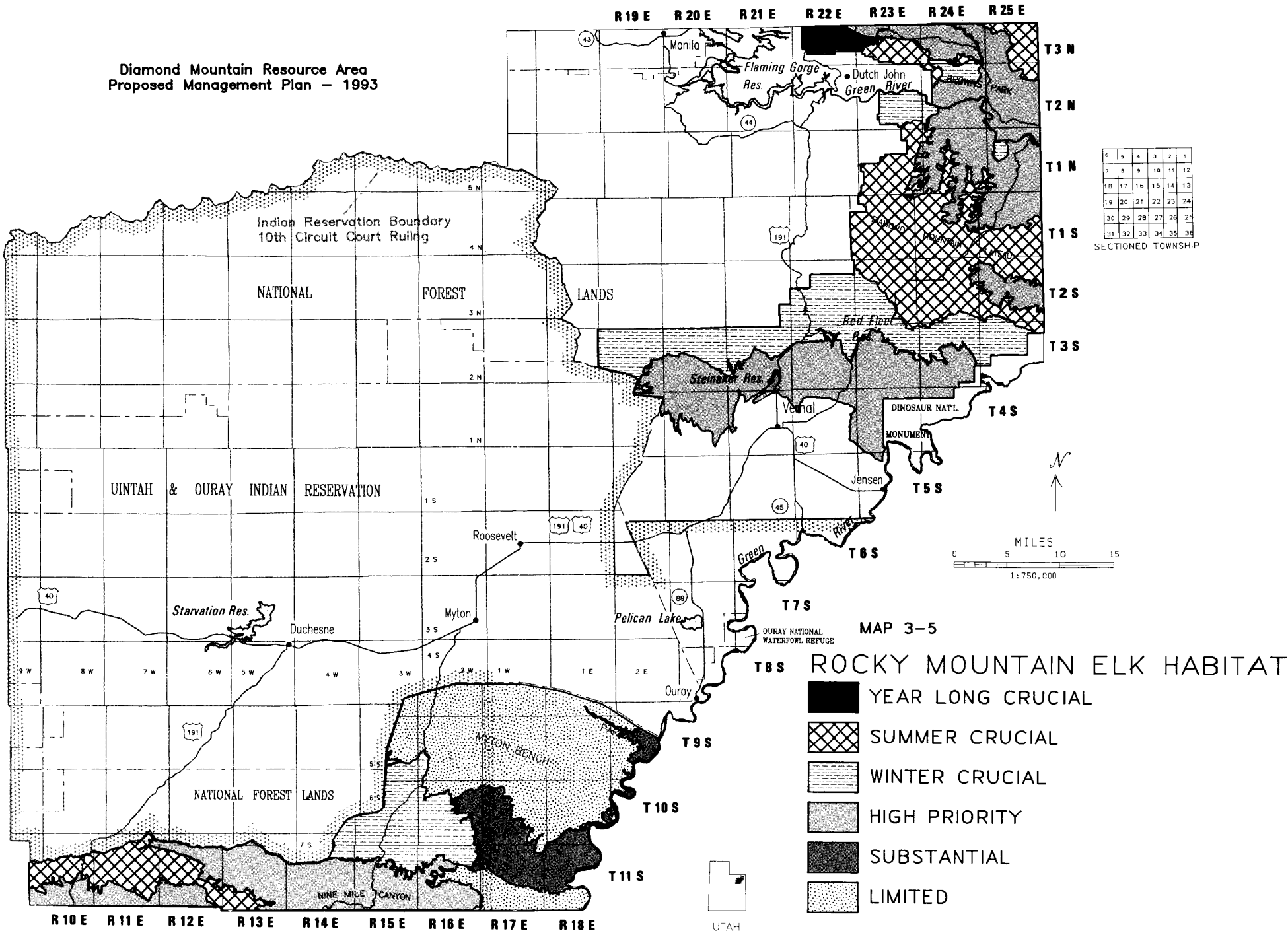

Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Browns Park
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
Diamond Mountain
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MAP 3-5
ROCKY MOUNTAIN ELK HABITAT
YEAR LONG CRUCIAL
SUMMER CRUCIAL
WINTER CRUCIAL
HIGH PRIORITY
SUBSTANTIAL
LIMITED
MILES
0 5 10 15
1:750,000
SECTIONED TOWNSHIP
UTAH
NINE MILE CANYON

TABLE 3-5:
BIG GAME POPULATIONS AND ACRES OF HABITAT IN DMRA

SPECIES	HERD UNIT*	APPROXIMATE ACRES IN HERD UNIT[3] TOTAL	BLM	POPULATION EST. ON BLM[4]	APPROXIMATE CRUCIAL WINTER RANGE[3] TOTAL	BLM	HMPS IN HERD UNIT AREA
Elk	# 6 Ashley-Daggett[1]		80				
	# 7 Goslin-3 Corners	81,241	63,327	200	13,744	8,557	Browns Park
	# 8 Ashley-Vernal	381,485	266,029	553	143,539	64,066	Browns Park, Diamond Mtn., Ashley Creek
	#9A Ashley-Whiterocks	131,118	80,518	250	30,796	17,191	Diamond Mtn.-Ashley Cr.
	#22 Avintaquin-White River[1]		330	20	53,808	46,914	Myton
	#29 Anthro-Argyle[2]	401,022	347,342				
	#35 Range Creek[1,2]						
Deer	#22 Lake Fork-Whiterocks	12,532	7,878	115	12,532	7,878	Diamond Mtn.-Ashley Cr.
	#23A Avintaquin[1]		330				
	#25 Daggett	185,405	135,227	3,219	61,676	50,679	Browns Park, Diamond Mtn.,
	#26 Ashley-Vernal	524,129	341,899	5,625	218,876	126,743	Ashley Cr.
	#27A Anthro Mountain	236,935	209,524	628	11,309	10,119	Myton
	#27B Range Creek	149,927	127,616	1,087	6,594	2,413	
					YEAR LONG CRUCIAL RANGE		
Antelope	# 6 Daggett	81,291	63,630	305	23,201	19,843	Browns Park
	# 8 Myton	238,991	209,579	250	159,068	141,715	Myton
	#17 Halfway Hollow	231,596	173,118	120	33,798	30,173	Diamond Mtn., Ashley Cr.

1. Due to the small amount of BLM acres in DMRA in these herd units, they will not be discussed further.
2. Acres include portions of public land managed by Moab BLM.
3. Acreage figures from UDWR herd unit plans, UDWR Big Game Annual Reports, or BLM Geographical Information System.
4. Wildlife population levels were estimates from UDWR-BLM analysis.

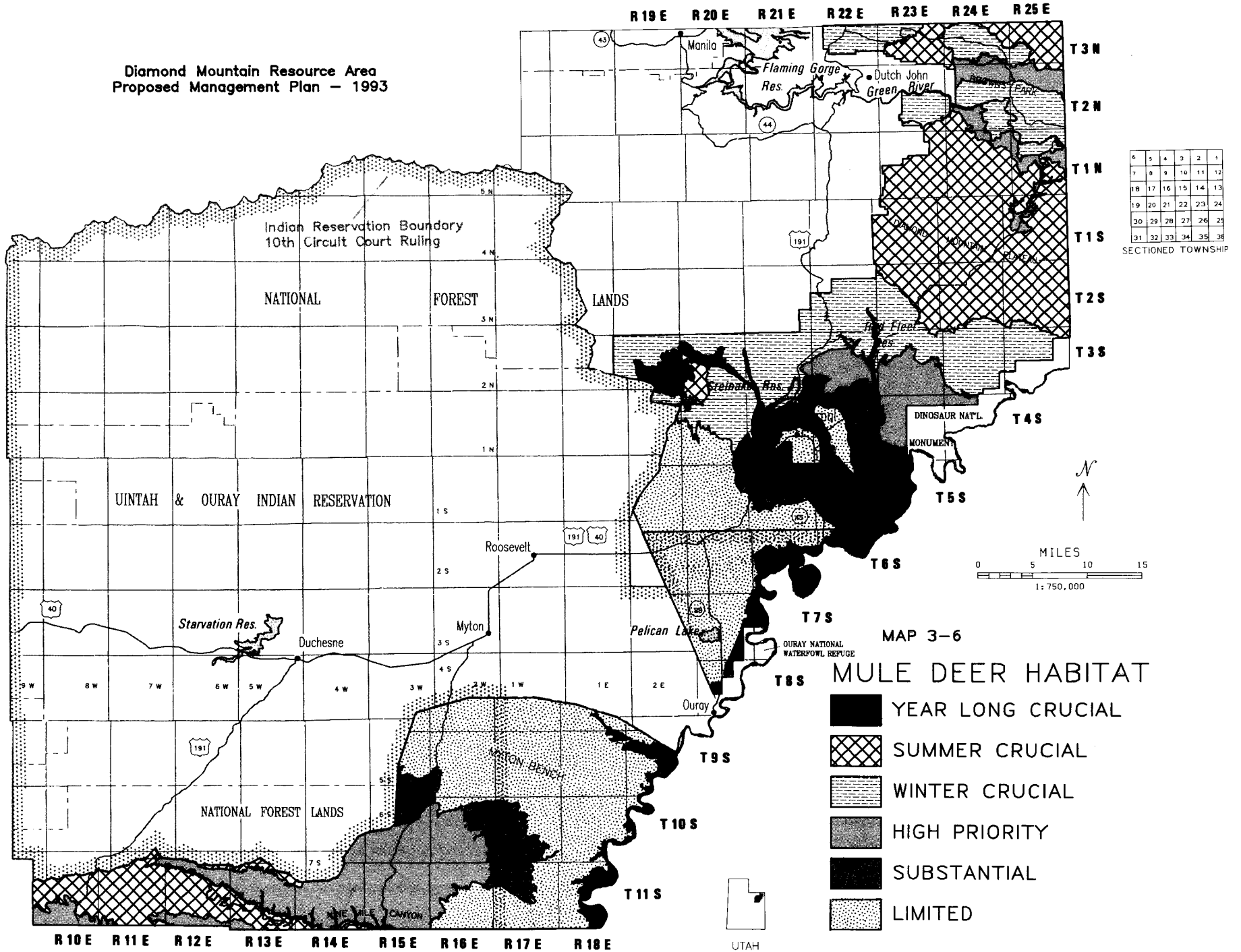
*Update: Changes in herd unit boundaries are being made by UDWR in 1992-93. Acreage figures and populations estimates are not available at this time for inclusion in this document.

Source: UDWR and DMRA Files

Corners area. Mule deer summer in the higher elevations of the resource area, occupying the mountain sagebrush-browse and aspen and conifer vegetation communities. With heavy snows the northern herds migrate into the Browns Park area to winter. This park is crucial to the northern deer herds due to its size of suitable habitat in an otherwise mountainous region, and the generally mild winter climate. On the south side of the Uintas, the deer generally tend to winter on the mountain sagebrush communities above the basin floor. These benches are significant to the southern deer herds, providing the majority of the suitable native browse and cover needed. In severe winters, the deer will move off the benches into the private hay fields in the basin and compete directly with livestock for hay and cultivated forage. (Refer to Map 3-6 for a depiction of their habitat).

Six years of drought (1986-92) have reduced sagebrush forage production and plant vigor on much of the deer winter range. Heavy deer winter use has intensified this problem and has been documented on the annual inter-agency deer pellet group transects. In response, UDWR has issued over 2,850 doe permits to offset these poor forage conditions.

Table 3-5 indicates approximately 64 percent (197,832 acres) of crucial deer winter range is on public lands. This is significant. Deer adapt to winter conditions by reducing their metabolic rates and length of daily activity and rely heavily on stored body fat (Mautz, 1978). Severe winters can result in adverse impacts to deer native vegetation and adjoining private pastureland. Under prolonged severe winter conditions, deer will over utilize available native forage, weakening vegetation's survival. If opportunities to move off native range exist, deer will move onto private hay fields and compete directly with livestock. If either forage option is removed or limited, the deer face hunger and possible die-off.


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Browns Park
Diamond Mountain Plateau
Red Fleet Res.
Steinaker Res.
DINOSAUR NAT'L. MONUMENT
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
Watton Bench
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3-6
MULE DEER HABITAT
YEAR LONG CRUCIAL
SUMMER CRUCIAL
WINTER CRUCIAL
HIGH PRIORITY
SUBSTANTIAL
LIMITED

Disturbance factors, such as surface disturbing activities or intensive human use in these same crucial winter areas only adds to high deer stress levels and energy depletions (Freddy et al., 1986). Undisturbed deer activity patterns may be optimal for survival in winter (McFarland, 1977, Parker, et al., 1984). A study by MacArthur, et al., 1982, recommended human activity be restricted to roads and trails in crucial winter habitat. Deer perceived these limited activities as predictable and more acceptable, thus reducing energy expenditures normally occurring from avoidance or escape behavior.

Deer herd management plans have been completed by UDWR on five of the six herd units in the DMRA. Primary management objectives have focused on maintaining or enhancing forage and cover on crucial winter range and reducing conflicts from human disturbance. Utah House Bill 25 requires UDWR to complete new deer herd management plans on all deer herd units by 1996.

Pronghorn Antelope

Pronghorn antelope within the resource area are historically native to the Myton Bench and Three Corners areas. Killing of the last known antelope on Myton Bench occurred about 1926 (BLM, 1980). Reintroductions in 1971, 1983, and 1984, have resulted in antelope becoming reestablished on the Myton Bench and Twelve Mile areas.

Antelope habitat is characterized by low rolling, wide-open, expansive areas within the shadscale and sagebrush vegetation zones. There are currently three herd units within the resource area. Current UDWR survey data indicates stable to good fawn production and increasing antelope populations. The major herd limiting factors are: lack of permanent water, restrictive fences, illegal hunting, and animal predation. There are approximately 191,731 acres (89 percent) of crucial antelope habitat on public land administered by the BLM (Table 3-5). The 1980 Three Corners Grazing EIS has identified approximately 7,800 acres of crucial antelope fawning area on Antelope Flat north of Dutch John, Utah. This area provides suitable terrain and proper vegetation height (6-12") which allows concealment of fawns in the first 4-5 days of life (Rouse, 1954). These fawning areas must be protected from surface disturbing activities during the reproductive period, May 1 to June 30, as established in order to secure these areas for antelope fawn production.

Approximately 15-20 antelope occupy a limited area of Diamond Mountain as summer habitat. Restrictive fencing would be the limiting factor to full use of Diamond Mountain as summer range. (Refer to Map 3-7 for a depiction of antelope habitat.) No antelope management plans have been written for any of the herd units in the resource area. Interagency review of habitat condition and recommendations for the annual hunt are the current procedures followed for antelope management.

Moose

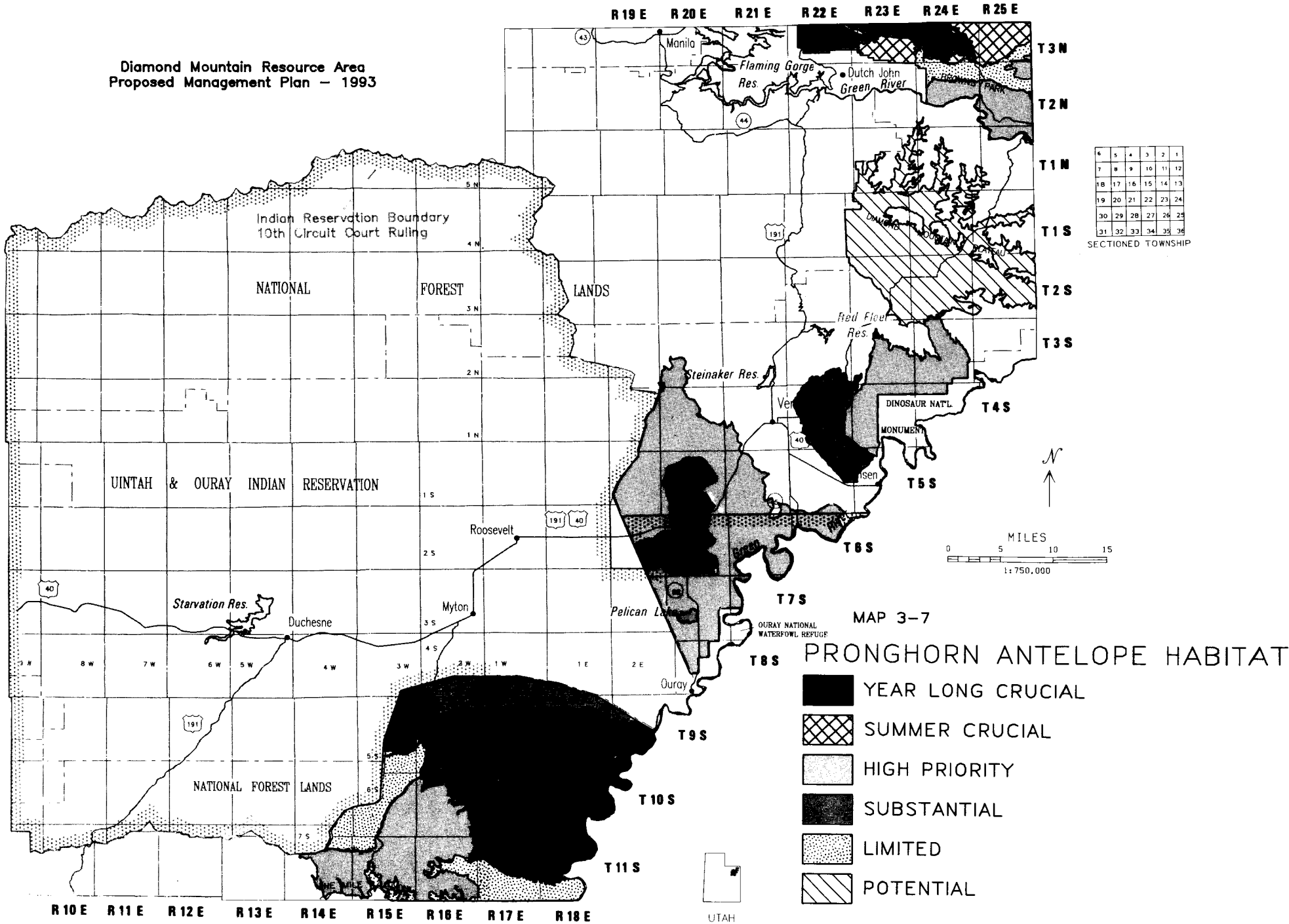
Approximately 579,600 acres of potential moose habitat have been identified in the resource area. Observations from ranchers have documented the presence of moose on Diamond Mountain since 1971, with current population estimates between 20 to 30 animals observed at different times of the year. Eight moose have been observed in the Jackson Draw area the last three years. Ranchers on Diamond Mountain have not perceived moose to be a problem primarily because of the solitary nature of moose.

Food habits of moose vary considerably over their North American range, but are characterized in general by use of early successional woody browse, such as early stages of regrowth following disturbances by fire, logging, clearing, and others (Franzmann, 1978). Little is known of food habits or distribution patterns of moose within the resource area. The resource area contains only one moose herd unit, the Uinta South Slope #8. UDWR trend counts for this herd unit have shown a steady growth from 25 in 1983 to 70 in 1990.

Sage Grouse

Sage grouse occupy approximately 88,500 acres, or 22 percent, of the big and black sagebrush vegetation communities within the resource area.

The sage grouse life cycle revolves exclusively around sagebrush which provides year round forage and protective cover. Due to their lack of a muscular gizzard, sage grouse diet is composed primarily of soft leafy sagebrush material. Forbs and insects associated with sagebrush provide the only dietary variation, providing a highly nutritious springtime diet essential for chick and adult survival.


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Red Fleet Res.
Steinaker Res.
DINOSAUR NATL. MONUMENT
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
Ouray
OURAY NATIONAL WATERFOWL REFUGE
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–7
PRONGHORN ANTELOPE HABITAT
YEAR LONG CRUCIAL
SUMMER CRUCIAL
HIGH PRIORITY
SUBSTANTIAL
LIMITED
POTENTIAL

Currently, there are 22 known sage grouse strutting grounds (leks) within the resource area, 14 of which are on public lands (refer to Map 3-8). Strutting grounds are characterized as usually small, open areas (.01 to 10 acres) within sagebrush. These areas are pivotal both to breeding success as well as nesting habitat. Autenrieth (1973) reported that 60-80 percent of all nests were found within 2 miles of these strutting grounds; however, Barber (1991) identified nests on Diamond Mountain Plateau to be as far away as 12 miles. Patterson (1952) reported that approximately 90 percent of all nests are located under sagebrush.

Population numbers are low and have tended to fluctuate within the habitat perimeters, with trends appearing to be stable to declining statewide (UDWR, 1989b). This pattern remains consistent within the resource area. A main reason for the low overall population numbers and apparent declining trends points toward habitat conversion or modification.

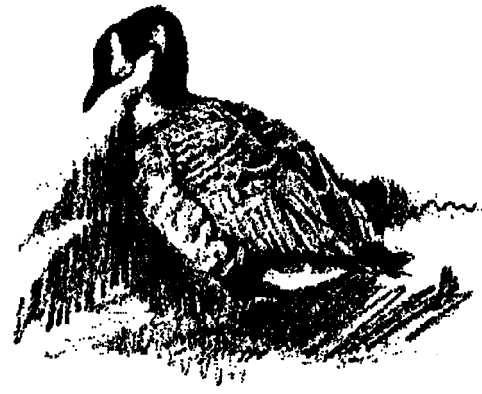
A significant sage grouse area occurs on Diamond Mountain Plateau, where approximately 40 percent of the resource area's sage grouse habitat occurs and private ownership dominates the more highly productive bottom lands. Within the past 10 years, approximately 24,000 acres (79 percent on private land) have been converted from sagebrush to dryland farming or grass-dominated communities. Such conversion practices may have resulted in sage grouse reaching a tolerance threshold in this area. Further decreases in sagebrush on Diamond Mountain Plateau may result in the accelerated decline of sage grouse populations in this area.

Because of sage grouse's sensitivity to changes in the sagebrush vegetation community, it has been selected as a management indicator species for the sagebrush community.

BLM accepted and adopted the "Guidelines for Habitat Modification in Sage Grouse Range" formulated in 1968, as amended in 1974 and 1977, as a significant step towards efficient and effective management of sage grouse (Braun et al., 1971). The guidelines are recommendations designed to minimize damage to populations of sage grouse. If properly applied, sage grouse habitat can be protected, and in many cases, improved. The importance of these guidelines has been reiterated in Utah in BLM memos (April 1, 1979, and April, 1981). Bureauwide, these guidelines are incorporated in BLM's strategy plan for upland game birds as part of the Fish and Wildlife 2000 program initiative. Current DMRA management decisions are not in compliance with the sage grouse guidelines. Sage grouse habitat management decisions proposed in the Draft RMP are in compliance with the most recent version of "Guidelines for Maintenance of Sage Grouse Habitats".

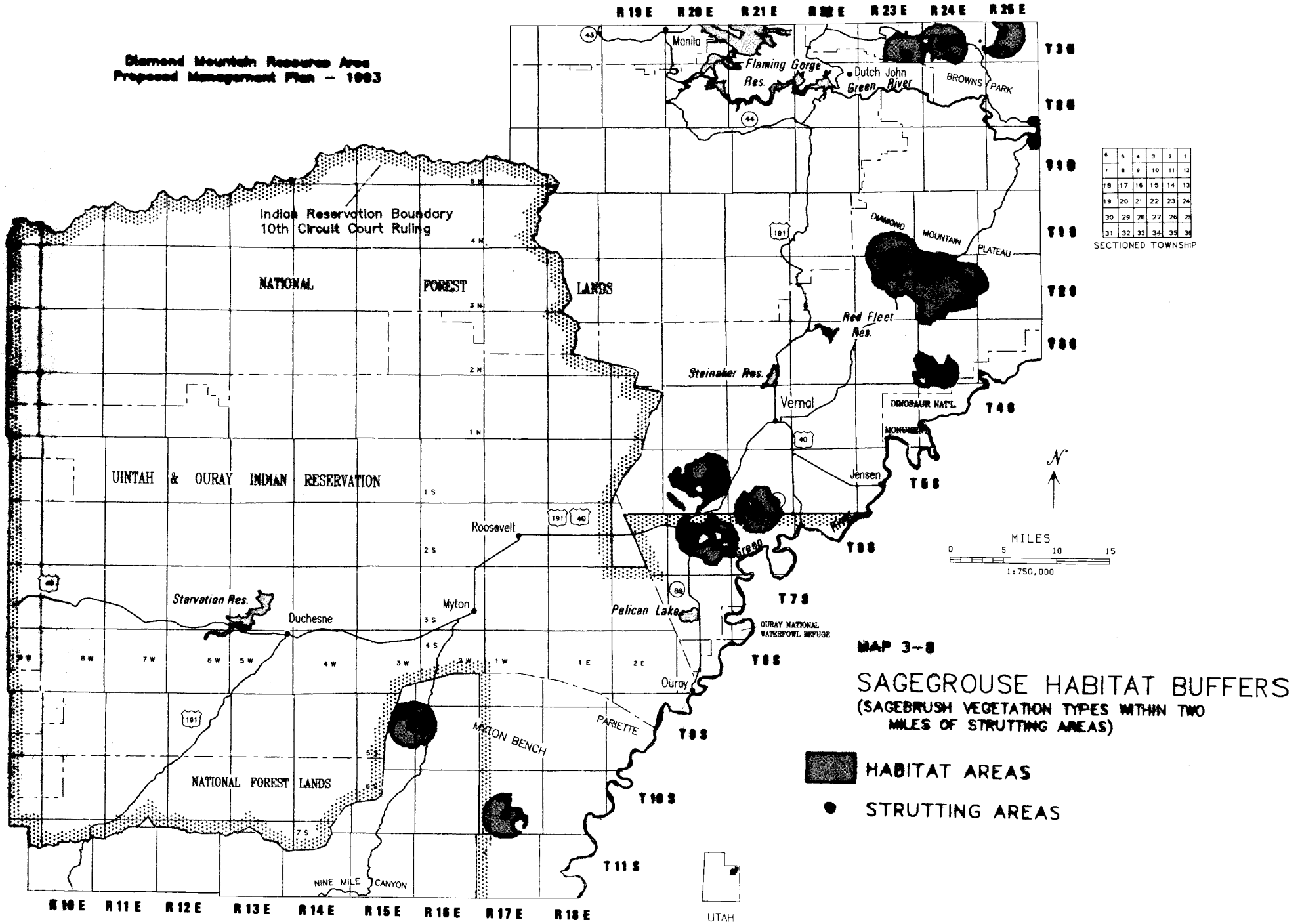
Waterfowl

Waterfowl distribution in the resource area is closely associated with the four waterfowl refuges along the Green River, Pelican Lake, and Steinaker, Matt Warner, Crouse, and Calder Reservoirs. Various streams and small ponds also provide suitable habitat. The most productive habitat on public land managed by DMRA is the 9,033-acre Pariette Wetlands Wildlife Habitat Area located seven miles downstream from Ouray, Utah, at the confluence of Pariette Draw and the Green River.



Population trends appear to be stable in northeastern Utah but show a downward trend at Pariette. Lack of water since 1984 has forced the early drawdown of 25 percent of the production ponds at Pariette. The goose production, in contrast, has taken advantage of early season water and the addition of nesting platforms and shows a slow, steady increase. Common nesting waterfowl species at Pariette include Canada geese, mallard, gadwall, cinnamon, blue- and green-winged teal, northern pintail, American widgeon, northern shoveler, and ruddy duck. Waterfowl depend primarily on cover in the upland areas and on islands in ponds during spring nesting. Early nesters, such as the Canada goose, mallard, and northern pintail, are dependent upon old growth and residual cover from the previous year for nesting habitat. Later nesting species rely on the current year's growth for cover. Broods use emergent aquatic and shoreline vegetation for food and cover during the summer.

A number of activities affect waterfowl and their habitat. Habitat disturbances include: flooding, drought, human activity (OHV, boats, fishing, energy development) livestock, and water quality. Nest losses have been broadly grouped under three categories: desertion, destruction by predators, and destruction by other causes (i.e. weather) (Belrose, 1976). Desertion may occur


Diamond Mountain Resource Area
Proposed Management Plan - 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NATIONAL FOREST LANDS
NINE MILE CANYON
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3-8
SAGEGROUSE HABITAT BUFFERS
(SAGEBRUSH VEGETATION TYPES WITHIN TWO MILES OF STRUTTING AREAS)
HABITAT AREAS
STRUTTING AREAS

because of harassment by predators, human activity, stressful weather, or strife among other waterfowl species. At Pariette, the development of an oil well and access road within 30 feet of a waterfowl pond caused the abandonment of that pond as nesting habitat for Canada geese. The geese had successfully nested prior to the road's development in 1985, but from development through 1991, no Canada goose nesting has occurred. Surface disturbing activities and those which would result in an adverse impact to nesting geese and waterfowl, therefore, should be avoided.

Water quality at Pariette may also be related to the downward trend in waterfowl production. Preliminary data from 1987 indicate high concentrations of selenium and boron in water, sediment, and biota exist within the wetlands areas. Such concentrations may be linked to contamination of the wetlands by trace elements in irrigation drainage from Pleasant Valley, upstream(USF&WS, 1988) (also refer to the water quality discussion in the soils and water section of this chapter).

Pariette is also in need of additional water to maintain existing facilities and allow for full development. Water flows in Pariette Wash have decreased an estimated 10-15 percent since 1984, due to the conversion to sprinkler irrigation systems on private and agricultural lands in Pleasant Valley and to continued drought conditions. The secondary water that does reach Pariette Wash fulfills two senior water rights ahead of those of the BLM. As a result of these reduced flows, farming at Pariette has been virtually eliminated and 20-25 percent of the waterfowl production ponds have been dried up annually. BLM has identified a long-term water need at Pariette for an additional 2,006 acre-feet annually for full development above existing water rights. A search for and acquisition of this additional water is needed to complete management objectives and development at Pariette.

Fisheries (Other than Special Status Fish Species)

Of the 272 miles of streams, approximately 98 public miles of streams, watercourses, and rivers in DMRA contain riparian habitat suitable for fish. Not all riparian areas support aquatic habitats, but major areas which do support fisheries are listed in Table 3-6. These waters meet at least one of the life requirements (spawning, rearing, passage) for the more than 30 species of fish within DMRA. The potential of a stream to support fish is determined by the stream habitat's quality and condition which are closely associated with conditions of the adjacent riparian zones. Altering riparian zones and stream channels can cause a downward trend in aquatic habitat conditions. In the past, road construction along streams and the removal of deciduous shrubs and trees from riparian zones have changed instream woody structure, water storage capability, channel stability and complexity, and suitable water temperature, considerably reducing the potential productivity of streams (BLM, 1992a). Livestock grazing has also degraded aquatic habitat conditions by increasing sedimentation and streambank erosion. An improvement in riparian and channel conditions could increase fish production.

The typical small stream administered by DMRA is found in an upland-foothill setting. They are small (less than 15 feet wide), with habitat conditions ranging from excellent to poor. The average length of a segment of a BLM-administered stream is less than one mile, interspersed with state or private lands. Opportunities for improved fisheries management exist through land acquisitions of these non-federal lands or cooperative management plans. Habitat is available for a minimum of 32 species of fish within DMRA, including special status species. The most common species include: rainbow, brown and brook trout; channel catfish; flannelmouth sucker; carp; and, red shiner.

Predator Species

The resource area provides habitat for the following dominant predators: black bear, cougar, coyote, red and gray fox, and bobcat. Black bear and cougar seem to prefer the higher elevation conifer habitat typical of the Diamond Mountain and Argyle-Nine Mile Canyon areas. The cougar is also capable of using the desert canyon-rimrock areas. It moves with its main prey base, mule deer, to their wintering areas. Little data is available on population trends or crucial habitat of both species. Mountain lion and black bear are highly sensitive to human activity (Brody, 1989).

Bear baiting is currently allowed in the resource area by permit only, in support of UDWR's authorized annual bear hunt. These permits allow legal hunters to establish a temporary staging site to attract bears. These sites can take on the appearance of unauthorized trash/refuse areas. Generally these bait sites are in remote, little-used areas of the resource area. Most hunters remove all evidence of the site immediately following the hunt, however. There have been isolated instances in the Diamond Mountain-Browns Park area where these sites have not been completely cleaned up, causing some recreationists to complain about the degradation of the area.

TABLE 3-6:
PRIORITY FISHERIES HABITAT IN DMRA

NAME	SIZE (SURFACE ACRES)/LENGTH (MILES) ON PUBLIC LAND ADMIN. BY DMRA	HABITAT CONDITION	MANAGEMENT
Green River: Upper Portion Lower Portion	24 miles 21.5 miles	Good Fair-poor	Most parts protected by fence. Grazed by livestock in summer on deferred rotation basis.
Sears Creek	4 miles	Good	Upper stretch protected by fence. Colorado cutthroat trout reintroduced in 1990.
Willow Creek-lower	3 miles	Good	Not grazed heavily due to topography. Length 69% privately owned, including most of headwaters.
Beaver Creek	0.6 miles	Fair	Partially in Wilderness Study Area. Livestock grazing permitted each spring.
Ashley Creek	2 miles	Poor	Spring-fall livestock grazing. Corps of Engineers channelized stream in 1960's. Ashley Spring is a water source for Vernal City.
Nine Mile Creek	9 miles	Poor	No control of grazing over majority of length.
Argyle Creek	2.5 miles	Poor	No control of grazing over majority of length.
Calder Reservoir	1,405 ac ft	Poor	Fenced by UDWR in 1989.
Crouse Reservoir		Fair	Fenced by UDWR in 1989.
Brough Reservoir	150 ac ft	Fair	Winter grazing. Ouray Park Irrigation manages water.
Pelican Lake	1,680 ac ft	Good	Winter grazing. Ouray Park Irrigation manages water.
Jackson Creek*	1 mile	Fair	Summer grazing by cattle. Fencing being considered on lower 1/4 mile to improve riparian and fisheries.
Tolivers Creek *	1.5 miles	Fair	Not grazed heavily due to topography and fencing on portion of stream. Spring grazing.
Gorge Creek *	1 mile	Good	Summer grazing in allotment but creek receives no use due to steep, rocky topography.
Crouse Creek*	2 miles	Good	Grazing retired. Bottom portion flows through UDWR waterfowl refuge in Brown Park.
Total	72.1 miles	3,235 ac/ft.	

Source: DMRA Files

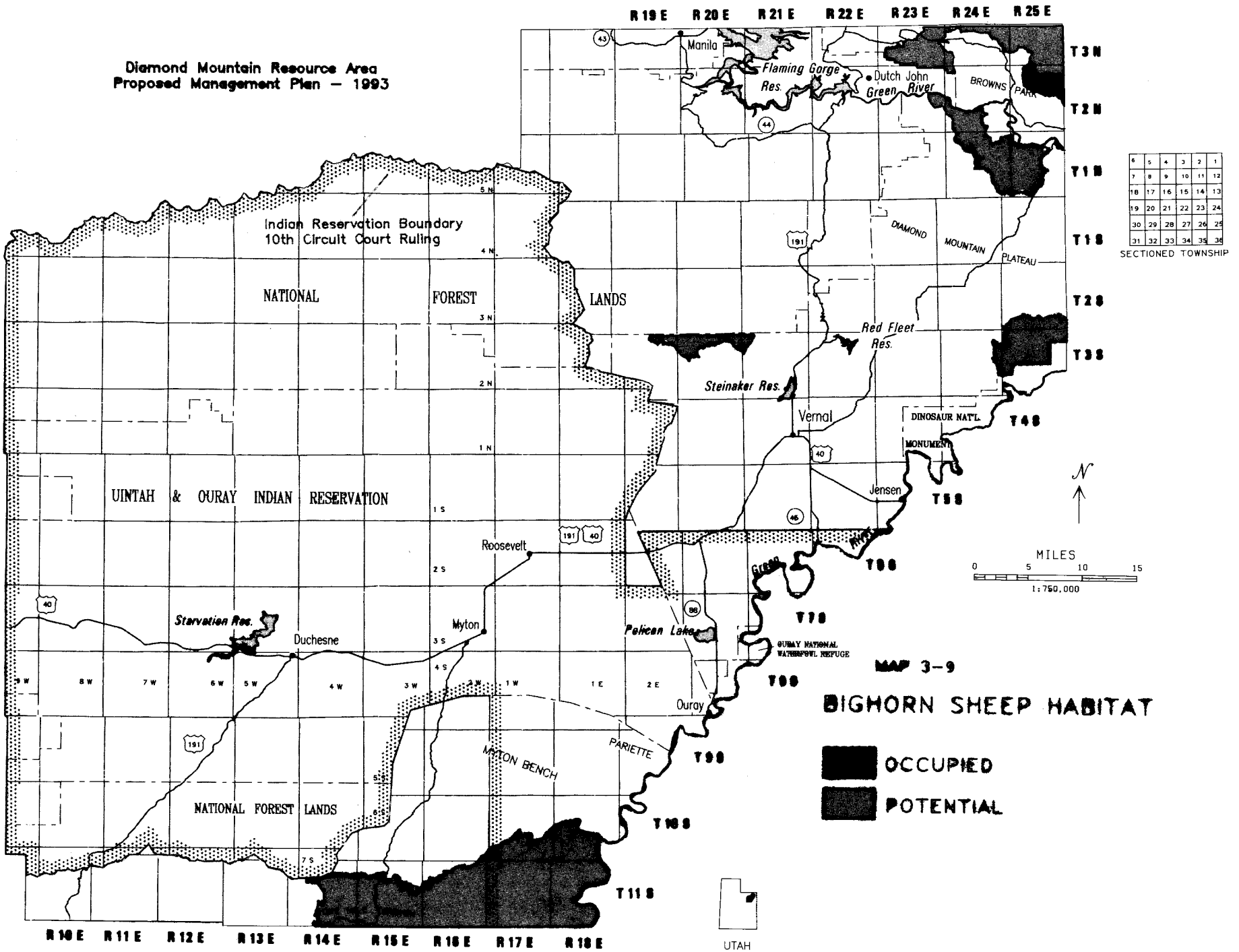
Coyotes exist throughout the resource area, in all habitat types. Their adaptability allows them to rely more on availability of both domestic and wildlife prey in a given area, rather than vegetation components. Typical coyote populations are in the range of 0.6 to 2.3 coyotes per square mile, excluding juveniles (Knowlton, 1972 and Connaly, 1978). Extrapolating from this, DMRA could have a breeding population between 664 and 2,548 coyotes on public lands.

Little is known about the crucial habitat needs of the bobcat, red and gray fox. Bobcats seem to prefer rocky, canyon habitats with ledges providing security and cover for hunting activities. Red fox associate with agricultural fields, but have expanded their habitat to include river bottoms and creeks. Their numbers seem to be increasing. The gray fox prefers a shadscale-sagebrush vegetation community.

SPECIES REQUIRING SPECIAL HABITAT NEEDS

Rocky Mountain Bighorn Sheep

Historic Rocky Mountain bighorn sheep habitat in DMRA includes the Nine Mile Canyon area, Dry Fork Canyon, and the Green River Corridor (BLM, 1987a). Native populations of Rocky Mountain bighorn sheep were eliminated from the resource area and the State of Utah by 1920. Factors contributing to their demise include: competition with domestic livestock for forage and space; vulnerability to domestic-borne disease and reduced resistance to native diseases subsequent to human-induced stress, habitat conversions away from native grasslands towards shrublands due to excessive grazing, fire suppression, and unregulated hunting (UDWR, 1990). Barriers to migration such as netwire fences, road construction, canals, urbanization, and loss of water sources have also been identified as factors leading to the demise of bighorn sheep (refer to Map 3-9).


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
PARIETTE
MYTON BENCH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3-9
BIGHORN SHEEP HABITAT
OCCUPIED
POTENTIAL
UTAH

Currently, about 25 bighorn inhabit 5,000 acres year 'round in the Beaver Creek drainage in Browns Park. These animals are either survivors or descendants of 21 bighorn sheep introduced to the Beaver Creek area in 1983, by the Colorado Division of Wildlife. Thirty-nine hundred (3,900) acres of crucial winter and rutting habitat and 800 acres of lambing habitat have been identified within the Beaver Creek area. The currently inhabited 5,000 acres represents approximately 4 percent of the bighorn sheep's historical range within the resource area.

Preferred bighorn habitat is governed by availability of escape cover, protection from severe weather, and forage availability during the winter. Typical escape cover includes cliffs, talus slopes, caves, and rock overhangs. Preferred winter areas are rocky ridges and steep southerly slopes blown free of snow in grassland and sagebrush-grassland vegetation types. Bighorn sheep rely heavily on grasses year-long and prefer early successional areas of mountain browse/sagebrush dominated areas. Forbs, browse, lichens, and mosses make up the rest of the diet and are used, when available, to supplement the grass diet.

Approximately 123,800 acres of suitable potential reintroduction areas have been identified from historic habitat within the resource area. Reintroductions within these areas would be consistent with other federal and state land management agencies' goals of restoring bighorn sheep to their historic range. Some of these areas also adjoin National Forest Service and Dinosaur National Monument bighorn sheep habitat. In 1992, BLM entered into a Memorandum of Understanding with the NPS, UDWR, CDOW, and Colorado State University to evaluate habitat for future reintroductions of bighorn sheep. A habitat model will be used to analyze potential reintroduction areas to ensure conflicts are identified and viable habitat is available. Successful reintroductions have included the following factors: adequate quantities of available range, lack of competition with other ungulates, improper locations of key habitat components in relationship to each other, adequate quantities of one or more crucial seasonal ranges, and lack of human harassment (Smith and Winn, et al., 1991).

Studies by the Desert Bighorn Council Technical Staff, 1990; Spraker, T.R., 1977; Jessup, 1985; Foreyt, W.J. and Jessup, 1982; Onderka, D.K., 1988; Callan, R.J., 1990; Sandoval, A.V., 1988; and Goodson, N.J., 1982, have all documented that diseases carried by domestic livestock may adversely affect bighorn sheep populations. Bighorn sheep have died from a wide variety of diseases which they have contracted from domestic sheep. These include scabies, chronic frontal sinusitis, internal nematode parasites, pneumophilic bacteria, footrot, parainfluenza III, bluetongue, and soremouth (contagious ecthyma) (Jessup, 1985). Cattle may also host some of these diseases and may also be a source of paratuberculosis, pink eye, and respiratory syncytial virus (Jessup, 1985). Bacterial pneumonias perhaps are the most catastrophic to bighorns (BLM, 1992b). It should also be noted that some diseases may be transmitted from either of the species to the other. Other factors (crowding, adverse environmental conditions, human harassment, and the presence of other potential disease causing agents) may be present that could initiate diseases in bighorns exposed to domestic sheep.

Due to the concern over disease transmission, bighorn sheep and domestic sheep should be spatially separated to discourage the possibility of coming into physical contact with each other. Utah Division of Wildlife Resources' present strategy is to manage for the maximum physical separation between bighorns and domestic sheep because of suspected disease problems and crossbreeding resulting in undesirable offspring (UDWR, 1990). Armentrout and Bingham (1988), in their Habitat Suitability Rating System for Desert Bighorn Sheep in the Basin and Range Provence, recommended a nine mile separation strip as optimum, based on nine different literature sources. Bighorn/domestic sheep separation distances cited in the literature range from 2 to 20 miles. The Desert Bighorn Sheep Council (1990) recommended no domestic sheep should be authorized or allowed within buffer strips at least nine miles wide. This information was discussed at a local bighorn sheep coordination meeting with UDWR, CDOW, USFS, NPS, and BLM. It was recommended that a 10-mile buffer be used in the Uinta Basin. The group also recognized this 10-mile buffer would not guarantee success and that physical terrain features and local knowledge could adjust the buffer one way or the other. In May of 1992, BLM Instruction Memorandum 92-239 was issued recommending up to a 9-mile buffer be used to separate domestic sheep from bighorn sheep. In addition, areas that bighorns are to be reintroduced into should not have been grazed by domestic sheep for two or more years prior to the release. Trailing of domestic sheep should also be discouraged in the vicinity of bighorn sheep ranges.

In preparation for future bighorn sheep reintroductions, over 1,350 acres of vegetation have been treated since 1986 using prescribed burn methods to restore/re-create suitable habitat within their historic range. Additional prescribed burns would be necessary to maintain this species habitat.

OTHER MANAGEMENT INDICATOR SPECIES

The Vernal District has selected the following additional MISs to act as biological indicators of environmental quality and change: burrowing owls, prairie falcons, common flicker, mountain bluebird, green-tailed towhee, loggerhead shrike, Vesper sparrow, warbling vireo, song sparrow, rufous-sided towhee, plain titmouse, woodhouse toad, leopard frog, and macroinvertebrates. However, little or no data is available on their habitat requirements. Therefore no habitat management objectives have been developed.

OTHER NON-GAME MAMMALS, BIRDS, REPTILES, AND AMPHIBIANS

The resource area provides habitat for over 51 species of shrews, bats, squirrels, moles, and mice. A minimum of 173 species of non-game birds reside throughout the resource area. At least 7 species of amphibians and 21 species of reptiles also reside in the DMRA. Nussbaum, et al. (1983), has correlated the abundance and diversity of amphibians to the availability of stable, undisturbed riparian habitat. This study further documented the need by amphibians for cool, clear water and dead and down woody debris which helps to maintain moisture levels as important factors in maintaining amphibian life. Reproductive rates of most of these nongame species are high, enabling rapid population expansion, assuming habitat conditions are readily available. No intensive studies have been completed to identify crucial habitat for most of these species.

HAZARDOUS MATERIALS

No approved hazardous waste disposal sites exist in the resource area.

LANDS AND REALTY MANAGEMENT

LAND TENURE ADJUSTMENT

Within the planning area, BLM administers the surface and mineral estates on 709,000 acres, and the mineral estate only on 145,000 acres. The distribution of public lands throughout DMRA is depicted on the land status map found in Map Packet #1 in the back of this document.

The lands identified for disposal through sale, encompassing up to approximately 24,000 acres, are outlined in Appendix 3.

LAND USE AUTHORIZATIONS

There are currently 333 land use authorizations within DMRA encompassing a total of 14,855 acres. The majority of these are roads, oil and gas pipelines, water pipelines and facilities, and transmission lines.

The presence of existing major facilities and steep grades significantly limit the physical dimensions of the Jesse Ewing Canyon corridor. It is expected that this corridor could support a maximum of three new major facilities prior to reaching its carrying capacity and eventual closure.

Future demands for electricity to supply populations on the Wasatch Front in Utah and southern California are presently being appraised (personal communications, Deseret Generation and Transmission Cooperative, 1991). Transmission line routes may cross DMRA following existing transmission rights-of-way. There has been some informal interest by industry for a route crossing the proposed Nine Mile Canyon ACEC. Such a proposed line, if formalized, would be evaluated under a site-specific analysis.

WITHDRAWALS

Approximately 57 percent of the resource area (406,200 acres) is segregated from disposal actions and 54 percent (389,200 acres) is segregated from mining claim location. Existing withdrawals and BLM administered lands, excluding those established for other federal agencies, are listed on Table 3-7. Also identified, to the extent possible, is the segregative effect of each withdrawal and the acreage covered.

TABLE 3-7:
WITHDRAWALS AND CLASSIFICATION ON BLM ADMINISTERED LANDS

WITHDRAWAL TYPE/ SERIAL NUMBER	ACREAGE	SEGREGATIVE EFFECT	RECOMMENDATION
Reclamation			
U-011167	957.45	Public Land & Mining Laws	
U-026185	80.30	Public Land & Mining Laws	
U-1361	220.00	Public Land & Mining Laws	
U-18619	70.00	Public Land & Mining Laws	
U-42905	80.00	Public Land & Mining Laws	
U-42919	6,160.67	Public Land & Mining Laws	
Public Water Reserves			
U-41597 (#107)	40.00	Public Land Laws and Nonmetalliferous	
U-41628 (#107)	40.00	Mining Location	
U-41659 (#107)	171.26	" "	
U-41660 (#107)	200.00	" "	
U-52455 (#107)	960.21	" "	
U-63972 (#107) (U-0144914)	182.18	" "	
U-63973 (#107)			
U-63974 (#107) (U-0143422)	80.00	" "	
U-63975 (#16) (U-41551C)	280.00	" "	
U-41556 (#152)	263.23	" "	
U-0141805 (#107)	40.00	" "	
Water/Power (Powersite Classifications)			
U-42950 (#42)	3,347.40	Public Land Laws	
U-42951 (#107)	48.00	Public Land Laws	
U-42984 (CL #93)	9,217.67	Public Land Laws	
U-42995 (#411)	277.15	Public Land Laws	
U-42948	750.02	Public Land Laws	
Watershed Protection Withdrawal			
U-42874	750.02	Public Land Laws, Mining Laws and the Mineral Leasing Laws	
Recreation/Administrative Site Classifications			
U-5338	307.00		
U-060709	111.75	Public Land Laws	
U-041339	40.00	Public Land Laws	
National Science Foundation			
U-11462	2,312.21	Public Land Laws, Mining and Mineral Leasing Laws	1984/Continue
Oil Shale			
U-2036 & U-49399	400,000.00	Public Land & Mining Laws	Terminate

Source: BLM Utah Withdrawal Files

LIVESTOCK MANAGEMENT

Livestock grazing on BLM-managed public land is authorized under Section 3 of the Taylor Grazing Act of 1934. Livestock grazing is allowed on approximately 705,550 acres of federal surface lands in DMRA, including Bureau of Reclamation withdrawals. Federal acres closed to livestock grazing total approximately 3,450 acres (less than 1 percent of the resource area). Of the areas closed to livestock grazing, about 2,950 acres are scattered isolated tracts and 500 acres are concentrated along the Green River Scenic Corridor in Browns Park.

Formal adjudication of livestock grazing privileges completed during 1958-1967 resulted in significant reductions. Within the resource area, a total of 50,299 Animal Unit Months (AUMs) are currently authorized livestock preference: 34,090 AUMs for cattle, 16,088 for sheep, and 120 for horses. Presently there are 14,387

AUMs in nonuse as suspended preference. Average use over a six-year period is 38,916 AUMs.

Currently there are 97 grazing permittees and 108 allotments (see the oversized allotment map in Map Packet #2). Twenty (20) allotments are covered under allotment management plans (AMPs). There are 88 cattle allotments, 16 sheep allotments, and 4 dual-use allotments. Appendix 8 provides comprehensive livestock information on an allotment basis for the resource area.

Livestock grazing occurs year-round. The lower elevations primarily in the shadscale and sagebrush vegetation zones are utilized during the fall, winter and spring seasons. The higher elevations of mostly mountain sagebrush communities are used during the summer months.

Each DMRA grazing allotment has been placed into one of three "selective management" categories to establish priorities for management. The criteria used in placing an allotment into a category included rangeland condition, present and potential resource production, resource use conflicts, and the opportunity for economic returns from public investments. The three categories used and the objective for each category are shown in Table 3-8. Refer to Appendix 8 for allotment-specific information regarding current management categorization.

TABLE 3-8:
SELECTIVE MANAGEMENT

Category	Objective	No. of Allotments
Improve	Improve current unsatisfactory resource conditions	39
Maintain	Maintain current satisfactory resource conditions	38
Custodial	Manage custodially, while protecting existing resource values	31

Source: DMRA files

A number of rangeland projects have been constructed to improve the effectiveness of livestock grazing. Allotment boundaries are generally defined by fences, except where natural barriers effectively control livestock. Some allotments managed under AMPs are further divided by interior fences to pastures, which control livestock movement within the allotment. Table 3-9 provides a summary of rangeland projects on DMRA, through 1989.

Within the resource area, livestock water is scarce. Most perennial streams, large reliable springs, and seeps are in private ownership. Ephemeral drainages, mostly held in public ownership, only run water for short periods during spring runoff or following storm events. Therefore, numerous springs and reservoirs have been developed to provide water for livestock and wildlife.

TABLE 3-9:
RANGELAND PROJECTS, THROUGH 1990

Project Type	Units
Management Facilities	73 ea
Vegetation/Land Treatments	33,900 acres
Fence (incl. Exclosures)	321 miles
Water Developments	445 ea

Source: DMRA Files

Several vegetation treatments have been undertaken to change the composition of the plant community. These treatments have involved prescribed burning, chainings, plowing and reseeding. Range improvements have been funded by BLM, other cooperative government agencies, and grazing permittees.

WILD HORSES

Approximately 200 acres within DMRA are included within the Range Creek Herd Management Area (Herd No. UT641). The habitat is planned, managed, and administered by the Price River Resource Area, Moab District, Utah. Current management goals are a herd size of approximately 40 horses, requiring about 490 AUMs.

On a prorated basis, DMRA provides forage for about 10 percent of the herd, or about 49 AUMs. Monitoring data from the Price River Resource Area indicate the herd unit within DMRA has not received any wild horse use over the past 10 years.

MINERAL RESOURCES

GEOLOGIC SETTING

Within the resource area, geology plays an important role in determining the character and distribution of many of the resources subject to this plan. Rocks spanning nearly 2 billion years of geologic time occur in the resource area; their composition includes all three major rock types - sedimentary, igneous, and metamorphic, although sedimentary rocks are predominant. The immense span of time represented by these rocks reflects periods of mountain building and erosion punctuated by numerous invasions of an island sea. Each period has left its imprint upon the character of the rocks, both in terms of composition and structure, directly affecting resources on the land.

Naturally the wide variety of mineral resources, both solid and fluid, occur as a consequence of the geologic history in northeastern Utah; but geology has a profound influence on other resources as well. Groundwater, vegetation, visual resources and recreational resources, each owe some important part of their character to the geologic setting within which they occur.

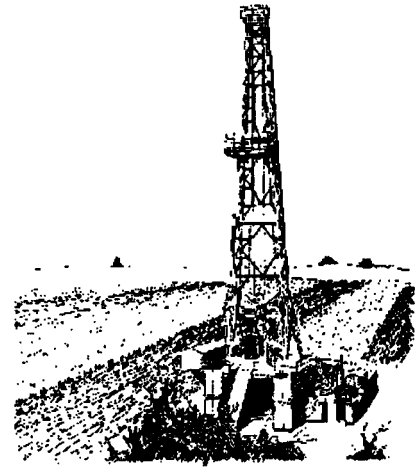
Figure 3-1 depicts the vertical succession of geologic formations within the resource area and adjacent lands in northwestern Colorado. This correlation diagram also depicts lateral variations in these formations and their age. Annotation of the figure illustrates the importance of many of the formations for fluid and solid minerals as well as other resource values. The four major subdivisions of geologic time are: the Precambrian, the Paleozoic, Mesozoic, and the Cenozoic. These subdivisions are recognizable in the rocks of the resource area by their overall character expressed by color, topographic expression, and composition. Distribution of these formations is shown in Map 3-10.

LEASABLE MINERALS

Oil and Gas

DMRA encompasses two separate oil and gas provinces: the Uinta Basin Province (Spencer and Wilson, 1988) and the Northeastern Utah-Southwestern Wyoming Basin Province (Law, 1988). The oil and gas resources in these regional provinces are significant to the local economy. To date, close to 240 million barrels of oil and 485 billion cubic feet of gas have been produced from oil and gas fields on federal, state, Indian, and private lands in the resource area (Utah Department of Natural Resources, Division of Oil, Gas and Mining, 1989) (refer to Table A4-1, Appendix 4, "Occurrence of Oil and Gas Resources"). This production is 28 percent of the cumulative state oil production and 14 percent of the cumulative state gas production. Further, it is estimated that unconventional resources, such as coal bed methane gas reservoirs and tight gas reservoirs may hold an estimated five trillion (Mayor, 1990) and 28 trillion cubic feet of gas (Spencer and Law, 1988, 1990) in the Uinta Basin, respectively.

As of 1989, approximately 692,400 public acres (81 percent) within the resource area had been leased for oil and gas exploration and production. The Clay Basin Gas Storage Unit occurs in DMRA. Approximately 2 billion cubic feet of gas were stored and recovered in 1989 from this unit.



Oil and gas resources on the BLM-administered oil and gas mineral estate are classified as having either high, moderate, or low oil and gas potential of occurrence. High potential lands are defined as those lands currently producing oil or gas or having high current industry interest. Moderate potential lands are defined as those lands which have had oil and gas indications in areas of favorable geologic conditions. Low potential areas are those lands where either the geologic conditions appear to be unfavorable for the accumulation of oil and gas or where little or no information is available to evaluate the oil and gas potential. Map 3-11 shows the distribution of high, moderate, and low potential lands in the Diamond Mountain Resource Area. The amount of BLM administered mineral estate in the high, moderate, andlow oil and gas potential areas is shown in Figure 3-2. Currently, 98 percent of the high potential lands within the resource area are under lease.

The mineral estate managed by BLM for oil and gas resources are leased through quarterly competitive oil and gas lease sales. A detailed discussion of the current BLM oil and gas leasing process appears in Appendix 4. Table 3-10 lists the number of active federal leases for oil and

FIGURE 3-1

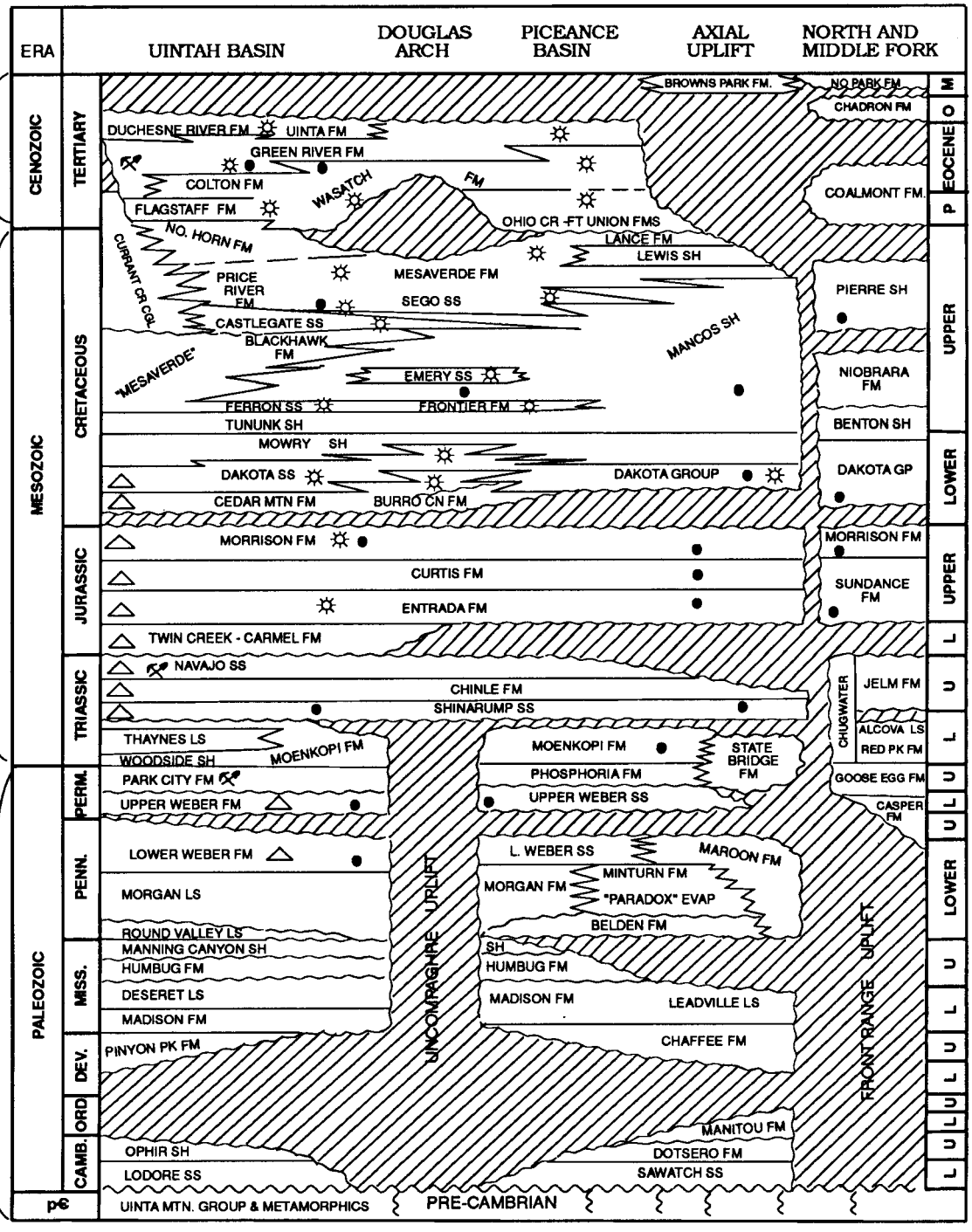
CORRELATION DIAGRAM OF GEOLOGIC FORMATIONS NORTHEAST UTAH AND NORTHWEST COLORADO

POTENTIAL RESOURCE VALUES GENERALLY OCCURRING IN EACH EON

SAND & GRAVEL
LOCATABLE MINS
OIL & GAS
OIL SHALE
GILSONITE
TAR SAND
BUILDING STONE
MAMMALIAN FOSSILS

COAL
URANIUM
TAR SAND
SLICK ROCK COUNTRY
REPTILIAN FOSSILS

BUILDING STONE
LOCATABLE MINERALS
PHOSPHATE

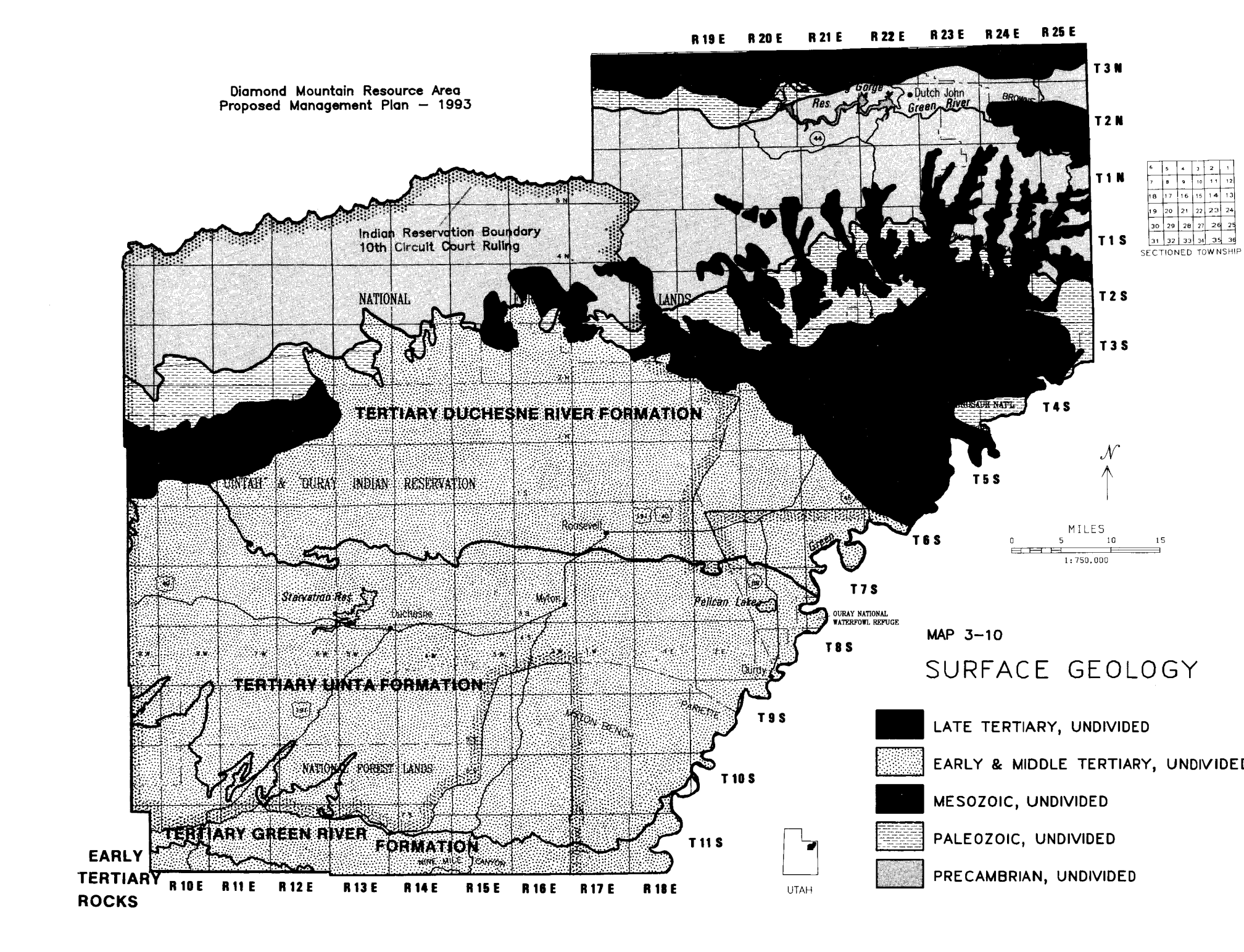


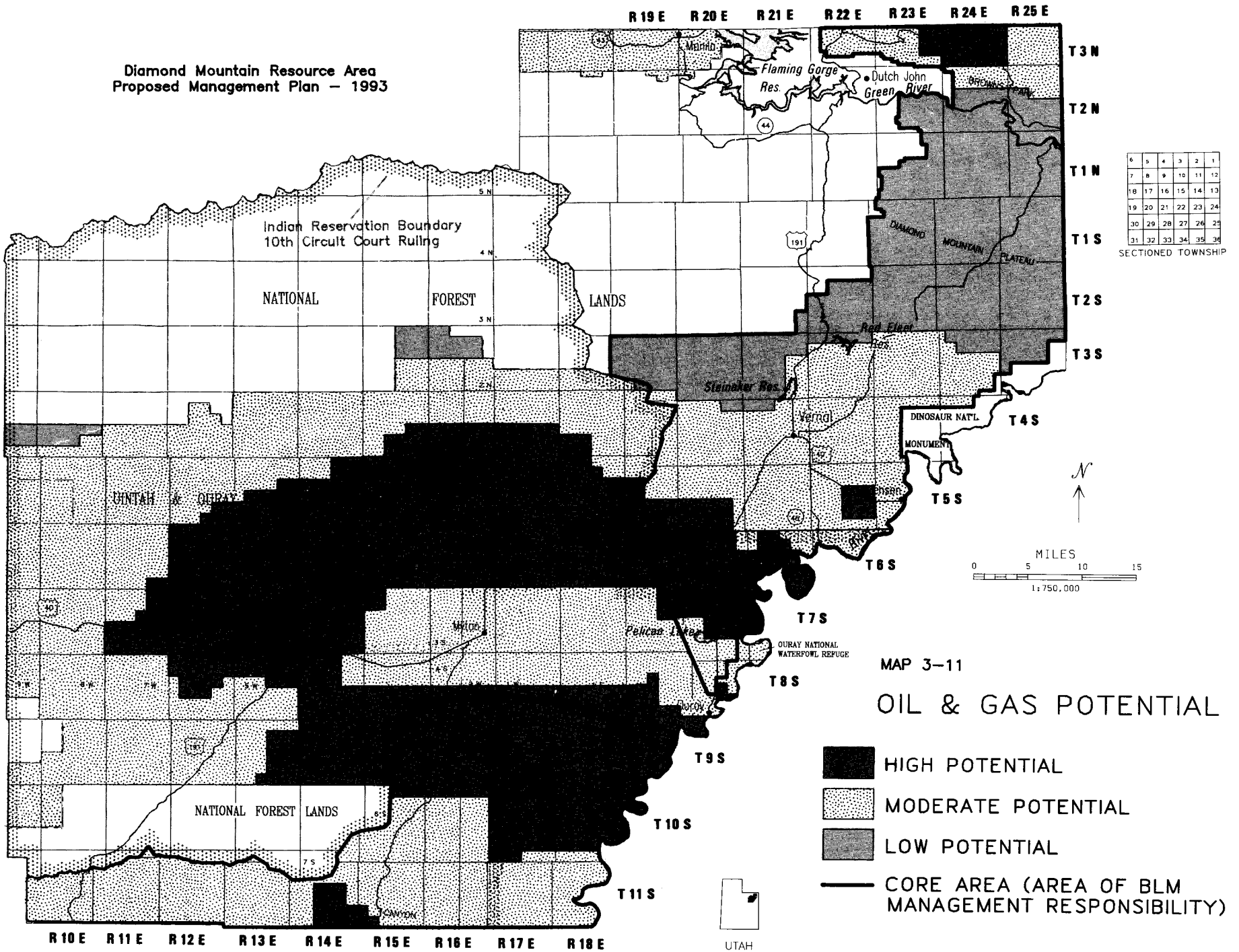
LEGEND

- ● **OIL AND GAS PRODUCTION**
- ☼ **GAS PRODUCTION**
- ⚒ **SOLID MINERAL PRODUCTION**
- △ **VISUAL RESOURCES**

LEGEND SYMBOLS INDICATE RESOURCE PRODUCTION FROM THE INDICATED FORMATION

AFTER SANBORN, 1971


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL
LANDS
TERTIARY DUCHESNE RIVER FORMATION
UINTAH & OURAY INDIAN RESERVATION
TERTIARY UINTA FORMATION
NATIONAL FOREST LANDS
TERTIARY GREEN RIVER FORMATION
NINE MILE CANYON
Roosevelt
Myton
Duchesne
Starvation Res
Pelican Lakes
Ouray
OURAY NATIONAL WATERFOWL REFUGE
PARIETTE
MYTON BENCH
Dutch John
Green River
Gorge
Res
DINOSAUR NAT'L
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
EARLY TERTIARY ROCKS
MAP 3-10
SURFACE GEOLOGY
LATE TERTIARY, UNDIVIDED
EARLY & MIDDLE TERTIARY, UNDIVIDED
MESOZOIC, UNDIVIDED
PALEOZOIC, UNDIVIDED
PRECAMBRIAN, UNDIVIDED


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
DIAMOND MOUNTAIN PLATEAU
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Dinosaur
Utah
Colorado
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Roosevelt
NATIONAL FOREST LANDS
Canyon
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–11
OIL & GAS POTENTIAL
HIGH POTENTIAL
MODERATE POTENTIAL
LOW POTENTIAL
CORE AREA (AREA OF BLM MANAGEMENT RESPONSIBILITY)

gas exploration issued by BLM for DMRA. As of December 1991, the total amount of leased acreage on BLM-administered mineral estate in Daggett, Duchesne, and Uintah Counties, 99,400 acres (or 14 percent) are producing oil and gas.

The BLM-administered lands leased for oil and gas resources are placed into one of the following oil and gas leasing categories:

Figure 3-2
OIL AND GAS POTENTIAL
ON BLM SURFACE ADMINISTERED LANDS

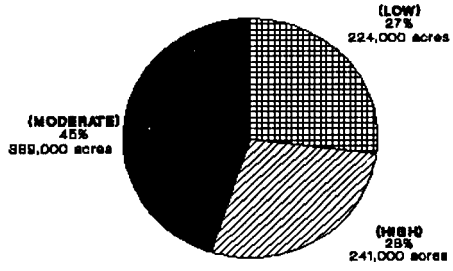


TABLE 3-10:
OIL AND GAS LEASE ACREAGE

COUNTY	*NO. LEASES	ACRES LEASED	LEASED PRODUCING ACRES
Daggett	66	82,200	7,163
Duchesne	390	334,900	37,515
Uintah	375	275,300	54,718
Total	831	692,400	99,396
* Current to December 1990			

Source: BLM Automated Lands and Minerals Record System, 1990

Category 1 - Open to leasing, subject to standard terms and conditions
Category 2 - Open to leasing, subject to seasonal or other minor constraints
Category 3 - Open to leasing, subject to "No Surface Occupancy" or other major constraints
Category 4 - Closed to leasing

Based on historical and reasonable foreseeable development, DMRA may be divided into the following five different oil and gas producing regions (refer to Map 3-12 and Appendix 4, "Reasonable Foreseeable Oil and Gas Development"): Myton Bench-Nine Mile Canyon Region, Horseshoe Bend-Ashley Valley Region, Diamond Mountain Plateau Region, Clay Basin-Manila Region, and the Indian Reservation Region.

During the period 1980-1990, 85 percent of the oil development occurred in the Myton-Nine Mile Canyon oil and gas producing region, while the predominant gas development (88 percent) occurred in the Horseshoe-Bend-Ashley Valley oil and gas producing region.

Drilling activity and seismic exploration in DMRA has decreased from the 1986 high of 97 processed "applications for permit to drill" (APDs), and 8 miles of seismic activity, to a low in 1989 of 26 APDs and no seismic activity. Such activity increased in 1990 (32 APDs and 7 miles of seismic activity) with expectations the increase will continue. Oil and gas operations including geophysical exploration are discussed thoroughly in Appendix 4, "Oil and Gas Operations".

UNCONVENTIONAL RESOURCES. Unconventional resources are defined as: oil occurring within immobile and intractable heavy oil deposits, tar deposits, or oil shales; or, gas occurring within low-permeability tight sandstone, low-permeability fractured shale reservoirs, or coal beds (Mast, et al, 1989).

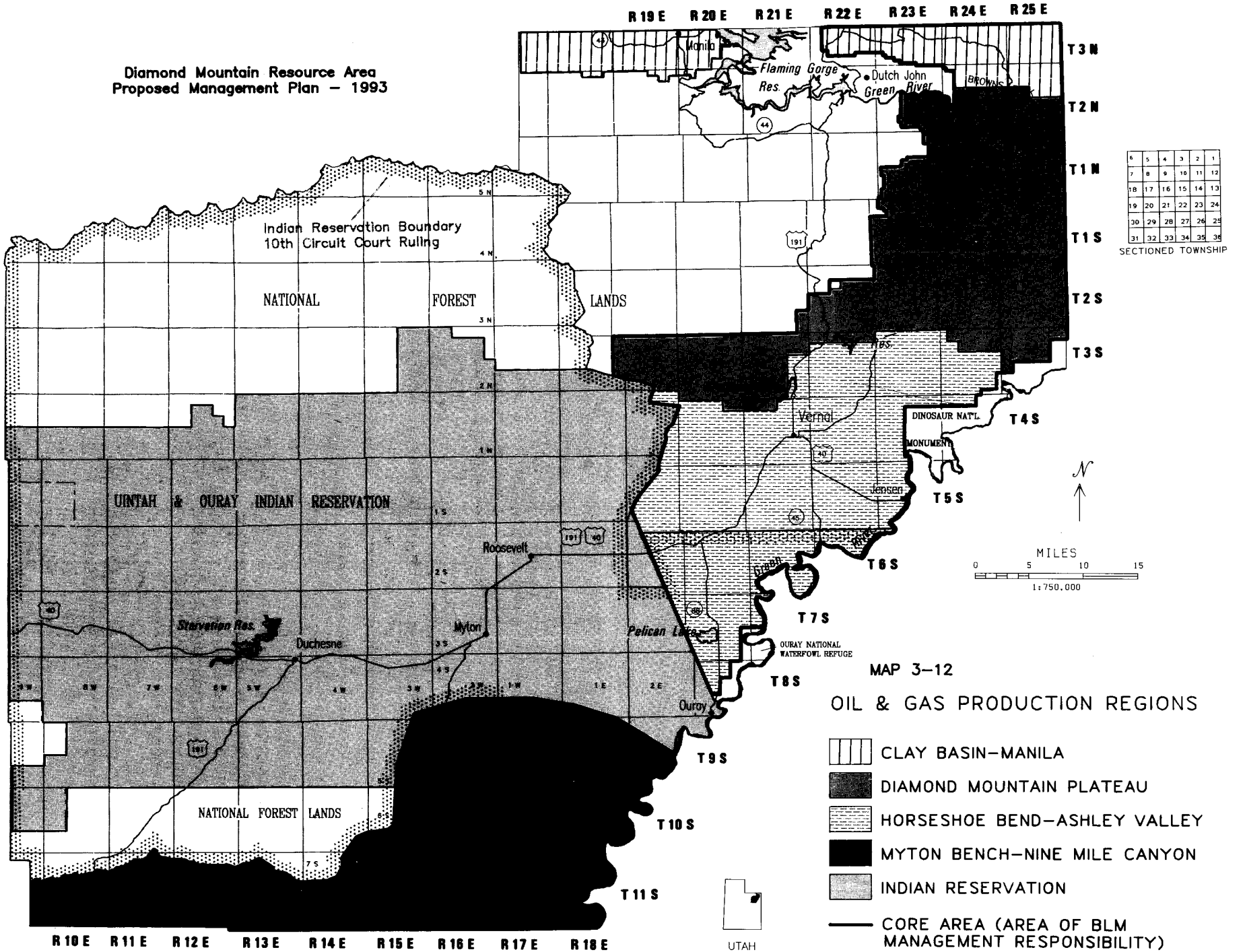
Due to this lack of mobility, oil and gas cannot be recovered using conventional development practices. Two unconventional resources (coal bed methane gas and tight gas reservoirs) occur in DMRA:

- Coal Bed Methane Gas. Coal bed methane gas is produced from fractured, buried coal seams. Estimated in-place reserves within the Uinta Basin are 5-trillion cubic feet (Mayor, 1990). Most of the current interest in coal bed methane gas extraction is outside the southern boundary of DMRA. Based on the geologic trends of the gas-bearing coal beds within the Mesa Verde Group, future exploration for coal bed methane gas may extend into the Nine Mile Canyon area.

- Tight Gas Reservoirs. Tight gas reservoirs are those gas-bearing rocks having low permeabilities (Spencer and Law 1990; Spencer, 1989). Artificial stimulation of the reservoir, such as hydraulic fracturing of the formation, is usually needed in order to produce the gas.

- Tar Sands. See following subsection.

The U.S. Geological Survey and the Department of Energy have identified the Uinta Basin and the Green River Basin among those basins having the greatest

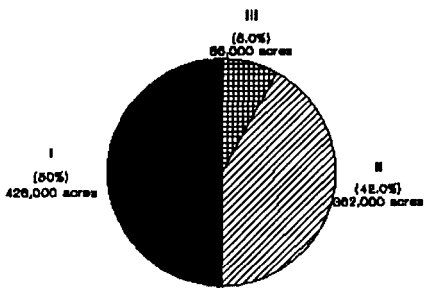

Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Brown's
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–12
OIL & GAS PRODUCTION REGIONS
CLAY BASIN–MANILA
DIAMOND MOUNTAIN PLATEAU
HORSESHOE BEND–ASHLEY VALLEY
MYTON BENCH–NINE MILE CANYON
INDIAN RESERVATION
CORE AREA (AREA OF BLM MANAGEMENT RESPONSIBILITY)

resource potential for tight gas sandstone reservoirs. The U.S. Geological Survey estimates the Tertiary and Cretaceous sandstone tight gas reservoirs in the Uinta Basin may contain from 5- to 28-trillion cubic feet of gas (Law, et al., 1986 and Spencer and Law, 1988, 1990).

Tight gas sandstone reservoirs are producing gas in the Uinta Basin (Mesa Verde Group and Wasatch Formation) and in the Clay Basin (Mesa Verde Group) (Law, et al., 1986). The State of Utah and the U.S. Geological Survey have designated sandstone reservoirs in the Wasatch Formation and the Mesa Verde Group as tight gas sandstone reservoirs in DMRA.

Figure 3-3 identifies the current amount of BLM-administered mineral estate placed in each of the categories. No category 4 areas currently exist within the resource area.

Figure 3-3
OIL AND GAS LEASING CATEGORY TYPES
GENERAL



CONVENTIONAL RESOURCES. Oil and gas resources in DMRA are both conventional and unconventional. Conventional oil and gas resources, discussed here include crude oil, natural gas, and natural gas liquids that exist in conventional reservoirs or in a fluid state suitable for recovery using traditional development practices (Mast, et al., 1989).

The occurrence of oil and gas resources in DMRA is controlled by the presence of reservoir rocks, source rocks, and oil/gas traps. Fields and prospects may be grouped into "plays" having similar reservoirs, traps, source rocks and geologic histories. Appendix 4 discusses the occurrence and habitat of oil and gas resources within DMRA.

Tar Sands

A tar sand deposit may be characterized as a body (or bodies) of porous rock, saturated by very thick immobile hydrocarbon compounds (bitumen) which cannot be recovered by conventional oil producing methods. Yet bitumen in tar sands sometimes may be recovered by conventional mining methods. In some instances, the resource may be recovered in place, using direct application of heat or solvents.

Tar sand deposits in Utah are among the most notable deposits of North America, accounting for nearly 95 percent of North America's resources, with an estimated 25 billion barrels of bitumen in place (Campbell, 1975). Within the resource area there are four important deposits: the Asphalt Ridge-White Rocks Deposit; the Pariette Deposit, the Sunnyside Deposit (northern portion), and the Argyle Canyon-Willow Creek Deposit. The Asphalt Ridge-White Rocks deposit, found west of Vernal, ranks among the most important of the Utah deposits (BLM, 1984b). The remaining three deposits rank lower, but are still important for their oil and gas potential.

In the early 1980s, at the request of congress, eleven of the richest Utah tar sand deposits were designated as Special Tar Sand Areas (STSAs) by the Mineral Management Service. Four of these STSAs cover the deposits identified previously. In general, the areas included within STSAs have the highest potential for the occurrence and development of tar sands. In addition, some of these STSAs fall within lands having significant potential for conventional oil and gas deposits. These include the Argyle Canyon-Willow Creek, Sunnyside, and Pariette STSAs. Table 3-11 provides reserve estimates for the deposits in the resource area.

Total acreage of lands in these STSAs is approximately 123,000 acres. Of this total, only 66,200 acres include oil and gas and bitumen reserved to the federal government. A portion of the Asphalt Ridge area are under tar sand placer claims which predate the Mineral Leasing Act.

Resource area tar sands are found in host rocks which mostly include Tertiary sediments of the Green River, Uinta, and Duchesne River Formations. The White Rocks deposit is in the older Jurassic Glen Canyon Sandstone. The Eocene Green River Formation is regarded as the principal source rock for the bitumen in all of the Uinta Basin deposits including the White Rocks deposit.

Tar sand deposits on Asphalt Ridge currently are being mined by Uintah County for road paving materials. Duchesne County also has expressed interest in the Pariette and Argyle Canyon STSAs for their anticipated road paving projects. Processing is required to bring the

TABLE 3-11:
ESTIMATED RESOURCES IN DMRA, SPECIAL TAR SAND AREAS

SPECIAL TAR SAND AREA	ESTIMATED IN-PLACE RESOURCES (BBLS)
Argyle Canyon/Willow Creek	60-90 million
Asphalt Ridge/White Rocks	1.22-1.31 billion
Pariette	12-15 million
Sunnyside	1.5-4 billion*
*Figure includes reserves for both the northern and southern portions of the STSA. The southern portion of the STSA is located in the Price R.A.	

Source: BLM, 1984b

product up to engineering standards required for state and federal highways. This would generally be true of all deposits in the resource area.

There was significant interest in tar sands during the energy "boom" of the early 1980s. Current interest is ongoing but low by comparison, centering on experimental recovery methods on pilot areas.

There are currently three authorized Combined Hydrocarbon Leases (CHLs) in the resource area covering about 2,800 acres. The leases are located within the Pariette, Sunnyside (northern portion), and Asphalt Ridge-White Rocks Canyon STSAs. The Pariette and Sunnyside STSAs are attractive primarily for their oil and gas potential. Therefore, development on the leases in those STSAs would most likely be for oil and gas, but development on the lease in White Rocks would be for tar sand.

Phosphate

Minable deposits of phosphate occur on both the north and south flanks of the eastern Uinta Mountains. The best deposits are located near Flaming Gorge and Vernal.

Deposits in the Flaming Gorge Field are the least attractive of the two because of a complex geologic structural setting and greater conflicts with other land uses. Little, if any, of the phosphate deposit in this field occurs at or near the surface of lands subject to this plan.

Of the two fields, the Vernal Field is most attractive for future development. Extensive areas of relatively high grade deposits occur at or near the surface. This makes these areas especially attractive for low cost strip mining. By present day technology, the Vernal deposit is only marginally economical; however, increases in demand over the next 20 years could significantly increase prices. A price increase would allow economic development by both strip mining and underground mining methods.

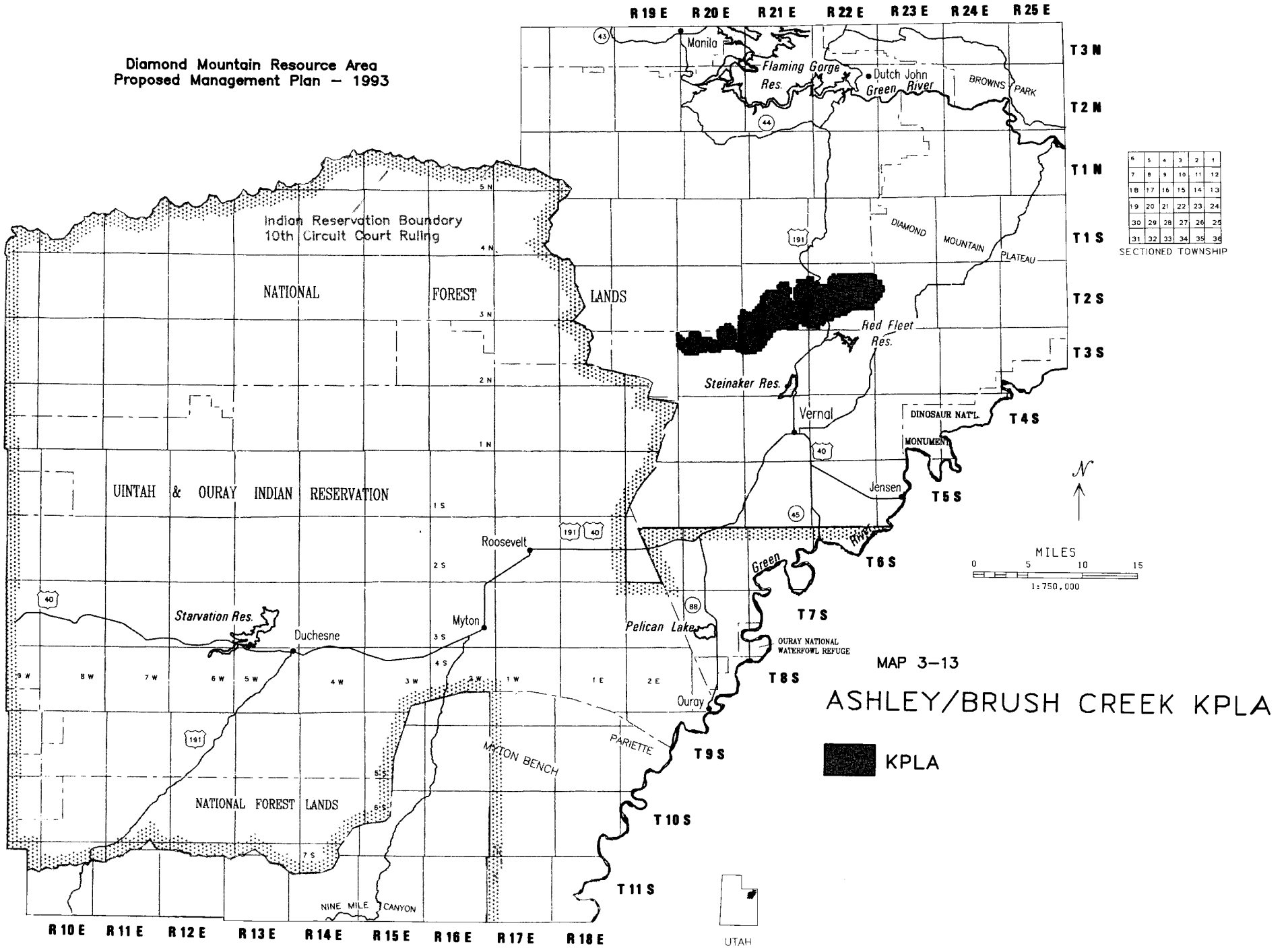
The Vernal Field includes the Ashley-Brush Creek Known Phosphate Leasing Area (KPLA) (refer to Map 3-13) where the only active phosphate mine in the state is located. Surface and near-surface outcrops of the phosphatic Meade Peak Member of the Permian Park City Formation, exist along the south-facing slopes of the Uintas, from Dry Fork to Split Mountain. The best quality deposits are located between Ashley Creek and the west edge of Diamond Mountain Plateau, just east of Little Brush Creek. In the KPLA, there are about 19,500 acres of federal subsurface minerals, of which approximately 63 percent is managed by other federal agencies. The remainder of the KPLA, about 18,800 acres, consists of non-federal mineral estate, not subject to federal leasing. This KPLA includes lands having both the highest potential of occurrence and highest potential for development in the resource area.

There are two pending prospecting permit areas in DMRA, totaling about 1,900 acres. Seventeen (17) of these permit areas are no longer active. There are three presently inactive Preference Right Leases within the resource area totaling about 4,000 acres. There is one authorized competitive lease in the resource area totaling about 2,300 acres and it too is inactive.

The resource area has four non-competitive leases, totaling of 5,800 acres. These leases are believed to be the areas that would be developed over the life of this plan.

"Gilsonite"

"Gilsonite" is a black, pitch-like substance which occurs in pure form in veins in the Tertiary sediments of the Uinta Basin. It is a petroleum substance of uniform composition and texture. It dissolves into resins and dying oils in all proportions, and is also mixable with petroleum and other asphaltic materials. "Gilsonite" compounds are often quite strong and offer resistance to heat, acids, and alkalies, making them valuable for weatherproofing (Stern, 1960).


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
Green River
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NATIONAL FOREST LANDS
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3–13
ASHLEY/BRUSH CREEK KPLA
KPLA

The Uinta Basin is the principle source of "Gilsonite" in the world. Minor occurrences within the Uinta Basin extend into Colorado.

The best known and currently most productive "Gilsonite" dikes occur in three groups east of the Green River within the Book Cliffs Resource Area. Across the Green River in DMRA, the number of veins exposed at the surface drops considerably. These tend to be shorter, narrower, and of lesser overall quality than their eastern basin counterparts. Only a few of these veins exist in the DMRA core area.

The overall decrease in vein size and "Gilsonite" quality within DMRA is attributed to a change in host rock, as the composition of the Uinta Formation changes from a uniform sandstone to weaker, shaley units. The "Gilsonite" veins also penetrate upward and downward into the beds of adjacent formations. Known veins in the Duchesne River Formation are relatively few, yet "Gilsonite" potential may still be quite high along southern exposures of this formation. Significant occurrences may lay hidden from view beneath the Duchesne River Formation in the more suitable host rocks of the Uinta Formation below. Likewise, "Gilsonite" occurrence below the Uinta Formation, in the Green River Formation are known. The degree to which "Gilsonite occurs in the formations above and below the Uinta Formation is unknown. To date, commercial interest has focused solely upon the most accessible deposits.

Map 3-14 shows "Gilsonite" potential on federal minerals within the resource area. The lands with the highest "Gilsonite" potential in the resource area are associated with known "Gilsonite" veins. These are lands within two miles of known veins. The total number of federal acres in these high potential areas is 38,350. In addition, there are about 149,500 acres of additional high potential mineral estate outside of the buffers, and 133,500 acres of moderate potential mineral estate in addition to this. The remainder of the resource area is considered to have no, or very low, potential for "Gilsonite".

"Gilsonite" is allocated by non-competitive (preference right) and competitive leasing only. Leasing actions are initiated by public interest or by the Bureau; additionally prospecting permits may be applied for by the public. Currently, there are no active lease or permits for "Gilsonite" within the resource area.

As the higher grade deposits of the eastern basin are exhausted, the poorer deposits of the west basin will become more attractive to mining. As supply from the high grade veins diminishes, there will be additional incentive to explore frontier areas more aggressively (personal communication, Lekas, Geokinetics, 1990). High "Gilsonite" potential federal lands in DMRA, will be important in maintaining the industry in the future.

LOCATABLE MINERALS

Locatable minerals activity in the resource area is considered insignificant when compared with higher levels of locatable minerals development activity in other parts of the western United States. This is partly because the resource area was never exposed to the kinds of geologic activity commonly associated with lode deposits. These could include deposits of metals such as gold, silver, copper, and others. Placer deposits, having their origin in lode deposits, are also rare in the resource area. Other varieties of locatable minerals like uranium, silicon, iron, and gypsum, occur in small isolated deposits throughout the resource area, but none may be characterized as significant.

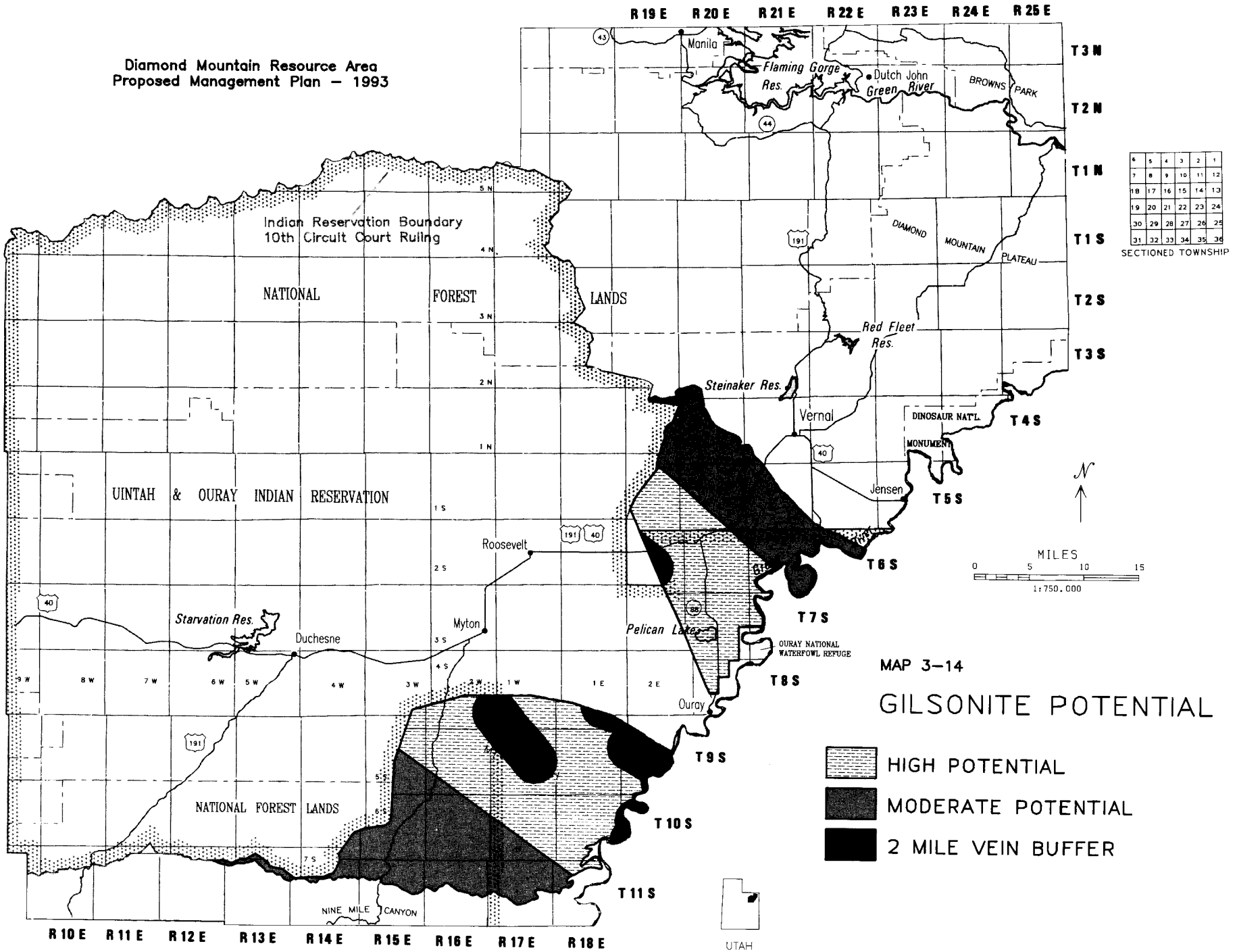
Of the lode (base metal) deposits occurring here, the most important of these occur in rocks of Precambrian age located in the mountains north of Browns Park. Others occur in outcrops which form a ridgeline of limestone hills on the southern edge of Diamond Mountain Plateau.

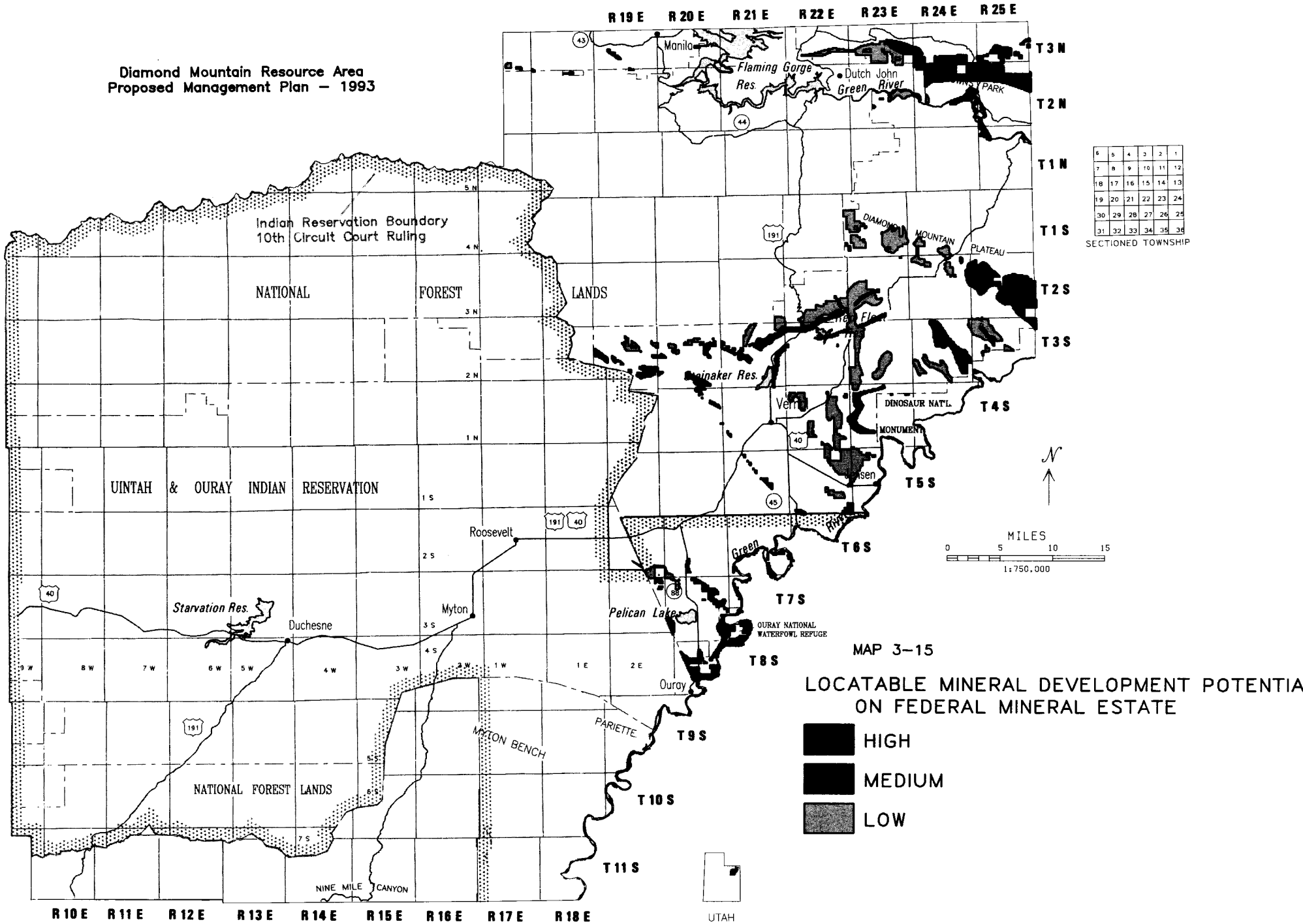
Although placer deposits of fine gold do occur in alluvium along the Green River and on elevated alluvial terraces on the east side of Ashley Valley, the deposits on the Green River have the highest development potential in the future. Operators are now taking advantage of developments in new extraction techniques, working at a handful of marginally profitable operations on private lands along the river.

Minor occurrences of radioactive minerals occur in the Morrison and Uinta Formations and in the Mesa Verde Group. However, recent studies by the Department of Energy conclude that, although occurrence potential is high, it is unlikely that beds of economic importance occur in the resource area (Craig, 1982).

The lands in the resource area considered to have the highest potential for development include the Precambrian outcrops north of Browns Park and the alluvial deposits on the Green River. Table 3-12 summarizes development potential for these lands. Lands listed with moderate or low development potential are not likely to see development during the next two decades. Map 3-15 shows development potential in the planning area.

Public interest in locatable minerals remains somewhat high, particularly for placer minerals. Mining claim distribution provides a good measure of this interest. The public's interest in locatable minerals is most likely


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–14
GILSONITE POTENTIAL
HIGH POTENTIAL
MODERATE POTENTIAL
2 MILE VEIN BUFFER


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
DINOSAUR NAT'L MONUMENT
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
DIAMOND MOUNTAIN PLATEAU
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NINE MILE CANYON
NATIONAL FOREST LANDS
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–15
LOCATABLE MINERAL DEVELOPMENT POTENTIA
ON FEDERAL MINERAL ESTATE
HIGH
MEDIUM
LOW

founded in speculation and in some cases the simple notion of discovery or potential for such. Maps 3-16 and 3-17, respectively show mining claim distribution for approximately 2,690 lode and placer mining claims within the tri-county area. Table 3-13 includes a summary of claim type and status through 1990.

TABLE 3-12:
LOCATABLE MINERAL DEVELOPMENT POTENTIAL ON FEDERAL MINERAL ESTATE

COMMODITY	DEVELOPMENT POTENTIAL	FEDERAL MINERAL ACRES	PERCENT OF R.A.
Metals	High	14,540	1.7
	Moderate	12,200	1.4
	Low		
Non-Metals	High	10,650	1.3
	Moderate		
	Low		
Containing Uranium	High	15,300	1.8
	Moderate	4,800	.6
	Low		
Placer	High	34,500	0.4
	Moderate		
	Low	23,800	2.8
Total:		*84,740	10.0

Source: DMRA Geographic Information System
*NOTE: Some of these lands are inside the oil shale withdrawal and would not be developed while the withdrawal is in place.

Tar sands and oil shale were once considered locatable minerals and staked as placer claims subject to the 1872 General Mining Law. Now both are subject to leasing laws and are closed to location. However, two large blocks of claims cover federal mineral estate containing these minerals, in or adjacent to, the resource area. One is associated with tar sand deposits along Asphalt Ridge. The other, for oil shale, is located in the extreme southwest corner of Duchesne County on National Forest lands, located generally in townships 9, 10, and 11 south, ranges 10, 11, and 12 east, identified on Map 3-18.

TABLE 3-13:
MINING CLAIMS OCCURRING WITHIN DMRA

CLAIM TYPE	NUMBER OF CLAIMS	
	OPEN	CLOSED
Lode	1,557	2,883
Placer	660	487
Mill Site	473	244
Tunnel	3	0
All Types	2,693	3,614

Source: BLM Mining Claim Database Records, 1990

It should be noted that Executive Order 5327 and Public Land Order 4522, commonly referred to as the Oil Shale Withdrawal, have closed most of the south half of the resource area to the staking of mining claims or operations under the mining law.

MINERAL MATERIALS

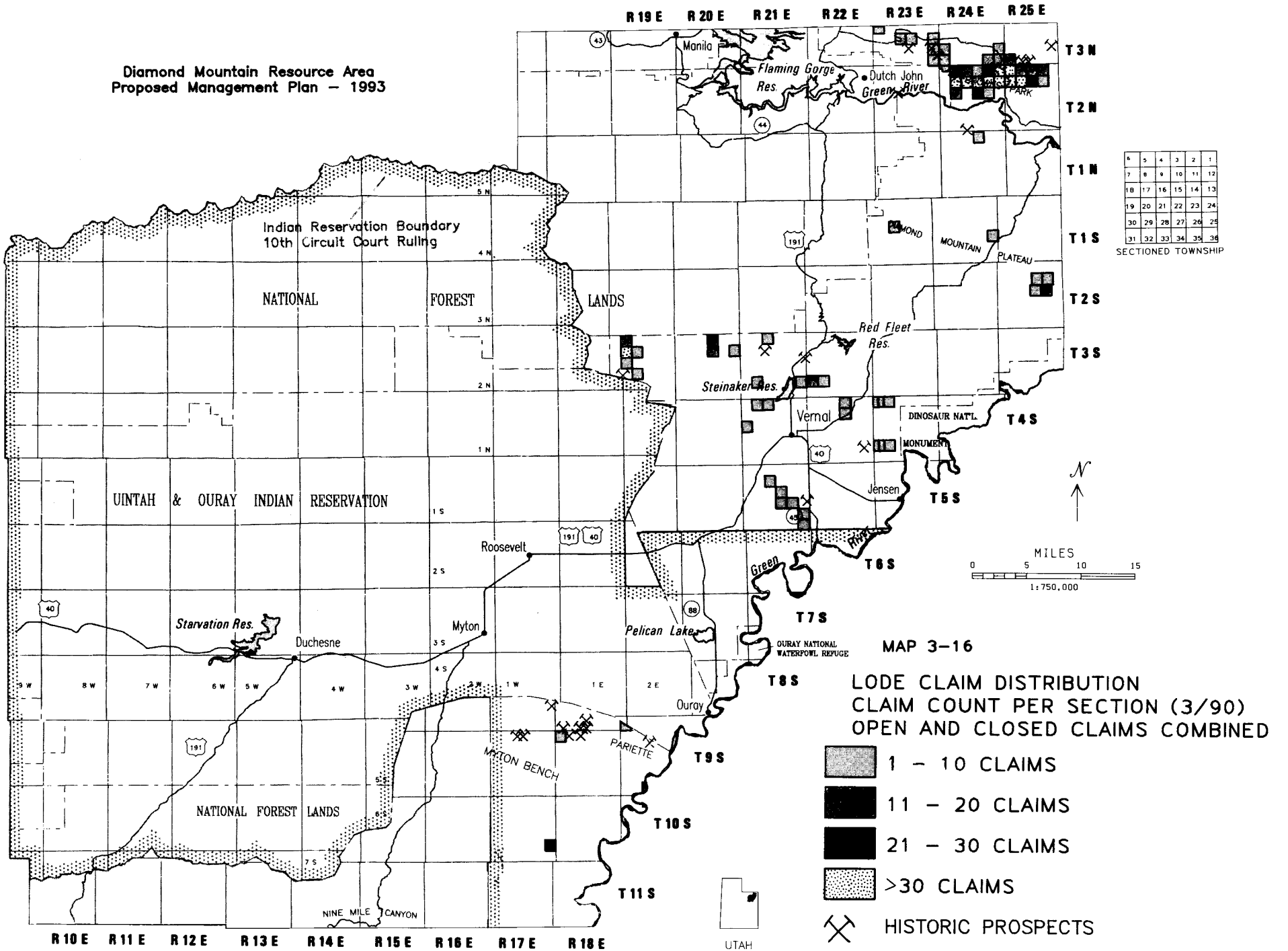
Within the resource area, occurrence of mineral materials varies with surface geology and topography. Streams with head waters in the Uinta Mountains yield the best quality sand and gravel deposits. Outcrops of highly resistant metamorphic and carbonate rocks occur throughout the mountains and provide excellent sources of sand and gravel.

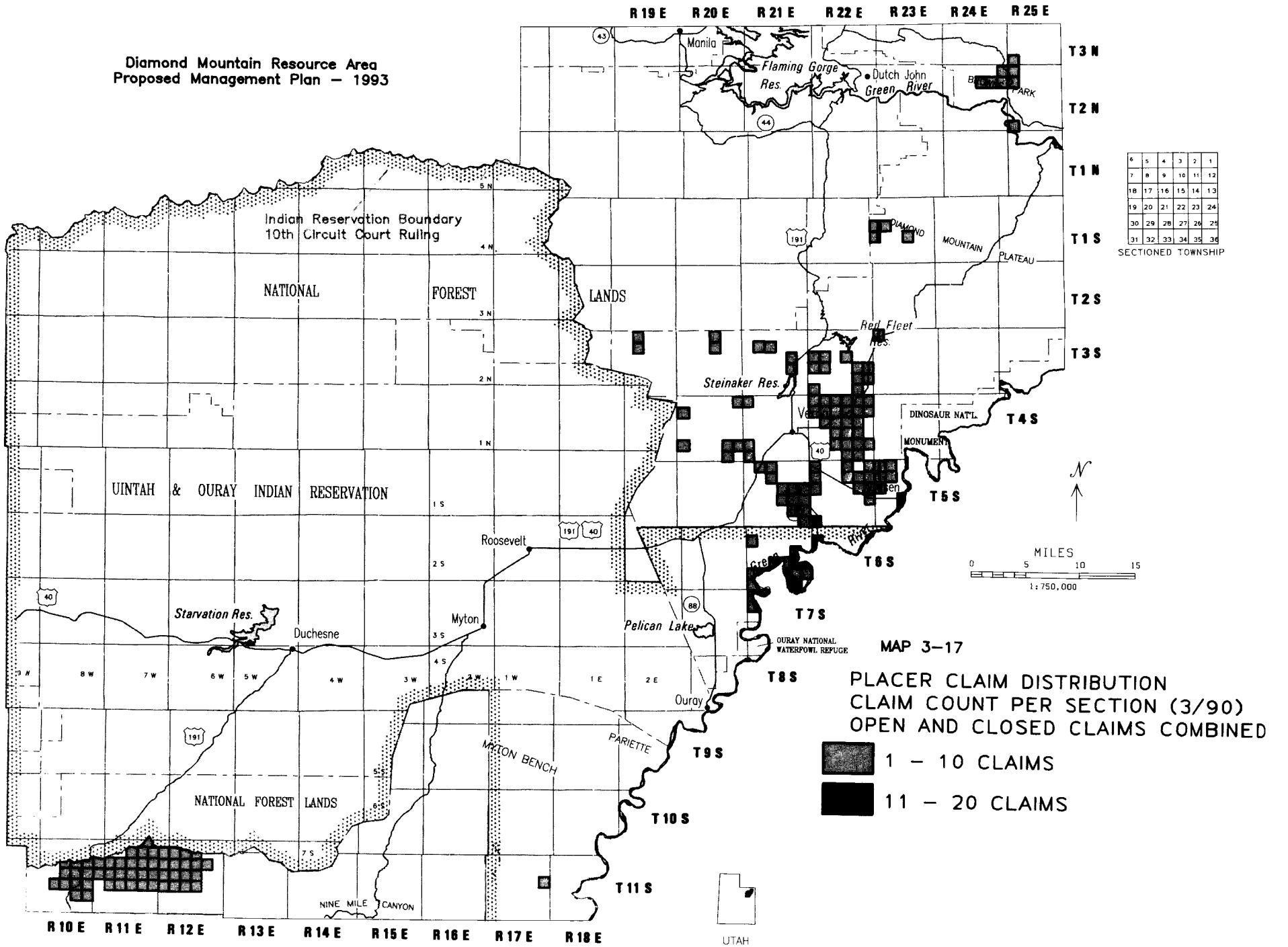
Conversely, streams with head waters in the Uinta Basin itself, tend to yield poor quality sand and gravel due to the poor quality source rock. However, high quality sources of building stone do occur in the basin. Thin sandstones of the Green River Formation are important examples of this. Therefore, in their own respects, both the mountains and the basin have significant potential for mineral materials.

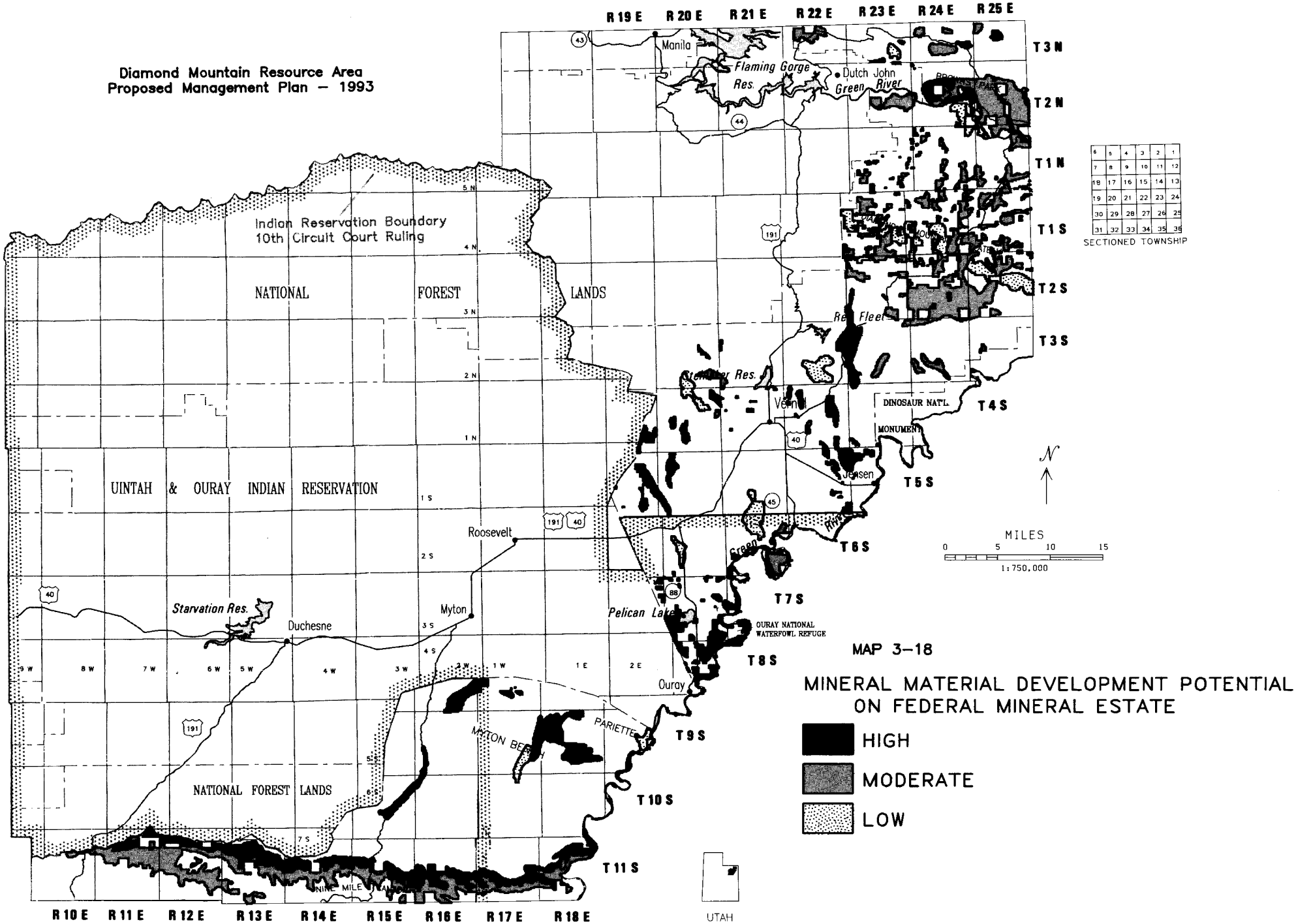
Of the 814,200 acres of federal mineral estate open to the disposal of mineral materials, only 76,290 acres (9 percent) have high development potential. These are lands most likely for development over the life of this plan. Map 3-18 depicts these lands.

County governments provide road maintenance over large areas of the resource area, often at significant expense. A network of well-placed material sites throughout the resource area helps to keep these costs as low as possible. Since federal lands cover such large areas, the county governments depend upon BLM for sites in remote areas.

There are two categories of mineral material disposal: exclusive and nonexclusive. Under exclusive disposals (i.e., negotiated and competitive sales and free use), the applicant has exclusive rights to the materials applied for and sole responsibility for the development and


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Green River
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3-16
LODE CLAIM DISTRIBUTION
CLAIM COUNT PER SECTION (3/90)
OPEN AND CLOSED CLAIMS COMBINED
1 – 10 CLAIMS
11 – 20 CLAIMS
21 – 30 CLAIMS
>30 CLAIMS
HISTORIC PROSPECTS


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
DINOSAUR NATL. MONUMENT
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
Ouray
OURAY NATIONAL WATERFOWL REFUGE
MYTON BENCH
PARIETTE
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–17
PLACER CLAIM DISTRIBUTION
CLAIM COUNT PER SECTION (3/90)
OPEN AND CLOSED CLAIMS COMBINED
1 – 10 CLAIMS
11 – 20 CLAIMS


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
Ouray
OURAY NATIONAL WATERFOWL REFUGE
MATON BENCH
PARIETTE
NINE MILE CANYON
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Green River
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3–18
MINERAL MATERIAL DEVELOPMENT POTENTIAL
ON FEDERAL MINERAL ESTATE
HIGH
MODERATE
LOW

reclamation of the source site. Currently there are only negotiated sale sites, free use permits, and one community pit site near Wild Mountain active within the resource area. The public has access to nonexclusive disposal sites (i.e., community pits and common use areas). In the resource area, there are both types of nonexclusive sites. The Wrinkles Road building stone common use area covers about 30,800 acres. Agreements allow disposal of materials from some free use permit sites to the public under provisions similar to those provided for disposal from community pits.

RECREATION

The resource area offers a wide variety of topography, terrain features, vegetation, scenic values, historic resources, wildlife and riparian resources. These all combine to make northeastern Utah, and thus DMRA, a valuable region for a myriad of recreational pursuits. Visitors wishing to enjoy a recreation experience on public lands may choose from camping in developed campgrounds along the Green River in Browns Park, travelling scenic highways and back-country byways, or primitive and unconfined activities throughout the resource area.

This wide variety for recreation opportunities should draw an increasing number of visitors to the resource area through the life of this plan (BLM, 1989a).

RECREATION OPPORTUNITY SPECTRUM

BLM uses the Recreation Opportunity Spectrum (ROS) as one tool to identify types of recreation settings and opportunities. It also helps identify the capability of public land to provide specific types of recreation experiences. Impacts to specific ROS classes can be used to identify and quantify effects of various activities to different types of recreation opportunities. Appendix 5 cites the factors considered for each ROS class.

To facilitate its use in planning the ROS is divided into the following six classes, listed in order of importance, from high to low: Primitive; semi-primitive nonmotorized; semi-primitive motorized; roaded natural; rural and, modern urban. ROS classes in DMRA were established as a result of an inventory conducted in 1980 and updated in 1990. Map 3-19 indicates locations of various ROS classes in the resource area. Table 3-14 cites the approximate acres in each class.

RECREATION MANAGEMENT AREAS

Special Recreation Management Areas (SRMAs) are areas heavily used for recreation. They require special management to ensure the protection of identified recreation values. Two areas are currently designated SRMAs: Browns Park (about 18,650 public acres) and Pelican Lake (about 1,060 public acres). Refer to Map 3-20 for these SRMAs locations.

TABLE 3-14:
RECREATION OPPORTUNITY SPECTRUM

OPPORTUNITY CLASSES	PUBLIC ACRES
Primitive	0
Semi-Primitive, Non-Motorized	60,776
Semi-Primitive, Motorized	513,662
Roaded Natural	114,956
Rural	19,606
Urban	0
Area Total	709,000

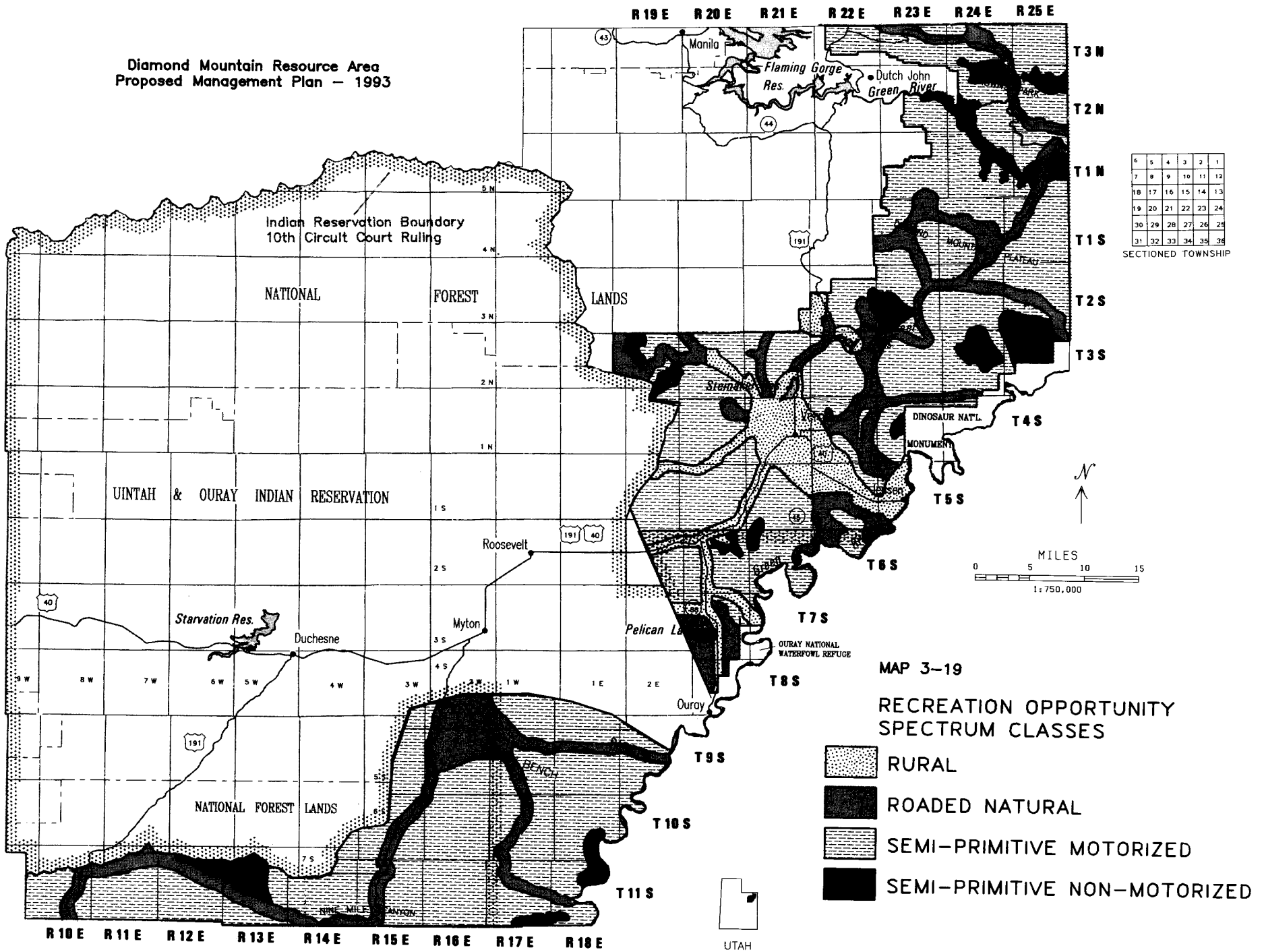
Source: DMRA Geographic Information System

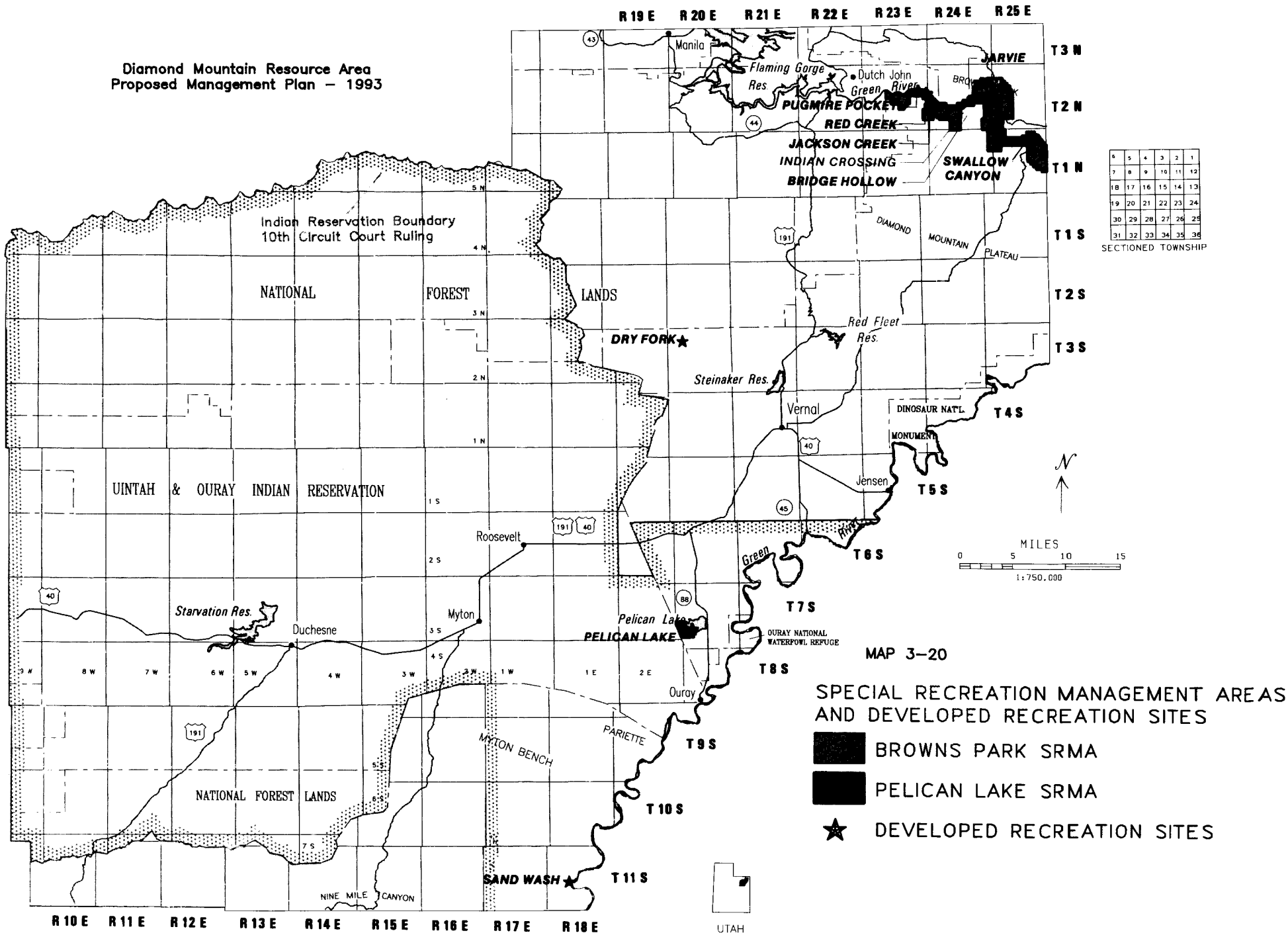
In 1984, the Browns Park SRMA was designated as the Green River Scenic Corridor Area of Critical Environmental Concern (ACEC). This action was taken to protect scenic, historic, cultural, biologic, and scientific values. A 1991 interagency review of recreational use of the Green River from Flaming Gorge Dam to the Colorado state line anticipates recreation pressure to continue to increase at approximately 3-4 percent per year.

Suggestions for maintaining the high quality recreation experiences include: increased and improved recreational facilities along the river, and implementing a reservation system for use on the river (Pratt, et al., 1991).

The remainder of DMRA, not included in the SRMAs, is included in the Diamond Mountain Extensive Recreation Management Area (ERMA). Recreational pursuits center around unconfined activities such as hunting, fishing, sightseeing, and off-highway driving. Two exceptions are found in Dry Fork Canyon and Sand Wash.

Public land along Dry Fork Creek, in scenic Dry Fork Canyon near Vernal, contains a small picnic area, heavily used in the spring of the year. BLM operates a ranger station at Sand Wash on the Green River near Nine Mile Canyon. It is the main launch point for raft trips down the Green River through Gray and Desolation Canyons.


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R19E R20E R21E R22E R23E R24E R25E
T3N
T2N
T1N
T1S
T2S
T3S
T4S
T5S
T6S
T7S
T8S
T9S
T10S
T11S
R10E R11E R12E R13E R14E R15E R16E R17E R18E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Roosevelt
Myton
Duchesne
Starvation Res.
Ouray
Pelican La
OURAY NATIONAL WATERFOWL REFUGE
DINOSAUR NAT'L MONUMENT
Jensen
BENCH
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3-19
RECREATION OPPORTUNITY SPECTRUM CLASSES
RURAL
ROADED NATURAL
SEMI-PRIMITIVE MOTORIZED
SEMI-PRIMITIVE NON-MOTORIZED


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res
Dutch John
Green River
JARVIE
PUGMIRE POCKET
RED CREEK
JACKSON CREEK
INDIAN CROSSING
BRIDGE HOLLOW
SWALLOW CANYON
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
DRY FORK
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
PELICAN LAKE
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NATIONAL FOREST LANDS
SAND WASH
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3–20
SPECIAL RECREATION MANAGEMENT AREAS AND DEVELOPED RECREATION SITES
BROWNS PARK SRMA
PELICAN LAKE SRMA
DEVELOPED RECREATION SITES

RECREATION DEVELOPMENTS

DMRA manages 10 recreation sites in the resource area (Table 3-15 and Map 3-21). In addition, Moab District, under cooperative agreement with Vernal District, administers the Sand Wash Recreation Site. It is anticipated that this agreement will remain in effect until conditions warrant a change. There are 38 sites identified as having potential for development (refer to Table 3-16).

TABLE 3-16:
POTENTIAL RECREATION SITES

NAME OF SITE	NAME OF SITE
Allen Draw Camp Site	Little Mountain Overlook
Ashley Creek Camp Site	Little Mountain Picnic Site
Aspen Picnic Site	Little Swallow Canyon Camp Site
Big Tree Camp Site	Lone Tree Camp Site
Brough Reservoir Recreation Site	Long Bend Camp Site
Butch Cassidy Camp Site	Pariette Camp Site
Cottonwood Grove Camp Site	Pariette Recreation Site
Devil's Hole Boat Camp Site	Pine Pocket Picnic Site
Diamond Mountain Picnic Site	Pine Ridge Picnic Site
Dry Hollow Camp Site	Plateau Picnic Site
Fire Flat Picnic Site	Pot Creek Camp Site
Gadson Draw Picnic Site	Red Mountain Recreation Area
Grassy Draw Camp Site	Riverside Camp Site
Hatch Cove Camp Site	Rye Grass Camp Site
Horseshoe Bend Camp Site	Sears Canyon Camp Site
Hoy Mountain Camp Site	Three Corners Camp Site
Jones Hole Camp Site	Wickiup Camp Site
Jones Hole Picnic Site	

Source: DMRA files

RECREATION OPPORTUNITIES

The entire DMRA is used for hunting, generally concentrated in the fall and winter months. However, setting out bait by archery hunters to attract bear for hunting takes place in both the spring and fall months. Fishing is also a popular pursuit with most use occurring along the Green River in Browns Park. Observing wildlife species in their natural environs is becoming a very popular activity. No cave resources are presently known within the resource area. The following opportunities have been identified under current management.

DMRA has nominated several roads in the resource area for inclusion in the Back-country Byway System. These roads would be signed and managed to protect the values responsible for their designation. Included are the following roads: Jones Hole (30 miles in length), Diamond Mountain-Browns Park-Clay Basin Loop (90 miles), Red Cloud Loop (5 miles on BLM), and Myton to Wellington (45 miles). The Myton to Wellington was recently designated as a federal back-country byway in 1991. Other roads would be added as they qualify for inclusion.

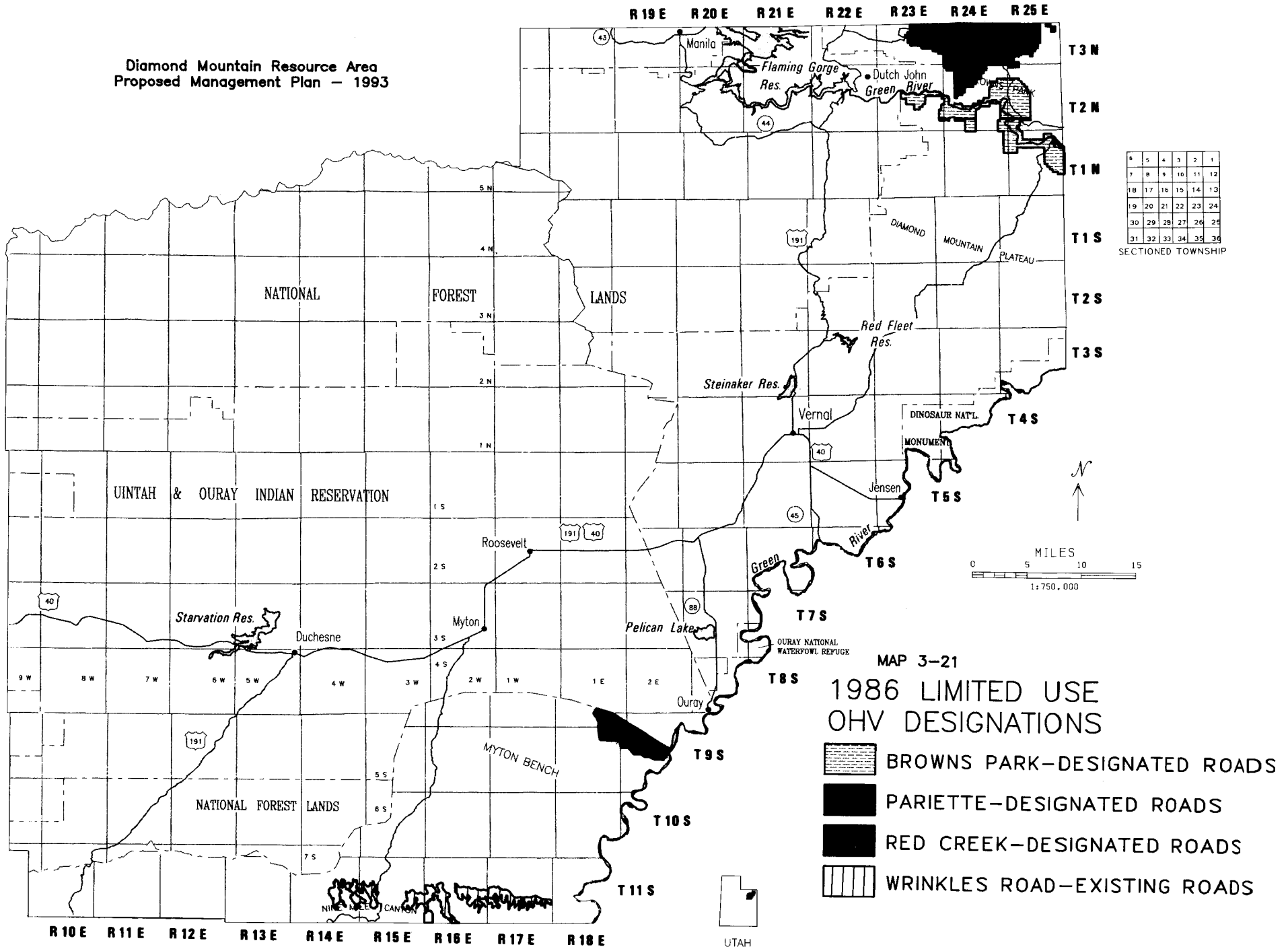
Several trails or portions of trails within DMRA are identified for bicycles: Dinosaur National Monument-Chew Ranch road tour (24 miles in length), Bonanza Loop (48 miles), Vernal-LaPoint Loop (49 miles), and Asphalt Ridge (7 miles).

There is one existing motorbike four-wheel drive trail on the scenic Red Mountain near Vernal. Two hiking and horseback trails are in use and maintained: Sears Canyon trail follows the canyon from Diamond Mountain into Browns Park ending at the Jarvie Historic Site; and Green River foot trail along the Green River in Browns Park. The Sears Canyon trail is gaining regional significance as the site of the "Outlaw Trail" ride, an activity associated with Vernal's annual Outlaw Trail Festival.

The Green River offers outstanding river rafting. The section of river between Little Hole and the Colorado state line runs through the Browns Park SRMA (discussed earlier in this section). The middle and lower sections of the river between Split Mountain and Sand Wash (a distance of 102 miles) receives very limited use. This section has the potential of becoming a very popular river rafting area by people preferring slow-moving water.

OFF-HIGHWAY VEHICLES

There are four areas, totaling approximately 56,400 public acres, currently designated for limited use by off-highway vehicles (OHV), refer to Table 3-17 and Map 3-22. The remainder of the resource area (652,600 public acres, or 92 percent) remains open to OHV use. Presently OHV use on public lands is concentrated near populated areas. Seasonal OHV use also can be heavy on traditional hunting areas on public lands within the resource area. OHV use in 1990 for the resource area totaled an estimated 31,400 hours (refer to Table 3-17).


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
DIAMOND MOUNTAIN PLATEAU
NATIONAL FOREST LANDS
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
NATIONAL FOREST LANDS
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3–21
1986 LIMITED USE OHV DESIGNATIONS
BROWNS PARK–DESIGNATED ROADS
PARIETTE–DESIGNATED ROADS
RED CREEK–DESIGNATED ROADS
WRINKLES ROAD–EXISTING ROADS

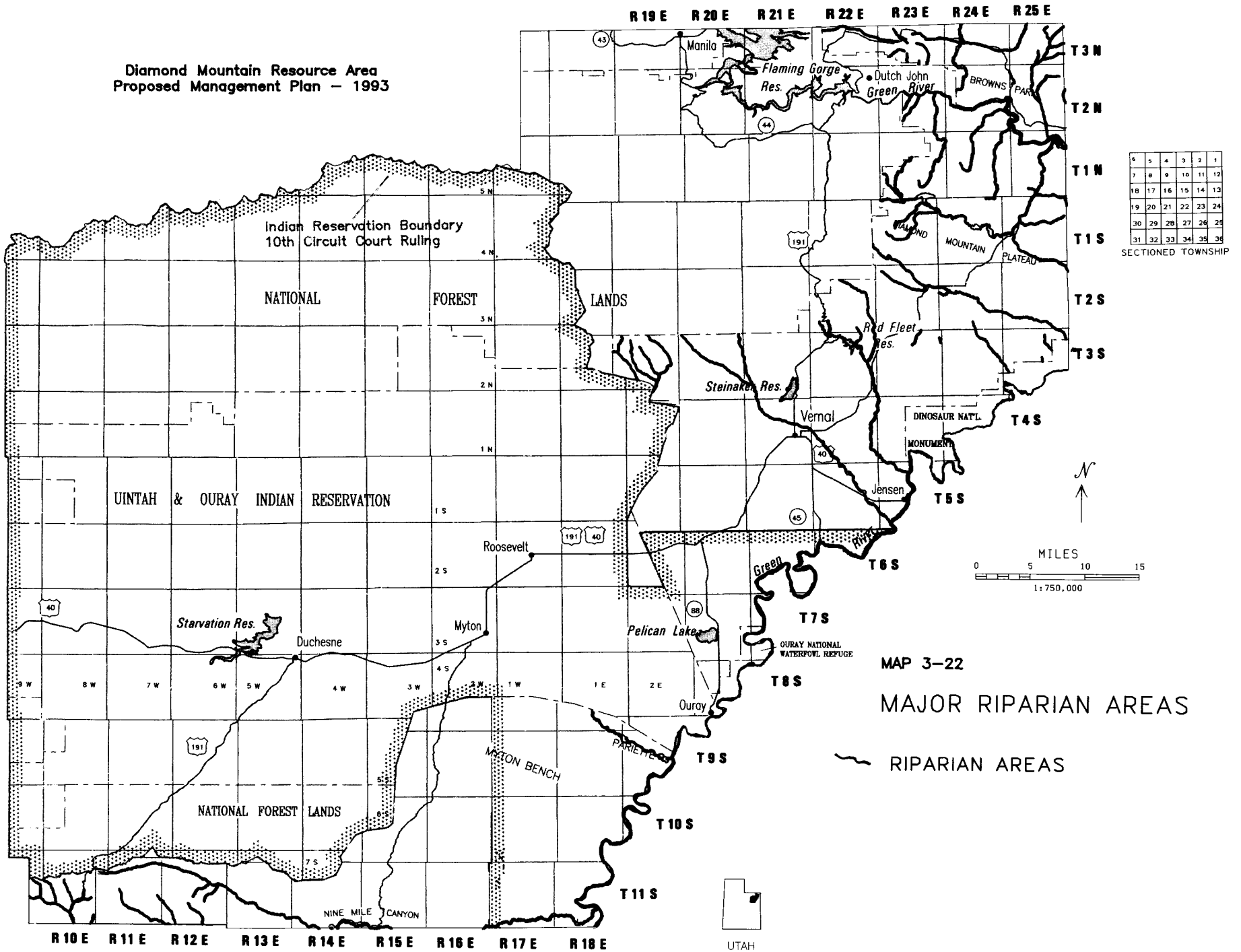

Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NATL. MONUMENT
Jensen
Green River
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
PARIETTE
MYTON BENCH
NINE MILE CANYON
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–22
MAJOR RIPARIAN AREAS
RIPARIAN AREAS

TABLE 3-15:
DEVELOPED RECREATION SITES AND FACILITIES

SITE	TABLES	COVERED TABLES	FIRE RINGS	TOILETS	WATER	RAFT RAMP	BOAT RAMP	BOAT DOCK	LOCATION
Bridge Hollow Campground	12		12	2	1	1			Browns Park SRMA
Dry Fork Picnic Area	6		6						Diamond Mtn. ERMA
Indian Crossing Campground	6		4	2		1			Browns Park SRMA
Jackson Creek Float Campground	1		1	1					Browns Park SRMA
Jarvie Historic Site	4		2	1	1				Browns Park SRMA
Pelican Lake Campground	9	5	13	2			1	1	Pelican Lake SRMA
Pugmire Pocket Float Campground	1		1	1					Browns Park SRMA
Red Creek Float Campground	2		2	1					Browns Park SRMA
Sand Wash* Campground	4		4	2	1				Diamond Mtn. ERMA
Swallow Canyon Raft Ramp						1			Browns Park SRMA
*Administered by Moab District									

Source: DMRA files

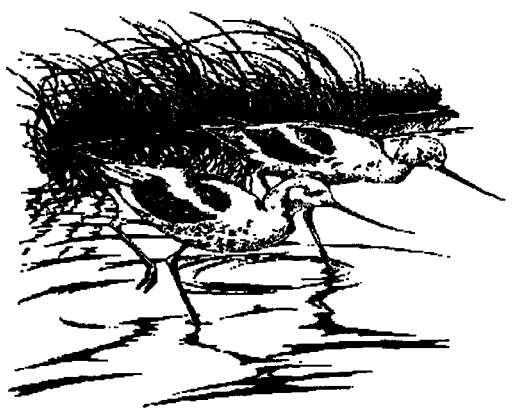


TABLE 3-17:
OHV DESIGNATION IN DMRA
(IN PUBLIC ACRES)

NAME OF AREA	DESIGNATION				
	Limited Use on Roads				
	Closed	Existing	Designated	Open	Totals
Browns Park	0	0	19,148	0	19,148
Parlette Wetlands	0	0	7,839	0	7,839
Wrinkles Area	0	13,810	0	0	13,810
Red Creek Watershed	0	0	24,552	0	24,552
Other Lands in RA	0	0	0	643,651	643,651
Totals	0	13,810	51,539	643,651	709,000

Source: BLM, 1987b

RIPARIAN RESOURCES

Among the most productive and important ecosystem, riparian areas make up approximately 2 percent of the public lands within DMRA. Characteristically, riparian areas display a greater diversity of plant, fish, wildlife and other animal species and vegetation structure than adjoining vegetation communities. Healthy riparian systems filter and purify water as it moves through the riparian zone, reduce sediment loads and enhance stream bank stability and contribute to groundwater recharge and base flows (see Figure 3-4).

DMRA contains approximately 60,300 acres of riparian lands, including 272 miles of perennial and intermittent streams. Of this, approximately 15,650 acres are public land (refer to Map 3-22). An ongoing riparian inventory, begun in 1989, has evaluated approximately 125 miles (or 64 percent) of the stream riparian communities on public land. Of the streams inventoried, 24 percent were found to be in an early vegetation ecological condition, 55 percent in mid, and 21 percent in late. Approximately 18 percent of the mid and early ecological stage riparian is due to the presence of noxious weeds on the Upper Green River. The remaining streams have yet to be evaluated. Table 3-18 provides a summary of the ecological condition of the inventoried streams within the resource area. (Appendix 8 depicts the current ecological condition and management priority for these streams by grazing allotment.)

The best developed and most extensive riparian communities within DMRA occur at the Pariette Wetlands, along the Green River, and in certain sections along perennial streams on Diamond Mountain. Pariette Wetlands contains 20 impoundments inundating approximately 2,530 acres. Riparian vegetation consists mainly of bulrush, cattail, reed grass, and cottonwood trees.

The majority of the riparian ecosystem in the resource area is owned or controlled by private individuals. Other entities sharing ownership include: UDWR, USF&WS, and the Uintah and Ouray Ute Indian Reservation. This makes management of these systems extremely complicated, demanding close coordination among the affected parties.

There are approximately 225 reservoirs, 200 check dams and 85 springs on public land within the resource area. Although these areas have not been inventoried to date, many have the potential for appreciable riparian community development. These areas will be evaluated in the ongoing riparian inventory.

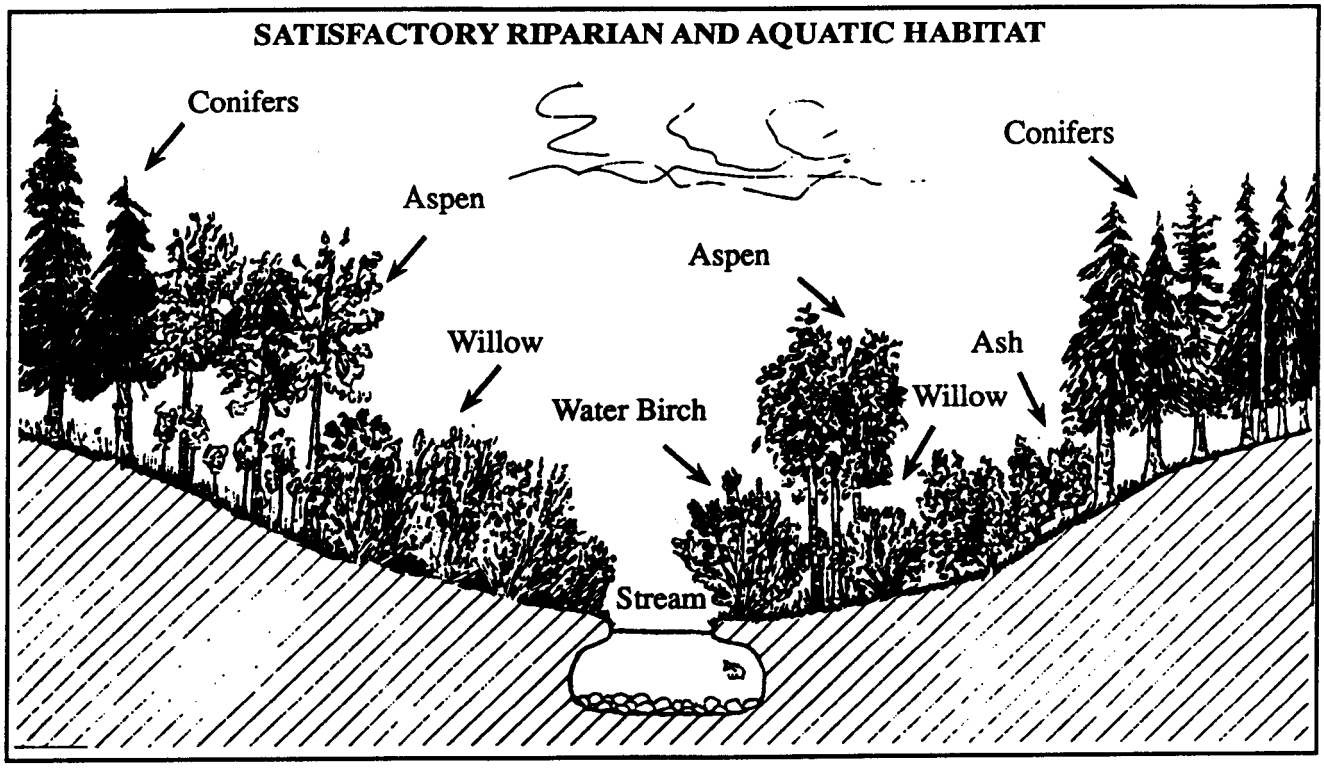
Riparian communities along the Green River have been affected by historical human and livestock overuse and

TABLE 3-18:
ECOLOGICAL CONDITIONS OF RIPARIAN VEGETATION ALONG INVENTORIED PERENNIAL STREAMS

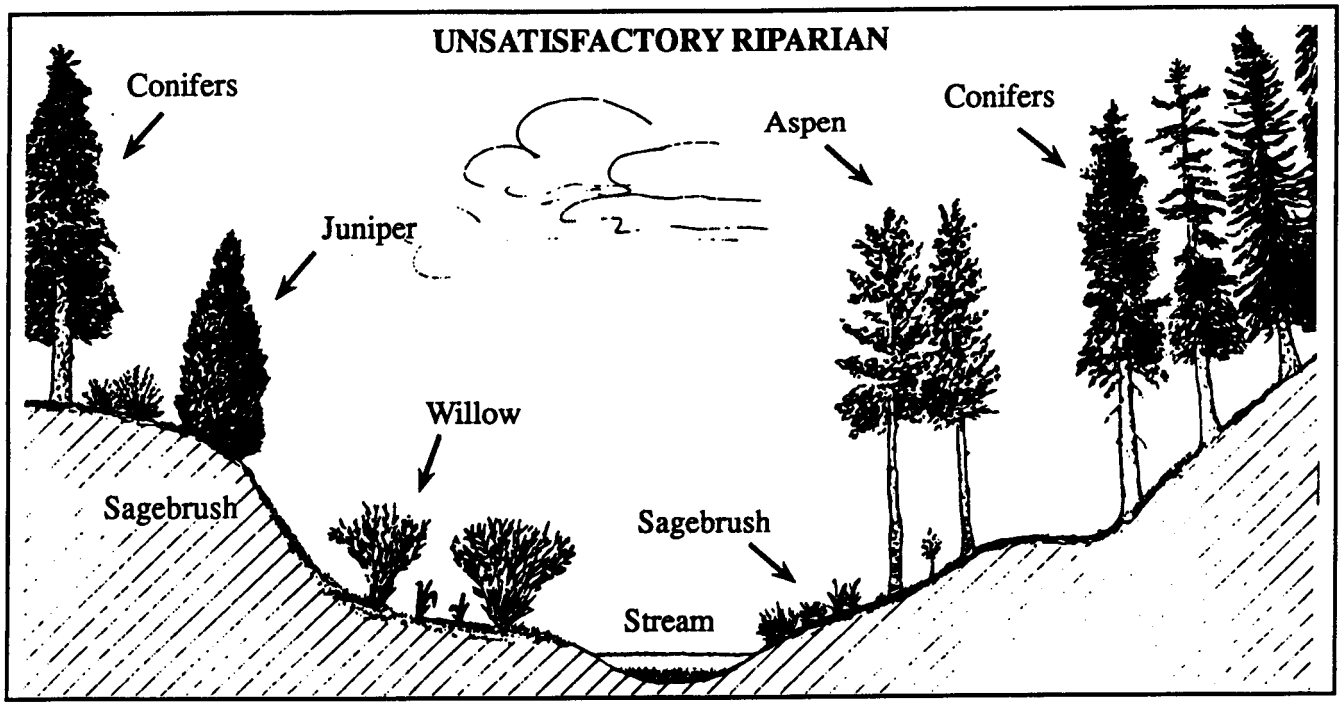
STREAM NAME	VEGETATION SERAL STAGE IN PUBLIC MILES		
	Early	Mid	Late
Upper Green River		22	2
Lower Green River	12		9.5
Ashley Creek		2	
Spring Creek		2.5	
Lower Willow Creek			3
Beaver Creek		1	
Birch Creek		1	
Little Brush Creek		2	
Red Creek	4		
Martin Draw	4		
Clay Basin Creek	5		
Grindstone/Spring Creek Wash		5	
Upper Willow Creek	.2		
Lower Tolivers Creek		1.5	
Lower Sears Creek		1	
Jackson Creek		1	
Little Davenport Creek			1
Gorge Creek			1
Brush Creek	1.5		
Upper Tolivers Creek			1.5
Upper Sears Creek			3
Diamond Gulch		7	
Pariette Wash		10	
Mosby Creek		1	
Nine Mile Creek		9	
Argyle Creek	2.5		
Four Mile Wash		1	
Pelican Lake Wash		1.5	
Dry Fork Creek			2
Crouse Creek			2
Coyote Creek			1
Pot Creek		.2	
Smelter Creek			.3
Deep Creek		.3	
Total:	29.2	69	26.3
GRAND TOTAL	124.5		

Source: DMRA files

FIGURE 3-4



Satisfactory riparian habitat is characterized by good vigor and canopy coverage, abundant reproduction of palatable plant species, and well developed, overhanging streambanks. Gravels dominate the stream substrate, which provides good habitat for fish spawning and aquatic invertebrates.



Unsatisfactory riparian habitat is characterized by poor vigor and canopy coverage, low species diversity, and a lack of reproduction of woody plant species. Unpalatable plants, such as sagebrush are increasing in abundance. Aquatic habitat is characterized by eroded streambanks, and a "dished-out" appearance (because the banks are not overhanging). Fine materials (silt) dominate the substrate, which provides poor habitat for fish spawning and invertebrates.

regulation of river flows from the Flaming Gorge Dam. Reestablishment of a dynamic and stable riparian community along the river would be beneficial to special status fish and bird species, as well as aid in the reduction of sediment-loading of the Green and Colorado Rivers.

SOCIOECONOMICS

SOCIAL DEVELOPMENT AND CURRENT CONDITIONS

Archeological evidence dating back to 10,850 BC witnesses the earliest human occupation of the Uinta Basin and Browns Park. The native peoples have occupied this region continuously since that time. It is believed modern Ute peoples migrated to the region from the east by 1500 AD. European explorers and fur traders began actively visiting and working in the region by 1776.

In 1886, the Uintah and Uncompahgre Indian Reservations were combined into the present Uintah and Ouray Ute Indian Reservation. During the period 1894-1981, approximately 24 percent of the original reservation lands had been for other non-Indian purposes. This led to the misinterpretation that the original reservation boundaries had been disestablished. In 1985, the Tenth Circuit Court of Appeals reestablished the reservation along the original boundaries in place prior to 1894. This decision did not affect the ownership of lands within the reservation for which BLM or other agencies or parties have jurisdictional responsibility.

The Uinta Basin was actively settled by Euro-Americans during the period 1878-1890. Settlers came from the Wasatch Front where they were experiencing an agricultural depression. By 1890, the basin had developed a rural-agricultural lifestyle and economic base.

DEMOGRAPHICS AND EMPLOYMENT

The following information presents data on the socioeconomics pertaining to Daggett, Duchesne, and Uintah Counties during the period 1960 - 1990, unless otherwise stated. Additional information and extensive graphs are provided in Appendix 10.

Employment and Earnings

Comparing average unemployment rates, using 1991 data furnished by the Utah Office of Planning and Budget, demonstrates Duchesne County with the highest unemployment at an average rate of 9.2 percent. Uintah County's average unemployment rate of 6.5 percent is only a little higher than Daggett County's 6.1 percent unemployment, which is just a few tenths of a percentage point above that of the state's average of 5.8 percent. Duchesne County's high unemployment may be due in part to the proximity of the Ute Indian Tribe, which has had a problem with unemployment for some time. Annual rates for each of these areas are graphed in the Appendix graphs A10-1 through A10-1c.

Labor Force

The State of Utah's steady increase in the labor force contrasts with the more variable rates of Daggett and Duchesne Counties. However, Uintah County exhibited a somewhat similar trend, until the early 1980's, when a strong downward phase came into being, see labor force graphs Appendix A10-2 through A10-2c.

Population

The labor force is often directly correlated to the population. Daggett County has shown little variation since 1965, while Duchesne and Uintah Counties have doubled since the late 1960's. There is an especially high degree of correlation between population and labor force for Duchesne and Uintah Counties, refer to the population graphs in Appendix 10 identified as A10-12a through A10-12c.

Per Capita Income

Per capita income in Utah has been steadily growing as a whole since 1960; however, as expected, more unstable rates are present in Daggett, Duchesne, and Uintah Counties (refer to Estimated Per Capita Income and Forecasts Appendix graphs A10-13 through A10-14c). Using non-agricultural jobs as an independent variable and regressing per capita income against it, estimates for per capita income may be generated. Plugging in non-agricultural job projections, per capita income may be forecast through 2020 (Utah Office of Planning and Budget, 1992). Depending upon the degree that BLM policies and plans affect non-agricultural jobs, per capita income for the different counties may also be affected. Since the coefficient for non-agricultural jobs (X Coefficient) is positive for regressions, we can assume a positive relationship between it and per capita income.

According to the analysis, Utah has the highest projected income, mostly due to the high R^2 (correlation between actual and estimated values). Daggett County has a higher actual per capita income, but due to the weak relationship between non-agriculture jobs and per capita income, there is a lower and less reliable projected per capita income. The same situation holds true for Duchesne County. Uintah County illustrates a stronger

relationship with a R^2 of .76, but it still takes several years until projected per capita income equals the 1990 level.

Finding the average per capita income for the counties and state overall gives us another basis for comparison. Further, if per capita income is allowed to be a proxy or indirect measure of utility or standard of living that is uniform throughout the state, a ordinal ranking of the counties may be constructed. For example, Daggett County's 30-year average per capita income is $6,985, when this is divided by Utah's average of $7,495, 93 percent is generated. Using PCI only, one may be able to say that Daggett County has 93 percent the standard of living of Utah as a whole. Uintah County has an average of $6,855, which is 91 percent of Utah; Duchesne County has an average of $6,520, which is 87 percent of Utah. It is important to stress that the trend is more relevant than averages, which give equal weight to values of 30 years ago.

Percentage of total non-agriculture jobs (see Appendix 10 graphs A10-14 through A10-14c) illustrates the state as a whole with a large percentage of non-agriculture jobs, about 87 percent. Daggett County has 70 percent of non-agriculture jobs with the highest per capita income. Duchesne County has 66 percent of non-agriculture jobs with the second highest per capita income of the three counties. Uintah County has 77 percent of non-agriculture jobs with the lowest per capita income of the three counties.

FISCAL CONDITIONS

Payments in Lieu of Taxes

Since 1987, PILTs have served as a stable source of revenue for the counties, contributing approximately $625,000 annually to Uintah County, $400,000 to Duchesne County and $45,000 to Daggett County (see PILTs in Appendix 10, graph A10-15)(BLM, 1989c and 1991c). PILTS are taxes paid by the federal government for lands owned by federal agencies to compensate local entities for removing real estate from their tax base. Deriving the actual payment is dependent upon the number of entitlement acres, other federal land payment and population (BLM, 1988). Currently, there is pressure to adjust the payment per population and inflation. Some parties argue that allowing private ownership would increase the tax base of local governments. However, due to the marginal quality, it is not clear that all lands in government ownership would generate taxes greater than PILTs.

PLANNING

In 1991 both Daggett and Uintah Counties completed and implemented Interim Land Use Policy Plans. These plans are preparatory to individual county plans. In August, 1992, phase one of a local government comprehensive planning project was completed by the Utah Office of Planning and Budget in association with the Utah Association of Counties, and Eckhoff, Watson, and Preator Engineering. This report examined: 1) the process for identifying pilot counties, 2) federal, regional, and local planning in Utah's counties, 3) the proposed planning process, and 4) budget and schedule for phase two. In this document, a phase one decision matrix was comprised of: public land ownership, status of federal planning, indicators of change, sources of income, sources of revenue, per capita income, unemployment, status of local planning, and status of regional planning. From this, Uintah County was included along with Carbon and Emery Counties as a subsequent set of pilot counties.

FACILITIES AND SERVICES

Currently, Daggett County has high pressure on their limited county services mostly from the heavy visitation rates from Flaming Gorge NRA. If the present trend continues, Daggett County, and perhaps surrounding counties, may need additional funding to deal with this increased pressure on roads, emergency services, and solid waste management.

OTHER RELATED ECONOMIC ACTIVITY

Recreation

Local communities associated with DMRA may anticipate higher future visitor rates and accompanying economic development. If we assume per capita income increases with non-agricultural jobs, as well as leisure time and ability to invest in recreational equipment, greater demands may be put on surrounding recreational areas. Depending upon the level and type of recreation management chosen, DMRA may act as a substitute or compliment for these areas and secure a percentage of the visitors from adjacent recreation areas.

The relationship between specific recreation sites within each county and taxable room rents is illustrated in Appendix 10, graphs A20-16a through 16j.

According to the State of Utah's Office of Planning and Budget, six factors will drive the growth of tourism in Utah: the aging of America, rising real disposable income, popularity of the American southwest and the

Rocky Mountain Regions, huge increases in foreign travelers, growth of the Mormon Church, and favorable media coverage (State of Utah, 1992).

Mineral Royalties

The royalty disbursements, graphed in Appendix 10 as A10-17a through 17c, show graphically the variation as well as magnitude of the royalties program to the involved counties, especially Uintah. The amounts in the Table 3-19 and in the graphs in the Appendix, are based on gross receipts of which the counties would receive only fifty percent (USDI, Minerals Management, Royalty Management Program, 1992).

TABLE 3-19:
GROSS RECEIPTS TO THE TRI-COUNTIES FROM MINERAL ROYALTIES

YEAR	DAGGETT	DUCHESNE	UINTAH
1984	187,879	1,689,983	14,356,217
1985	530,966	2,130,973	19,433,882
1986	275,970	1,236,220	15,003,831
1987	346,627	697,583	10,581,302
1988	528,796	642,765	10,964,084
1989	507,038	685,011	10,526,671
1990	491,382	1,201,001	11,738,541
1991	291,862	1,773,367	13,874,017
1992	362,248	836,230	8,185,529
TOTAL	3,522,768	10,893,133	100,248,173

Water

"Economically, the problem is that the well-being of some water users of the (Colorado) river conflicts with the well-being of other users" (Bureau of Reclamation, 1980). This report describes an exponential curve that has total direct and indirect economic impacts increasing faster than the salinity levels. This report goes on to illustrate the economic challenges for agricultural, municipal, and industrial users as the salinity levels continue to increase; specifically, replacement costs for major household items in the lower river drainage.

Wildlife

Traditionally, the wildlife program has played an active role in the local economy. Hunting units in DMRA generated approximately $3.4 million in 1991. Though impacts will be analyzed using changes in AUMs, real relationships between increasing allocation and increasing actual animals on the ground are not clear. Only through increasing the number of participants or increasing willingness to pay can financial returns also increase.

Social Conditions

Historically, the agriculture sector has been a reliable source of jobs; however, increasing pressure from hunters and other recreationists have become a vital force in the communities. In particular, the livestock industry has traditionally played an integral role in the local community with the ranching lifestyle continuing to intrigue many land users. However, the robust growth recently exhibited in the non-agriculture sector has come to cloud the overall importance of ranching. Increased tourism may lead to stimulated economic growth, especially in the services and trade sectors. Local residents may find adjusting to this new lifestyle generated by these recently accelerated activities challenging, but essential for the survival of the community. By increasing related goods and services necessary for these activities, an evolution of the local economy may be expected. The livestock industry may continue to be an integral and stable component of the economy, however, it may be over-shadowed by the exploitation of the expanding wildlife and recreation resources in the area.

Though the number of agricultural jobs is in the minority in these three counties, its overall function in the local community is vital. By providing a base for related non-agriculture jobs, such as manufacturing, trade, and services; the agricultural sector has assured itself an influential and sustainable role in the local community. BLM has been an important component of the agricultural sector and is unlikely to change dramatically in the near future. By providing one of the most integral inputs, land, agriculture has been allowed to prosper in the past. However, due to growing pressure from public land users in the Wasatch Front and other areas of the country, long-term management policies may be altered.

The Uinta and Ouray and Umcompaghre Reservation

BLM does not contribute directly to the economy of the Ute Indian Tribe on the Reservation. However, due to communitization (spacing) agreements or unit agreements on large areas involving both federal and Indian minerals, the Tribe receives a payment based on the acreage covered by the agreement and current royalty rates. This same situation exists with individual Indian mineral owners, where their lease shares in the production from wells covered under a spacing or unit agreement. Currently there are three such spacing agreements involving both federal and Indian minerals; only one is currently in production. This active agreement has netted the Tribe approximately $1.2 million since 1973. It is

unknown how many and to what extent individual Indian mineral owners have benefitted from such agreements.

A second indirect benefit to the Tribe may come from their allowing access across tribal lands to activities on public lands. Highway and/or road travel associated with activities on or to public lands has aided in the development and maintenance of the Reservation's road network.

SOILS AND WATER

SOILS

The soils in DMRA developed in parent materials derived primarily from the sedimentary rock of the Uinta Mountains and the West Tavaputs Plateau forming the boundaries of the Uinta Basin, and the Uinta and Owiyukuts Mountains forming Browns Park.

From 1978-1987, the soils within the resource area south of the Green River were surveyed in a cooperative effort between the U.S. Soil Conservation Service (SCS) and the Bureau of Land Management. These inventories were incorporated into the draft Uinta and Duchesne Counties' soils survey documents, prepared by the SCS. The Daggett County area, north of the Green River, was inventoried in 1985-87 as part of the Henry's Fork (Utah and Wyoming) soil survey. The soil inventories are still in a draft working form and will be published sometime between 1992 and 1995.

The resource area's soil resources are composed of a wide variety of soil types and characteristics. There are 330 different soil mapping units in DMRA. Units are characterized by depth, texture, slope, and climatic differences. A brief description of the major or significant soils follows. (For detailed information on soils occurring within the resource area, refer to the soil survey documents and Management Situation Analysis, located at the DMRA office).

- Desert Soils (Shadscale-salt shrubs, 130,000 acres). These soils are generally level to steep on alluvial fans, terraces, and pediment slopes. Most soils are shallow, some deep, well drained, gravelly, and very gravelly sandy loams, loams and clay loams, non-saline to slightly saline, and moderately alkaline to very strongly alkaline. The hazard of water erosion is mostly slight, largely due to surface rock fragments (desert pavement). Vegetation is predominantly shadscale and salt desert shrubs; elevation is 4,600 to 6,000 feet; annual precipitation is six to eight inches.

- Desert and Semi-Desert Soils (Black sage, 144,200 acres). These soils are mostly strong sloping to moderately steep on fans, terraces, shoulder slopes, and hill slopes. Most are shallow with some deep, well-drained gravelly sandy loams to shaley and cobbley clay loams, non-saline, and moderately to strongly alkaline. The hazard of water erosion i primarily slight and moderate. Black sage is the primary vegetation type; elevation is from 5,000 to 8,000 feet; precipitation averages 8 to 16 inches annually.

- Semi-Desert, Upland and Mountain Soils (Big sagebrush and browse, 264,250 acres). These soils are mostly deep and very deep, well-drained sandy loams, gravelly loams, and loams on pediment toe slopes, footslopes, and fan terraces; non-saline and moderately alkaline to neutral at higher elevations. The hazard of water erosion is mostly slight. Big sagebrush and browse are the main vegetation types; elevation ranges from 5,000 to 9,000 feet with annual precipitation from 8 to 20 inches.

- Semi-Desert and Upland Soils (Pinyon and juniper, 110,500 acres). These soils are mostly shallow, well-drained gravelly and cobbley loams and clay loams on pediment shoulders and backslopes; non-alkaline and moderately to strongly alkaline. The hazard of water erosion is from slight to very high. Pinyon and juniper are the primary vegetation types; elevation is from 6,000 to 8,000 feet and average annual precipitation is from 10 to 14 inches.

- Mountain and High Mountain Soils (Conifer forest, 25,300 acres). Soils are primarily deep and very deep, well-drained, cobbley and gravelly loams to loams on strongly sloping to very steep mountain and pediment back slopes. Also shallow and deep, well-drained, cobbley and stony sandy loams on gently sloping to steep mountain and pediment slopes (ponderosa pine). Soils are non-saline, slightly acid to mildly alkaline with slight to moderate hazard of water erosion. Conifer forest is the primary vegetation type, elevation is from 7,500 to 10,500 feet and average annual precipitation is 16 to 20 inches.

Soil types characterized as being highly erodible or highly saline are of management concern. Highly erodible soils are associated with one or more contributors to high erosion, such as steep slopes (greater than 40 percent),

sparse ground cover, associated with pinyon-juniper, sagebrush, desert shrub, and badlands vegetation types, slow permeability, and rapid runoff. Existing highly erodible soil areas of the resource area have been identified, refer to Map 3-23. These soils comprise approximately 12,827 public acres within the resource area and are mostly concentrated in the Nine Mile Canyon and Browns Park areas.

Highly saline soils (soil content between 8.1 to 16 mmhos/cm) can contribute salt into surface waters in periods of high sediment runoff. Highly saline soils are associated with sparse vegetation cover, rapid runoff and slow permeability. Heavy surface use on these soils reduces infiltration rates and increases sediment and salt-loading of the Green River drainage system. The total acreage of moderate and high saline soils in DMRA is about 62,165 public acres (9 percent). These areas, depicted on Map 3-24, are concentrated on the eastern half of Myton Bench and the lowest areas of Clay Basin and Ashley Valley (encompassing Vernal).

WATER

Surface Water

The Diamond Mountain Resource Area lies within the Green River sub-basin of the Upper Colorado River Hydrologic Region No. 14. This drainage system comprises several relatively straight ephemeral and perennial drainages. Important watersheds are: Ashley Creek, Brush Creek, Crouse Creek, Deep Creek, Diamond Gulch, Nine Mile Creek, Pariette Draw, Pot Creek, Red Creek, Sand Wash, Spring Creek and Willow Creek. Map 3-25 identifies these watersheds.

The following descriptions of BLM surface water resources focus on floodplain management, water availability, and water quality.

Floodplains

A base floodplain is an area expected to be inundated by floodwaters on the average of once in 100 years. As to be expected, these floodplains occur throughout DMRA, involving the major watersheds. Theoretically, every wash, regardless of size, has a floodplain associated with it. The task of delimiting each of these, much less managing them, would be impractical. However, those major drainages determined as critical flood potential areas include: Ashley Creek, Brush Creek, Diamond Gulch, Nine Mile Creek, Pariette Draw, and Red Creek.

The 100-year floodplain for major drainages within the DMRA is depicted on Map 3-26.

Water Quantity

There are portions of two municipal watersheds located within the resource area--Ashley Creek and Red Fleet. The Ashley Creek municipal watershed lies almost entirely within National Forest lands. However, 670 acres on BLM-administered lands contain Ashley Spring, the access point for the municipal water. BLM administers 18,660 public acres of the Red Fleet Watershed. Red Fleet Reservoir, occurring on BLM-administered lands, is the collection area for municipal purposes in Vernal and Jensen. Water from both watersheds passes through a water treatment plant and goes to the consumer meeting water quality standards required by the State of Utah. BLM cooperates with the Uintah Water Conservancy District concerning water quality of municipal watersheds. It is under a withdrawal to the Bureau of Reclamation. Map 3-27 shows the municipal watersheds.

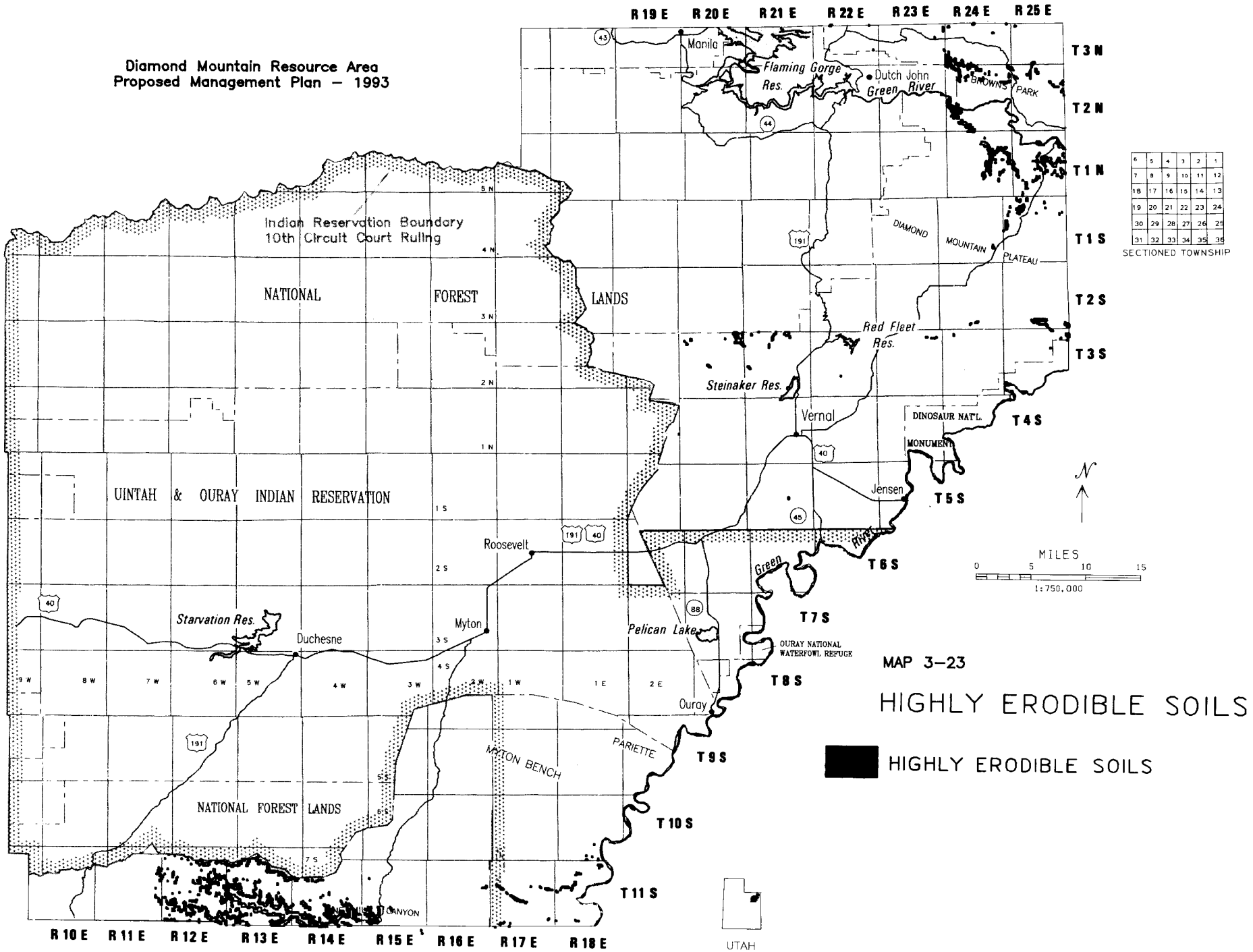
The resource area has 15 water-power site withdrawals affecting approximately 93,900 acres along the Green River. Management is unaware of any proposed large-scale impoundment projects on the Green River or major tributaries within its boundaries by state, private, or tribal water rights owners. However, the Uintah Water Conservancy District is currently completing a feasibility study for a 7,000 acre-foot reservoir, tentatively identified as the "Sadlier Reservoir", east of Vernal, which could affect public lands.

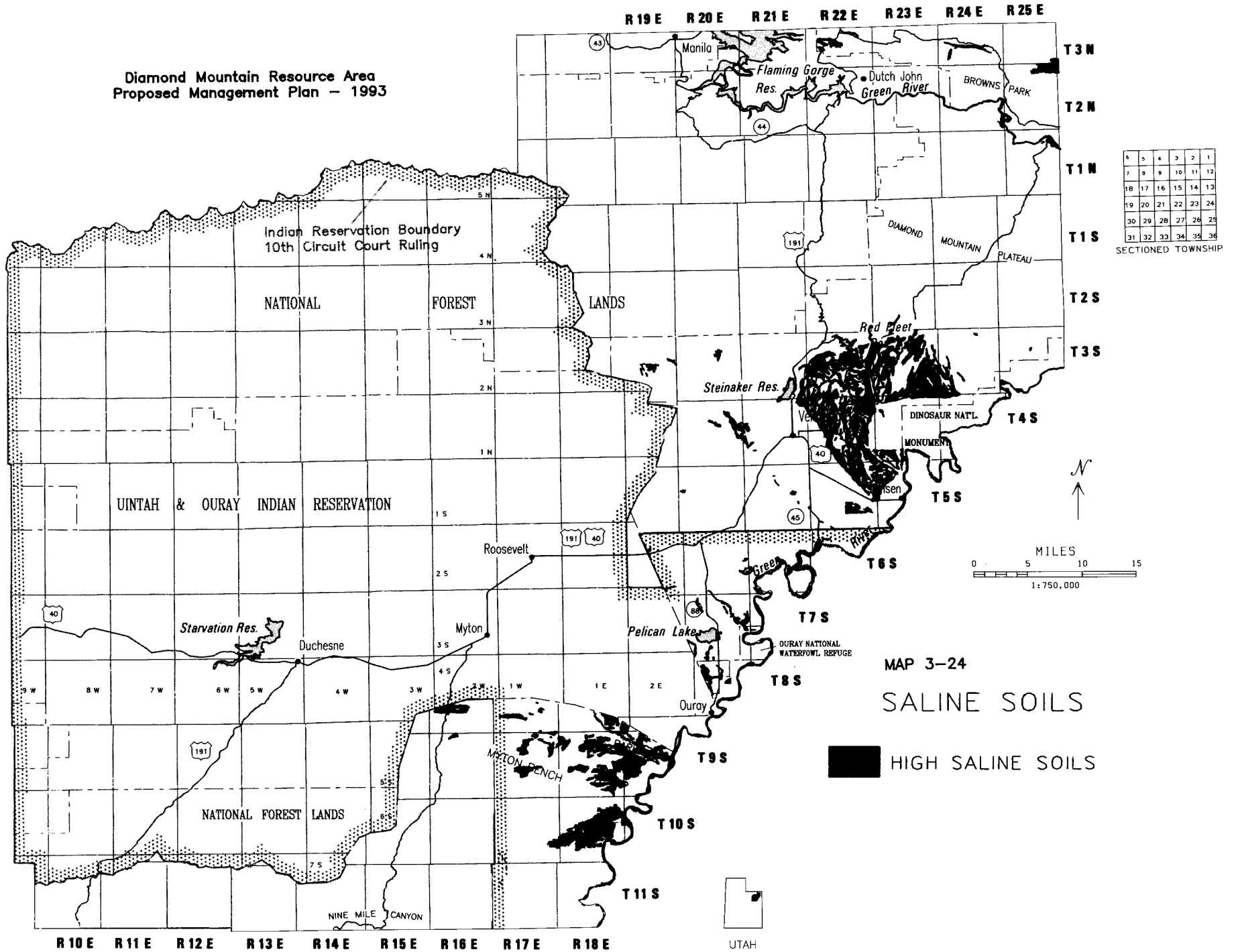
DMRA has many small springs, seeps, water developments. To date, the resource area has constructed 225 reservoirs, 19 water catchments, 85 developed springs and approximately 200 check dams. The most typical uses of water on public lands include wildlife and livestock watering, maintenance of fisheries and riparian habitat, and mineral development.

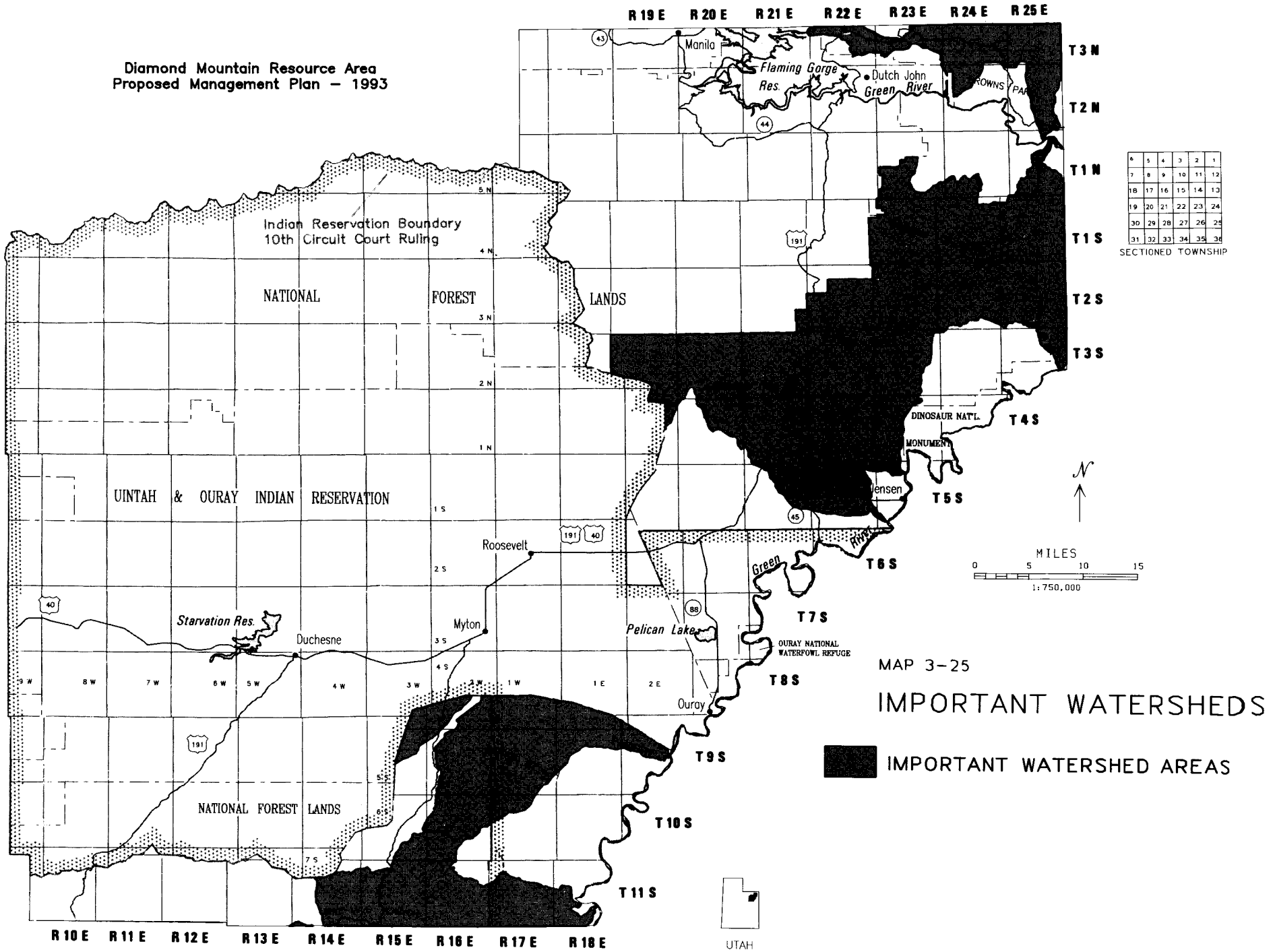
Water is allocated through water rights established by state law. All surface water available for irrigation and industry has been appropriated; however, water rights are still available for stock ponds less than 3 acre-foot capacity. Temporary water rights, usually used during oil and gas drilling operations and road construction, are still available (Ted Baldwin, Water Rights Specialist, Utah Division of Water Rights, personal communication, 1990).

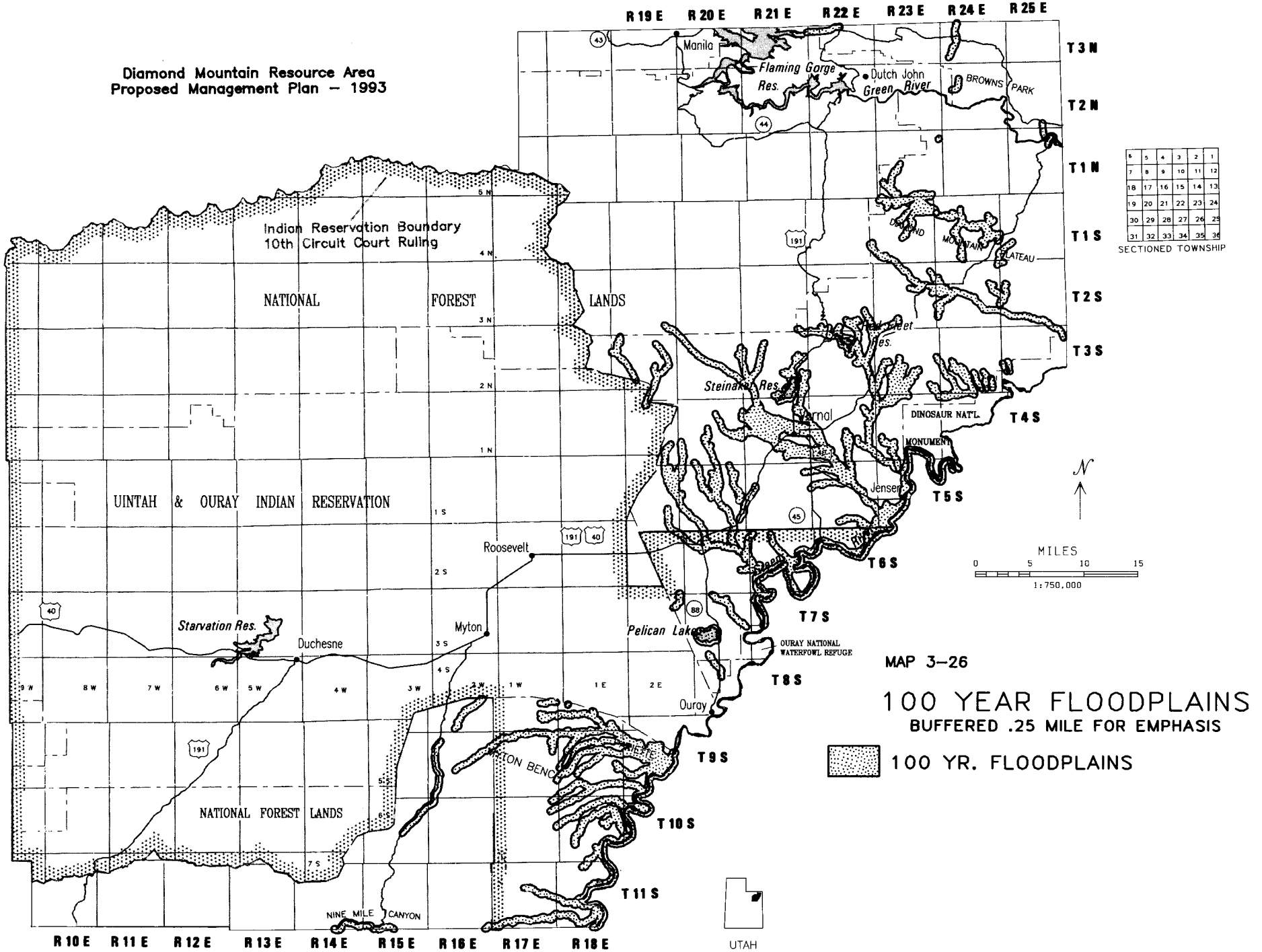
Presently there are no known projects to impound or divert large quantities of water affecting the Green River within the resource area.

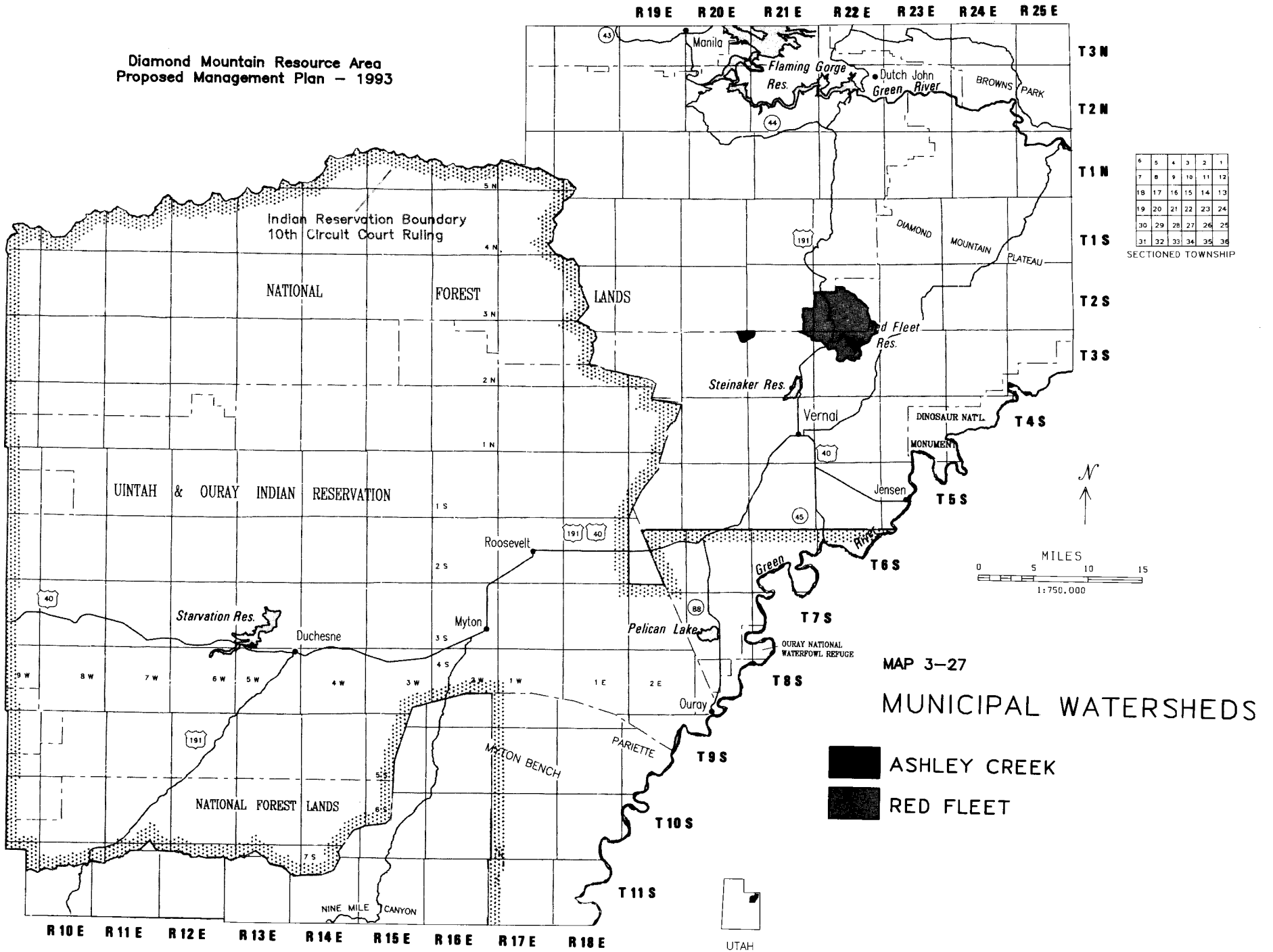
Conflicts for water are expected as municipal, industrial, and agricultural consumptive demands increase and compete with nonconsumptive instream flow requirements of important streams and the Green River. Pariette Wetlands is managed to provide crucial waterfowl habitat;


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NATIONAL FOREST LANDS
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–23
HIGHLY ERODIBLE SOILS
HIGHLY ERODIBLE SOILS


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet
Steinaker Res.
DINOSAUR NAT'L. MONUMENT
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
NATIONAL FOREST LANDS
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–24
SALINE SOILS
HIGH SALINE SOILS


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DINOSAUR NAT'L. MONUMENT
Jensen
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3-25
IMPORTANT WATERSHEDS
IMPORTANT WATERSHED AREAS


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
DIAMOND MOUNTAIN PLATEAU
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
NATIONAL FOREST LANDS
NINE MILE CANYON
UTAH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
MAP 3–26
100 YEAR FLOODPLAINS
BUFFERED .25 MILE FOR EMPHASIS
100 YR. FLOODPLAINS


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
BROWNS PARK
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MYTON BENCH
PARIETTE
NINE MILE CANYON
Green River
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
N
UTAH
MAP 3–27
MUNICIPAL WATERSHEDS
ASHLEY CREEK
RED FLEET

additional water rights are needed to secure the water necessary to maintain the habitat.

Water Quality

The sediment loading of the Green and Colorado Rivers is of national significance. The higher sediment-producingareas within the resource area may produce a high yield rate of .5 to 1.0 acre-foot of sediment per square mile per year (refer to Map 3-28). Salinity contributed by sediment from moderate and high saline soils in the resource area is estimated at 54,200 tons per year (refer to Map 3-24). The Bureau of Reclamation estimates that the cost of one ton of salt contributed to the Colorado River upstream, costs $157 of reclamation at Imperial Dam, California, or an estimated $8.5 million from this area alone (Reed Murray, Bureau of Reclamation, Provo, Utah, personal communication, 1990).

The presence of trace elements (i.e., selenium and boron) in the surface waters draining into the Green River is another major water quality concern. The Pariette Wetlands Complex receives irrigation drainage from the Pleasant Valley area near the Duchesne River drainage. These wetlands are located near the confluence of Pariette Wash and the Green River, and ultimately drain into the river. Waterfowl production at Pariette Wash dramatically increased after completion of the wetland complex in the early 1980's and has decreased from the mid-1980's to the present. Cause(s) for this decline are unknown, but are suspected to be related to contamination of the wetlands by trace elements, including selenium and boron, in irrigation drainage - a likely source of the water flowing down Pariette Wash (an otherwise dry wash in an extremely arid environment) and into the wetlands. Existing data are inadequate to determine if contaminants are a major cause for reduced waterfowl production at Pariette Wash. More detailed information is needed to make this assessment (USF&WS, 1988). The Pariette watershed was identified by the State Non-Point Source Task Force as a priority for NPS control. The wetland complex is responsible for reducing the median load of suspended sediment to the Green River from 7.2 to 2.1 tons a day.

Selenium levels have been found to exceed the state's water quality levels at and below the Ashley Valley sewage water storage facility near Vernal, managed by the Ashley Valley Sewage Management Board. Approximately one half of the storage reservoir (80 surface acres) is located on BLM-administered lands under an existing right-of-way grant.

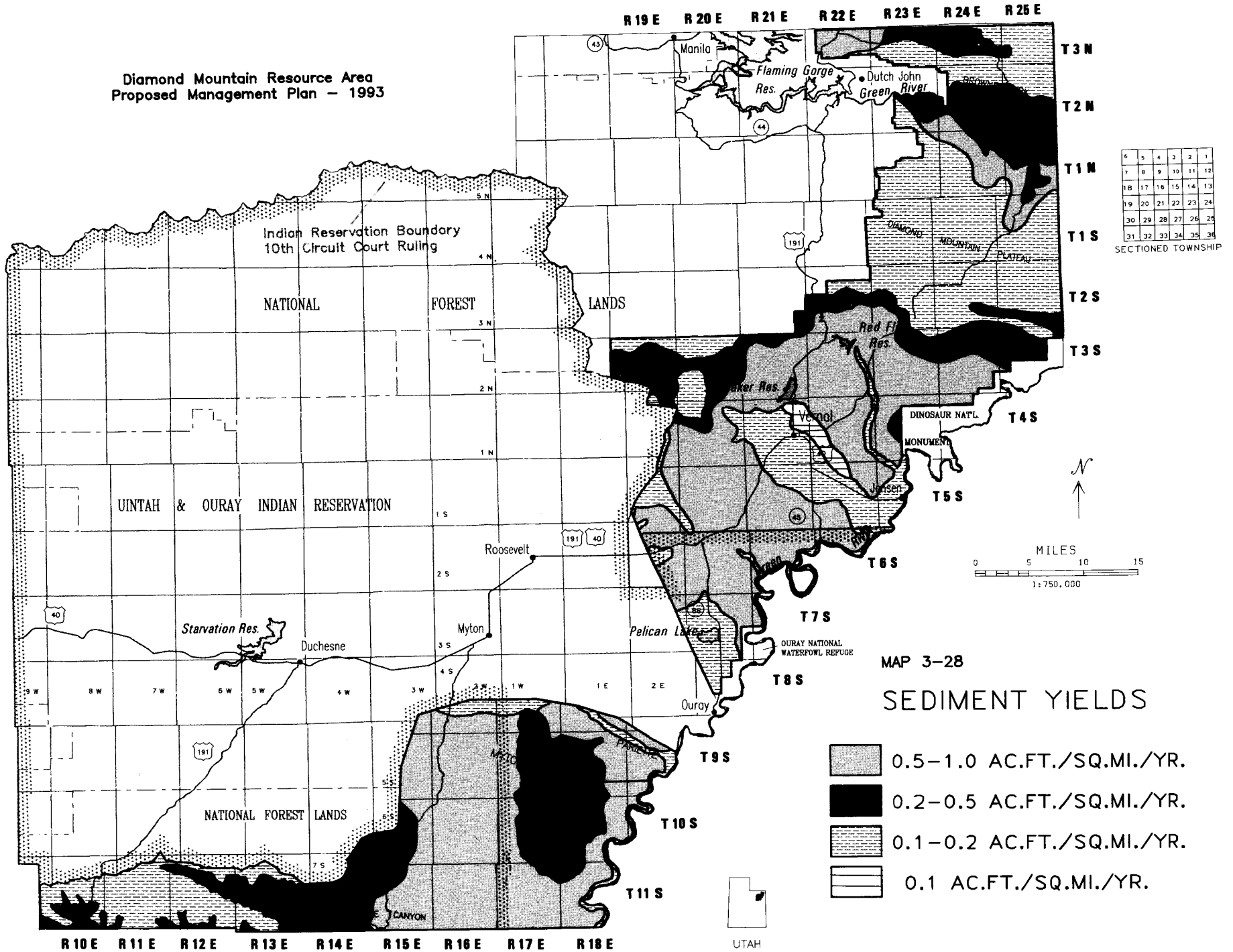
Groundwater

Groundwater in DMRA is used for municipal, agriculture, industrial (mining), and livestock-wildlife purposes. The quality of recoverable fresh and slightly saline groundwater in transient storage in the northern Uinta Basin is estimated at 28 million acre-feet (Hood and Fields, 1978). Estimates are that unconsolidated rocks (alluvium), contain 190,000 acre-feet of recoverable groundwater (Price and Miller, 1975).

The quality of groundwater from the consolidated rock aquifers decreases with an increase in distance from the recharge area. This basinward decrease in water quality is also associated with the change in chemical type (Holmes, 1985). A zone of saline water extends from the Wasatch County line (on the west of the basin) to the Colorado line and approximately 9 miles northeast of Bluebell, Utah (west of Roosevelt). The saline zone may be shallower than 1,000 feet; however in the east-central portion of this zone, saline water may extend to much greater depths.

Groundwater aquifers defined as occurring within DMRA include both consolidated and unconsolidated rock formations. Although the consolidated Mississippian Age carbonates are not considered to be a reliable source of water (Hood, 1976), they are an important part of the groundwater recharge system in the Uinta Basin. Occurring in areas of high precipitation, cavernous zones of limestone may take in large amounts of water. This water may then be transmitted rapidly downdip or to adjacent discharge points. Of particular importance is the large cavern systems, sinks, and karst development found in the Dry Fork-Brush Creek area (Maxwell, et al., 1971; Hood, 1976; Godfrey, 1985). This system is important in transporting fresh water from the recharge area rapidly downdip or to nearby seeps and springs comprising the Vernal municipal water supply.

Sources of contamination to groundwater resources in DMRA include: agricultural sources, hazardous waste sources, mining activity sources, oil and gas exploration-production sources, and naturally occurring substances. In the Uinta Basin in 1989, about 7.3 million barrels of water were produced from oil and gas exploration and development activities. Produced water from oil and gas wells is disposed by reinjection or removal to nonfederal disposal pits. Produced water disposal methods on BLM lands are described in Appendix 4, "Oil and Gas Operations". BLM works with the State of Utah and the Environmental Protection Agency to identify such sources of contamination.


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DIAMOND MOUNTAIN PLATEAU
Red Fl
Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–28
SEDIMENT YIELDS
0.5–1.0 AC.FT./SQ.MI./YR.
0.2–0.5 AC.FT./SQ.MI./YR.
0.1–0.2 AC.FT./SQ.MI./YR.
0.1 AC.FT./SQ.MI./YR.

SPECIAL EMPHASIS AREAS

Existing special emphasis management areas within the Diamond Mountain Resource Area fall into the following categories: suitable river segments previously identified as suitable for designation into the National Wild and Scenic River System (NWSRS); Wilderness Study Areas; and Areas of Critical Environmental Concern and other special emphasis areas.

WILD AND SCENIC RIVERS

Currently, there are no designated Wild and Scenic Rivers within the resource area.

The upper Green River flows between Flaming Gorge Dam and the Utah-Colorado state line, a distance of approximately 30 miles. In 1980, an interagency team analyzed the upper Green River and recommended it suitable for designation as a scenic river under the criteria established by the Wild and Scenic River Act (National Park Service, 1980). No further action has been taken by the Secretary of Interior on this recommendation.

The middle and lower Green River segments flow between the southern boundary of the Dinosaur National Monument near Jensen, Utah, down to the southern boundary of the resource area at the Uintah-Carbon county line, a distance of approximately 102 miles. These segments have been determined eligible for designation into the NWSRS. A preliminary analysis suggests the middle Green River segment between Dinosaur National Monument and the public land boundary north of Ouray, Utah, meets the criteria for a recreational river, and the lower Green River segment between the public land boundary south of Ouray and the Carbon County line, a scenic river.

All three of these river segments are currently being managed to protect the identified outstandingly and/or remarkable values for waters eligible for further study as a wild and scenic river. In addition, two segments of Nine Mile Creek and one segment of Argyle Creek has been determined eligible for designation (refer to Map 3-29).

Argyle Creek and the upper segment of Nine Mile Creek have been assigned preliminary classification as Recreational Rivers, while the lower Nine Mile segment received a Scenic preliminary classification.

The above river segments are being managed to protect the outstandingly remarkable values that make them eligible for designation. Refer to Appendix 7 which explains the eligibility determination process and summarizes the eligibility determinations make for the Diamond Mountain Resource Area.

All eligible river segments are further analyzed in this document to determine if they are suitable for designation into the NWSRS. A summary of the suitability assessment is included in Appendix 7.

- Diamond Breaks WSA (3,940 federal acres within Utah) will be recommended as suitable for wilderness designation.
- West Cold Spring WSA (3,300 federal acres within Utah) will be recommended as nonsuitable for wilderness designation.

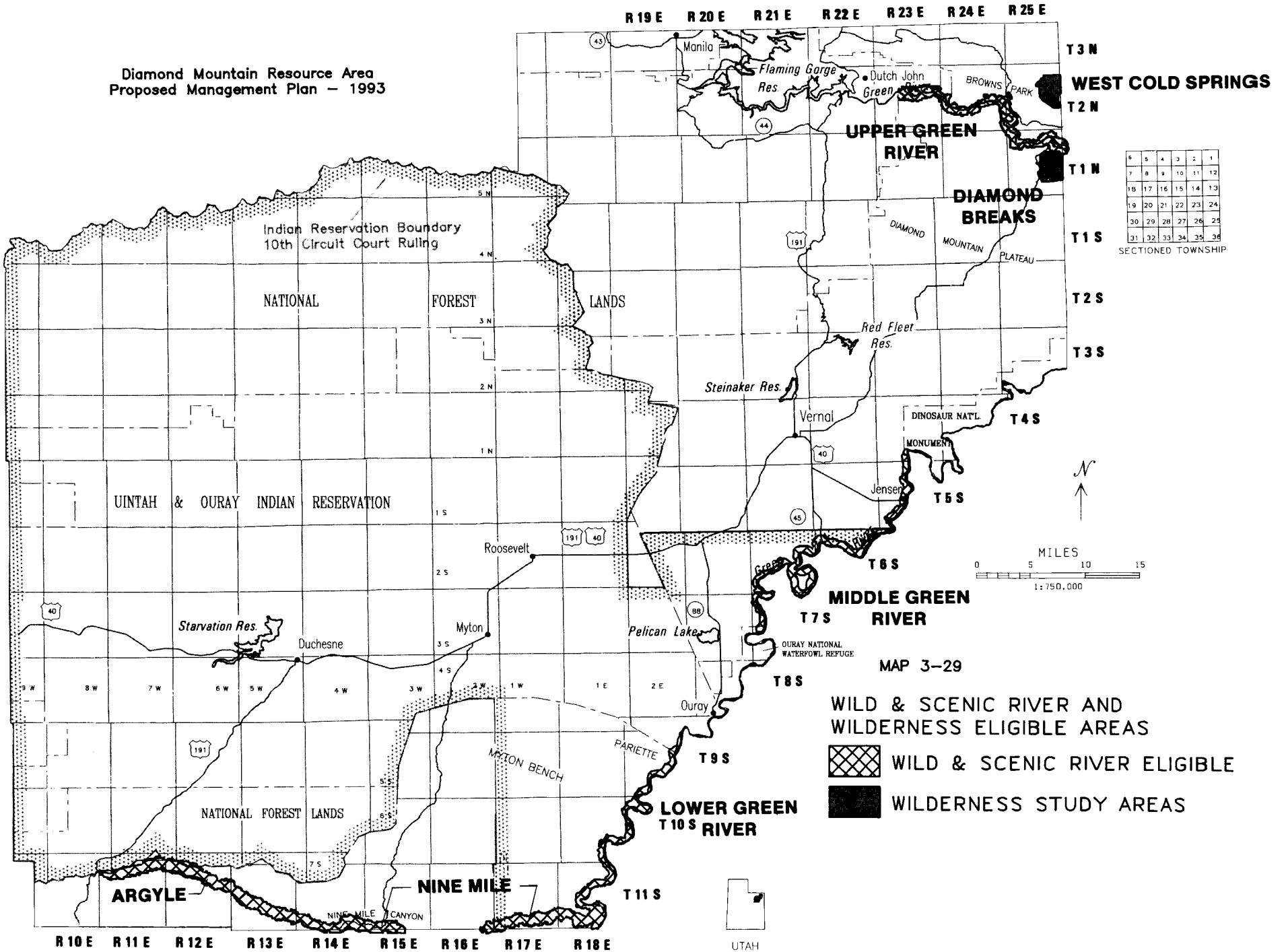
Both areas are being managed under the Interim Management Guidelines for WSAs until a final designation is made by Congress.

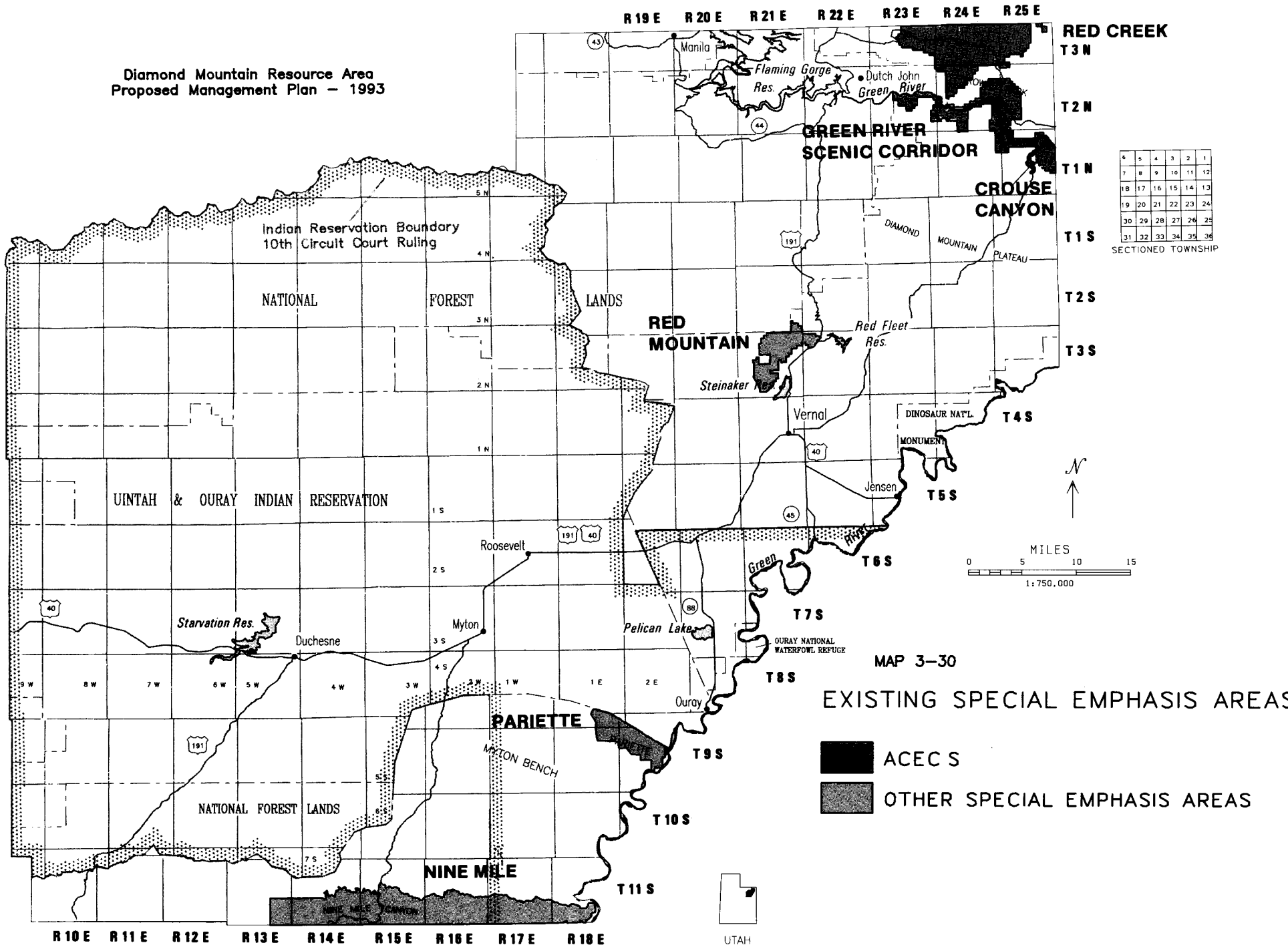
AREAS OF CRITICAL ENVIRONMENTAL CONCERN

DMRA presently has two designated Areas of Critical Environmental Concern (ACECs)--the Green River Scenic Corridor and Red Creek Watershed. These areas were established in the Browns Park Management Framework Plan and designated as ACECs by *Federal Register* notice dated March 7, 1984. Another area, Red Mountain, was evaluated and determined in the Ashley-Duchesne Management Framework Plan to meet the criteria required for ACEC designation; however, it was not designated. Other areas were identified in the existing planning documents for special management consideration. None of these areas were designated as ACECs; however, special management considerations were made for these areas (refer to Map 3-30).

Green River Scenic Corridor

This ACEC contains approximately 19,400 federal acres. The boundary is defined as within line-of-sight or 2 miles from the river bank, whichever is closer (BLM, 1984a). It was designated to support the BLM recommendation to designate the Green River in Browns Park as a scenic river in the Wild and Scenic River System, giving primary management emphasis to scenic, historic, archeological, biological, and scientific values of the area.


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green
BROWNS PARK
WEST COLD SPRINGS
UPPER GREEN RIVER
DIAMOND BREAKS
DIAMOND MOUNTAIN PLATEAU
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MIDDLE GREEN RIVER
PARIETTE
MYTON BENCH
NATIONAL FOREST LANDS
LOWER GREEN RIVER
ARGYLE
NINE MILE
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–29
WILD & SCENIC RIVER AND WILDERNESS ELIGIBLE AREAS
WILD & SCENIC RIVER ELIGIBLE
WILDERNESS STUDY AREAS


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
RED CREEK
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
GREEN RIVER SCENIC CORRIDOR
CROUSE CANYON
DIAMOND MOUNTAIN PLATEAU
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
RED MOUNTAIN
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L. MONUMENT
Jensen
UINTAH & OURAY INDIAN RESERVATION
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
PARIETTE
MYTON BENCH
NATIONAL FOREST LANDS
NINE MILE
NINE MILE CANYON
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3–30
EXISTING SPECIAL EMPHASIS AREAS
ACEC S
OTHER SPECIAL EMPHASIS AREAS

Red Creek Watershed

This ACEC contains approximately 24,400 federal acres in Utah. It is a topographic extension of the Wyoming Red Creek Watershed ACEC, which contains the headwaters and majority of the watershed. This watershed's naturally fragile soil structure and susceptibility to erosion declared a need for special management emphasis.

WILDERNESS STUDY AREAS

The resource area contains 2 Wilderness Study Areas (WSAs): West Cold Spring and Diamond Breaks (refer to Map 3-29). These areas are natural topographic extensions from WSAs of the same name in Colorado. They were inventoried in 1980 by the Little Snake Resource Area (LSRA), Craig District, Colorado. Decisions regarding these WSAs were made by LSRA in their Resource Management Plan and Record of Decision (BLM, 1989b).

OTHER SPECIAL EMPHASIS AREAS

Crouse Canyon

This 600-acre canyon on Diamond Mountain was identified as having potential as an "Outstanding Natural Area" due to its high quality scenic characteristics and riparian values. The Browns Park Management Framework Plan (BLM, 1981) protected the canyon from "adverse uses" until a study could determine the suitability of the canyon for ONA designation.

Nine Mile Canyon

The 1984 Ashley-Duchesne MFP made several decisions concerning the management of Nine Mile Canyon. These decisions recognized the regional, if not national, importance of the cultural resource values contained within approximately 48,000 acres of the canyon. Management of the canyon was designed to protect cultural resources by avoiding placement of new roads, rights-of-way, energy-related development, or land exchange actions.

Pariette Wetlands

The 1984 Ashley-Duchesne MFP provided management direction for the 9,000-acre wetlands area. Mineral exploration and development and livestock grazing were restricted to protect the floodplain and enhance waterfowl and special status species habitats.

Red Mountain

This nomination contained approximately 8,500 acres. This area was evaluated and found to exhibit a "...unique combination of geologic, vegetation, wildlife, and prehistoric cultural values" worthy of special management (BLM, 1984a). The final MFP decision regarding this nomination did not designate an ACEC; however, the decision directed the area be managed to provide protection and enhancement of Red Mountain's identified special features.

VEGETATION

THE ROLE OF FIRE

One of the most significant factors in the present distribution and condition of vegetation communities within the resource area is the use and management of fire. Since the early 1900s, fire has been suppressed to protect natural resources and public safety. During the period 1980-1990, the resource area annually averaged 13 wildfires with an average size of 76 acres, due primarily to aggressive suppression strategies. Full suppression practices have led to pinyon-juniper woodland expansion into areas of historical brush and grassland, and sagebrush deterioration in areas throughout the resource area. This situation, in certain areas, has contributed to the degradation of watershed resources and lessened the size and value of crucial wildlife habitat (Wright et al., 1979).

PRESENT VEGETATION ZONES

Patterned after the work of Cronquist et al., (1972), DMRA is floristically categorized into four broad vegetation zones: shadscale, sagebrush, pinyon-juniper woodlands, and conifer forest (refer to Map 3-31). Further gradations within these ecological zones, or major vegetation communities, are quite common, making absolute delineations of specific zones impossible. Table 3-20 provides a summary of these zones and their federal acreages (refer to the riparian section discussed previously for a discussion of the vegetation associated with riparian ecosystems).

Shadscale Zone

This zone, characterized by numerous saltbush species typical of a cold desert environment, receives less than 8 inches of precipitation annually. The elevation range for this zone extends from 4,800 feet to approximately 6,000 feet, and includes highly saline soils. This zone is significant as it provides important winter and early spring

habitat for antelope. It demands management of watershed and water quality values due to the lack of vegetation cover and overall poor soil development. Historically this zone has provided significant winter and spring forage for domestic sheep and cattle. The Myton Bench oil and gas development region lies mostly within this zone.

TABLE 3-20:
VEGETATION ZONES WITHIN DMRA

VEGETATION ZONE: MAJOR COMMUNITY	FEDERAL ACRES	PERCENT OF RESOURCE AREA
Shadscale	130,000	18
Sagebrush:		
Black Sage	144,200	20
Wyoming Sage	160,750	23
Mountain Sage	103,500	14
Pinyon-Juniper Woodlands	110,500	16
Conifer Forest	25,300	4
Riparian	15,650	2
Badlands/Rock Outcrop	9,100	3
Total	709,000	100

Source: DMRA files

The potential for success of any vegetation treatment, including revegetation following surface disturbance, is marginal for this zone. The limiting factors are poor soil development and a harsh, desert climatic regime. Small, scattered inclusions of deep and well developed soils afford a site-specific opportunity for vegetation improvement or rehabilitation success.

Sagebrush Zone

This zone comprises the largest vegetation component of the resource area, and includes the following communities: black sagebrush, Wyoming big sagebrush, and mountain big sagebrush-mountain browse. This zone extends from desert to mountain climatic regimes, and falls within a precipitation zone averaging 8 to 20 inches of annual precipitation. This zone ranges in elevation from 5,000 to 10,000 feet.

This zone, due to its ecological makeup and extensive size within the resource area, is significant for several reasons. It provides important and crucial habitat for antelope, deer, elk, sage grouse, and numerous small game and nongame species. It provides the majority of the allocated livestock forage. It also affords good opportunities for success with vegetation treatments, principally within the Wyoming and mountain sagebrush-browse communities.

Pinyon-Juniper Woodland Zone

Pinyon-juniper woodlands outline a vegetation band following the general elevation of 6,000-8,000 feet.

Understories within this zone range from nearly bare ground to black sagebrush or mountain sagebrush-browse communities. In the Nine Mile Canyon area, an association has formed with the Conifer Forest Zone, where pinyon and juniper fill in the understory components.

This zone provides a broad range of important resource management challenges. On woodland sites lacking an adequate understory, potential soil erosion hazards are a major concern. Sites having a more open vegetation pattern, allowing for sagebrush openings and other understory development, provide important habitat for big game species and livestock. Archeological artifacts occur more frequently in or at the edges of this zone than any other (West, 1989). This zone also provides a historic source of firewood and fence post materials for the residents of the area.

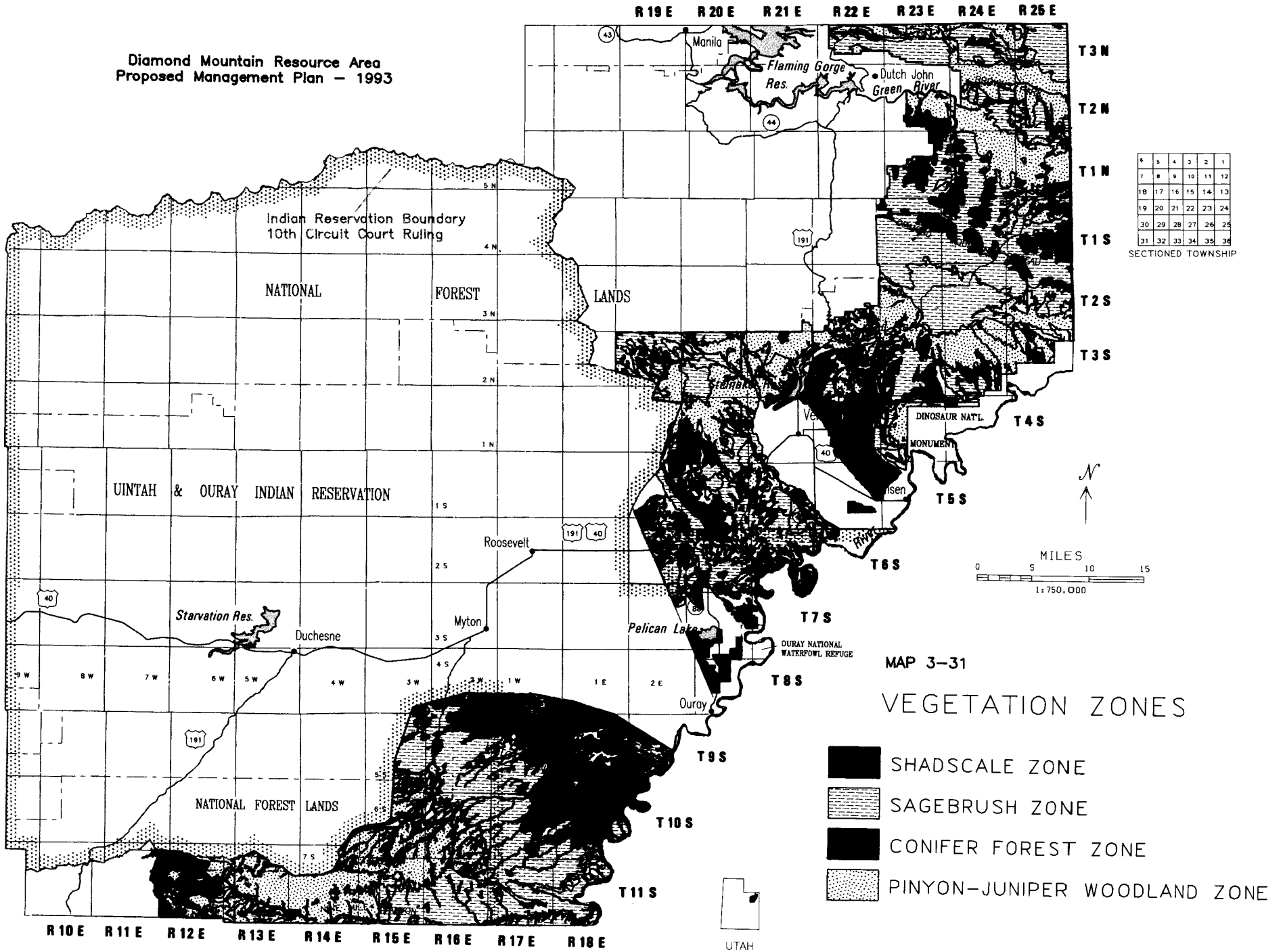
The potential for vegetation treatment success within this zone depends primarily on the microenvironment associated with a specific project area. Irregular-sized prescribed burns, averaging approximately 150 acres per year per project, have increased vegetation diversity and productivity and improved overall community vigor.

Conifer Forest Zone

This zone includes the vegetation communities occurring at 7,500 -10,500 feet, the highest elevations within the resource area. It is restricted to generally steep slopes, cooler temperatures and the moister microclimates. The zone is scattered on favorable sites within the Three Corners Mountains, Diamond Mountain, and West Tavaputs Plateau in the Nine Mile Canyon area.

Aspen, ponderosa (western yellow) pine, Douglas fir-subalpine fir and fir-spruce communities are included in this zone. Generally these communities do not occur in sufficient abundance to be commercially valuable. They do provide a vital watershed service by functioning as natural snow fences and slowing spring snowmelt to an even, less damaging flow (West, 1989).

Elk and deer use these communities for shade and cover during the summer. The more open ponderosa "parks" contain an understory providing a variety of forage and cover for these big game species, as well as a variety of small game and nongame species. Domestic cattle also use these communities for summer shade and grazing.


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
DINOSAUR NAT'L MONUMENT
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3-31
VEGETATION ZONES
SHADSCALE ZONE
SAGEBRUSH ZONE
CONIFER FOREST ZONE
PINYON-JUNIPER WOODLAND ZONE

However, the steep slopes, associated especially with the mixed conifer community in the Nine Mile Canyon area, restrict cattle movement to the narrow drainage floors. The small, scattered locations of this zone, coupled with poor soil development, are the main constraints to any vegetation treatment.

Badlands

Filling in the gaps in this vegetation picture are scattered inclusions known as "badlands" and outcrops of bedrock. These areas are not completely devoid of vegetation; however, they are mostly considered unproductive. Typical areas include the very steep slopes of the Badland Cliffs between Gate Canyon and the Green River. These areas are not considered suitable for vegetation treatment.

SPECIAL VEGETATION PROGRAMS

Undesired Plant Species

Within these broad vegetation zones, specific circumstances combine to create conditions favorable for either undesired plant species or special status plant species.

Usually, areas dominated by undesired plant species are directly associated with surface-disturbing activities, where vegetation has been totally or significantly removed, or areas where the seed source is so prevalent as to out-compete the existing vegetation. An example of this latter situation is the pervasive presence of whitetop along the Green River. In certain areas, this situation has prevented the riparian species vegetation community from reaching its desired native composition. The resource area has identified approximately 850 public acres as needing treatment (BLM, 1988a). Table 3-21 provides a list of undesired plant species within the resource area.

Native poisonous plants are common throughout the rangelands of the resource area generally in insufficient concentrations to pose a significant threat to humans or livestock. An exception is halogeton, a poisonous introduced species generally not treated due to the nearly unlimited seed source.

Special Status Plant Species

As of July 1990, DMRA has 14 federal special status plant species. There are no plant species listed by the State of Utah as threatened, endangered, or sensitive within the resource area. These species can be considered rare from a population perspective (low total numbers) and/or habitat perspective (extremely restricted habitat). Table 3-22 provides a summary of these species and their current status. There is one existing recovery plan; for the federally threatened *Sclerocactus glaucus* (USF&WS, 1990c).

TABLE 3-21:
UNDESIRABLE PLANT SPECIES
OCCURRING WITHIN DMRA

COMMON NAME	SCIENTIFIC NAME	COMMENTS
Tall or giant whitetop	Lepidium latifolium	State noxious
Whitetop	Cardaria draba	State noxious
Black henbane	Hyoscyamus niger	State noxious
Silverleaf nightshade	Solanum elaeagnifolium	State noxious
Quackgrass	Agropyron repens	State noxious
Field bindweed or morning glory	Convolvulus arvenses	State noxious
Leafy spurge	Euphorbia esula	State noxious
Russian knapweed	Centaurea repens	State noxious
Spotted knapweed	C. maculosa	State noxious
Squarrose knapweed	C. squarrosa	State noxious
Diffuse knapweed	C. diffusa	State noxious
Yellow star thistle	Centaurea solstitialis	State noxious
Musk thistle	Carduus nutans	State noxious
Scotch thistle	Onopordium acanthium	State noxious
Russian Olive	Elaeagnus angustifolia	Uintah/Duchesne County noxious
Bullthistle	Cirsium vulgare	Non-palatable
Toadflax	Linaria spp.	Non-palatable
Buffalo-burr	Solanum rostratum	Non-palatable
Common cockleburr	Xanthium strumarium	Non-palatable
Common crupina	Crupina vulgaris	Non-palatable
Poverty weed	Iva axillaris	Non-palatable
Whorled or poison milkweed	Asclepias subverticillata	Poisonous
Low larkspur	Delphinium nuttallianum	Poisonous

Source: BLM, 1988a

ECOLOGICAL CONDITION

Ecological conditions for the vegetation resource have been categorized into four broad ecological stages (seral stages), relating current vegetation compositions to a standardized ecological site description of the climax community's composition. For example, if less than 25 percent of the theorized climax community was present, then an ecological rating of "early seral" was assigned; if

between 26-50 percent, then a "mid-seral" stage was assigned, etc. Public lands not falling into one of these ecological stages (e.g., badlands), or where inventory data is lacking, were included in the "undetermined" category. Table 3-23 provides a summary of the present ecological condition for the vegetation resource on public lands within the resource area. (Refer to Appendix 8 for a breakdown of ecological condition by grazing allotment).

TABLE 3-22:
SPECIAL STATUS PLANT SPECIES OCCURRING OR HAVING POTENTIAL WITHIN DMRA

COMMON NAME	SCIENTIFIC NAME	STATUS	ACRE-AGE
Park Rock Cress	Arabis vivariensis	C2	Unk.
Horseshoe Bend milkvetch	Astragalus equisolensis	C1	13
Hamilton milkvetch	A. hamiltonii	C2	200
Owenbey's thistle	Cirsium owenbeyi	C2	90
Unterman's fleabane	Erigeron untermannii	C2	20
Barneby's pepper cress or ridge cress	Lepidium barnebyanum	E[4]	Unk.
Flowers penstemon	Penstemon flowersii	C2	Unk.
Gibbens beardtongue	P. gibbensi	C2	Unk.
Goodrich's beardtongue	P. goodrichii	C2	Unk.
Graham's beardtongue	P. grahamii	C1	Unk.
Clay reed-mustard	Schoencrambe argillacea	T[5]	Unk.
Toadflax cress	S. suffrutescens	E[1]	1,120
Uinta Basin hookless cactus	Sclerocactus glaucus	T[3]	45,950
Ute ladies' tresses	Spiranthes diluvialus	T[2]	20

E=Endangered; T=Threatened; 1C, 2C,=Special status category. See glossary for definition of these terms and their significance.

1/ 52 FR 37420; dated October 6, 1987
2/ 57 FR 1403; dated January 14, 1992
3/ 44 FR 58870; dated October 11, 1979
4/ 55 FR 39860; dated September 28, 1990
5/ 57 FR 2053; dated January 17, 1992

VISUAL RESOURCE MANAGEMENT

Classifying visual resources requires three determinations: scenic quality, visual sensitivity, and distance from an identified observation point. VRM classes are the result of combining these identified values into four visual categories usable as the basis for visual input into management decisions. Table 3-24 and Map 3-32 summarize and depict VRM information for the resource area.

TABLE 3-23:
ESTIMATED ECOLOGICAL CONDITION BY VEGETATION ZONE AND COMMUNITY

ZONE/ COMMUNITY	SERAL STAGE (% FEDERAL SURFACE ACRES)				PER-CENT UNDE-TER-MINED
	EARLY	MID	LATE	CLIMAX	
Shadscale Zone	7	71	20	0	2
Sagebrush Zone:					
Black Sagebrush	4	67	28	0	1
W. Big sagebrush	5	69	23	1	2
M. Big sagebrush	3	49	43	2	3
Pinyon-Juniper Zone	6	68	20	1	5
Montane Zone:					
Aspen	0	65	35	0	0
Mixed Conifer	1	56	37	4	2
Wetlands/Riparian	25	54	21	0	0
Badlands	1	18	2	0	79

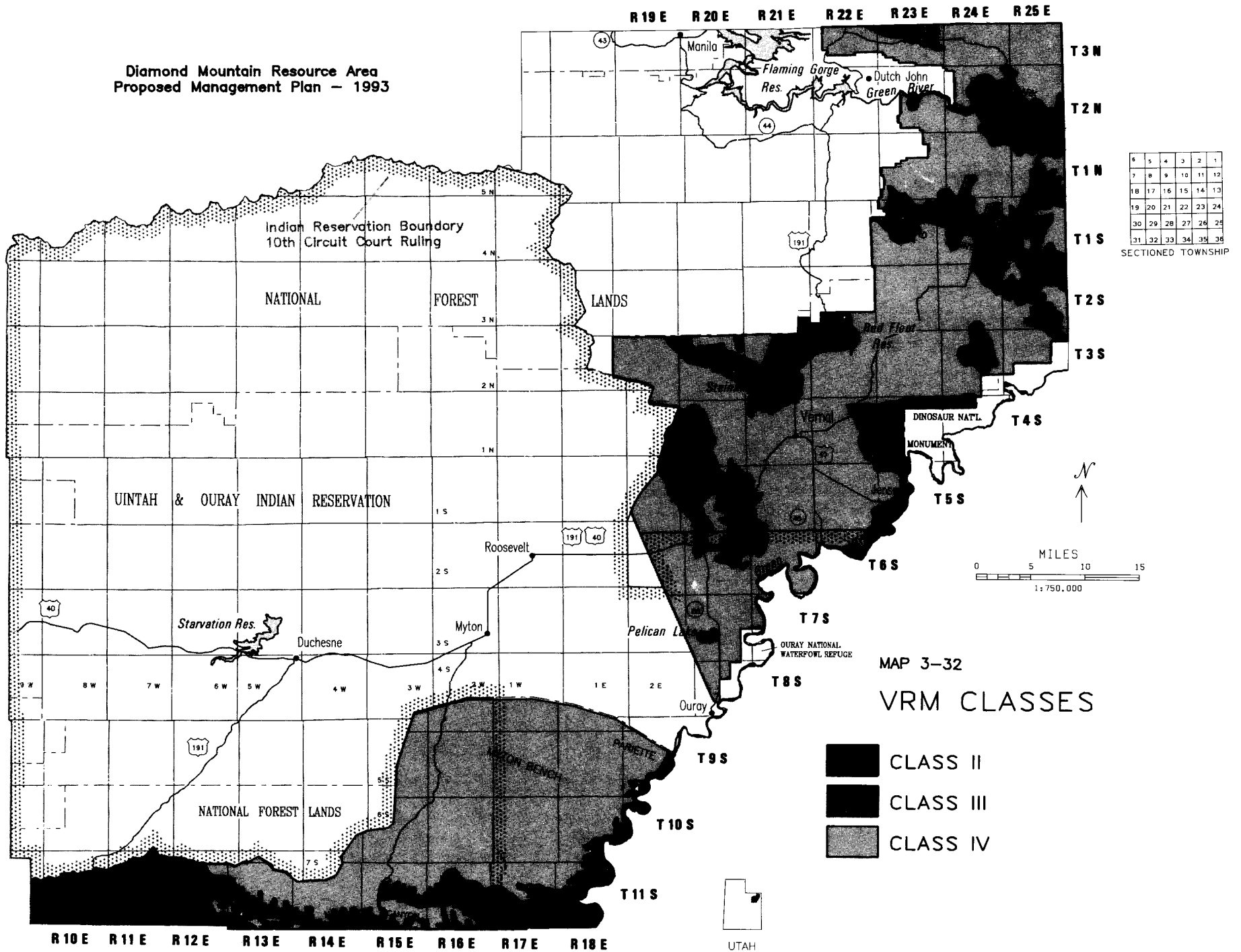
Source: DMRA files

The objective of VRM Class I is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II's objective is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The objective of Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Class IV's objective is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the


Diamond Mountain Resource Area
Proposed Management Plan — 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Manila
Flaming Gorge Res.
Dutch John
Green River
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Bad Floor Res.
Vernal
DINOSAUR NAT'L MONUMENT
Roosevelt
Starvation Res.
Duchesne
Myton
Pelican La
OURAY NATIONAL WATERFOWL REFUGE
Ouray
MAP 3-32
VRM CLASSES
CLASS II
CLASS III
CLASS IV
MILES
0 5 10 15
1:750,000
SECTIONED TOWNSHIP
UTAH

major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

WOODLANDS

Forest products within DMRA consist primarily of pinyon and juniper woodland species. Some areas on Diamond Mountain and in the drainages into Argyle and Nine Mile Canyons support other forest species such as Douglas fir, ponderosa (western yellow) pine, and aspen (refer to Map 3-33). Cottonwood is relegated to the area's perennial streams and the Green River.

Pinyon and juniper species cover approximately 183,000 public acres (this figure differs from that presented in Table 3-24 because of the large amount of scattered pinyon and juniper trees which are harvestable, but are not included in the pinyon-juniper vegetation zone). They exist in sufficient concentrations (>350 cubic feet per acre) to be of significance to the woodland program. Of this total, 78,000 acres are of commercial value (>700 cu. ft./ac.) and capable of being managed on a sustained yield basis. This amounts to an average annual production of 8,500 cords of wood each year. However, the average allowable firewood cut would be substantially less than this amount because of restrictions placed on woodland sales by other resources. The remaining 105,000 acres are harvestable for woodland products such as fuelwood and fence posts. They are not productive enough to manage for sustained yield.

Harvesting could prevent their return to a woodland site. Other forest species cover 84,000 acres. None are of commercial value and should only be managed to protect the health and vigor of the species.

FUELWOOD

Historically, pinyon pine has been the preferred species for fuelwood. Recently, juniper has become more popular. Commercial fuelwood cutters will harvest both pinyon and juniper when growing in mixed stands. Most fuelwood has been harvested from chainings in the resource area. Over the last 25 years; however, most of the usable wood has been removed. Over the last five years, greenwood cutting has become popular. During the period 1985-89, 12,750 cords of fuelwood were sold.

FENCE POSTS

Trees suitable as fence posts are found on the more productive pinyon-juniper sites where soils are deep and well-drained. Locating them is difficult because of extraction over the last 60 years. Significant numbers of posts exist only in remote, often inaccessible areas.

Approximately 1,300 posts have been sold during the last half of the 1980s.

OTHER WOODLAND PRODUCTS

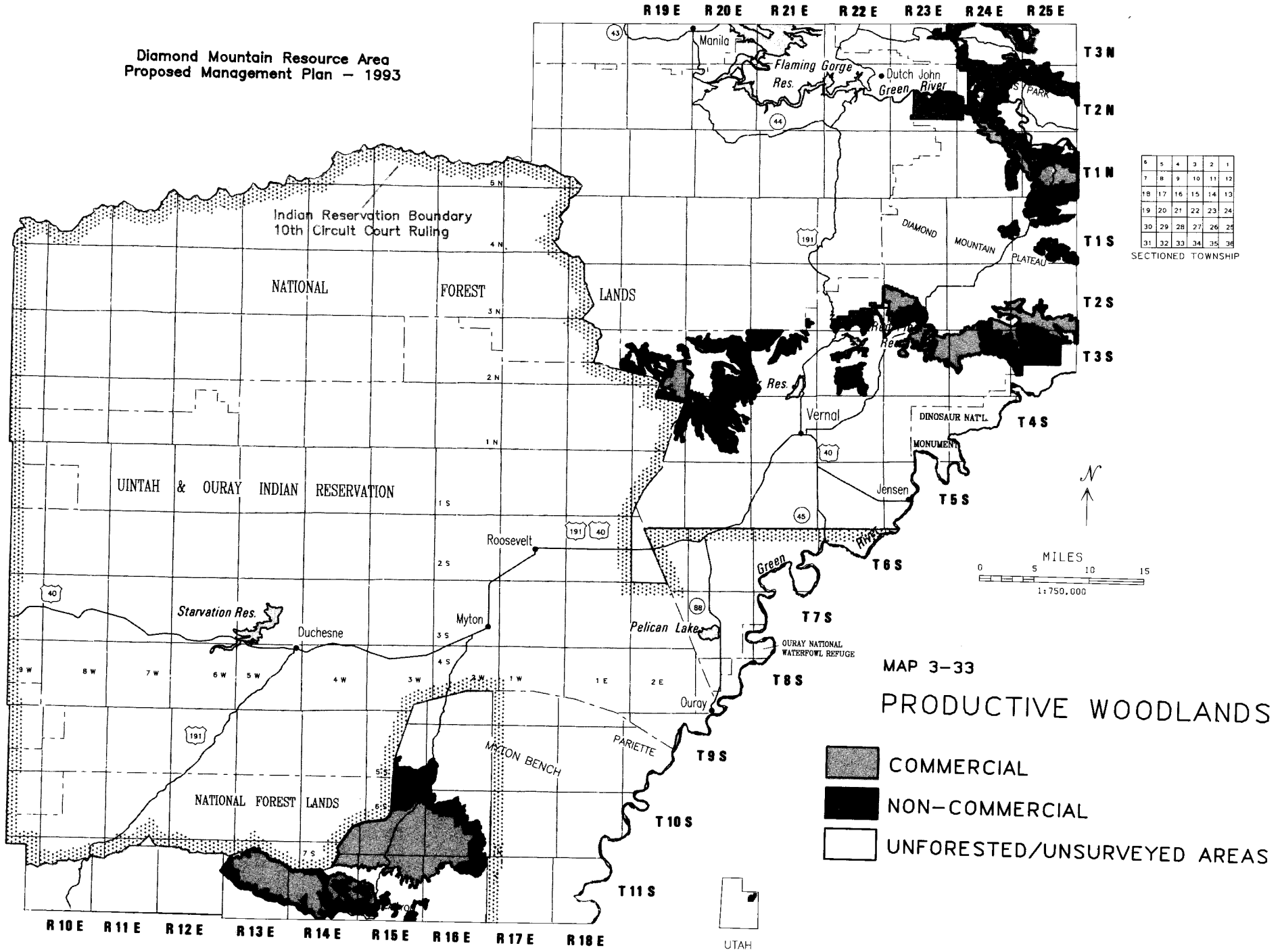
Good quality Christmas trees are rare within the resource area; however, in the past five years, 560 Christmas tree permits were sold.

There is a limited demand in the resource area for live cactus, shrubs, trees, and seeds. When the crop is sufficient, pinyon nuts are collected. Some grass or browse species seed are commercially harvested if a crop is particularly outstanding.

TABLE 3-24:
VISUAL RESOURCE MANAGEMENT CLASSES

CLASS	ACRES	% OF RESOURCE AREA
Class I	0	0
Class II	60,000	9
Class III	137,000	19
Class IV	512,000	72
Total	709,000	100

Source: DMRA files


Diamond Mountain Resource Area
Proposed Management Plan – 1993
R 19 E
R 20 E
R 21 E
R 22 E
R 23 E
R 24 E
R 25 E
T 3 N
T 2 N
T 1 N
T 1 S
T 2 S
T 3 S
T 4 S
T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S
R 10 E
R 11 E
R 12 E
R 13 E
R 14 E
R 15 E
R 16 E
R 17 E
R 18 E
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
NATIONAL FOREST LANDS
Manila
Flaming Gorge Res.
Dutch John
Green River
DIAMOND MOUNTAIN PLATEAU
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Roosevelt
Green River
Starvation Res.
Duchesne
Myton
Pelican Lake
OURAY NATIONAL WATERFOWL REFUGE
Ouray
PARIETTE
MYTON BENCH
SECTIONED TOWNSHIP
MILES
0 5 10 15
1:750,000
UTAH
MAP 3-33
PRODUCTIVE WOODLANDS
COMMERCIAL
NON-COMMERCIAL
UNFORESTED/UNSURVEYED AREAS

ENVIRONMENTAL CONSEQUENCES 4

This chapter analyzes the environmental impacts of the management decisions for the proposed plan and alternatives presented in Chapter 2. Since the alternatives describe overall management emphasis, and do not necessarily propose specific, on-the-ground-projects or actions, the environmental consequences of the decisions are often expressed in comparative, general terms. In most cases, subsequent analysis will be required to implement resource management decisions. More detailed or site-specific studies and appropriate environmental documents will be prepared in compliance with the National Environmental Policy Act and its implementing regulations as the need arises.

Impacts described include analysis of the direct, indirect, and cumulative impacts of the proposed plan and alternative actions. Only significant changes or impacts are discussed. If there is no discussion on a particular program or resource, it may be inferred there are no significant changes or impacts to that program or resource.

Cumulative impacts are described following the resource/program-specific direct and indirect impact discussions for the proposed plan and each alternative. Cumulative impacts are defined as additional and interactive combinations of activities that are not necessarily individually qualitatively different, but together require different management techniques and applications. Cumulative impacts occur when there are multiple infringements on the same values. The incremental impacts of the management objectives in the proposed plan and each of the alternatives presented, when combined with past, present, and future actions, have been considered in the preparation of this RMP.

Irreversible and irretrievable commitments of resources and short-term uses versus long-term productivity are described, if applicable. Immediate impacts are those occurring during the construction or start-up phase of a project. Short-term impacts occur after the project is in place and may continue for a period of five years. Long-term impacts can occur up to fifteen years, or longer, after the project is in place.

Mitigating measures designed to avoid or reduce the environmental impacts were incorporated into the various management actions. Impacts identified in this chapter are considered unavoidable net effects.

ASSUMPTIONS

This section sets forth the factors necessary to guide the impact analysis. The assumptions provide a reasonable prediction of how key factors which would effect the impacts may change over time, such as change in demand for oil and gas. It also describes the standard procedures which are required in carrying out the resource management decisions. Nothing in these assumptions should be interpreted as constraining or redefining the management actions proposed for each alternative as described in Chapter 2. These assumptions were developed for impact analysis purposes only.

The interdisciplinary team agreed to reasonable project assumptions that could be used as a basis for analyzing impacts from the resource management alternatives. These assumptions were used to arrive at a cumulative impact for each environmental element.

Committed mitigation measures are all those stipulations, restrictions, and requirements imposed on activities on the public lands to protect environmental, socioeconomic, or other resource values. They are the mitigation measures BLM is committed to enforce in managing the public lands and are therefore assumed for purposes of the RMP. All applicable laws and their implementing regulations are assumed as committed mitigation. The committed mitigation measures are identified under "Management Guidance Common to the Proposed Plan and All Alternatives" at the beginning of Chapter 2. Where

these measures differ between the proposed plan and alternatives, as management practices to be implemented for a particular alternative, they are identified in Chapter 2.

AIR QUALITY MANAGEMENT

Air quality has the potential to be affected by dust or smoke from surface-disturbing activities associated with mineral exploration and development, lands and realty actions, livestock management activities, OHV uses, recreation, wildlife habitat development, and fire control efforts under each alternative. However, any of these activities would occur within the acceptable air quality ranges as defined by current laws.

Implementation of BLM activities and BLM permitted activities is controlled through stipulations and/or conditions of approval and monitoring so they comply with applicable federal and state standards for air quality. Although violations through accidental occurrences or noncompliance with BLM stipulations may occur, it is assumed the probability of their occurrence and magnitude is low enough that they are projected to be well within acceptable limits.

CULTURAL AND PALEONTOLOGICAL RESOURCES

Based on current trends it is assumed public use of cultural and paleontological resources will continue and in certain areas increase. This will take the form of increased tourism, approved research field studies, and recreational interpretation. Such use is an integral part of the local governments' and the State of Utah's tourism plan.

It is assumed that illegal activities such as vandalism and illegal collection, will continue to increase as public attention to these resource values increase.

FISH AND WILDLIFE HABITAT MANAGEMENT

It is assumed that the demand for wildlife habitat (consumptive and non-consumptive) will increase on public lands as private lands are developed and associated wildlife habitat altered.

As public demand increases in the future to utilize big game, the relative importance of big game crucial winter ranges in maintaining populations at objective levels will increase. Loss of crucial winter range would result in a proportionate reduction in big game populations.

Monitoring would gather sufficient information to recommend changes in carrying capacity. Implementing these adjustments would resolve present wildlife/livestock conflicts.

Big game numbers would be managed by the State of Utah's Board of Big Game Control to meet their stocking in each alternative.

The condition of vegetation and soils directly affects wildlife population levels. Any change in these two environmental components correspondingly affects wildlife populations. Deer populations, for example, tend to increase during periods of high browse availability and decline when forage is scarce.

The wording of the proposed decision regarding black-footed ferrets makes analysis difficult. Therefore, the potential reintroduction site of Eight Mile Flat will be used for the purpose of analysis only. Such an analysis would cover the largest reintroduction area (16,600 acres), combined with a high potential oil and gas region, providing adequate analysis on which to make a decision. It is assumed that impacts realized, should one of the other four potential reintroduction sites be ultimately selected, would be less than those presented for the Eight Mile Flat area.

HAZARDOUS MATERIALS MANAGEMENT

No hazardous material disposal sites would be permitted on public lands in the resource area. Any unauthorized disposal sites would be cleaned up and hazardous materials removed to an approved disposal area. All BLM activities and BLM-permitted activities would be controlled through stipulations and monitoring to insure the BLM hazardous material management policy was implemented.

LANDS AND REALTY MANAGEMENT

Land disposal actions are generally initiated by the State, counties, and the public on an infrequent basis. No substantial needs were identified for future projects and therefore, it can be assumed that land disposals through sale and patent would be minimal. It is expected that disposal actions would involve an average of 50 acres per year.

It can be expected that the amount of acreage involved in exchanges in the past will increase due to the Bureau's emphasis on acquiring lands to reinforce and facilitate the management objectives identified in the approved RMP.

A total of 60 land use authorizations were issued within DMRA during the last three years (1990-1992)

encompassing approximately 2,192 acres. Based on these statistics, it could be expected that approximately 25 applications would be received per year, affecting up to 800 acres. Approximately half of these would be in support of mineral exploration and development within DMRA. Should the demand for mineral development increase throughout the life of the plan, the number of use authorizations associated with mineral development would also increase.

LIVESTOCK MANAGEMENT

Grazing would continue to be permitted in the resource area based on demand and identified resource values. The demand for livestock forage on public lands in the Diamond Mountain Resource Area is directly related to forage availability, fluctuations in the livestock market, and capabilities of feeding livestock during the year when not on public lands.

More recent demands for leaner red meat may affect the use of feedlots, increasing the demand for rangeland forage by yearling cattle operations. The long-range demand for sheep rangeland forage is expected to remain fairly static (Drabenstott and Duncan, 1982; National Cattleman's Association, 1982). Recently, per capita consumption of sheep-related products has been decreasing and the sheep market has been depressed. It is reasonable to assume a tendency for livestock operators to convert from sheep to cattle operations if the sheep market continues to decline. Both the sheep and cattle industries appear to have reached maturity in the west. There is little indication of prospects for significant expansion (Field, 1991).

During the last six years in DMRA, total average actual use has been approximately 74 percent of active preference or authorized use. This partially reflects temporary reductions in use due to drought in 1988, 1989, and 1990. Future grazing adjustments would be made if a need was revealed by monitoring. BLM would coordinate and consult with livestock operators and, where necessary, with other interested groups before making any adjustments.

The principal environmental components directly affected by livestock grazing are vegetation and soils. Any change in vegetation and soils would affect livestock grazing as well as other resources.

MINERALS RESOURCE MANAGEMENT - LEASABLE

Oil and Gas

Oil and gas development will be authorized within the resource area based on demand and restricted by measures designed to protect identified resource values.

GENERAL ASSUMPTIONS. The general assumptions as listed below were derived through an analysis of over 750 oil and gas exploration or development wells in DMRA. The detailed analysis and the development of a reasonable foreseeable development for oil and gas exploration and development over the life of the plan is discussed thoroughly in Appendix 4.

Based on the detailed analysis as outlined in Appendix 4, the following general assumptions may be made for oil and gas exploration and development over the life of this RMP.

- The exploration for and development of oil and gas resources will continue to occur in an orderly manner on BLM lands.

- Well spacing programs for oil or gas exploration or development wells in DMRA may be either: one which conforms with a spacing order or field rule issued by the State of Utah's Board of Oil, Gas and Mining, and accepted by BLM; or one which is located on a lease committed to a communitized or unitized tract at a location approved by BLM. In the absence of special orders established drilling units, well spacing is set at 40 acres per well. Although the federal government is not bound by these spacing orders, they are generally recognized. Spacing within each of the regions varies and is discussed in Appendix 4, "Reasonable Foreseeable Development".

- Surface disturbance associated with the drilling and development of oil and gas wells would occur with the construction of the following: access roads, drilling pad, oil and gas production facilities, and pipelines. The surface disturbance associated with the construction of the drilling pads and circulation pits for each location is estimated to be 2 acres. Access roads constructed to the drilling pad would vary in length, but would be 30 feet wide. Road

disturbance would vary in disturbance from 2-4 acres for each location. Oil and gas facilities are usually located on the well site (drilling pad) and do not require additional surface disturbance. However, off site oil and gas facilities, such as tank batteries, could disturb 2-6 acres. Pipelines may occur above ground or below ground and may involve 1-2 acres of disturbance if placed outside the access road. The placement of these pipelines would emphasize human safety and environmental protection. For the purpose of analysis, five acres will be used as the standard surface-disturbance associated with one well site development.

- The average life expectancy of an average oil well is between 5 and 20 years for primary recovery. Should secondary recovery methods be employed, additional wells may be required for the injection of water or carbon dioxide. Such secondary recovery methods may extend the life of the well an additional 5-20 years. Because the recovery for a typical gas well in the resource area is 80-95 percent, secondary methods are generally not employed.

- In general, oil exploration and development would continue to occur predominantly in the Myton Bench-Nine Mile region (refer to Map 3-13).

- In general, gas exploration and development would occur predominantly in the Horseshoe Bend-Ashley Valley region, however, gas exploration may increase in the Myton-Nine Mile region.

- It is assumed that at least one period of intense exploration and drilling development could occur in the resource area over the life of the plan.

- In general, geophysical exploration would occur primarily in the Myton-Nine Mile Canyon region and the Clay Basin-Manila region. Geophysical exploration would continue apace with the oil and gas development scenarios.

- It is assumed that the demand for domestic oil and gas would increase over the next 15 years. Also, it is assumed that the price of oil and gas would increase. It is assumed that new incentives would be continued by the federal government for more unconventional oil and gas resources (such as coal bed methane gas and tight gas sandstones). The amount of exploration and development for both conventional and unconventional oil and gas resources would vary over the life of the plan with any change in the price of oil and gas, as well as, any change in the type and amount of incentives initiated by the federal government.

- It is assumed for the life of the plan that the price of oil will equal $20 per barrel and the price of gas will equal $1.50 per thousand cubic feet (MCFG).

REGIONAL ASSUMPTIONS. As previously mentioned, the Diamond Mountain Resource Area has been divided into five oil and gas exploration and development regions for analysis (refer to Map 3-13). The following assumptions are for oil and gas exploration and development in each region. These assumptions are in addition to the general assumptions.

Myton Bench-Nine Mile Canyon Region. The predominant exploration and development in the Myton Bench-Nine Mile Canyon region would be for oil occurring from the Green River Formation.

An average successful well drilled into the Green River Formation would be drilled to a depth of 6,000 feet and have an initial production of 106 barrels of oil per day (BOPD), 66 MCFPD (thousand cubic feet per day) of gas, and 26 barrels of water per day (BWPD). Based upon past spacing, wells would be drilled on 40-acre spacing units. The past success ratio (producing oil or gas wells/total number of wells drilled) in this region is 79 percent.

The primary exploration or development drilling would most likely take place adjacent to or within producing fields, such as Castle Peak, East Pleasant Valley, Eight Mile Flat-North, Island, Monument Butte, Pariette Bench, Pleasant Valley, River Bend and Treaty Boundary. Based upon past development, it is estimated that 15 oil exploration and development wells per year would be drilled in the region during the life of this RMP, for a total of 225 wells. Of the 225 wells, approximately 178 would be producing wells. Based upon past development, it was estimated that 11 gas exploration and development wells would be drilled during the life of the RMP. Of the 11, approximately 9 would be producing gas wells.

Exploration and development of unconventional resources, such as coal bed methane production from the Mesa Verde Group or tight gas sandstone production from the Wasatch and Mesa Verde Group could occur in this region. It is estimated that 20 wells would be drilled over the life of the plan with spacing set by Utah's Board of Oil, Gas, and Mining and the Bureau of Land Management.

The cumulative production per average well is assumed to be: 150,000 barrels of oil, and 650,000 MCF of gas.

Horseshoe Bend-Ashley Valley Region. The predominant exploration and development in the Horseshoe Bend-Ashley Valley region will be for oil occurring in the Green River and Weber Formations and gas from the Uinta Formation. A successful oil well drilled into the Green River Formation will be drilled to an average depth of 7,400 feet and have an initial production of 180 (BOPD), 56 MCFPD, and 25 BWPD. Based upon past spacing, wells would be drilled on either 320-acre spacing units (Lower Green River/Wasatch Formations) or 80-acre spacing units (Green River and transition zone between Green River and Wasatch Formations).

A successful gas well drilled into the Uinta Formation would be drilled to an average depth of 4,130 feet and have an initial production of 1,800 MCFPD of gas. Based upon past spacing, it would be drilled on 160-acre spacing units. The past success ratio (producing oil or gas wells/total number of wells drilled) in this region is 53 percent.

The primary oil exploration or development drilling would most likely take place within adjacent producing fields (such as Horseshoe Bend, Brennan Bottoms, and Gusher). Based upon past development drilling, it is estimated that ten wells per year would be drilled in the region over the life of the plan, for a total of 150 wells, 80 of which would be producing wells.

The primary gas exploration or development drilling would most likely take place adjacent to producing fields (such as Horseshoe Bend, Gusher, and Twelve Mile Wash fields). Based upon past development, it is estimated that approximately two wells per year would be drilled in the region over the life of the plan, for a total of 30 wells, 16 of which would be producing wells.

The cumulative production per average well is assumed to be: 500,000 barrels of oil, and 250,000 MCF of gas.

Diamond Mountain Plateau Region. The Diamond Mountain Plateau region is the least explored region and presently has no oil or gas production. It is assumed that oil exploration wells drilled in this region would be drilled for oil believed to occur in the Park City, Weber, or older formations. It is estimated that ten exploration wells would be drilled to an average depth of 3,100 feet over the life of the plan.

Clay Basin-Manila Region. The primary exploration and development drilling in the Clay Basin-Manila region would be for gas from the Frontier or Dakota Formations over the life of the plan.

A successful gas well drilled into the Frontier Formation would be drilled to an average depth of 5,780 feet and would have an initial production of 2,750 MCFPD of gas. Based upon past spacing, wells would be drilled on 40-acre spacing units.

A successful well drilled into the Dakota Formation would be drilled to an average depth of 6,310 feet and would have an initial production of 12,500 MCFPD of gas. Based upon past spacing, it would be drilled on 40-acre spacing units.

The past success ratio (producing oil or gas wells/total number of wells drilled) in this region is 51 percent.

The primary gas exploration or development drilling would take place adjacent to the Clay Basin gas field or along the thrusted margin of the northern Uinta Mountains. Based upon past development, it is estimated that approximately one well per year would be drilled in the region over the life of the plan, for a total of 15 wells, 8 of which would be producing wells.

The cumulative production per average well is assumed to be: 30,000 barrels of oil, and 6,000,000 MCF of gas.

Indian Reservation Region. The predominant exploration and development in the Ute Indian Reservation region over the life of the plan would be for oil from the Lower Green River and Wasatch Formations. Exploration and development covered by this plan would be on split estate parcels only.

A successful oil well drilled on split estate parcels into the Lower Green River-Wasatch Formations would be drilled to an average depth of 15,000 feet and have an initial production of 800 BOPD, 640 MCFPD of gas, and 40 BWPD. Based upon past spacing, wells would be drilled on 640-acre spacing units. Based upon present spacing orders in each split estate parcel, a maximum of 83 wells could be drilled in this region, taking all parcels into consideration. However, it is estimated that 20 wells would be drilled in this region on these split estate parcels over the life of the plan.

"Gilsonite"

"Gilsonite" development would be authorized based on demand and limited by measures designed to protect significant resource values.

The potential for "Gilsonite" development in the western basin would increase as supplies diminish in the eastern basin. In the short-term, demand for "Gilsonite" would remain at current levels but may actually increase over

the life of the plan. From this it was assumed an eventual increase in "Gilsonite" prices. However, over the first five years of the plan, development on federal lands would remain confined to the eastern basin.

Exploration and development would initially occur on non-federal lands. However, with the passage of time and recovery of "Gilsonite" off non-federal lands, greater interest in federal lands would develop. Ultimately, exploration of federal lands would lead to the development of "Gilsonite" on some tracts within the resource area.

Activity on federal lands would be most intense in areas immediately surrounding known veins or vein systems. Exploration would be required to determine the true extent of "Gilsonite" deposits. It is also possible that BLM could classify lands and determine KLAs. Activity would concentrate most heavily in lands which extend outward from known veins. This is particularly true for lands along the trend line of veins. In general, the areas with the highest potential for "Gilsonite" occurrence may be found between the Green River, just south of Ouray, and the Pariette "Gilsonite" Mine, 25 miles to the northwest of Ouray.

It is reasonable to assume that should "Gilsonite" mining develop in DMRA during the life of the RMP, approximately 15 workers could be employed annually for the life of the project. Anticipated annual salaries would be approximately $35,000 per employee.

Exploration would likely consist of truck or track-mounted rigs, drilling on a fairly tight hole spacing (as much as one hole per 1,320 feet of strike length), particularly where known deposits of "Gilsonite" have been identified. Total disturbance would amount to less than 40 acres each for most foreseeable projects. In most cases the need to develop roadways would be minimal. Exploration activities could be limited to one season with complete reclamation and revegetation actions completed at the close of that season for each exploration action.

Over the life of this plan, exploration activities in the resource area would increase with as many as 30 prospecting permit applications that could be filed.

It is generally known that the quality of "Gilsonite" deposits decrease significantly between the eastern and western basin. Veins tend to be smaller and the host rock surrounding them is less suitable for mining. However, improvements in technology and increased prices may allow developers to overcome these problems.

It is reasonable to expect that a handful of small mines would be developed over the life of the plan. Each could remain active for 10 to 20 years. For each major vein, mine facilities would be located along the length of the vein, each separated by a distance of about 900 to 1,300 feet. In most instances, each site would consist of a head frame and related buildings, storage bins, hoists, and vehicles. A narrow roadway would connect each site.

The size of area disturbed in at each site would vary with time. Some sites would remain idle for long periods of time while others were active. Overall total disturbance, accounting for each site and connecting roadway, would amount to about 3.6 acres per mile of vein.

Surface impacts, resulting from mining itself, would be minimal. Mine design does not allow development of veins at the surface. Subsidence of the vein at the surface would not occur.

Oil Shale

Although deposits of relatively high grade oil shale do occur in the resource area, it is assumed that even with substantial increases in oil prices, these deposits would not be developed over the life of this plan. This is because richer and more thoroughly studied deposits occur in the Book Cliffs Resource Area, and in Piceance Creek Basin of Western Colorado. These would be more than sufficient to meet expected demand over the life of the plan.

Phosphate

Phosphate development would be authorized based on demand and limited by measures designed to protect significant resource values.

It is reasonable to expect that phosphate deposits in the Vernal Field will become more important within the life of the plan. It was assumed that eventually the value of phosphate would rise sufficiently to allow development on existing leases northeast of Vernal.

It is estimated that once a mine on these leases reaches full production, between 250 and 350 workers would be employed by the mine. Resulting wages to these employees would amount to over $4 million annually. Employment will induce an additional 400 to 500 employees in other sectors of the economy, resulting in another $4 to $5 million in secondary income (Dames and Moore).

Development could be located on three lease tracts covering just over 7,650 acres. These lands include about 1,200 acres on the west side of Little Brush Creek,

just below the mouth of Little Brush Creek Gorge; and the remaining tracts extend eastward from Little Brush Creek to points just beyond the rim of Diamond Plateau above. Mining activities would be confined to the lands east of Brush Creek with supporting milling activities on private lands west of Brush Creek. Because of the amount of overburden, leases would likely be developed by underground room and pillar mining methods. Subsidence from mining is not anticipated.

The portal location for the mine would be located in Section 24, T.2 S., R.22 E. A mill would be located about 3/4 of a mile to the southwest in section 26.

Milling would utilize standard flotation techniques and the final product would be shipped from Vernal either by truck or possibly as a slurry in the existing Chevron slurry line to Rock Springs, Wyoming. Mill facilities would likely be in the SW 1/4 of Section 26, T.2 S., R.22 E. These would include: offices, warehouse, maintenance shops, compressor house, transformer station, parking. It is estimated that these would cover an area of about 3.5 acres.

An explosives magazine would be located in the stream valley located immediately north of the portal. Location and design of the magazine would include consideration for safety and security.

Initially about 750,000 tons of raw ore would be processed each year. After a few years, production would double to about 1.5 million tons. About 60 percent of production would become tailings after processing. These would be deposited within tailings ponds or be pumped back into the mine itself as back fill.

Three primary tailings pond sites have been identified. All three would be located in Sections 25 and 26, T.2 S., R. 22 E. Total area of the ponds would be about 130 acres. It is thought these three sites would provide enough storage to hold tailings for between 30 and 60 years, depending upon production rate. Sequential filling and reclamation would limit the area of disturbance to a single pond in active use at any given time.

Water requirements would include: an estimated 600 to 800 gallons per minute (gpm) for mining and another 300 to 600 gpm for milling. Additional water rights would be necessary to meet this requirement. Water consumption resulting from milling would result mostly from evaporative losses. Seepage from tailings ponds would be minimal. As much as is possible, all water used in milling would be recycled between the tailings ponds and the mill.

The generation of gaseous, liquid, and solid wastes would be minimal and would conform to state and federal requirements.

Access to the site would be provided by designated roadways generally along County Road 301, commonly referred to as the "Red Fleet Road". However, this county road would require some upgrading, primarily widening, improvement of the gravel surface, culverts, and drainage ditches. In addition, about 1.3 miles of haul road would be required to connect the mine portal and the mill site. Another two miles of roadway would be required to connect the mill with the adjacent tailings ponds.

Existing electrical power and gas lines would be tapped to support the site. Lines from the main line would enter the site from the west and would be roughly four miles in length.

Tar Sands

Tar sands development would be authorized based on demand and limited by measures assigned to protect significant resource values.

Large-scale development of tar sands, as major sources of refinery feedstock, will not be planned for in this document. The tar sand deposits in Utah, considered the most favorable for this sort of development, already have been considered in BLM's 1984 Combined Hydrocarbon Leasing EIS.

Although some relatively rich deposits do occur in the resource area, most notably the deposit along Asphalt Ridge, other larger and more easily developed tracts occur outside the resource area. Therefore, it is likely large scale tar sands development would occur outside of the resource area over the life of the plan, so there is no need to augment existing planning here.

Yet this does not rule out the potential for development of somewhat smaller tracts in the resource area designed for the extraction of bitumen as refinery feedstock. Accordingly, it was assumed that over the life of the plan, one such site would be developed along Asphalt Ridge. On federal lands, development would occur on existing mining claims, or on Combined Hydrocarbon leases or a combination of the two.

Development of such a site would occur over a period of 10 to 15 years. Mining would consist of stripping deposits of high grade tar sands at or near the surface. Because of this, mining would be most likely to occur on the east-facing toe slopes of Asphalt Ridge, between the

Bonanza Highway and the north end of Asphalt Ridge, immediately south of the LaPoint Highway.

At any given time during development, about 40 acres would be disturbed by processing facilities, vehicle storage, stock piles, and pit area. Reclamation of exhausted areas would take place as mining progressed into new areas. Total disturbance over the life of a site could be as much as 320 acres.

It was also assumed similar, although smaller, tracts would be developed in the Argyle Canyon, Pariette and Asphalt Ridge Special Tar Sand Areas (STSAs) for asphaltic paving materials. The manner of their development should be quite similar to the development of the Uintah County pit now on non-federal lands on Asphalt Ridge.

Over the life of the plan such site each in the Argyle Canyon, Pariette, and Asphalt Ridge STSAs could be expected. Development would occur on Combined Hydrocarbon Lease tracts or existing valid placer claims.

Potential development would include federal mineral lands all along the length of Asphalt Ridge. Near surface deposits on the southern end of the ridge would be the most attractive. At any given time, development could consist of an area of about 10 acres stripped back to accommodate mining. This area could remain open continuously but would periodically move laterally to allow development of new deposits. Reclamation would be concurrent with any such move. An additional area of about 10 to 20 acres could be utilized for stockpiles, topsoil stock piles, roads, offices, fuel, and vehicle storage.

Development of such sites would occur over a period lasting 15 years. As mentioned, reclamation would be conducted on an on-going basis. At the close of mining, the entire site would be reclaimed to federal standards. Over the next 15 years, it is assumed that both Duchesne and Uintah Counties will each begin to pave many of the more heavily used back-country roads currently surfaced with gravel only. These would include roads in Wells Draw, Nine Mile Canyon, Pleasant Valley, Pariette, and others. For this plan it is assumed that this would require as much as 100,000 to 200,000 tons of material per year.

Paving itself would offer additional benefits. It would decrease erosion and road maintenance leading to additional savings. Air quality would be significantly improved along more heavily used roadways. Finally, public enjoyment of the back-country would be improved.

Development north of Highway 40 would be unlikely over the life of the plan as the best deposits become difficult due to topography and the position of the main oil bearing beds.

Development of asphalt pit sites in the Pariette STSA may be more likely. Duchesne County has expressed a keen interest in sites west of the Pariette Wetlands. Development scenarios of potential sites in the Pariette area could be essentially the same as the development on Asphalt Ridge described above.

Development of deposits in the Argyle Canyon STSA would eventually occur as increased traffic through Nine Mile Canyon and Argyle Canyon require improvement of roadways there. Again, development of a potential pit site would be the same as described for Asphalt Ridge above.

It was reasonable to assume exploration drilling would occur within the Argyle Canyon, Pariette, and the Asphalt Ridge STSAs. Exploration drilling will occur as a prelude to development of potential asphalt pits. During initial phases of drilling, hole spacing could be about 500 feet, and cover 10- to 40-acre tracts. Where drilling showed substantial values, drill hole spacing could tighten up to allow better delineation of deposits.

Additional disturbance could result from vehicle access to the drill holes. Drilling programs could be initiated and completed within the warm season. Reclamation could be completed at the end of a drilling season. It would include restoration of the land to its original contours and revegetation of disturbed lands.

MINERALS RESOURCE MANAGEMENT - LOCATABLE

Locatable minerals occurrence in the resource area is not significant. This plan assumes no new discoveries will change this view over the life of the plan. Locatable minerals would be developed in the resource area subject to demand and controlled by measures designed to protect significant resource values identified in the vicinity.

Relatively small occurrences of locatable minerals do occur in the resource area and these would continue to attract small-scale prospecting and development. Three areas would continue to attract public interest. These are the Precambrian rocks north of Browns Park, the alluvial deposits along the Green River, the Paleozoic limestone outcrops on the southern half of Diamond Mountain Plateau, and, pre-1920 tar sand claims along Asphalt Ridge.

Activities in the mountains north of Browns Park would be modest in both size and duration. Five notices of intent for operations disturbing five acres or less may be

submitted over the life of the plan this area. Typically these would be for small exploration or prospecting operations. Disturbances of one acre or less would be expected for each notice. Mineral values removed would not be significant.

A similar outlook may be expected for sites on the Paleozoic limestones on Diamond Mountain Plateau. However, most activity in this area would occur much further to the west, outside of the resource area.

New techniques and processes now being developed would allow enhanced recovery of fine gold from alluvial placer deposits at Horseshoe Bend on the Green River. This, coupled with potentially high gold prices, would amplify the relatively high interest in sites along the Green River. This is particularly true of sites in and around Horseshoe Bend.

Federal lands in the Horseshoe Bend area would attract a number of operations if this were not precluded by the effect of the oil shale withdrawal now in place. Development would clearly follow a lifting of the withdrawal. Subsequently, it is likely that up to two or three Mining Plans of Operation or notices could be submitted per year.

Typically, operations conducted under these plans would cover relatively large areas between 10 and 30 acres at a time. At any given time, an area of one to two acres would be stripped of overburden to provide raw materials for processing. An additional two to three acres would provide space for processing equipment, access ways and stockpiles. Settling ponds could cover as much as another one to two acres. It is anticipated that no operation would require more than 50 gallons of water per minute. If water were necessary to a given operation, water rights would be acquired. Where possible, abandoned areas would be reclaimed as operations progressed but some areas would remain disturbed for the life of the operation. An operation on 40 acres may remain active for as much as five years.

MINERALS RESOURCE MANAGEMENT - MINERAL MATERIALS

Mineral materials development would be authorized based on demand and restricted by measures developed to protect significant resource values.

It was assumed federal, state, county governments and other non-profit organizations would continue to depend upon free-use access to mineral materials in order to provide essential services to the community at the lowest possible cost. This would be especially true of the county governments, who would continue to depend upon the BLM for free use materials for road maintenance in remote areas.

Over the life of the plan numerous free-use sites would be developed to meet these continuing demands. In addition, there would be occasional demand for negotiated sales and competitive sales for mineral materials. Generally this would most likely include sites in the Vernal area; summarized in Table 4-1. For planning, it is assumed that mineral material production from county free-use sites will amount to about 50,000 to 100,000 tons per year for sites throughout the resource area. This includes all grades of material with an approximate aggregate value of $0.20 per ton or $10,000 to $20,000 per year. These materials take on additional value in those instances where federal lands offer the only viable source for mineral materials.

Typical development sites would cover about five to ten acres and remain open from five to ten years. At any given time, about one acre of each site would be stripped of existing vegetation and topsoil to provide access to materials. Another acre would remain disturbed as the result of access roads, stockpiles and processing equipment. To the degree possible, sites would be reclaimed on an on-going basis with restoration of exhausted areas as pits move.

TABLE 4-1:
POTENTIAL MINERAL MATERIAL SITES WITHIN
THE DIAMOND MOUNTAIN RESOURCE AREA

AREA	NO. OF SITES	POTENTIAL ACRES DISTURBED	COMMENTS
Clay Basin	2	10	North Flank of Goslin Mountain. Potential source of rip-rap. Alluvial deposits in eastern Clay Basin include well sorted gravels suitable for road base.
Browns Park	3	15	Potential deposits occur in a number of locations. These include gravel deposits in the modern flood plain of the green river, elevated terraces, and on benches along the outer edges of the valley floor.
Diamond Mountain	4	20	Nearly all of the exposures of Bishop Conglomerate on the plateau and outcrops of limestone along the north rim of Diamond Gulch are suitable sources of low grade quarry stone.
Donkey Flat	2	10	Deposits on Donkey Flat, around the toe slopes of the Buckskin Hills, and south to Sunshine Bench offer highly desirable deposits of gravels.
Ashley Valley	2	10	Deposits as described above also occur throughout Ashley Valley.
LaPoint Pariette Ouray	2 3 2	10 60 40	Outward across the badlands between Little Mountain and LaPoint. West-facing slopes of Asphalt Ridge to Little Mountain. Among others, development would include the reopening of previously developed sites. Located between Vernal and LaPoint in Sec. 33, T.4 S., R.20 E. A second potential site is located west of the Green River, just west of Horseshoe Bend. Sec. 30, T.6 S., R.21 E.
Nine Mile Draw	1 3	10 60	Gravel deposits tend to be found only in the bottom of Wells Draw existing drainages. These tend to occur as discontinuous and relatively rare deposits adjacent to the existing flood plain.
TOTALS	24	235	

On occasion, sites would require a limited amount of exploration prior to development. This would allow potential permittees the opportunity to assess the viability of a potential deposit. Disturbance resulting from these activities would be minimal and short term. In most cases exploration would consist of the excavation of test holes by backhoe. This would not require the construction of roads and would not involve support facilities. Typically, total disturbance would amount to less than one acre.

Demand for building stone throughout the area would increase while available supplies of stone in the Wrinkles Road Building Stone Area continue to decrease. Additional access to new areas within the building stone area would provide additional sources of materials. This would result in about 10 miles of new road in the area, causing 35 to 40 acres of additional disturbance. Disturbance resulting from the collection of stone would remain minimal. The new roads would extend southward from the Wrinkles Road. These would open new areas extending southward over the rim of Nine Mile Canyon. Short spurs from these roads would extend to the rim to allow access to flagstone. In some cases these roads would lead downward to lower benches allowing collection on the south-facing slopes between these benches and Cowboy Bench above.

Public demand for blow sand in the Vernal area would continue. Without access to a convenient and economical supply trespass removal of blow sand in the Spring Creek area would continue. A single 20-acre community pit, open at any given time, would meet public need for this type of material. Areas with the best potential would be located north of Vernal near Taylor Mountain Road, adjacent to outcrops of the Navajo Sandstone. These areas are listed in Table 4-2.

Public access to the area would be controlled in order to limit the extent of surface disturbance to about two to three acres at any given time. Periodically, the BLM would reclaim exhausted areas of a site and alter access to the area to encourage development in new areas. This area would remain open for the life of the plan.

RECREATION MANAGEMENT

Recreation use in Browns Park SRMA would continue to increase between 10 and 15 percent each year for the foreseeable future. Throughout the remainder of the resource area it would increase between three and five percent annually.

There would be more demand for primitive forms of recreation such as hiking, backpacking, bicycling, and driving for pleasure. Bureau funding would be available

TABLE 4-2:
POTENTIAL COMMON USE/COMMUNITY PIT AREAS FOR BLOW SAND, NORTH OF VERNAL IN SPRING CREEK AREA

NE 1/4	Sec. 18 T. 3 S. R. 21 E.
NE 1/4 SE 1/4	Sec. 18 T. 3 S. R. 21 E.
SE 1/4 NE 1/4	Sec. 20 T. 3 S. R. 21 E.
NE 1/4 SE 1/4	Sec. 20 T. 3 S. R. 21 E.
SE 1/4 SE 1/4	Sec. 20 T. 3 S. R. 21 E.
SW 1/4 SW 1/4	Sec. 29 T. 3 S. R. 21 E.
NW 1/4 SW 1/4	Sec. 29 T. 3 S. R. 21 E.
SE 1/4 SW 1/4	Sec. 29 T. 3 S. R. 21 E.
SW 1/4 SW 1/4	Sec. 28 T. 3 S. R. 21 E.
NE 1/4 NE 1/4	Sec. 14 T. 3 S. R. 21 E.
NW 1/4 NW 1/4	Sec. 14 T. 3 S. R. 21 E.

to upgrade or begin new construction on no more than one developed campground every five years. Projected increases in wildlife populations could provide up to 5,000 additional visitor days.

Increasing recreation use of the river corridor between Little Hole and the Utah-Colorado state line would require limiting some activities to meet human health and safety standards. Camping along the river could be limited to designated camp sites on a reservation basis. The use of fire pans and containers for human waste would be required, where necessary, to protect the natural resources present.

As many as ten additional back-country byways and bicycle trails could be identified by the public and designated by BLM over the next 15 years.

Developed recreation sites would be protected by closing these areas to grazing and surface-disturbing activities (except those associated with recreational development). Semi-primitive, nonmotorized areas would be protected by closing the areas to off-road use and surface-disturbing activities (except non-motorized management actions designed to enhance vegetation, wildlife habitat, riparian, soil, or water resources).

If cave resources are identified on public lands, appropriate action would be taken to inventory the resource and protect it from damage.

SOCIOECONOMICS

Socioeconomics is not a resource or program actively managed by BLM, like livestock or recreation, but a reactionary component that may represent the efficiency to the community from BLM management. By measuring the amount of money expected from each of BLM's programs plan, the community's stability and well-being may be evaluated.

To illustrate, consider the construction of recreation sites. BLM provides the funds to construct these new sites, stimulating local construction; these new facilities will allow more people to participate at any given time. With these additional visitors comes their associated spending patterns. This additional demand may eventually cause more facilities to be built, starting the cycle all over again. Or additional spending may give entrepreneurs incentives to invest in complements for these campgrounds, i.e., Good Sam Clubs. There are a variety of scenarios that all stimulate and promote the community from funds furnished by BLM.

Reasonable and foreseeable economic developments discussed here are based on past observations, as graphed extensively in Appendix 10.
It is understood and acknowledged that numerous economic figures, some incorporating multipliers and some not, may be used for assessing socioeconomic

values of the management decisions outlined in this document. However, for socioeconomic analysis in this document, economic value data supplied by the BLM Utah State Office (1991) was used. These values do not incorporate the use of multipliers, determined to introduce too much variability into the analysis. These values and their references are included as Table A10-1 in Appendix 10.

It is reasonable to assume national and/or global political and economic conditions could combine to result in another energy boom on the scale of the 1981-85 boom sometime during the life of this plan (refer to Appendix 4, "Reasonable and Foreseeable Oil and Gas Development"). In addition, improving the transportation situation in and out of the Uinta Basin would help to support the growing tourism industry of the area.

SOILS AND WATER RESOURCES

Management actions that enhance or protect soil and water resources would be designed with measures that would preserve significant resource values.

The mixing of topsoil and sterile subsurface soil material in poorly developed soils can effectively reduce the soil's capabilities to successfully revegetate following disturbance. It was assumed extra rehabilitation efforts (e.g. mulching, chemical additives, drip irrigation) would be necessary on these soils, especially in the Myton Bench-Nine Mile area.

It was assumed that soil resources could be adversely affected two to three years following vegetation treatment activities (i.e., prescribed burns) until vegetation had recovered sufficiently to hold the soil in place. Until sufficient vegetation recovered on the treated site, topsoil could be transported off-site as suspended sediments and/or wind blown dust particles. This was seen as acceptable as the expected long-term benefits of improved watershed condition outweigh the short-term possible loss of the soil resource.

Future demand for the next 15 years should be met for planned industrial, municipal, and irrigation waters except during drought years. All surface water available for industry and irrigation have been appropriated. Should unforeseen major projects require more than .02 cfs, the demand could not be met. It was assumed the Castle Peak Salinity Reduction Demonstration Area implementation plan would continue as more emphasis on reducing sediment and salinity to the Colorado River system would be required. With adequate funding and personnel, this could be accomplished.

VEGETATION RESOURCES

Rangeland improvement actions would maintain or improve desired vegetation and riparian resources and would be designed with measures that preserve significant resource values. Short-term reductions in vegetation quality and quantity occur from vegetation manipulation actions, however long-term benefits outweigh the short-term impacts.

There is a historical demand placed on vegetation to provide forage for livestock, habitat for wildlife, cover for soil, filtration for water, and human-needed products such as firewood and fence posts. These historical demands are presently being met in the resource area.

Forage assignments would involve approximately 50-60 percent of the current year's vegetation production. The forage not assigned to big game would be sufficient to maintain the vegetation communities' productivity, meet the forage and cover requirements of non-big game species, and maintain watershed protection.

Ecological condition would be managed to meet desired plant community objectives designated by allotment at the activity plan level.

Existing wetland and riparian communities attract wild and domestic animal use and human recreation activities. The demand for improvement and use of these areas will continue to increase. Riparian areas in the resource area often coincide with access routes through mountainous terrain (i.e., Diamond Mountain and Three Corners areas). Due to the concentrated, often intense, use along certain portions of some riparian areas, their quality is degraded and quantity reduced.

By law, there is no "consumptive" demand for listed T&E plant species; however, the threat of cactus thievery exists. There is also a growing nonconsumptive demand by the scientific community regarding the inherent value of special status species.

Wildlife demands on vegetation are projected to increase. In certain areas of the resource area, i.e., Browns Park, it is likely the present vegetation resource could not support the desired wildlife numbers (refer to the Wildlife section).

The resource area has the capability and resources to provide for more than sufficient habitat for the presently known special status species, if other resource uses, particularly those involving surface-disturbing activities, are managed to safeguard these populations and habitats.

To lessen erosion and increase forage production for wildlife and livestock, vegetation treatments on approximately 1,200 acres per year would occur. Most of the treatment in the last 10 years has been prescribed burning of pinyon-juniper stands.

Total vegetation treatment opportunities could be realized on approximately 22,950 acres (or 3 percent of the BLM-administered lands) over the life of this plan. Based on an average of the total acres treated in the resource area during the past decade, it is reasonable to assume that approximately 1,530 acres could be successfully treated per year. Such an assumption is based on a continuation of present funding and staffing levels.

Riparian habitat would be protected by limiting grazing, surface-disturbing activities, and OHV use. Pipelines, utility structures and transportation facilities would be confined to established corridors and crossings. Special status plant habitat would be protected by limiting surface disturbance and OHV use.

VISUAL RESOURCES MANAGEMENT

Upon completion of the RMP, the existing VRM Class designations, delineated on Map 3-33, would be modified to reflect the decisions made in the plan. These adjusted visual resource values would be protected by managing activities and construction with mitigation that would protect the VRM classes.

WOODLANDS MANAGEMENT

Demand for wood products would continue at about the current level of approximately 2,500 cords per year, or increase slightly.

The selling price of a cord of wood outside the basin will remain near $150 per cord; while selling prices within the basin will remain fairly constant at $50 per cord.

Juniper posts and Christmas tree sales would be made available only to meet local demand.

Sale of other conifer species would only be made where it can be demonstrated to benefit either the forest or wildlife resource.

DIRECT AND INDIRECT IMPACTS OF *IMPLEMENTING THE PROPOSED PLAN*

This section has been changed, clarified, and strengthened in response to public and/or management comments on the draft. Analysis of the proposed plan and the alternatives to the socioeconomic structure have been expanded significantly. A summary of these impacts is provided in Table 2-15.

IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES

From Management Actions for Cultural and Paleontological Resources

Requiring a paleontological survey on all lands identified as having high potential for paleontological resources, before any surface disturbing activity is permitted, would greatly reduce the potential of damage to these resources on 139,000 acres. Requiring mitigation would increase the amount of information we currently have, enabling us to better manage the resource.

Any paleontological information collected would increase knowledge of the behavior of different species of prehistoric animals, their social organization, including adaptive behavior and interspecies interactions.

From Management Actions for Fish and Wildlife Habitat Programs

Accidental disturbance of both cultural and paleontology resources would continue to occur as developments such as land treatments and water developments are completed to benefit wildlife.

Any paleontological information lost would limit the knowledge of the behavior of different species of prehistoric animals, their social organization including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Livestock Programs

Accidental disturbance of both cultural and paleontological resources would continue to occur as

developments such as land treatments and water developments are completed for livestock.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Minerals Programs

Accidental disturbance of both cultural and paleontology resources that would normally occur during development of high potential oil and gas and other leasable minerals would continue to occur, but at a rate slightly less than is currently taking place.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Recreation Programs

Continued operation of the John Jarvie Historic Site, interpretation of the old Rock Saloon, and a self-guided historic tour in Browns Park would allow the public to gain a better understanding of the history of that fascinating area. By preserving, displaying, and interpreting the many structures and items at the site, it would enable the public to gain a better appreciation of the need to protect and preserve cultural and paleontological resources.

Protecting the Desolation Canyon National Natural Landmark on the lower Green River would increase public awareness of the importance of John Wesley Powell's historic trip down the Green River in 1869. Establishment of the 50,784-acre Nine Mile Canyon ACEC would provide an opportunity to develop and interpret the many cultural resources in the area for public enjoyment.

Vandalism and accidental disturbance of cultural and paleontological sites would continue to occur, but at a rate slightly less than at present because of stricter controls on resource development than exists under the current management.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Special Emphasis Areas Programs

Designating Nine Mile Canyon, Lower Green River, Red Mountain-Dry Fork and the Browns Park Complexes as ACECs would increase management priority consideration for these areas. As a result, site deterioration would lessen and very few resources would be lost.

Continuing to protect the upper and lower Green River for possible designation as a wild and scenic river would compliment the protection given by ACEC designation of the areas.

Although Nine Mile Creek would not be recommended for designation as a wild and scenic river, important cultural and paleontological values would continue to be protected by the ACEC designation.

IMPACTS TO FISH AND WILDLIFE HABITAT RESOURCES MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Establishing year 'round surface occupancy buffers on 8,651 acres would have significant positive impacts that would include the year-long protection of special status raptor nest sites.

Seasonal stipulations to protect 88,500 acres (49 percent of the total identified habitat) of sage grouse nesting habitat would increase the current protection period by one month and the protection zone by 1/2 mile. This should protect up to 85 percent of nests, according to the *Western States Sage Grouse Guidelines.*

Approximately 16,600 acres (or 49 percent) of the total identified potential black-footed ferret habitat would be managed in only one area for the recovery of the species. This could support up to 134 ferrets assuming 1 ferret per 124 acres, and Eight Mile Flat is selected as the

reintroduction site. This would be a moderately positive, long-term benefit because it would contribute to the overall recovery of the species. The recovery plan calls for the establishment of 10 or more separate wild populations which, before breeding, number 1,500 black-footed ferrets. This action would also meet the objectives of the Endangered Species Act and BLM special status species policy objective, as outlined in Manual 6840, which strives to conserve these species and the ecosystems on which they depend.

Approximately 123,800 acres (100 percent) of identified potential habitat would be open to the reintroduction of bighorn sheep within DMRA. Currently, an estimated 25 bighorn sheep occupy only four percent of identified potential habitat. This action would be a significant, positive, long-term benefit as it would help UDWR and BLM meet their objectives for reintroducing this native species to former historical range. The public would also benefit with the increased opportunity to watch or hunt additional populations of this popular big game species.

From Management Actions for Lands and Realty Programs

Acquiring additional public vehicle access could open 70,700 public acres of presently inaccessible public land. This action could have a negative long-term impact on wildlife populations by reducing their numbers due to increased hunter access, losing available forage to road construction and OHV disturbances, and increasing human harassment and poaching of wildlife. The Utah Board of Big Game Control, the Utah State Interagency Committee, and the Big Game Section of Utah Division of Wildlife Resources have all recommended access regulations to improve wildlife habitat security. A majority of the people attending the 1991 and 1992 Big Game Board meetings indicated that increased access and hunter crowding had a significant negative impact on buck-to-doe ratios, thus adversely affecting deer breeding success and ultimately their populations.

The recommendations to establish withdrawals on 19,400 acres of the Green River Scenic Corridor and 7,900 acres of the lower Green River provides the greatest riparian protection for wildlife of all alternatives. These riparian areas provide habitat for 24 of the 33 known special status species in DMRA. The withdrawal would prevent loss of habitat and species displacement through mineral and agricultural development for special status species as well as other wildlife associated with riparian habitat.

From Management Actions for Livestock Programs

Negotiating with livestock permittees to eliminate domestic sheep use within a 10-mile buffer of identified bighorn sheep habitat in the resource area (184,000 acres) would reduce the chances of disease transmission from domestic to bighorn sheep. This reduction of disease could significantly improve the chances for long-term survival within the resource area. This would meet BLM's objectives for a progressive bighorn sheep management program in conjunction with an appropriate level of grazing on public lands by domestic sheep. Currently domestic sheep are authorized to graze on 32 percent of public lands in the resource area while bighorns occupy one percent of public lands.

Sportsman's efforts over the past 30 years, funded through license and hunting permits to expend bighorn sheep in the state, would be supported. Finally, UDWR's plans to increase this native species' range throughout the resource area would also be enhanced.

Management actions for livestock would, overall, benefit fish and wildlife habitat. Specific grazing prescriptions with modified seasons of use should significantly and positively impact wildlife species if riparian areas, in particular, are improved. Ecological stages should improve from early and mid to late or climax increasing vegetation diversity (i.e., more willows) and thus wildlife species diversity.

From Management Actions for Minerals Programs

Increased human activity and access would occur in these areas during all phases of mineral exploration and development.

Approximately 100 percent of the known Ferruginous hawk and 90 percent of the golden eagle habitat occurs within the areas affected by mineral activity. Proposed protective stipulations would protect nest sites year 'round only if these nests were active within the last two years. Older, inactive nest sites would be left unprotected and could be rendered permanently unusable should mineral development activities be allowed nearby. Such a situation could result in the loss of habitat for these species and may lead to an overall decline in their populations. This would be a significant, long-term, negative impact to these species.

Black-footed ferret reintroductions would be limited to one location within DMRA involving a maximum of 16,000 public acres, approximately 50 percent of the identified

potential habitat. Of the three alternatives proposing such reintroductions, the proposed plan affords the least amount of acreage and thus the least amount of ferrets capable of being reintroduced. Any proposed reintroduction areas would be considered a significant, long-term, positive impact to the survival of this species.

Approximately 38 percent (27 miles) of priority fisheries habitat, including proposed Critical Habitat for the four endangered fish in the middle section of the Green River, would not be protected from future mineral entry under proposed protective withdrawals. Loss or severe degradation of this habitat caused by increased human disturbance could have significant negative, long-term impacts on these special status fish species.

ACEC designation would be proposed on 28 percent (196,620 acres) within DMRA, protecting and enhancing crucial wildlife habitat identified in those areas. The proposed plan, along with Alternative B, afford the greatest protection and habitat enhancement for the four endangered fish species and two endangered raptor species found along the Green River corridor.

From Management Actions for Recreation Programs

Restricting OHV use to designated roads and trails seasonally or yearlong on 409,400 acres would reduce displacement of wildlife from preferred habitats. Wildlife would be protected from disturbance during crucial reproductive seasons and vegetation would not be damaged by OHV use on 58 percent of the resource area. According to the UDWR, increased human access is directly proportional to increased poaching. Restricting OHV use to designated roads and trails would have a significant long-term positive effect by protecting wildlife from increased poaching.

From Management Actions for Riparian Programs

Approximately 79 percent of DMRA's riparian habitat is in an early or mid ecological stage. With grazing systems establishment and rangeland improvements proposed for this plan, the riparian habitat would improve. This would be a long-term positive impact to fisheries habitat and riparian habitat-dependent wildlife. Improved riparian areas might help afford the opportunity for downlisting or removal from listing of the long-billed curlew, western snowy plover, black tern, white-faced ibis, and the Great Basin silverspot butterfly under the Endangered Species Act. Forage production would be expected to increase as well as vegetative cover, streambank stability, and instream habitat quality. These long-term, positive benefits could correlate up to a two percent population increase for over 20 big game, upland game, and non-game wildlife species.

BLM's 1991 Riparian Wetland Initiative goal was to have 75 percent of riparian zones in proper functioning condition by 1997. The public also commented on the need to improve riparian areas during the Draft RMP comment period. Management actions to improve riparian areas would meet these concerns and would be a long-term positive impact.

From Management Actions for Special Emphasis Areas Programs

Public land currently designated as WSA (7,240 acres) would be managed consistent with the principles for semi-primitive nonmotorized areas if not designated wilderness. This would be a positive benefit to wildlife as existing habitat would not be degraded or compromised by removal of forage or cover. Wildlife would not be displaced from preferred habitats as a result of increased human activity associated with multiple use. Reduced motorized access would also reduce poaching.

Not identifying the middle Green River segment for protection and further study under the Wild and Scenic River Act would leave the segment open to uses that could damage identified habitat. Increases in human activity could also displace special status raptor species which use the river corridor for nesting and hunting.

From Management Actions for Vegetation Programs

The proposed plan allows wildlife forage demand to increase from current levels of 27,600 AUMs to 40,000 AUMs, a 45 percent increase. Also, preliminary monitoring indications show that total forage available is close to meeting wildlife objective use and existing livestock preference levels. The additional AUMs are proposed due to wildlife transplants and allowable herd increases.

Treating 22,950 acres of vegetation would have a significant benefit to livestock and wildlife in improved quantity (3,500 AUMs) and quality of forage. Most of this treatment (18,400 acres) would consist of pinyon-juniper woodlands, with the remaining in decadent sagebrush outside of crucial deer winter range and sage grouse habitat. Additional AUMs gained from grazing systems would be approximately 500 AUMs.

From Management Actions for Woodlands Programs

Allowing for firewood harvesting would benefit wildlife due to the increase in forage resulting from increases of native and seeded grasses after removal of the trees. This alternative would provide approximately 225 AUMs from firewood harvest with approximately 100 acres a year being harvested over the life of the plan (15 years).

IMPACTS TO LANDS AND REALTY MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Restrictions would be imposed on lands containing active raptor nest sites and sage grouse strutting grounds. These restrictions would affect approximately 22,900 acres and would prohibit the construction of right-of-way projects unless the impacts could be mitigated.

Designation of a black-footed ferret reintroduction area encompassing 16,600 acres would limit but not necessarily preclude right-of-way development. Applicants may be required to relocate and/or modify proposals and restrict activity to specific times.

Seasonal restrictions would be imposed on 295,000 acres to protect wildlife resources. These restrictions would not preclude land use authorizations but would limit construction periods to specific times of the year.

From Management Actions for Lands and Realty Programs

Adherence to designated corridors would prevent the proliferation of major utility systems across undisturbed public lands. To some extent, the designation of specific corridors for future major right-of-way projects may impact those companies preferring alternative locations. However, this will ensure the protection of resource values through the land use analysis process which will be required for projects proposed outside of the established corridors. Closure of the designated corridor in Jesse Ewing Canyon, upon reaching capacity, would essentially close off the only north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

The disposal of land by sale, state selection, or R&PP would have a positive impact on the counties.

From Management Action for Recreation Programs

Recreation sites encompassing 5,500 acres would restrict those land use authorizations that would cause visual/aesthetics impacts and found to be inconsistent with the purpose of the recreational sites.

Land use authorizations would be prohibited on 19,400 acres within the Green River Scenic Corridor. Closure of the Jesse Ewing Canyon designated corridor, upon reaching capacity, would essentially close the only feasible north-south passage from Wyoming through northeastern Utah.

Seasonal restrictions on 8.5 miles of the designated corridor route within the Browns Park Complex would limit construction periods for rights-of-way.

From Management Actions for Vegetation Programs

Approximately 3,740 acres which contain relict vegetation would be excluded from land use authorizations. An additional 48,000 acres which contain special status plants and/or potential habitat could preclude surface disturbing activities.

IMPACTS TO LIVESTOCK MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Introducing 150-400 antelope on Diamond Mountain would create a significant private landowner tolerance problem due to antelope depredation on cropland in the area. Based on the comments received on the draft in regard to increasing wildlife on Diamond Mountain, this is seen as a significant long-term, negative impact.

The reintroduction of bighorn sheep at five locations throughout the resource area may result in some forage conflicts with livestock. However, proposed rangeland improvements, such as prescribed burns, and bighorn's preference for rugged landscape unsuitable to livestock is thought to keep conflicts to a minimum.

From Management Actions for Vegetation Programs

Forty thousand (40,000) AUMs would be managed for wildlife which is 12,400 AUMs (45 percent) over current wildlife use (27,600 AUMs). It is likely that the vegetation

composition resulting from the ecological condition goals would maintain enough forage to provide for existing livestock grazing preference. Collectively, wildlife numbers may not reach forage objective levels on BLM-administered lands due to adjoining private landowners' intolerance. Pinyon-juniper and big sagebrush-browse vegetation types comprise approximately 50 percent of the resource area of which decadent old age stands would be managed in a mid seral stage which would provide the most forage. The AUMs would help to maintain livestock preference due to proposed increases in wildlife use. (Refer to Appendix 8 showing AUMs possible from rangeland improvements by allotment.)

Treating 22,950 acres of vegetation to provide approximately 3,500 additional AUMs would have a significant long-term, positive benefit to livestock by maintaining preference through improved quantity and quality of forage. Most of this treatment would consist of pinyon-juniper woodlands and decadent sagebrush prescribed burns. Additional AUMs gained from grazing systems would be approximately 500 AUMs.

Allowing grazing use after April 1 on winter/spring grazing permits only when spring grazing can be rotated, deferred or rested could impact 11 allotments/permittees (183,906 acres). If spring deferment grazing prescriptions could not be reached, approximately one month (April 1 to April 30) of spring grazing would be eliminated on these allotments. This would force the grazing operators to find alternate spring grazing elsewhere or to feed hay. In most cases spring deferment grazing prescriptions could be implemented offsetting such an impact.

From Management Actions for Woodlands Programs

Allowing for firewood harvesting would benefit livestock preference due to the increase in forage resulting from increases of native and seeded grasses after removal of the trees. This alternative would provide approximately 225 AUMs from firewood harvest with approximately 100 acres a year being harvested over the live of the plan (15 years).

IMPACTS TO LEASABLE MINERALS MANAGEMENT - GILSONITE

From Management Actions for Vegetation Programs

Development of gilsonite would be precluded by fish, wildlife, and T&E plants on about one-third of the highest potential gilsonite lands in the resource area. In addition, development would be highly restricted on a significant portion of the remaining potential gilsonite lands by measures to protect black-footed ferret habitat.

These impacts would occur on lands anticipated to become attractive for development by the end of the decade. Both exploration and development activities would be either precluded or so highly restricted that development would not occur.

Nationally, alternative sources of gilsonite do not exist.

IMPACTS TO LEASABLE MINERALS MANAGEMENT - OIL AND GAS

From Management Actions for Fish and Wildlife Habitat Programs

Based on public comment the large amount of seasonal restrictions will alter drilling schedules, reduce the value of oil and gas leases and increase exploration costs. Seasonal stipulations to protect deer and elk crucial winter habitat will have significant negative impacts on 13,000 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon and the Clay Basin oil and gas producing regions.

No surface occupancy stipulations and timing stipulations to protect sage grouse nesting areas and strutting grounds will have significant negative impacts on 46,000 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon, Horseshoe Bend-Ashley Valley and the Clay Basin oil and gas producing regions. Timing restrictions from March 1-June 30 may result in altering drilling schedules of lessees which may further cause increased drilling costs. Significant surface disturbing geophysical exploration will be limited to designated roads and trails. This could influence the amount and quality of geophysical data collected.

Raptor protection zones will have minor adverse impacts in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas producing regions.

Black-footed ferret reintroduction and associated impacts could occur in the Eight Mile Flat area. Table 4-3 outlines general information concerning the potential Eight Mile Flat reintroduction area:

Prior to ferret releases in the Eight Mile Flat area restrictions on surface-disturbing activities would increase operational costs by rerouting or moving surface disturbing activities (such as access roads, pipelines, drilling pads, and production facilities) in order to avoid areas of high prairie dog density (>10 burrows per acre).

TABLE 4-3:
POTENTIAL BLACK-FOOTED FERRET REINTRODUCTION AREA:
EIGHT MILE FLAT

Oil and gas potential	High
Identified habitat (in acres)	16,600
Percent of area leased	98
Current number of producing wells*	55
Projected number of new wells	100
Oil/gas spacing (in acres)	40
*Source: BLM Automated Lands and Minerals Record System and Automated Inspected Records System, 1991.	

This will affect the overall orderly development of oil and gas fields by restricting the regular and orderly placement of wells. The amount of surface disturbing activities will be limited to a maximum of 10% of the area of Eight Mile Flat (or 1,660 acres) to protect potential black-footed ferret reintroduction areas. This may substantially limit the amount of exploration and development activities and subsequent economic benefits to federal, state, and county governments. Significant surface disturbing seismic geophysical activities will be restricted to existing roads and trails. This may affect the quality and quantity of seismic data collected and may have an affect on subsequent exploration or production programs.

Should ferrets be released in the Eight Mile Flat area no new surface disturbing activities relating to oil and gas would be allowed between March 1 through August 31, within 1/4 mile of the habitat occupied by black-footed ferrets to protect reproductive and active litter periods (approximately 20,600 acres would be affected by the quarter mile buffer surrounding the proposed Eight Mile Flat reintroduction area). This restriction would limit all exploration, production, and associated oil and gas surface disturbing activities from September 1 to February 28. Such a restriction would cause some exploration production activities and associated construction to take place during winter months. This would cause increased construction and drilling costs. Increased costs would also be incurred by operators by the requirement of installing mufflers on all equipment within 1/4 mile or within the black-footed ferret occupied reintroduction area. Periods of heavy vehicular traffic (i.e., drilling) would be encouraged during daylight hours. To the extent BLM has the authority, human activity would only be allowed during daylight hours after sunrise to 2 hours before sunset. The only exceptions would be, in case of emergencies, petroleum drilling, and associated servicing related traffic. This would cause most exploration, production, and associated oil and gas activities to take place during daylight hours. This would cause delays in exploration or production activities and would increase exploration and development costs. There would be no impact to the maintenance and operation of existing production facilities.

From Management Actions for Recreation Programs

Closing semi-primitive, non-motorized areas to surface disturbances by imposing no surface occupancy stipulations will have significant negative impacts on 2,000 acres of high oil and gas potential areas in the Myton Bench-Nine Mile Canyon and the Clay Basin oil and gas producing regions. This will increase drilling costs due to directional drilling requirements. These stipulations will also increase the possibility of loss of oil and gas resources through drainage by state or private wells and loss of associated federal revenues. Surface disturbing seismic geophysical will be precluded in the subthrust oil and gas play (See Appendix 4). This will reduce the amount surface disturbing seismic geophysical information available in order to define oil and gas prospects in this region and may increase economic risks. Based on public comment, closing semi-primitive non-motorized areas which also have high oil and gas potential, to surface disturbance will increase drilling costs, increase exploration and production costs, and reduce the value of oil and gas leases.

From Management Action for Special Emphasis Areas Programs

The areas closed to lease operations because of no surface occupancy stipulations in the Brown's Park Complex, Lower Green River, and the Pariette proposed ACECs will have significant negative impacts on oil and gas operations, as well as on surface disturbing seismic geophysical exploration. An increase in drilling costs due to directional drilling requirements will occur. These stipulations will also increase the possibility of loss of oil and gas resources through drainage by state or private wells and loss of associated federal revenues. Surface disturbing seismic geophysical exploration will be precluded in the no surface occupancy areas. This may hinder the identification of subsurface oil and gas resources and reduce the amount and quality of information gathered. When restrictions to surface seismic geophysical exploration are combined with no surface occupancy stipulations, both the risk and cost of oil and gas exploration will be increased in these areas.

From Management Actions For Visual Resources Programs

Minor negative impacts will occur on 3,200 acres of high potential mineral estate in the Nine Mile Canyon area. The oil and gas operations may be required to be moved to less visible regions or painted with certain environmentally sensitive colors. Roads necessary for the operation may have to be specially routed. This will cause delays in oil and gas operations and additional operational costs.

IMPACTS TO LEASABLE MINERALS PROGRAMS - PHOSPHATE

Lands now under preference right lease for phosphate (7,650 acres) would be open to development and/or occupancy with specific restrictions to minimize adverse impacts to special status raptor species and crucial deer winter habitat.

IMPACTS TO LEASABLE MINERALS - TAR SANDS

Development of asphaltic materials in the Pariette STSA would be impacted under this alternative. In some areas leasing and development would be precluded. In others, restrictions to protect sensitive plants would limit or possibly preclude leasing and development.

Duchesne County representatives have expressed a keen interest in the STSA. A small area, of approximately 20-40 acres within the STSA of particular interest to the county, would be classified as category 3 (open to leasing with no surface occupancy) under this alternative. Other portions of the STSA are category 2 (open with restrictions). However, the relatively high density of sensitive plant species in the area could cause the area to be closed, after field examination, under this alternative. Development of asphaltic materials by the county requires surface occupancy. No surface occupancy designation of these lands effectively closes them to this activity. According to the county, extensive field searches have shown that their area of particular interest is uniquely suited to their needs. They have indicated that alternative sites do not exist.

IMPACTS TO RECREATION MANAGEMENT

From Management Actions for Cultural and Paleontological Programs

Yearlong OHV restrictions to designated roads on 2,400 acres to protect cultural sites eligible for or listed on the National Register of Historic Places, and closing the Desolation Canyon National Historic Landmark may prevent some users from pursuing sightseeing and hunting interests. This would result in a reduction of approximately 100 visitor days annually to the area for hunting, OHV use, and driving for pleasure. These users would move to other areas on the resource area without OHV restrictions.

From Management Actions for Fish and Wildlife Habitat Programs

Restricting OHV use to designated roads on 229,400 acres of sage grouse strutting grounds (year long), nesting habitat (March 1 to April 30), deer and elk winter range (December 1 to April 30), and antelope fawning areas (May 1 to June 30), and bighorn sheep habitat (September 1 to June 30) would limit access to these areas. Driving for pleasure and use of OHVs would be affected most, some individuals that enjoy hiking or horseback riding in the areas would see a positive impact because they would encounter other recreationists less frequently. However, the majority of the users would be limited to designated roads and trails. This would affect the quality of the recreational experience people have come to expect from public lands in the area. Overall recreation uses such as driving for pleasure and OHV use would go down, by an estimated 1,050 visitor days each year.

OHV use will be restricted on 3,800 acres around the south side of Red Mountain to protect crucial deer and elk wintering areas between December 1 and March 31. This is an exception to the time period established to protect deer and elk in the rest of the resource area. This would allow OHV use to take place earlier each spring on this popular OHV area, thus filling a need for riding areas close to town. This would result in an increase of an estimated 200 visitor days annually.

If a reintroduction of black-footed ferrets is made, use by OHVs on 16,600 acres would be limited to designated roads and trails yearlong. All use would be prohibited during early morning and evening hours. This would impact antelope and small game hunting in the area. Fewer hunters would participate. This would result in a displacement of 50 visitor days for hunting each year to other parts of the resource area. This would be a long-term impact.

From Management Actions for Lands and Realty Programs

Acquiring public access specifically for vehicles or foot/horseback will provide hunters and recreationists

with additional opportunities on 77,800 acres of public lands that are surrounded by private land and currently unreachable. Increased public access would result in an increase of 7,500 visitor days to the area each year.

A protective withdrawal would be recommended for the lower Green River that would protect the corridor from mineral and agricultural development, and the staking of mining claims. This would protect scenic values over the long term.

Establishing a window where Four Mile Draw enters the lower Green River to allow a crossing point for pipelines would impact recreation use of the river corridor at that point. Disturbances created adjacent to the river during pipeline construction would be noticed by floaters going down the river. This intrusion would last about 10 minutes. It would not be significant enough to affect the proposed Wild and Scenic River designation.

From Management Actions for Minerals Programs

Development of identified high potential oil and gas areas would result in 150,900 acres currently identified as possessing semi-primitive, motorized values in the Three Corner and Myton areas, dropping one class to roaded natural in the recreation opportunity inventory. This would result in a less natural recreation experience. Individuals that enjoy more primitive remote experiences would be displaced to other areas. However, OHV use may increase as individuals displaced from other areas search for new areas where they can use their OHVs with minimal restrictions. The number of persons affected is not known at this time, but it is expected to be significant over the long term.

From Management Actions for Recreation Programs

Seventy-one (71) percent or 43,200 acres identified as having semi-primitive, nonmotorized values would be protected for the enjoyment of primitive forms of recreation. Use of these areas is expected to increase 5 to 10 percent annually over the long term.

Managing for both primitive and developed forms of recreation would provide opportunities for both people preferring primitive types of experiences such as hiking, backpacking, horseback riding, and bicycling as well as those that prefer more developed and concentrated forms of recreation. Both types of use would increase and use of public lands would be greater. It is estimated that overall use would increase approximately 5 to 10 percent a year, with the greatest increases (10 percent) taking place on the existing Special Recreation Management Area (SRMA) in Browns Park and the proposed Red Mountain-Dry Fork SRMA north of Vernal.

Although it is expected that recreation visits will go down in areas where OHV access is limited to protect critical resource values, overall use in the resource area will not be significantly affected. Use patterns will simply change and people will move to areas with fewer restrictions.

Not allowing baiting to attract bear while hunting on public lands could limit this form of hunting to private or state property. A positive impact would be the elimination of untended baiting stations on public lands in an area of increasing hiking and day use activities.

Dropping the 40-acre Bear Hollow Recreation Site from consideration for development could, at some future point, affect recreation use in the area. It is, however, unlikely this would ever become a significant problem. There are alternate areas close by that could be used by recreationists.

Limiting OHV use on the 1,240-acre Red Mountain Recreation Site would limit use on the area to designated roads and trails yearlong. This would also lessen the conflict that is currently taking place between various recreation user groups.

From Management Actions for Soil and Water Programs

Limiting OHV use to designated roads (March 1 to April 30 and September 1 to October 31) on 74,400 acres of highly erodible and saline soils, and floodplains, could affect OHV use, driving for pleasure and, in the fall of the year, access by hunters to some hunting areas. It is expected that 1,200 visitor days to the area would be displaced to other areas because of this restriction.

From Management Actions for Special Emphasis Areas Programs

Outstandingly remarkable wild and scenic river values would continue to be protected along the upper and lower segments of the Green River. Recommending that these two river segments be designated as scenic rivers in the W&SR System, would attract increased recreation use. The upper segment through Browns Park is currently receiving heavy use (10,000 visitor days in 1991) and is increasing annually. The lower Green River segment currently receives very little use but wild and scenic river designation would cause use to increase an estimated 10 percent annually to 1,300 visitor days in 10 years.

Not identifying the middle Green River segment, two segments along Nine Mile Canyon, and one in Argyle Canyon for protection and further study, would leave the stream corridors open to uses that could damage identified outstandingly remarkable values along the corridors. It is anticipated that the impacts to these rivers would be minor because cultural resources, scenic values, and riparian areas would continue to receive protection.

From Management Actions for Vegetation Programs

Restricting OHV use to designated roads on 27,100 acres of relict vegetation communities and special status plant habitat in Pariette Draw would limit hunting opportunities. Use would be expected to decrease by 650 visitor days annually. This use would move to other areas in the resource area.

From Management Actions for Visual Resources Programs

Restricting OHV use to designated roads year long on 17,100 acres along the Green River Scenic Corridor and the lower Green River areas could limit public land users requiring vehicular access for fishing, hunting or other recreational pursuits. However, this decrease in use is expected to be more than offset by the recommendation to designate these river for inclusion in the Wild and Scenic River System. It is anticipated that use will increase at least 10 percent annually. The fishermen and hunters displaced by the OHV restrictions would be displaced to other areas.

From Management Actions for Woodlands Programs

Firewood gathering would provide family-centered recreation opportunities for 300 families on 172,800 acres. This could increase to 400 and still maintain the woodland stands.

IMPACTS TO RIPARIAN HABITAT RESOURCES

From Management Actions for Vegetation Programs

Implementing rangeland improvements and improved grazing prescriptions on the uplands would improve these riparian areas. This improvement would be accomplished by implementing prescribed grazing practices conducive to riparian improvement, along with rangeland improvements and noxious weed eradication. Maintaining a minimum of three inches of herbaceous growth after grazing in riparian areas would insure maintenance of plant vigor, provide streambank protection, and aid in deposition of sediments to rebuild degraded streambanks. This will result in a positive, significant long-term improvement to riparian resources.

IMPACTS TO SOCIOECONOMICS

From Management Actions for Cultural and Paleontological Programs

Developing interpretive facilities at the Old Rock Saloon and Nine Mile Canyon sites and constructing a self-guided tour for the Browns Park Area could lead to a number of affects which may trigger causes with ensuing affects. Development of such facilities could attract more visitors to DMRA stimulating the local economy especially in the trade and services sectors. In addition it is probable that the contracts would be awarded locally, stimulating the construction and other sectors.

Total costs for the above developments are estimated to be about $87,000. These projects could help stimulate contracting businesses involved in this kind of work. Such development and administrative costs may average $45,800 annually over the life of the plan ($5,800 development plus $40,000 administrative).

From Management Actions for Fish and Wildlife Programs

Increasing wildlife allocation by 12,400 AUMs to 40,000 AUMs could lead to increased animals, increased hunting pressure, and ultimately to more expenditures. If there were a one-to-one relationship, this increase of forty-five percent would lead to an increase of $1,527,750 totalling to $4,922,750 for the fish and wildlife resource; however, this relationship may not necessarily hold true. There are many steps between the allocation of additional AUMs in the planning process and the additional expenditures by increased hunter participation, which make analysis of this procedure difficult at best. Further, increased allocation may lead to more conflicts with private landowners due to increased crop damage issues. This additional allocation would require approximately $6,000/year.

Administrative costs for developing habitat for cavity dwelling birds, restricting activities on deer and elk crucial winter range, antelope fawning areas, bighorn sheep winter and lambing areas, and sage grouse strutting grounds could cost about $23,000 annually.

Opening 123,800 acres for bighorn sheep reintroduction and negotiating the removal of domestic sheep to eliminate disease transmission could improve the vigor of the herd and lead to greater economic returns for the fish and wildlife resource. In 1989, 590 permits auctioned to the public have sold for as much as $33,000, which reflects the high demand for bighorn sheep. Opportunity costs would most likely take the form of foregone domestic sheep grazing to permittees. This recommendation contrasts with the current situation which only proposes 31,000 acres for reintroduction.

Approximately $10,000 per year would be required to administer the construction and surface disturbance restrictions for all special status raptor species under this alternative. Opportunity costs could be higher when compared to the current situation due to the .25 mile larger buffer.

Reintroduction of black-footed ferret would require about $4,000 per year for planning. Inventory of the 16,600 acres of potential habitat in Eight Mile Flat could demand $10,000 per year. A one time cost of $50,000 for a release of up to 50 ferrets includes the price of ferret releases, as well as site preparation and monitoring. If this reintroduction is successful, it may provide or contribute to the data needed to ultimately delist the species, and thus no longer hamper economic development. This alternative contrasts with the current situation in only that the present scenario recommends two releases at two potential sites over the life of the plan requiring a one time cost of approximately $100,000.

The impacts to adjoining land owners from the reintroduction of black-footed ferrets on public lands is not considered significant. Please review the DMRA guidelines for potential black-footed ferret reintroductions in Appendix 2 for further information.

Reintroduction of pronghorn antelope, moose, bighorn sheep, river otter, and upland game birds could require $8,000 per year for planning and $5,000 per year cost share projects. This differs with the current situation in that only $4,000 per year for planning and cost share of $2,000 is required now.

Improving or maintaining habitat in bighorn sheep reintroduction areas in accordance with Map 3-33 would improve the vigor of the herd and could lead to increased expenditures by hunters. These measures would necessitate $4,000 per year for planning and $5,000 for cost share totalling to $10,000 per year to administer. Again this contrasts with the current proposal, which recommends about half as much for costs.

The elimination of domestic sheep grazing within 10 miles of identified bighorn sheep habitat through negotiations to change class of livestock (from sheep to cattle) could cost $4,000 per year to administer. Again, the opportunity costs would most probably fall on the permittees with the magnitude depending upon the feasibility of such a conversion. The current situation proposes the same changes as the proposed plan and would have similar effects on the vigor of bighorn and thus on hunting revenues.

The total costs of administering the wildlife program under the proposed plan would be an additional annual cost of $79,500 plus the one time cost of $50,000 for the black-footed ferret release. These expenditures by the BLM may be viewed as an economic injection into the community and region. It is important to note that the cost share funding projects by BLM are matched by other parties (private groups or other governmental agencies). These monies also enhance the economic situation of the community and region. The proposed plan for the wildlife program has the third highest administration costs of the five alternatives.

From Management Actions for Lands and Realty Programs

Allowing vehicular or foot/mountain bicycle/horseback access only for recreation and/or wildlife purposes to areas described in Map 2-6 could promote these programs and their related expenditures by participants, again only after going through an intricate and interdependent process. This process would include additional access, perception of this additional access by participants, increased participation (either in number of visitors or length of activity), and the generation of additional revenues that would hopefully increase more than additional expenditures necessary for community services (such as road maintenance). Approximating costs for legal access come to about $200/ac totalling to $24,200 for the proposed plan. This alternative has 14 more areas and costs $13,600 more to administer than the current alternative recommends.

Administration costs could approach $100,000 per year if an average of 25 land use applications are processed annually.

Cost for site developments plans on Goslin Mountain, Little Mountain, and Asphalt Ridge could require a one time cost of $16,000 to develop, this compares with the current alternative which recommends the same dollar figure, but contrasts in that it does not allow the Asphalt Ridge site. These new communication sites could

strengthen the local communities, especially the TCPU and related sectors.

Allowing level 3 and 4 lands available for major water development rights-of-way could stimulate the local and regional economy if such projects are feasible and constructed. This recommendation contrasts with the current situation, which suggests all lands within the resource area, with notable exceptions, be considered for major water development rights-of-way with restrictions. The costs would be placed upon those parties that would lose out on development opportunities under the more conservative proposed plan.

Considering 23,980 acres of isolated tracts and community expansion lands for disposal as described in the proposed plan could decrease administration costs, conflicts, and promote development opportunities for entrepreneurs and communities. This proposed plan is much more liberal than the current situation, which allows only 4,300 acres.

From Management Actions for Livestock Programs

Average annual actual use is 38,916 AUMs, which would contribute $385,658 annually, using $9.91/AUM. If the AUMs taken in nonuse were activated, this could result in an additional 11,383 AUMs or $112,806 annually.

Costs to manage the current 108 grazing allotments under the category system outlined in the proposed plan would be approximately $62,000 annually.

From Management Actions for Leasable Minerals Program

About one third of the highest potential gilsonite would be unavailable for development under this alternative due to fish and wildlife restrictions. This could produce 5 fewer jobs and only $351,750 of the potential $525,000 in salaries each year. In addition, seasonal limitations could restrict development on other sites. Interviews with operators in the eastern basin indicate that a substantial number of jobs and dollars to the community could be foregone in the future under the proposed plan. This contrasts with the less restrictive Alternative A, which allows development of the Myton area.

Table 4-4 provides an estimate of the impacts to the community from proposed decisions affecting oil and gas development.

If the above forecasted wells are precluded, a total of $4,232,750 would be lost annually to the community. Of this total 12.5 percent or $529,130 in royalties, would be lost to the Federal government. Of these royalties collected by the federal government, half would be returned to the State of Utah. Finally, of the royalty money returned to Utah, a percentage would be returned to the counties, based upon their total oil and gas production.

Losses from precluded wells would primarily be to oil and gas companies. The loss to the counties would be a loss of royalties, severance tax, ad valorem tax, property tax, and sales tax. There also would be a loss of revenues to oil service companies and community businesses.

Opening 7,650 acres of moderate to high grade phosphate lands with the described restrictions could result in an annual employment of 350 employees and $4 million to the community. These benefits could be jeopardized by special status raptor species and crucial deer winter habitat.

TABLE 4-4:
ESTIMATED ANNUAL OIL AND GAS,
REVENUES FOREGONE BY THE COMMUNITY, PROPOSED PLAN

Region	No of Precluded Successful Wells	Estimated Precluded Annual Production		Estimated Lost Annual Revenue		
		Oil	Gas	Oil	Gas	Total
Myton Bench/ Nine Mile Canyon	14	142,200 barrels	616,195 MCF	$2,844,000	$924,293	$3,768,000
Horseshoe Bend/ Ashley Valley	.3	10,600 barrels	5,300 MCF	$212,000	$7,950	$219,950
Clay Basin/Manila	.4	765 barrels	153,000 MCF	$15,300	$229,500	$244,800

Development of tar sands in the Pariette STSA would be precluded under this alternative, which could ultimately lead to closure of some roads in Duchesne county due to increased pavement costs. According to the county, this would mean that road surfacing plans in the area would only be accomplished by importing asphaltic materials. The additional costs of importation would be between $500,000 and $1,500,000.

From Management Actions for Recreation Programs

Total recreation use in DMRA in 1990 was 138,800 visits. If these are classified as "dispersed site recreation" then participants may spend $11.76/day totalling $1,632,288; however, if these are mostly "developed site recreation", then participants may spend $6.54/day totalling $907,752. An average of $1,270,020 may be spent each year on recreational pursuits in DMRA.

Administration of the OHV program could require a one time cost of $20,000 and an annual cost of $40,000.

Development of 5 new recreation sites and expansion of 4 existing recreation sites could donate a substantial amount of contract work to local parties. Approximately $395,000 over the life of the plan could be spent on development of these new sites. The new recreation sites are nearly identical to the current situation and would not have a substantially different effect.

Approximately $240,000 may be spent on expansion of recreation sites over the life of the plan. The proposed plan has one additional site (Indian Crossing) than the current situation that would be expanded.

Limited development of facilities at identified potential sites (see Table 3-14) and along the upper Green River could cost $120,000 over the life of the plan. The current alternative does not provide for facilities along the Green River.

Development of five interpretive facilities at Diamond Hoax, Taylor Flat, Pariette Wetlands, Clay Basin Gas Field, and Brush Creek would require about $50,000 over the life of the plan. The current situation does not provide an interpretive facility at Brush Creek.

Development of 23 miles of hiking and/or horseback trails, as described under the proposed plan may require $46,000. Establishing 12 miles of mountain bicycle trails using existing rural roads and trails could cost $24,000. The current alternative provides only 15 miles of hiking trails and no bicycle trails.

Maintaining the character and values of 43,200 acres of identified semi-primitive non-motorized areas (see Map 2-7) could require $2,000 and draw recreationists interested in such values. However, this would exclude OHV use and could have an overall decrease in revenues brought into the community. The current alternative maintains only 6,800 acres at 6-Mile Draw for its primitive values.

Establishing back-country byways, as described under the proposed plan, could cost $20,000 and draw more tourists to the area, thus increasing the probability of larger revenues to the community.

If these development totals are added up and divided by the number of years in the life of the plan, an annual cost may be estimated in this alternative equalling $61,333. In addition, there would be $83,000 required annually to administer and maintain these projects. Thus the estimated total annual average cost of the recreation program in the proposed plan is approximately $144,333.

Not only will these developments cause injections into the community, but more recreationists will be able to use the area at any one time, perhaps leading to greater expenditures for local merchants.

From Management Actions for Riparian Habitat Programs

Seventy-two hundred (7,200) acres of riparian habitat, to a late or climax seral stage, would require a total of $88,500 (12.5 miles of fence and 9 miles of pipeline).

Closing riparian areas to livestock grazing that do not respond to improved grazing management could decrease the cost effectiveness of current operations. The magnitude of the loss would be dependent upon how much feed is lost and the additional management required by permittees to maintain present income.

From Management Actions for Soil and Water Programs

Vegetation treatments outlined in the proposed plan would result in the annual retention of approximately 344,250 tons of potential sediment on site, leading to an annual savings of approximately $24,097 ($0.07/ton) to downstream Colorado River users. Assuming one percent of these retained sediments are salts, an additional savings of $225,002 ($65.36/ton) could be realized by downstream Colorado River users. Thus, total erosion savings for these vegetation treatments would equal $249,100 per year.

Oil and gas activities in the Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley regions could result in accelerated erosion producing about 5,500 tons of sediment, costing approximately $385 per year. Additionally, salinity reclamation costs would equal $3,595 per year, thus the total erosion costs from oil and gas would total $3,980. The difference between retaining the soils on site versus estimated soil loss from oil and gas activities would be $245,119 per year.

From Management Actions for Special Emphasis Areas Programs

Designating the upper and lower Green River segments for wild and scenic river status could have long term negative impacts on future water impoundments, however since there are currently no proposals for such actions in the future no socioeconomic impacts can be determined concerning these water projects. The designation could attract tourists interested in scenic river qualities, again contributing to the business community. Similar effects may occur with the designation of the Upper Green River as a scenic river.

From Management Actions for Vegetation Programs

Under the proposed plan, numerous improvement projects will be required over the life of the plan which could be contracted out locally. The projects include 43 guzzler/spring developments, 22,950 acres of vegetation treatments, 687 reservoirs, 58 miles of fence, and 35 miles of pipeline. Costs for such improvements would total $2.5 million or $168,267 annually (refer to Appendix 10 for a breakdown of these costs).

In addition, approximately $46,500 would be required annually to administer this program. Thus creating a total annual cost of $214,767. These projects and improvements would make significant long-term contributions to the wildlife and livestock programs. It should be noted that approximately 50 percent of the funds could be contributed from permittees, UDWR, and other interested parties.

From Management Actions for Woodland Programs

If 3,700 cords are taken (1,400 more than Alternative A) and personal wood cutting permits cost $5 per cord, BLM may take in $18,500 annually. However, if commercial wood is sold in the Wasatch Front for $100 per cord, individuals may forgo $95 of cost per cord or realize a total value of $370,000 annually. A crude benefit/cost ratio demonstrates the large benefit to individuals wood cutters on a per cord basis, 100/5 = 20. This does not include costs of labor, equipment, and related supplies. This activity could prove valuable to individual families in the local community due to the savings over commercial wood.

Further benefits may be obtained by harvesting Christmas trees, juniper fence posts, pinyon pinenuts, live trees, and non-barrel cactus, about 400,000 more acres are available under this plan than the current situation.

IMPACTS TO SOIL AND WATER RESOURCES

From Management Actions for Minerals Programs

Over a 15-year period, approximately 1,100 acres could be disturbed on critical soils in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas producing regions. This could cause disruption of the water cycle by exposing bare soil to wind and water, accelerating erosion. This area is difficult to revegetate due to low rainfall (less than 8 inches a year) and poor soil development. This area receives frequent flash floods which produce high runoff although total annual precipitation is minimal. Because of a difficulty in revegetating these sites, accelerated erosion could increase if an active drilling program continues. This disturbance from oil and gas operations could cause increases of soil erosion loss from two to five tons per acre per year. With five tons per acre per year increase in erosion from this activity, an additional 5,500 tons of soil per year could be lost. This impact would have significant negative impacts to the water quality of the Green River.

Phosphate leases could occur on 7,650 acres. Actual surface-disturbing activities would involve a total of approximately 500 acres. It is likely the staggered surface-disturbing activities used in phosphate mining would result in staggered revegetation actions over the life of this plan. Thus, disturbance would have a short-term negative impact, causing accelerated erosion only to the immediate area involved in active mining or in early stages of reclamation and revegetation. Successful revegetation efforts would result in positive long-term benefits by improving erosion conditions.

From Management Actions for Riparian Programs

Of the 15,650 inventoried riparian acres, 7,200 public acres in early and mid ecological conditions will be converted to late and climax ecological stage. By converting these 7,200 public acres (or 98 riparian miles), water quality would be improved, water tables would be raised, streambank stability would be increased, and downstream flood damage reduced. All these factors are seen as long-term, positive on-site and downstream watershed benefits.

From Management Actions for Special Emphasis Areas Programs

The proposed plan's decision to recommend the upper and lower segments of the Green River for inclusion in the National Wild and Scenic River System, by itself, should not significantly affect the individuals and entities holding existing water rights. However, should the recommendation be accepted and designation approved by congress, some restrictions could be imposed on the existing water users to maintain the free flowing character of the river. Any restrictions and water impoundment projects that would be affected by such restrictions are presently unknown.

From Management Actions for Vegetation Programs

Treating 22,950 acres of closed, unproductive stands of predominantly pinyon-juniper and sagebrush vegetation types would improve long-term watershed conditions by increasing ground cover by herbaceous vegetation. Estimating a long-term reduction in erosion by 50 percent, 344,250 tons of sediment would remain on-site over the life of this plan (see Appendix 8 for possible treatment opportunities by type and acres for each grazing allotment).

The ecological goal of this alternative will provide for a healthy watershed. Since optimum herbaceous ground cover occurs in a mid seral stage in juniper-pinyon and big sagebrush-mountain browse vegetation types (Wright, Neuenschwander, Britten, 1979), this alternative would provide optimum watershed benefits. About 50 percent of all additional vegetation from treatment would go for watershed maintenance thus providing a long-term benefit to watershed values.

IMPACTS TO VEGETATION RESOURCES

From Management Actions for Minerals Programs

Oil and gas activity in the Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley oil and gas regions could disturb approximately 1,100 acres (1 percent of shadscale vegetation zone). This area would be cleared over a 15-year period for well pads, facilities, access roads, and pipeline development. Because of low precipitation (less than 8 inches annually) in the area, poor soil development and difficulty of vegetation reclamation, these areas may remain in an early ecological seral stage for the long-term after vegetation is cleared. Rehabilitation efforts may be postponed 5-20 years while the well is in production, resulting in a lowered state of biodiversity including perpetuation of noxious weeds.

From Management Actions for Recreation Programs

Highly erodible soils, saline soils, and municipal watersheds and associated vegetation would be protected from OHV disturbance due to a restriction of designated road use with seasonal restrictions on 117,500 acres. Restricting OHV use to designated roads and trails in relict vegetation sites will insure site damage does not occur.

From Management Actions for Livestock Programs

Allowing grazing use after April 1 on winter/spring grazing permits only when spring grazing can be rotated, deferred, or rested would insure semi-desert vegetation vigor during the critical spring growing season.

From Management Actions for Vegetation Programs

Treating 22,950 acres of closed stands of pinyon-juniper and sagebrush community types would result in increased vegetation diversity and overall community health, while providing forage production for livestock and wildlife. A benefit derived from pinyon and juniper burning is increasing diversity of herbaceous vegetation (Severson and Rinne, 1988).

From Management Actions for Special Emphasis Areas Programs

The designation of the three relict vegetation sites as ACECs will have a long-term positive benefit to the scientific community, land managers, and the general public.

IMPACTS TO VISUAL RESOURCES

From Management Actions for Minerals Programs

Development of high potential oil and gas resources in the Nine Mile Canyon area may impact as much as 3,200 acres, or 5 percent of the 60,000 acres of Class II VRM the resource area; therefore, VRM Class II could not be maintained. Any deterioration of visual quality would be a long-term, negative impact on recreation users. These scenic areas would become less popular and visitor use would decrease. The amount of this reduction would occur over the long term and cannot be predicted.

From Management Actions for Special Emphasis Areas Programs

Designating the upper Green River as both an ACEC and wild and scenic river would increase management priority in the area resulting in Class II visual resources being maintained. Not recommending Argyle Creek for designation as a wild and scenic river and managing it to protect its outstandingly remarkable scenic values could, over time, result in a deterioration of these values on approximately 4,000 acres, or 7 percent of the 60,000 acres, of Class II scenery. Any deterioration of visual quality would impact recreation users. These scenic areas would become less popular and visitor use would go down. Users would be displaced to other areas in the resource area or to lands administered by other agencies. The amount of this reduction cannot be predicted.

IMPACTS TO WOODLAND MANAGEMENT

From Management Actions for Recreation Programs

To protect potential wild and scenic river values and special status species along the Green River Corridor, cottonwood could not be harvested from 7,400 acres within the Green River corridor between the Ashley Forest Boundary near Little Hole and the Utah-Colorado state line, or 7,900 acres from within this same corridor between Ouray and the Uintah-Carbon County line. This would reduce the amount of cottonwood available for harvest on public lands in the resource area by 75 percent. Although other types of wood (pinyon and juniper) could be substituted for cottonwood, cutting it would cause inconveniences to the people involved. Therefore, the local demand could only be partially accommodated by DMRA.

From Management Actions for Woodland Programs

Pinyon, juniper, and cottonwood outside the Green River Corridor could be harvested for firewood to meet demand on 175,000 acres (96 percent). Juniper fence posts and Christmas trees could continue to be harvested on 172,800 (94 percent) acres to meet the local demand on 94 percent of woodland areas in the resource area. Commercial quality woodlands open to cutting on 74,700 acres could support an annual harvest of 3,700 cords over an extended period of time on a sustained-yield basis. This means an increase of 23 percent could be accommodated and still meet sustained yield goals. This would be a long-term benefit to the local economy.

CUMULATIVE IMPACTS OF IMPLEMENTING THE PROPOSED PLAN

AREAWIDE CUMULATIVE IMPACTS

The cumulative effect of implementing the decisions proposed in this plan, coupled with the already existing decisions implemented by other land-managing federal, state, and local agencies in the area, is expected to have some limited long-term negative significance. Proposed decisions resulting in new restrictions to OHV users and new oil and gas leases, when compounded with existing restrictions, could further limit OHV opportunities and curtail or preclude oil and gas exploration and development in certain areas of the resource area.

The proposed plan also offers specific and strongly worded decisions that would result in significant long-term positive support to the Basin's desire for increased recreation and tourism development. These proposed decisions are seen as being consistent with, and complimentary to, the current management plan of other federal, state, and local land managing agencies involved in the Uinta Basin.

The cumulative impacts to fish and wildlife habitat under the proposed plan alternative would be:

- Special status raptor nest sites would be protected year-long instead of the existing seasonal protection from surface disturbing activities; a significant positive, long-term impact.

- Black-footed ferret reintroductions would be realized on one site, involving a possible maximum of 16,600 acres, aiding in the recovery of the species. This could represent 49 percent of all identified black-footed ferret habitat in DMRA.

- Approximately 88,500 acres (49 percent) of crucial sage grouse nesting habitat would be seasonally protected within two miles of all strutting grounds. This is a 31,500 acre increase over the existing situation. In addition, the protection period would increase by one month and OHV would be limited to designated roads and trails, all significant positive, long-term impacts.

- Areas authorized for the reintroduction of bighorn sheep would increase to 123,800 acres from the existing 31,000 acres, allowing a population increase from about 25 animals in one area to a minimum of 600 in four areas.

- Wildlife forage assignments would be allowed to increase 31 percent over current use to 40,000 AUMs, a significant, positive, long-term impact.

- OHV use would be restricted to designated roads and trails on 409,400 acres (58 percent of the resource area) seasonally, or yearlong. This would protect wildlife from disturbance during reproductive and other crucial periods and prevent their displacement from preferred habitats. UDWR has also reported that increased human access is directly proportional to increased poaching of wildlife. This action would have a significant positive long-term impact for wildlife by aiding to reduce poaching and human harassment of wildlife.

The only irreversible commitment of resources for wildlife under the proposed plan would be the loss of habitat to urban expansion. Species affected include deer, elk, and non-game wildlife, and deer and sage grouse, respectively. There would be no irretrievable commitment of resources for wildlife under the proposed plan alternative.

Right-of-way construction will be affected by seasonal restrictions on the 8.5 mile corridor route (71 percent) within the Browns Park Complex. This will have negative, cumulative effects on a local scale. However, the restrictions will simultaneously mitigate impacts on crucial deer winter range, raptor habitat, cultural properties, semiprimitive-nonmotorized areas, and highly erodible soils.

It is expected that range improvements and improved management will provide sufficient AUMs to maintain existing livestock preference. Wildlife numbers could increase due to increasing available forage from 27,600 AUMs to 40,000 AUMs which could have a significant negative impact on private agricultural lands in the area. Private landowner intolerance may prevent wildlife numbers from increasing significantly.

In the proposed plan, land use authorizations would be prohibited on a total of 6,900 acres and would be discouraged on 82,800 acres. This acreage totals one percent and 12 percent of the total surface estate administered by DMRA, respectively.

The cumulative impacts to oil and gas activities under this alternative are summarized below in Table 4-5 by 1) oil and gas producing regions, 2) oil and gas potential, and 3) category (Category 3-no surface occupancy).

TABLE 4-5:
SUMMARY OF CUMULATIVE IMPACTS TO OIL AND GAS ACTIVITIES UNDER THE PROPOSED PLAN

OIL AND GAS PRODUCING REGIONS	HIGH POTENTIAL				MODERATE POTENTIAL			
	CATEGORY 4		CATEGORY 3		CATEGORY 4		CATEGORY 3	
	Acres*	%**	Acres*	%**	Acres*	%**	Acres*	%**
Myton Bench-Nine Mile Canyon	0	0	11,700	8	0	0	25,400	13
Horseshoe Bend-Ashley Valley	0	0	1,400	2	0	0	9,000	6
Clay Basin-Manila	0	0	830	5	0	0	6,700	16

* Acres of public land mineral estate ** Percentage of total high or moderate potential oil and gas mineral estate for the indicated region

Referring to Table 4-4, it is estimated that approximately $4,233,000 could be lost annually to the community. Therefore, over the life of this plan, approximately $64 million of oil and gas earnings (before royalty and tax payments) would not be realized. From these earnings a total of $7.9 million (12.5 percent of total oil and gas earnings) in royalty payments would not be obtained by the state and federal governments. Of this total, the State of Utah would lose total royal payments of approximately $4 million. In turn, the counties involved in this RMP would lose total royalty payments from the State of Utah of approximately $1 million. In addition, counties would lose revenues from associated and supporting taxes (i.e., property, sales, ad valorem, and severance).

The cumulative impacts are significant and negative in nature because (see Tables 4-4 and 4-5): 1) the amount of no surface occupancy restrictions is high, and 2) the number of seasonal restrictions is high. Generally, the significant negative impacts in the proposed plan are much greater than Alternative C and D, but are less than Alternatives A and B. In summation, the cumulative negative impacts under the proposed plan would restrict oil and gas development and subsequent economic benefits.

To protect watershed resources, soils, scenic and recreation values, wildlife habitat and nesting sites, relict vegetation, and threatened and endangered plant species habitat: 299,600 acres would be open to use by OHVs; 45,200 would be closed; 327,800 acres would be restricted seasonally; and, 36,400 acres would be restricted yearlong.

Restricting OHV use to designated areas with seasonal or yearlong restrictions, along with rangeland improvements, together will mitigate negative, cumulative, erosion impacts within the resource area.

Traffic counter and visitor register information in Browns Park indicate that visitor-use on the upper Green River corridor will continue to increase between ten (10) and fifteen (15) percent annually. This increase may create cumulative impacts on human health and safety, water quality, and aesthetic values within the river corridor.

For the sake of analysis, costs represent expenditures by BLM which go into the community, thus stimulating the economy. On the other hand, benefits are a bit less tangible which are often based on economic forecasts that may be lacking adequate data. For example, the cultural program has well documented costs for various projects and developments, however the additional use or benefits that may occur due to these expenditures is not clear, neither is the "cause or effect" relationship.

Comparison between the "costs" and "benefits" is not reasonable for a variety of reasons; the lack of comparables, interrelated resources, missing measurable benefits, and omitted industry sizes (to give perspective to alternative impacts). However, if the available benefits are divided by the available costs, a crude benefit/cost ratio may be devised. For the proposed plan, benefits are approximately twice as much as costs, making it an economically feasible option.

Treating 22,950 acres of closed stands of pinyon-juniper and decadent or closed sagebrush community types and improved grazing systems would result in increased vegetation diversity, increased forage for livestock and wildlife (approximately 3,500 AUMs), and improved watershed conditions (344,250 tons sediment left on site).

Improving 7,200 acres (or 98 miles) of riparian areas, and requiring a minimum of three (3) inches of herbaceous growth after grazing use while improving upland vegetation watersheds through rangeland improvement and improved grazing practices, would ensure maintenance of plant vigor, increase species diversity, aid deposition of sediments to rebuild degraded streambanks, thereby providing protection and increasing wildlife habitat, recreation, and watershed benefits.

Oil and gas development in the Myton Bench/Nine Mile Canyon and the Horseshoe Bend/Ashley Valley Regions could potentially increase soil erosion to 5,500 tons annually. However, seasonally restricting OHV use to designated roads, approximately 75,000 acres of critical soils, 23,200 acres of floodplain, and 19,300 of municipal watersheds, along with rangeland improvements (saving 22,950 tons annually) together will mitigate negative, cumulative erosion impacts within DMRA.

SPECIAL EMPHASIS AREA CUMULATIVE IMPACTS

Under the proposed plan, the Green River Scenic Corridor ACEC and the Red Creek Watershed ACEC would continue. The cumulative impacts attributable to the designation of the six ACEC proposals are described below. As a result of this analysis, three distinct "influence zones" within the resource area were identified:

ACEC Nomination	Influence Zone within Resource Area
Browns Park Complex Red Creek Watershed	Browns Park, Daggett County
Red Mountain-Dry Fork Complex	Population areas of Vernal, Maeser, and Dry Fork within Uintah County
Pariette	Uintah and Duchesne Counties

Lower Green River
Nine Mile Canyon
Lears Canyon

The following are the cumulative impacts affecting any one or all of the influence zones within DMRA.

The protection of areas and objects significant to the traditional lifestyle and religious ceremonies of the Ute Tribe occurring within these ACECs will have a long-term positive impact on the social diversity and thus social health of the resource area, Uinta Basin and the nation as a whole.

The reintroduction of bighorn sheep, black-footed ferrets and other historical wildlife species to these ACECs may result in long-term positive impacts. Such reintroductions may increase the biological diversity and thus overall health and stability of the ecosystems on which these species are dependent, both within the resource area and the intermountain west as a whole.

The suppression of large-scale wildfires in the relict vegetation communities of Lears Canyon and Red Mountain-Dry Fork areas will have long-term positive impacts to the regional network of native vegetation comparison areas, used for scientific research and study. The fire management objectives for the Browns Park Complex will result in long-term positive impacts to crucial deer winter and important bighorn sheep habitats by improving or maintaining desired vegetation composition and productivity. Additional positive impacts will be realized due to the reduction of hazardous fire fuel buildups, thus increasing human safety and reducing private property damage or loss in the Browns Park area.

Lands decisions involving exclusion areas and protective withdrawals in level 1 lands, and avoidance areas in level 2 lands within all the ACECs will result in long-term positive benefits to the water quality of the Green River, as well as scenic and recreational values of the remaining level 1 areas. These actions will support the tri-counties' desire to expand the tourism industry in northeastern Utah.

Continuation of livestock grazing in ACECs on level 2, 3, and 4 lands will have long-term positive impacts on the social and economic health of the Uinta Basin residents dependent on public grazing for their traditional, rural lifestyles and economic welfare. The closure or restriction of livestock grazing on the Green River through Browns Park within level 1 lands will result in less river recreator/livestock conflicts. A secondary positive benefit to the basin's economic future will be the closure of developed recreation sites to livestock grazing, areas where recreation activities and livestock use have been perceived to be historically incompatible.

Oil and gas leasing and geophysical activities would be allowed on all lands within the ACECs, with restrictions designed to protect the identified high value resources. Significant surface disturbing geophysical activities would not be allowed on level 1 and 2 areas. The area between Ashley Creek Gorge and Dry Fork Creek in the Red Mountain-Dry Fork ACEC would be closed to phosphate development. These restrictions may pose short-term negative economic impacts on energy companies; however, the long-term positive economic gains to northeastern Utah from recovery of these minerals outweigh the short-term negative impacts. Level 1 areas within the Browns Park Complex, Lears Canyon, and Red Mountain-Dry Fork Complex will be protected under a withdrawal to preclude mining activity other than casual use. This would pose a negative long-term impact to those individuals or companies dependent on mining activity for all or a portion of their economic livelihood.

There will be impacts to the northeastern portion of the RMP area from increased visitor days due to the development of facilities in level 1 and 2 areas. Impacts may include, but are not limited to, riparian zone site damage, wildlife disturbance, and an overall lessening of recreational experiences from increased water travel, hiking, OHV use, and camping. Increased visitor days will impact human health and safety along the high intensity use areas of the Green River Scenic Corridor (Browns Park Complex) and the Desolation Canyon National Natural Landmark (lower Green River). The positive impacts to the tri-counties' economies, however, due to the increased recreation use in the area can not be emphasized enough.

Vegetation management objectives in the proposed plan relating to riparian, wildlife, and special status plant species will have positive impacts for those resources, as well as sediment control and watershed stability in the designated ACECs and adjacent areas.

Wild and Scenic Rivers

Six river segments were determined to be eligible for further study and possible recommendation for designation into the National Wild and Scenic River System (NWSRS).

They include three segments of the Green River, two on Nine Mile Creek, and one on Argyle Creek.

The proposed plan would protect the upper and lower Green River segments for possible inclusion into the

NWSRS. The middle Green River segment, two Nine Mile segments, and Argyle Creek would be dropped from consideration.

Continue Protection

Continuing to protect the upper and lower Green River segments for possible future designation as wild and scenic rivers would compliment the protection given to cultural resources by proposed ACEC designations.

Areas closed to lease operations because of no surface occupancy stipulations proposed for these two areas will have significant negative impacts on oil and gas operations, as well as on surface disturbing seismic geophysical exploration. An increase in drilling costs due to directional drilling requirements will occur. These stipulations will also increase the possibility of loss of oil and gas resources through drainage by state or private wells and loss of associated federal revenues.

Outstandingly remarkable values identified on these two segments would continue to be protected and recreation use would increase.

Designation could have long term negative impacts on future water impoundments, however, since there are currently no proposals for such actions in the future, no socioeconomic impacts can be determined concerning these water projects.

The proposed plan's decision to recommend these two segments for inclusion in the system, by itself, should not significantly affect the individuals and entities holding existing water rights. However, should the recommendation be accepted and designation approved by Congress, some restrictions could be imposed on the existing water users to maintain the free flowing character of the river.

Drop From Further Consideration

Dropping the middle Green River segment, both Nine Mile segments, and the Argyle segment from further consideration for inclusion into the NWSRS would have the following impacts:

- Even though Nine Mile Creek would not be recommended, important cultural and paleontological values would continue to be protected by the proposed ACEC designation.
- The middle Green River segment would be left open to uses that could damage identified wildlife habitat. Increases in human activity could also displace special status raptor species which use the river corridor for nesting and hunting.
- Not identifying the middle Green River segment, two segments along Nine Mile Canyon, and one in Argyle Canyon for protection and further study, would leave the stream corridors open to uses that could damage identified outstandingly remarkable values along the corridors. However, it is anticipated that the impacts to these rivers would be minor because cultural resources, scenic values, and riparian areas would continue to receive protection.

DIRECT AND INDIRECT IMPACTS OF IMPLEMENTING ALTERNATIVE A

IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES

From Management Actions for Fish and Wildlife Habitat Programs

Accidental disturbance of both cultural and paleontology resources would continue to occur as surface disturbing actions such as land treatments and water developments are completed to benefit wildlife.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Minerals Programs

Accidental disturbance of both cultural and paleontology resources by activities associated with mineral exploration and development would continue to occur at approximately the current rate. This rate is unknown.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Recreation Programs

Continued active management of the John Jarvie National Historic District in Browns Park would allow the public to gain a better understanding of the history of this fascinating area. By preserving, displaying, and interpreting the many structures and items at the site, the public gains a better appreciation of the need to protect and preserve cultural resources.

Protecting the Desolation Canyon National Natural Landmark on the lower Green River below the Sand Wash Recreation Site would increase public awareness of the importance of John Wesley Powell's historic trip down the Green River in 1869.

Vandalism and accidental disturbance of resources would continue to occur at the present rate or increase slightly as OHV and other recreation use of public lands increase.

From Management Actions for Special Emphasis Areas Programs

Not designating Nine Mile Canyon, Red Mountain-Dry Fork or Browns Park Complexes as ACECs would make it more difficult to stabilize and protect the important cultural resources within these areas because they would not receive the management priority consideration afforded an ACEC. As a result site deterioration would continue and eventually some resources would be lost.

IMPACTS TO FISH AND WILDLIFE HABITAT RESOURCES

From Management Actions for Fish and Wildlife Habitat Programs

Approximately 19,000 acres (57 percent) of the total identified black-footed ferret habitat would be managed in a maximum of two areas for the recovery of the species. This could support up to 153 ferrets, assuming one ferret per 124 acres (Forrest, et al., 1985), and no more than two reintroduction areas used. This would be a better positive, long-term benefit than the proposed plan because it provides eight percent more habitat and maintains that habitat in two areas. This action would also meet BLM's policies concerning special status species habitat conservation as well as the Black-Footed Ferret Recovery Plan objectives.

The impacts to adjoining land owners from the reintroduction of black-footed ferrets on public lands is not considered significant. Please review the DMRA guidelines for potential black-footed ferret reintroductions in Appendix 2 for further information.

Allowing permanent surface disturbance and routine human activity near active ferruginous hawk and golden eagle nest sites, even after the young have left the nest, could force these animals to continually seek new, possibly less quality, nesting habitat. This would be a significant negative long-term impact and could prolong the present special species status ranking.

Implementing seasonal restrictions precluding surface-disturbing activities on 57,000 acres (or 31 percent of the total identified) of sage grouse nesting habitat would be a slight negative long-term impact for this species. This would only protect 68 percent of all nests according to the Western States Sage Grouse Guidelines.

Approximately 31,000 acres (or 25 percent of the identified potential habitat) would be open to the reintroduction of bighorn sheep within the DMRA. This would limit the population to 44 animals yearlong, based on the 95 AUMs currently allocated for bighorn sheep. This would be a moderately negative impact for bighorn sheep management in the resource area, as UDWR objectives would not be met. Public demand for more bighorn sheep would also be met.

From Management Actions for Lands and Realty Programs

Acquiring additional public vehicle access could open 70,700 public acres of presently inaccessible public land. This action would have a negative long-term impact on wildlife by reducing wildlife populations due to increased hunter access, losing available forage as a result of road construction and OHV destruction, and increasing human harassment and poaching. The Utah Board of Big Game Control, the Utah State Interagency Committee and the Big Game Section of Utah Division of Wildlife Resources have all recommended access regulation to improve wildlife habitat security. A majority of the people attending the 1991 and 1992 Big Game Board meetings indicated that increased access and hunter crowding had a significant negative impact on buck-to-doe ratios, thus adversely affecting breeding success and populations.

A protective withdrawal for 19,400 acres of riparian habitat on the Green River Scenic Corridor would have significant positive impacts for 14 of the 23 known special status wildlife species and fisheries habitat in DMRA by maintaining their high quality habitat.

From Management Actions for Livestock Programs

Continuation of existing management actions on private land would accelerate the decline in high priority sage grouse habitat. About 56 percent of the known habitat has already been lost (see Chapter 3).

Negotiating with livestock permittees to eliminate domestic sheep use within a 10-mile buffer of identified bighorn sheep reintroduction areas has the potential to reduce the likelihood of disease transmission from domestic livestock to bighorn sheep. The same impacts as described in the proposed plan would also apply here.

From Management Actions for Minerals Programs

Approximately 100 percent of the known Ferruginous hawk and 90 percent of the golden eagle habitat occurs within the areas affected by mineral activities. Protective stipulations would protect nest sites only during the reproductive period each year. After the reproductive period, all nest sites would be left unprotected and, if rendered unusable by unacceptable human activities in the area, could lead to the loss of habitat for these species and could lead to the ultimate decline in population levels.

Black-footed ferret reintroductions would be limited to two locations within DMRA, accounting for about 58 percent (19,300 acres) of the acreage identified as potential habitat. Of the three alternatives proposed reintroductions, this alternative affords the second smallest amount of acreage, and thus reducing the number of ferrets capable of being reintroduced. Any proposed reintroduction area would be considered a significant, long-term, positive impact to the survival of this species.

Approximately 77 percent of priority fisheries habitat, including proposed Critical Habitat for the four endangered fish in the middle and lower segments of the Green River, would not be protected from future mineral entry under this alternative's decision regarding protective withdrawals. Loss or severe degradation of these habitats and increased human disturbance could have significant negative, long-term impacts on these special status species.

ACEC designation would be proposed on 6 percent within DMRA, protecting and enhancing critical wildlife habitat on the upper segment of the Green River and Red Creek only. Other critical/crucial wildlife habitat at Pariette Wetlands, Nine Mile Canyon, Browns Park and the Red Mountain-Dry Fork areas would not be designated as ACECs which afford the best opportunity for increased habitat enhancement and management.

From Management Actions for Riparian Programs

Restricting OHV use to designated roads and trails on 88,500 acres (12 percent of the resource area) seasonally or yearlong, would be a moderately negative long-term impact to wildlife. Wildlife would be disturbed on 46 percent more of the resource area than in the proposed plan, during reproductive and other crucial times. Increased poaching would occur when compared to the proposed plan, as 326,100 acres would be open to OHV use. UDWR has reported a direct correlation between increased human access and wildlife poaching; increased human access may lead to increased wildlife poaching.

Management actions for riparian habitat within the resource area would provide direct long-term benefits to 14 of the 23 special status species in DMRA. These actions are seen to be significant long-term positive benefit to wildlife habitat management success for the resource area and the region. The same benefits for special status species, general wildlife population increases, and the realization of BLM's Riparian Wetlands Initiative goals as described for the proposed plan would also apply here.

From Management Actions for Vegetation Programs

The vegetation treatments outlined in this alternative to meet livestock use objectives would maintain existing livestock grazing preference, while maintaining or enhancing the viability of the vegetation communities involved. Old-age stands of pinyon-juniper woodlands and decadent big sagebrush-mountain browse vegetation types would be managed in a mid seral ecological stage maintaining livestock preference by providing approximately 3,500 additional AUMs.

A maximum of 35,000 AUMs would be assigned to wildlife; 7,430 AUMs over current wildlife use. This additional use could accommodate a 10 percent increase in big game. This has the potential to be a significant negative impact as any increases in big game use would intensify wildlife/private landowner conflicts.

Old age stands of pinyon and juniper woodlands and decadent big sagebrush-mountain browse vegetation types (22,950 acres) would be managed in a mid seral ecological stage, providing approximately 3,500 additional AUMs of forage.

Alternative A would allow wildlife forage demands to increase from current levels of 27,600 AUMs to 35,000 AUMs, a 21 percent increase. This would be a minor positive long-term benefit to wildlife. UDWR herd unit objectives for big game would not be achieved. Additional wildlife transplants for bighorn sheep, etc., might not be possible if forage allocations were not available.

IMPACTS TO LANDS AND REALTY MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Restrictions would be imposed on lands containing active raptor nest sites and sage grouse strutting grounds. These restrictions would affect approximately 14,500 acres and would prohibit the construction of right-of-way projects unless the impacts could be mitigated.

Maintaining 19,300 acres of existing black-footed ferret habitat would limit but not necessarily preclude right-of-way development. Applicants may be required to relocate and/or modify proposals and restrict activity to specific times.

Seasonal restrictions would be imposed on 295,000 acres to protect wildlife resources. These restrictions would not preclude land use authorizations but would limit construction periods to specific times of the year.

From Management Actions for Lands and Realty Programs

Adherence to the designated corridors would prevent the proliferation of major utility systems across undisturbed public lands. The designation of specific corridors for future major right-of-way projects may impact those companies preferring alternative locations to some extent. However, this will ensure the protection of resource values through the land use analysis process which will be required for projects proposed outside of the established corridors. Closure of the corridor in Jesse Ewing Canyon would essentially close off the only north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

It can be expected that the counties of Daggett, Duchesne, and Uintah would not be largely affected by future acquisition of public lands as the preferred method for acquisition would be through exchange. The disposal of land by sale, state selection, or R&PP would have a positive impact on the counties.

From Management Action for Recreation Programs

Recreation sites encompassing 5,500 acres would restrict those land use authorizations that would cause visual/aesthetics impacts and found to be inconsistent with the purpose of the recreational sites.

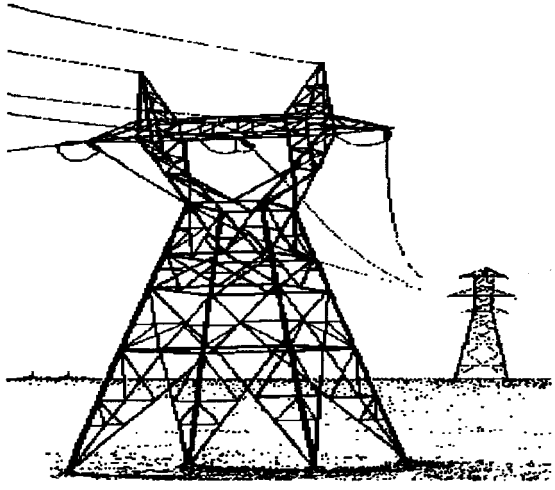
Land use authorizations would be prohibited on 19,400 acres within the Green River Scenic Corridor. Closure of the Jesse Ewing Canyon designated corridor upon reaching its capacity would essentially close the only feasible north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

TABLE 4-6:
POTENTIAL BLACK-FOOTED FERRET REINTRODUCTION AREAS
UNDER ALTERNATIVE A

	SUNSHINE BENCH	SHINER	ANTELOPE FLAT	TWELVE MILE	BUCKSKIN HILLS
Priority of Reintroduction Areas	1	2	3	4	5
Oil/Gas Potential	Moderate	Moderate	Moderate	High	Moderate
Identified Habitat (in acres)	4,800	7,800	2,600	1,700	2,400
Percent of Area Leased*	38	0	98	98	0
Current Number of Producing Wells*	0	0	0	4	0
Projected Number of New Wells	5	5	15	20	5
Oil/Gas Spacing	160	40	40	160	40

* Source: BLM Automated Lands and Minerals Record System and Automated Inspection Records System, 1991

Seasonal restrictions on 8.5 miles of the designated corridor route within the Browns Park Complex would limit construction periods for rights-of-way.



IMPACTS TO LIVESTOCK MANAGEMENT

From Management Actions for Woodlands Programs

Firewood harvests in areas presently little-used by livestock would benefit livestock by providing approximately 225 AUMs over the life of this plan.

IMPACTS TO LEASABLE MINERALS MANAGEMENT - OIL AND GAS

From Management Actions for Fish and Wildlife Habitat Programs

No surface occupancy stipulations and timing stipulations to protect sage grouse strutting grounds will have significant negative impacts on high potential mineral estate in the Myton Bench-Nine Mile Canyon and in the Horseshoe Bend-Ashley Valley gas producing regions. Seasonal restrictions from March 1-June 30 may result in altering drilling schedules of lessees which may further cause increased drilling costs. Surface disturbing geophysical exploration will be limited to designated roads and trails. This may influence the amount and quality of data collected, which in turn may have an indirect impact of increasing exploration risks. Public comment indicates that the number of restrictions will reduce the value of oil and gas leases as well as increase exploration costs.

Raptor protection zones would pose minor adverse impacts to the exploration and development for oil and gas resources.

Impacts due to restrictions in potential black-footed ferret reintroduction areas prior to and following reintroduction were analyzed for all potential black-footed ferret reintroduction areas. Table 4-6 outlines general information concerning the potential black-footed ferret habitat reintroduction areas as relates to oil and gas activities.

Prior to ferret releases in the reintroduction areas restrictions on surface-disturbing activities would increase operational costs by rerouting or moving surface disturbing activities (such as access roads, pipelines, drilling pads, and production facilities) in order to avoid areas of high prairie dog density (>10 burrows per acre). This will affect the overall orderly development of oil and gas fields by restricting the regular and orderly placement of wells. The amount of surface disturbing activities will be limited to a maximum of 10 percent in the reintroduction area to protect potential black-footed ferret reintroduction areas. This may substantially limit the amount of exploration and development activities and subsequent economic benefits to federal, state, and county governments. Significant surface disturbing seismic geophysical activities will be restricted to existing roads and trails. This may affect the quality and quantity of seismic data collected and may have an affect on subsequent exploration or production programs.

Prior to release of black-footed ferrets, prairie dog colonies in the Sunshine Bench and Twelve Mile reintroduction areas will be allowed to expand 10 percent from their present size to enhance potential black footed ferret habitat. The restrictions outlined in Appendix 2 will also apply to the expanded areas and impacts will be similar to those described above.

After the release of black-footed ferrets in one or several of the reintroduction areas, no new surface disturbing activities relating to oil and gas will be allowed between March 1 through August 31, within 1/4 mile of the habitat occupied by black-footed ferrets to protect reproductive and active litter periods (see the table below for the size of 1/4 mile buffer in each of the reintroduction areas. This timing restriction will limit all exploration, production, and associated oil and gas surface disturbing activities from September 1 to February 28. Such a restriction will cause construction associated with exploration and production to take place during winter months. This will cause increased construction and drilling costs. Increased costs will also be incurred by operators by the requirement of installing mufflers on all equipment within 1/4 mile or within the black-footed ferret occupied reintroduction area. Periods of heavy vehicular traffic (i.e., drilling) would be encouraged during daylight hours. To the extent BLM has the authority, human activity would only be allowed during daylight hours after sunrise to two

hours before sunset. The only exceptions would be in case of emergencies, petroleum drilling, and associated servicing related traffic. This will cause some exploration, production, and associated oil and gas activities to take place during daylight hours. In turn, this will cause delays in exploration or production activities and will increase costs. There will be no impact to the maintenance and operation of existing production facilities in the Twelve Mile area.

	OIL AND GAS POTENTIAL	1/4 MILE BUFFER IN ACRES
Sunshine Bench	Moderate	8,000
Shiner	Moderate	10,200
Antelope Flat	Moderate	4,300
Twelve Mile	High	3,400
Buckskin Hills	Moderate	3,400

From Management Actions for Riparian Management

Management actions for the protection of riparian areas under this alternative would continue to have a minor negative impact to oil and gas activities, including geophysical exploration.

IMPACTS TO LEASABLE MINERALS MANAGEMENT - PHOSPHATE

Lands now under preference right lease for phosphate (7,650 acres) would be open to development and/or occupancy under this alternative with specific restrictions to minimize adverse impacts to crucial deer winter habitat.

IMPACTS TO RECREATION MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Travel restrictions limiting OHV use to designated roads yearlong, on 8,200 acres at Pariette Wetlands to protect important waterfowl habitat could impact recreational hunting by restricting vehicular access. However, since foot access is available, this would not be significant for the majority of the public land users. These restrictions would also benefit the recreation program by protecting wildlife during their crucial reproduction season, thus enhancing watchable wildlife opportunities. Overall it is expected that recreation use would not change.

Travel restrictions limiting OHV use to designated roads yearlong on 19,400 acres identified for possible reintroduction of black-footed ferrets would impact driving for pleasure and hunting. Restrictions prohibiting access during early morning and evening hours would impact antelope hunting opportunities on those areas. Small same hunting would take place, but fewer hunters would participate. This would result in a displacement of 50 visitor days for hunting each year to other parts of the resource area.

From Management Action for Lands and Realty Programs

Acquiring public vehicle access will provide hunters and recreationists with additional opportunities on approximately 70,700 public lands presently surrounded by private land and thus unreachable. Increasing access to public lands along the Green River will provide additional fishing and recreational opportunities. These additional opportunities would result in an increase of 6,800 visits to the area annually over the long term.

Recommending protective withdrawals on identified developed recreation sites and along the Green River Scenic Corridor ACEC would protect scenic, historic, aesthetic and recreational values from future agricultural or mineral development. Use would be expected to continue to increase at a rate of 10 to 15 percent annually over the long term.

From Management Actions for Minerals Programs

Development of identified high potential oil and gas areas would result in 150,900 acres currently identified as possessing semi-primitive, motorized values in the Three Corner and Myton areas, dropping one class to roaded natural in the Recreation Opportunity Spectrum inventory. This would change the type of recreation opportunities available in these areas from a somewhat primitive to a less natural experience. The number of persons affected is not known at this time, but it is expected to be significant over the long term.

From Management Actions for Recreation Programs

Semi-primitive, nonmotorized values on 6,900 acres would be protected for the enjoyment of primitive forms of recreation. This is 11 percent of the semi-primitive, nonmotorized lands in the resource area, and would significantly impact recreation. Demand for these types

of areas is expected to increase 5 to 10 percent annually over the long term.

It is important that this type of primitive recreation opportunity be provided to the public. Currently, there are no wilderness areas and only two small areas identified as BLM wilderness study areas totalling approximately 10,000 acres in the resource area. This alternative would assure that 6,900 acres would be protected. This is 36,300 acres less than in the proposed plan.

Over the next 10 years, demand for these areas is expected to increase dramatically. With only 6,900 acres protected for this type of use, BLM will not be able to meet future demand for primitive-type recreation experiences.

Managing for both primitive and developed forms of recreation would provide opportunities for people preferring primitive types of experiences (such as hiking, backpacking, horseback riding, and bicycling), as well as those preferring more developed and concentrated forms of recreation. Both types of use on public lands would benefit, and as a result increase.

Although it is expected that recreation visits will go down in areas where OHV access will be limited to protect critical resource values, overall use in the resource area will not be significantly affected. Use patterns will simply change and people will move to areas with fewer restrictions.

From Management Actions for Soil and Water Programs

Management actions to protect highly erodible and saline soils, and floodplains by limiting OHV use on 19,000 acres to designated roads (March 1 to April 30 and September 1 to October 31) could adversely affect driving for pleasure and, in the fall of the year, close access by hunters to some hunting areas. It is expected that 300 visitor days to public lands would be displaced to other areas because of this restriction.

From Management Action for Special Emphasis Areas Programs

Outstandingly remarkable wild and scenic river values would continue to be protected along the three Green River segments identified as being eligible for further study and possible inclusion in the Wild and Scenic River System. This status would attract recreationists who enjoy various water-based recreation activities such as canoeing, rafting, fishing, hiking, and camping.

The upper segment through Browns Park is currently receiving heavy use (10,000 visitor days in 1991) that is increasing annually. The middle and lower segments currently receive very little use but wild and scenic river designation would cause use to increase an estimated 10 percent annually to 800 visitor days on the middle segment and 1,300 visitor days on the lower segment in 10 years.

Not identifying two segments in Nine Mile Canyon and one in Argyle Canyon for protection and further study would leave these stream corridors open to uses that could damage identified outstandingly remarkable cultural and/or scenic values along the corridors. It is anticipated these impacts would be minor because cultural resources, scenic values, and riparian areas would continue to receive protection.

From Management Actions for Visual Programs

Travel restrictions limiting OHV use to designated roads year long on 10,600 acres in Browns Park to protect scenic values along the Green River, could restrict access to the Green River by fishermen and hunters, but would improve scenic quality on Class II VRM lands in the river corridor and maintain existing wild and scenic river values and enhance the primitive recreationists' experience. Overall, it is expected that recreation use in the river corridor will increase at least 10 percent annually. The hunters and fishermen displaced by OHV restrictions would move to other areas.

From Management Actions for Woodlands Programs

Firewood gathering would continue to provide family-centered recreation opportunities for 300 families. This could increase to 425 families and still maintain the woodland stands on 202,700 acres.

IMPACTS TO RIPARIAN HABITAT RESOURCES

From Management Actions for Riparian Programs

Improving approximately 7,200 public acres, or 98 miles, of inventoried riparian areas from an early and mid to a late or climax ecological stage and implementing rangeland improvements and improved grazing systems on the uplands would increase vegetation and wildlife species diversity and create wildlife, recreation, and watershed benefits. Criteria for maintaining a minimum of

three (3) inches of herbaceous growth after livestock grazing in riparian areas would enhance riparian vegetation productivity, resulting in streambank and water quality improvements.

IMPACTS TO SOCIOECONOMICS

From Management Actions for Cultural and Paleontological Programs

Continuing the Green River Scenic Corridor ACEC would increase priority management of the area, reducing site deterioration of important cultural resources, which may have values not yet quantified. There would be no additional administration costs under this alternative.

From Management Actions for Fish and Wildlife Habitat Programs

Increasing wildlife allocation by 7,400 AUMs to 35,000 AUMs could lead to increased animals, to increased hunting pressure, and ultimately to more expenditures. Although this relationship is not clearly understood, if there were a one-to-one relationship, an allocation increase of 27 percent would lead to an increase of $916,650, totalling to $4,311,650 for the fish and wildlife resource. There are many steps between the allocation of additional AUM allocation in the planning process and the additional expenditures by increased hunter participation, which makes analysis of this procedure difficult at best. Further, increased allocations may lead to more damage to private landowners.

Administrative costs for issuing bear baiting permits, developing habitat for cavity dwelling birds, restricting activities on crucial deer and elk winter range, antelope fawning areas, bighorn sheep winter and rutting areas, and sage grouse strutting grounds would cost about $11,500 each year.

Reintroduction of black-footed ferrets on 2 areas where there would not be a conflict with other current existing uses would require about $4,000 per year for planning, $10,000 per year for inventory, and a one time cost of $100,000 for two releases of up to 100 ferrets. If these reintroductions are successful, this species could ultimately be delisted and no longer act as a barrier to economic development.

The impacts to adjoining land owners from the reintroduction of black-footed ferrets on public lands is not considered significant. Please review the DMRA guidelines for potential black-footed ferret reintroductions in Appendix 2 for further information.

Providing stream habitat and allowing present forage allocation for: river otter, upland game, antelope, and bighorn sheep could require $4,000 per year for planning and cost share of $2,000. These measures may stimulate the viability of the targeted species and their affiliated benefits.

Total costs of administering the wildlife program under the proposed plan would total $52,000 plus the one time cost of $100,000 for the black-footed ferret releases. These expenditures by BLM and other agencies and interested parties may be viewed as an economic injection into the community and region. Alternative A for the wildlife program has the second highest costs of the five alternatives.

TABLE 4-7:
ESTIMATED ANNUAL OIL AND GAS,
REVENUES FOREGONE BY THE COMMUNITY, ALTERNATIVE A

Region	No of Precluded Successful Wells	Estimated Precluded Annual Production		Estimated Lost Annual Revenue		
		Oil	Gas	Oil	Gas	Total
Myton Bench/ Nine Mile Canyon	6	55,300 barrels	239,631 MCF	$1,106,000	$359,447	$1,465,447
Horseshoe Bend/ Ashley Valley	3	88,332 barrels	44,168 MCF	$1,766,649	$66,252	$1,832,901
Clay Basin/Manila	4	7,140 barrels	1,428,000 MCF	$142,800	$2,142,000	$2,284,800

From Management Actions for Lands and Realty Programs

Acquiring needed public vehicle access for recreational purposes identified in the areas under this alternative would require about $10,600 to administer. This added access may serve as an attraction to participants and their affiliated spending patterns.

Land use authorizations under this alternative are slightly more restrictive than the proposed plan as reflected in the slightly higher annual administration costs of $104,107. Again, there could be future constraints to development between the Wyoming and northeastern Utah corridor which can allow only 3 more new facilities.

Making 7,500 acres available for agricultural leases is much more restrictive than the proposed plan to enterprises interested in such operations.

Site development plans would cost $16,000. Though this alternative is slightly more restrictive, it would may still stimulate the local TCPU and dependent sectors.

Alternative A presents a less restrictive situation for parties interested in water development rights-of-way, which could promote associated expenditures to the community.

Consider 4,300 acres of isolated tracts and community expansion lands for sale. This is more conservative than the proposed plan, but could lead to less conflicts with the public over land management, decrease administration costs, and promote development opportunities for communities and entrepreneurs.

From Management Actions for Livestock Programs

Maintaining current livestock forage assignments at 50,299 AUMs could contribute $498,463 annually. Costs to manage the current 108 grazing allotments under the category system outlined in Alternative A would be approximately $46,500 annually.

From Management Actions for Minerals Programs

Gilsonite deposits in the Myton area would be generally available for development, which could lead to 15 additional jobs and $525,000 each year.

Table 4-7 provides an estimate of the impacts to the community from implementing the decision of Alternative A.

If the above forecasted wells are precluded, a total of $5,583,148 would be lost annually to the community. Of this total 12.5 percent or $697,893 in royalties would be lost be lost to the federal government. Of these royalties collected by the federal government, half would be returned to the State of Utah. Finally, of the royalty money returned to Utah, a percentage would be returned to the counties, based upon their total oil and gas production.

Losses from precluded wells would be primarily to oil and gas companies. The loss to the counties would be a loss of royalties, severance tax, ad valorem tax, property tax, and sales tax. There also would be a loss of revenues to oil service companies and community businesses.

Opening up 7,650 acres of moderate to high grade phosphate lands could lead to mineral development and ultimately to additional employment of 350 jobs and $4 million each year during full production.

Tar sand development would be authorized on 66,200 acres of federal mineral estate and Duchesne county could forego between $500,000 and $1,500,000 annually in pavement costs, perhaps leading road paving.

From Management Actions for Recreation Programs

Total use in the DMRA in 1990 was 138,800 visits, if these are classified as "dispersed site recreation" then participants may spend $11.76/day totalling to $1,632,288. However, if these are mostly "developed site recreation" then participants may spend $6.54/day, a total of $907,752 would be spent annually. An average of $1,270,020 each year.

Administering the OHV program could require a one time cost of $2,000 or $4,000 annually.

Develop recreation facilities at 4 new sites and expansion of 3 existing recreation could contribute a notable amount of contract business to local entities. Approximately $375,000 over the life of the plan could be spent on development of new sites. The new recreation sites are similar to the proposed plan and would be an insubstantial difference.

Approximately $140,000 may be spent on expansion of recreation sites over the life of the plan under Alternative A. The proposed plan has one additional site (Indian Crossing) than the current situation that would be expanded.

Provide minimum facilities to protect human health and safety at Pariette Wetlands could cost $100,000 over the life of the plan.

Development of five interpretive facilities at Diamond Hoax, Taylor Flat, Pariette Wetlands, and Clay Basin Gas Field would require about $40,000 over the life of the plan. The proposed provides an extra interpretive facility at Brush Creek.

Development of 15 miles of hiking and/or horseback trails, as described under Alternative A may require $30,000. The proposed plan provides an additional 8 miles of hiking trails and 12 miles of bicycle trails. Maintaining the character and values of 6,800 acres of identified semi-primitive non-motorized areas (see Map 2-7) could require $1,000 and draw recreationists interested in such values. However, this would exclude OHV use and could have an overall decrease in revenues brought into the community.

Establishing back-country byways, as described under the proposed plan, could cost $20,000 and draw more tourists to the area, thus increasing the probability of larger revenues to the community.

If these development totals are added up and divided by the number of years in the life of the plan an annual cost may be estimated, in this alternative equalling $47,200. In addition, there would be $50,000 required annually to administer and maintain these projects.

Not only will these developments cause injections into the community, but more recreationists will be able to use the area at any one time, perhaps leading to greater expenditures for local merchants.

From Management Actions for Riparian Programs

To improve the 7,200 public acres of riparian habitat to a late or climax seral stage, would require a total of $88,500 (12.5 miles of fence and 9 miles of pipeline).

From Management Actions for Soil and Water Programs

Vegetation treatments outlined in the proposed plan would result in the annual retention of approximately 344,250 tons of potential sediment on site, leading to an annual savings of approximately $24,097 ($0.07/ton) to downstream Colorado River users. Assuming one percent of these retained sediments are salts, an additional savings of $225,002 ($65.36/ton) could be realized by downstream Colorado River users. Thus, total erosion savings for these vegetation treatments would equal $249,100 per year.

Oil and gas activities in the Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley regions could result in accelerated erosion producing about 5,500 tons of sediment, costing approximately $385 per year. Additionally, salinity reclamation costs would equal $3,595 per year, thus the total erosion costs from oil and gas would total $3,980. The difference between retaining the soils on site versus estimated soil loss from oil and gas activities would be $245,119 per year.

From Management Actions for Vegetation Programs

Under this alternative range improvement costs would be identical to the proposed plan totalling 168,267 annually, while administering this program would be $31,000 annually, resulting in a total annual cost of $199,267.

From Management Actions for Woodland Programs

If 2,300 cords are taken and personal wood cutting permits cost $5 per cord, the BLM may realize $11,500 annually. However, if commercial wood is sold in the Wasatch Front for $100 per cord, individuals may forgo $95 of cost per cord or derive a total value of $218,500 annually. A crude benefit/cost ratio demonstrates the large benefit to individual wood cutters, $100/$5 = 20. This does not include costs of labor, equipment, and related supplies. This activity could have a significant value to individual families in the local community due to the savings compared to commercial wood.

Further benefits may be obtained by the harvesting of Christmas trees, juniper fence posts, pinyon pinenuts, live trees, and non-barrel cactus, although alternative A is more restrictive concerning acreage.

IMPACTS TO SOIL AND WATER RESOURCES

From Management Actions for Minerals Programs

In important watersheds in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas producing regions, approximately 1,100 acres could be disturbed, causing disruption of the water cycle by exposing bare soil to wind and water, thereby accelerating erosion. This area is difficult to revegetate due to low rainfall (less than 8 inches a year) and poor

soil development. Because of difficulty in revegetating these sites, accelerated erosion could increase if an active drilling program continues. This disturbance from oil and gas operations could cause an increase of soil erosion loss from two to five tons per acre per year. With five tons per acre per year increase in erosion from this activity, an additional 5,500 tons of soil per year could be lost.

Phosphate leases could occur on 7,650 acres. Actual surface-disturbing activities would involve a total of approximately 500 acres. It is unlikely that this total would be without any revegetation actions at any one time over the life of this plan. Thus, disturbance would have a short-term impact causing accelerated erosion only to the immediate area disturbed; however, long-term improved erosion conditions would occur due to successful reclamation as the mining activities progressed.

From Management Actions for Riparian Programs

Approximately 7,200 acres, or 98 miles, of riparian habitat would be improved, resulting in on-site and downstream benefits to the riparian ecosystem, affecting the vegetation, watershed and water quality values of the area. Downstream benefits to human health and safety due to reductions in flood hazards also would be gained.

From Management Actions for Soil and Water Programs

Restricting OHV use to designated roads with seasonal restrictions on 98,200 acres to minimize adverse surface runoff during periods of saturated soils and to protect critical (highly erodible or saline soils) and floodplains which would significantly benefit these valuable resources.

From Management Actions for Vegetation Programs

Achieving the ecological condition management goals outlined in this alternative would provide for a healthy watershed.

Treating 22,950 acres of closed, unproductive stands of predominantly pinyon-juniper and sagebrush vegetation types would improve long-term watershed conditions by increasing ground cover from herbaceous vegetation re-establishment following treatment. Estimating a long-term reduction in erosion by 50 percent, 344,250 tons of sediment would remain on-site over the life of this plan, resulting in a savings of approximately $249,099. (See Appendix 8 for possible treatment opportunities by type and acres for each grazing allotment.)

IMPACTS TO VEGETATION RESOURCES

From Management Actions for Livestock Programs

Treating 22,950 acres of closed stands of pinyon-juniper and sagebrush community types would result in increased vegetation diversity and overall community health, while providing forage production for livestock and wildlife. A benefit derived from pinyon and juniper burning is increasing diversity of herbaceous vegetation (Severson and Rinne, 1988).

From Management Actions for Minerals Programs

Oil and gas activities in the desert Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas regions could disturb approximately 1,100 acres. Low precipitation (less than 8 inches annually) and poor soil development in these areas, creates difficulty in vegetation reclamation. Surface-disturbed sites in these areas may remain devoid of desired vegetation for years, allowing opportunities for undesired plant species such as halogeton to invade. Wells may produce for five to twenty years before any rehabilitation efforts take place.

IMPACTS TO VISUAL RESOURCES

Development of high potential oil and gas resources in the Nine Mile area could negatively impact as much as 3,200 acres, or 5 percent of the 60,000 acres of Class II VRM in the resource area; therefore, VRM Class II could not be maintained. Any deterioration of visual quality would impact recreation users. These scenic areas would become less popular and visitor use would go down. The amount of this reduction cannot be predicted but it would take place over the long term.

IMPACTS TO WOODLAND MANAGEMENT

The prohibition on cottonwood harvesting to enhance bald eagle habitat and wild and scenic river values on 17,500 acres along the Green River corridor would negatively affect those people who prefer to cut and burn cottonwood. This demand could not be met.

Pinyon and juniper firewood could continue to be harvested to meet demand on a sustained-yield basis on 175,000 acres (96 percent of the woodland area in the resource area). Juniper fence posts and Christmas trees

would continue to be harvested on these same acres to meet the local demand. This means an increase of 23 percent could be accommodated and still meet sustained yield goals over the long term.

CUMULATIVE IMPACTS OF IMPLEMENTING ALTERNATIVE A

AREAWIDE CUMULATIVE IMPACTS

The cumulative effect of implementing the decisions outlined in this alternative, coupled with already existing decisions implemented by other land-managing federal, state, and local agencies affecting the Uinta Basin, is expected to have no significance.

The cumulative impacts to fish and wildlife under Alternative A would be:

- Special status raptor nest sites would only be protected seasonally from permanent surface disturbing activities resulting in a significant negative long-term loss of habitat for these species.
- Black-footed ferret reintroductions would be realized on a maximum of two sites totaling 19,000 acres, the second best alternative besides Alternative B for aiding in the recovery of the species. This represents 57 percent of all identified Black-footed ferret habitat in the DMRA.
- Approximately 57,000 acres (31 percent) of crucial sage grouse nesting habitat would be seasonally protected within 1.5 miles of all strutting grounds. This would protect only 59 percent of all nests according to the Western States Sage Grouse Guidelines, a slight negative impact.
- Areas authorized for the reintroduction of bighorn sheep would remain at 31,000 acres (25 percent of the identified potential habitat). This would limit the population to 44 animals in one area of the resource area and be a significant negative impact to the reintroduction and survival of this native species.
- Wildlife forage assignments would be allowed to increase 21 percent over current use to 35,000 AUMs, a positive impact to wildlife. UDWR objectives for wildlife population levels and future transplants of native species to their historic range, might not be achieved.
- OHV use would be restricted to designated roads and trails on 88,600 acres (12 percent of the resource area) seasonally or year long. This would be a moderate negative impact as wildlife poaching would not be reduced nor human disturbance to wildlife during reproductive or other crucial periods.

The irreversible and irretrievable commitment of resources would be the same as described in the proposed plan.

The cumulative impacts to oil and gas activities under Alternative A are summarized below in Table 4-8 by 1) oil and gas producing regions, 2) oil and gas potential, and 3) level of protection (level 2-no surface occupancy).

TABLE 4-8:
SUMMARY OF CUMULATIVE IMPACTS TO OIL AND GAS ACTIVITIES UNDER ALTERNATIVE A

OIL AND GAS PRODUCING REGIONS	HIGH POTENTIAL				MODERATE POTENTIAL			
	MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2		MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2	
	Acres*	%**	Acres*	%**	Acres*	%**	Acres*	%**
Myton Bench-Nine Mile Canyon	0	0	5,100	3	0	0	9,200	5
Horseshoe Bend-Ashley Valley	0	0	1,900	3	0	0	7,200	5
Clay Basin-Manila	0	0	7,100	47	0	0	8,900	21

* Acres of public land mineral estate
** Percentage of total high or moderate potential oil and gas mineral estate for the indicated region

Referring to Table 4-8, it is estimated that approximately $5,583,000 could be lost annually to the community. Therefore, over the life of this plan, approximately $82 million of oil and gas earnings (before royalty and tax payments) would not be realized. From these earnings, a total of $10 million (12.5 percent of total oil and gas earnings) in royalty payments would not be obtained by the federal and state governments. Of this total, the State of Utah would lose total royalty payments of approximately $5 million. In turn, the counties involved in the RMP would lose total royalty payments from the State of Utah of approximately 1.3 million. In addition, counties would lose revenues from associated and supporting taxes (i.e., property, sales, ad valorem, and severance).

OHV management actions allowing open use of 623,400 acres and use of designated or existing roads and trails on 85,600 acres could cumulatively impact watersheds resources, soils, scenic values, wildlife habitat and nesting sites, and threatened and endangered species.

Traffic counter and visitor register information in Browns Park indicate that visitor-use on the Upper Green River Corridor will continue to increase between ten (10) and fifteen (15) percent annually. This increase may have impacts on human health and safety, water quality, and aesthetic values within the river corridor.

Improving 7,200 acres (or 98 miles) of riparian areas by requiring a minimum of three (3) inches of herbaceous growth after grazing use and implementing range improvements and improved grazing prescriptions on the uplands would ensure maintenance of plant vigor, increase species diversity, aid deposition of sediments to rebuild degraded streambanks thereby providing protection, and increase wildlife habitat, recreation, and watershed benefits.

For the sake of analysis, costs represent expenditures by BLM which go into the community, thus stimulating the economy. On the other hand, benefits are a bit less tangible which are often based on economic forecasts that may be lacking adequate data. For example, the cultural program has well documented costs for various projects and developments, however the additional use or benefits that may occur due to these expenditures is not clear, neither is the "cause or effect" relationship.

Comparison between the "costs" and "benefits" is not reasonable for a variety of reasons; the lack of comparables, interrelated resources, missing measurable benefits, and omitted industry sizes. However, if the available benefits are divided by the available costs, a crude benefit/cost ratio may be devised. For Alternative A, benefits are approximately three times as much as costs, making it an economically feasible option.

The largest cost comes from the vegetation program and the biggest potential additional benefits are from the fish and wildlife programs. The lowest costs are from the riparian program and the minerals programs generating the lowest potential additional benefits. The problem with interconnected costs and benefits may be illustrated by the following example; the costs of the vegetation program generate benefits that show up in the livestock, wildlife, and soils programs. The magnitude of most economic impacts would be dependent upon the magnitude of the individual program changes.

Ranchers and business people would probably be opposed to any lands actions that would apply to special management designation or restrictions on commodities. Recreation, cultural, and visual resource management (VRM) resource programs draw tourism which is seen as beneficial, but if commodity development is restrained by restrictions and special management designations, support for these resources may decline.

Oil and gas development in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley Regions could potentially increase annually 5,500 tons of soil erosion. However, seasonally restricting OHV use to designated roads (approximately 104,200 acres consisting of highly erodible soils, saline soils, and municipal watersheds), along with rangeland improvements (saving 22,950 tons annually) will mitigate negative, cumulative erosion impacts within DMRA.

SPECIAL EMPHASIS AREA CUMULATIVE IMPACTS

In Alternative A, the Crouse Canyon area, Green River Scenic Corridor ACEC, and the Red Creek Watershed ACEC, when analyzed together, encompass economic, ecological, and social values affecting public lands within Daggett County. The incremental impacts of the management prescriptions designed for these ACECs were analyzed for possible cumulative impacts to the resource area and outlined below. Since the Nine Mile Canyon, Pariette Wetlands, and Red Mountain areas are somewhat isolated pockets throughout the resource area they do not cumulatively, significantly impact the resource area and are not discussed in this section.

Suppression of wildfire to protect riparian zones in the Crouse Canyon and Green River Scenic Corridor ACEC will have long-term positive impacts to human safety, recreation, water quality, and aquatic-dependent wildlife in the Browns Park and northeast portion of the resource area.

Establishing a corridor for a common river crossing in level 2 lands in the Green River Scenic Corridor ACEC, and avoidance areas in level 2 lands in the Red Creek Watershed ACEC will mitigate negative, cumulative visual and watershed impacts.

The closure to livestock grazing within the Crouse Canyon and Green River Scenic Corridor ACEC level 2 lands will have both short- and long-term positive impacts on bighorn sheep reintroduction strategies and recreation activities for these areas. Reducing or eliminating the potential disease risks between livestock and bighorn sheep will directly, indirectly, and cumulatively impact the reintroduced populations as a whole.

Level 3 lands in the Green River Corridor ACEC and Red Creek Watershed ACEC will be open to mineral leasing with special conditions. This may have negative impacts to recreation, wildlife, visual, and vegetation resources, however, leasing minerals, geophysical activities, mineral material disposition, and locatables in these ACECs may enhance cumulative economic impacts to the northeast portion of the resource area.

There will be potential impacts to a portion of the designated and/or nominated ACECs in the resource area from increased visitor-use days, development of facilities in level 2 areas, and OHV use in the Green River Scenic Corridor ACEC. Negative impacts would include riparian habitat damage, increased human health and safety risks, increased hunting pressures, and an overall lessening of recreational experience.

There are some socioeconomic cumulative impacts in the Green River Scenic Corridor ACEC, Red Creek Watershed ACEC, Red Mountain, Nine Mile, Pariette Wetlands, and the wild and scenic river values of the three segments of the Green River. The social perception in the community is divided; although sympathetic to conservation/ preservation of these areas, many individuals would want to protect industry. Social perceptions in the communities are divided over wildlife management, visual resources, and scenic resources. Many ranchers and business people oppose additional restrictions placed on their use of the public lands, and conservation groups want to protect ecosystems.

As a result of vegetation management objectives to attain the ecological stage most benefitting wildlife in crucial habitat and manipulate 800 acres of pinyon-juniper habitats in level 3 areas of the Green River Scenic Corridor ACEC, there will be long-term, positive impacts to multiple high-value resources encompassing wildlife, recreation, special status plant and animal species, vegetation, and water quality.

Wild and Scenic Rivers

Three river segments were determined to be eligible for study and possible recommendation for designation into the NWSRS. They include the upper, middle, and lower Green River segments. All three segments were determined to be suitable for further study in this alternative.

Three other segments, two on Nine Mile and one on Argyle Creek, were not addressed in this alternative.

Outstandingly remarkable wild and scenic river values would continue to be protected along the three Green River segments identified as being eligible for further study and possible inclusion in the Wild and Scenic River System. This status would attract recreationists who enjoy various water-based recreation activities such as canoeing, rafting, fishing, hiking, and camping.

The upper segment through Browns Park is currently receiving heavy use (10,000 visitor days in 1991) that is increasing annually. The middle and lower segments currently receive very little use but wild and scenic river designation would cause use to increase an estimated 10 percent annually to 800 visitor days on the middle segment and 1,300 visitor days on the lower segment in 10 years.

Not identifying two segments in Nine Mile Canyon and one in Argyle Canyon for protection and further study would leave these stream corridors open to uses that could damage identified outstandingly remarkable cultural and/or scenic values along the corridors. It is anticipated these impacts would be minor because cultural resources, scenic values, and riparian areas would continue to receive protection.

DIRECT AND INDIRECT IMPACTS OF IMPLEMENTING ALTERNATIVE B

IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES

From Management Actions for Fish and Wildlife Habitat Programs

Accidental disturbance of both cultural and paleontology resources would be less than in any other alternative because fewer land treatments and water developments would be completed to benefit wildlife.

Any paleontological information lost would limit knowledge of the behavior of different species of animals,

their social organization, including adaptive behavior and interspecies interactions.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Livestock Programs

Accidental disturbance of both cultural and paleontology resources would be less than any other alternative because fewer developments such as land treatments and water developments would be completed for livestock.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Minerals Programs

Accidental disturbance of both cultural and paleontology resources by activities associated with mineral exploration and development would be less than with any other alternative because mineral development would be restricted the most under this alternative.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Recreation Programs

Continued active management of the John Jarvie National Historic District and Historic Site, involving interpretation of the Old Rock Saloon, and a self-guided historic tour in Browns Park would allow the public to gain a better understanding of the history of this fascinating area. By preserving, displaying, and interpreting the many structures and items at the site, the public would gain a better appreciation of the need to protect and preserve cultural resources.

Protecting the Desolation Canyon National Natural Landmark on the lower Green River below the Sand Wash Recreation Site would increase public awareness of the importance of John Wesley Powell's historic trip down the Green River in 1869. Establishment of the 50,784-acre Nine Mile Canyon ACEC would provide an opportunity to develop and interpret the many cultural resources in the area for public enjoyment.

Vandalism and accidental disturbance of resources would occur less frequently than in any other alternative, because fewer developed recreation facilities and more extensive OHV restrictions would result in less intensive recreation use than any other alternative.

From Management Actions for Special Emphasis Areas Programs

Designating Nine Mile Canyon, Lower Green River, Red Mountain-Dry Fork and the Browns Park Complexes as ACECs would increase management priority consideration for the areas. As a result site deterioration would lessen and very few resources would be lost.

IMPACTS TO FISH AND WILDLIFE HABITAT RESOURCES

From Management Actions for Fish and Wildlife Programs

This alternative is the most beneficial for fish and wildlife.

Sage grouse habitat would be significantly improved by seasonally protecting 173,000 acres of known nesting habitat from surface disturbance. This would protect 95 percent of sage grouse nests, according to the Western States Sage Grouse Guidelines. The protection zone would be increased from the existing 1.5 miles to 6 miles from all strutting grounds and the protection period by one month.

Prairie dog colonies would be maintained in 33,500 acres (100 percent) of identified black-footed ferret habitat and emphasis placed on vegetation management that enhances prairie dog population stability. Reintroductions would be allowed on a maximum of two sites. This would support 196 ferrets in DMRA, assuming one ferret per 124 acres and a maximum of two reintroduction areas used. This alterative would afford the greatest opportunity for DMRA to aid in the recovery of this endangered species. It provides the most habitat for the recovery of the species and locates it in a maximum of two areas. This is viewed as a significant positive, long-term impact for this species. BLM's policy for the conservation of

endangered species habitat as well as the objectives in the Recovery Plan are met under this alternative.

Management actions to protect raptor habitats involving oil and gas activities would result in significant positive long-term impacts. Impacts include the year-long protection of special status raptor species nest sites and the maximum protection zones provided these species in the Draft RMP. Maintenance of suitable raptor habitat is also provided on a year-long basis, possibly increasing the suitable nesting habitat and thus increase the populations of these species. This alternative affords the greatest opportunity to aid in the eventual delisting of these species.

Approximately 123,800 acres (100 percent of identified potential habitat) would be open to the reintroduction of bighorn sheep within DMRA.

Additional forage and increased numbers of watchable and huntable wildlife could generate an additional $126,100 per year to the local economy in expenditures for lodging, food, transportation, and equipment. This is a long-term positive impact to the local economy as well as wildlife.

From Management Actions for Livestock Programs

Overall, proposed management actions for livestock programs under this alternative would have long-term direct beneficial impacts on wildlife habitat resources.

Livestock would be excluded from 173,000 acres (95 percent) of sage grouse nesting habitat seasonally and excluded from 9,700 acres (100 percent) of known strutting grounds year-round. These restrictions along with preventing or restricting OHV use or surface-disturbing activities within six miles of known strutting grounds would protect 97 percent of all sage grouse nests. Sage grouse brooding habitat in these areas would improve with increased presence of forbs and grasses necessary for chick survival in riparian areas. This alternative offers the greatest protection to sage grouse.

Crucial deer and elk winter range (194,000 acres) would be enhanced by managing it for forage production for wildlife, if necessary with the necessary reductions in or closures to livestock use. Where livestock management can be used to benefit wildlife, compatible grazing systems would be implemented.

The removal of sheep from within 10 miles of potential bighorn reintroduction areas (affecting approximately 114,000 acres) would reduce the likelihood of disease transmission from livestock to bighorn sheep, thereby resulting in positive significant long-term impacts. This alternative would meet both UDWR's and BLM's objectives for reintroducing this native species to its former habitat. Sportsmen's efforts over the past 30 years, funded through license and hunting permits, to expand bighorn sheep habitat in the state would also be achieved.

From Management Actions for Minerals Programs

Approximately 100 percent of the known Ferruginous hawk and 90 percent of golden eagle habitat occurs within the areas affected by mineral activity. Protective stipulations would protect nest sites year 'round. This would be a significant, positive, long-term impact by providing the most protection for these species and preventing further habitat loss and decline of the species.

Black-footed ferret reintroductions would be allowed on two locations within DMRA, accounting for 100 percent (33,500 acres) of the acreage identified as potential habitat. Of the three alternatives proposing reintroductions, this alternative affords the largest amount of acreage and thus largest amount of ferrets capable of being reintroduced. In addition, a protective withdrawal would be proposed to preclude mineral entry on all black-footed ferret reintroduction sites. This alternative would have the most significant, positive, long-term impact on the survival of this species of the five proposed.

One hundred percent (72 miles) of priority fisheries habitat, including proposed critical habitat for the four endangered fish in the middle and lower segments of the Green River, would be protected from future mineral entry under this alternative's decision involving protective withdrawals.

ACEC designations would be proposed on 28 percent within DMRA protecting and enhancing critical/crucial wildlife habitat along the Green River, Pariette Wetlands, Browns Park, Red Creek, Red Mountain-Dry Fork, Nine Mile Canyon and Lears Canyon. This alternative, along with the proposed plan, afford the largest acreage and greatest potential for wildlife habitat enhancement for the four endangered fish species and two endangered raptor species found along the Green River corridor.

Protective withdrawals to preclude mining entry would be recommended on all riparian habitat, all deer and elk crucial winter habitat and sage grouse strutting grounds. This would be a significant, long-term, positive benefit to wildlife by protecting all riparian habitat from possible

degradation and human disturbance associated with mineral activity.

From Management Actions for Recreation Programs

OHV use would be closed on 156,000 acres (22 percent) within the DMRA and restricted to designated roads and trails on an additional 204,610 acres (29 percent) seasonally or year long. Wildlife would be protected from disturbance during crucial reproductive seasons and vegetation would not be damaged by OHV use on 51 percent of the resource area. UDWR has reported that increased human access is directly proportional to increased poaching. This alternative would also have a significant, long-term positive impact for wildlife by reducing poaching.

From Management Actions for Riparian Programs

Management actions designed to protect and enhance riparian habitat would provide direct long-term benefits to fisheries habitat and 24 of the 33 special status species in DMRA. Improved riparian areas might help afford the BLM the opportunity to recommend the downlisting or removal form listing of the long-billed curlew, western snowy plover, black tern, white-faced ibis, and Great Basin silverspot butterfly under the Endangered Species Act. Forage production would be expected to increase a s well as vegetative cover, streambank stability, and instream habitat quality. These long-term positive benefits could correlate up to a two percent population increase for over 20 big game, upland game, and non-game wildlife species.

Management actions to improve riparian areas would also meet the public's concerns, as documented in their comments ont he Draft RMP, for better riparian management. BLM's objectives to have 75 percent of riparian zones in proper functioning condition by 1997, would also be met.

From Management Actions for Vegetation Programs

Alternative B allows wildlife forage demand to increase from current levels of 27,600 AUMs to 46,000 AUMs, a 66 percent increase. The additional 18,400 AUMs would come primarily from vegetation treatments and reductions in livestock preference levels.

IMPACTS TO LANDS AND REALTY MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Restrictions would be imposed on lands containing active nest sites for raptor species and sage grouse strutting grounds. These restrictions would affect approximately 51,800 acres and would prohibit the construction of right-of-way projects unless the impacts could be mitigated.

Maintaining 33,500 acres of existing black-footed ferret habitat would limit right-of-way development.

Seasonal restrictions would be imposed on 295,000 acres to protect wildlife resources. These restrictions would not preclude land use authorizations but would limit construction periods to specific times of the year.

From Management Actions for Lands and Realty Programs

Adherence to designated corridors would prevent the proliferation of major utility systems across undisturbed public lands. The designation of specific corridors for future major right-of-way projects may impact those companies preferring alternative locations to some extent. However, this will ensure the protection of resource values through the land use analysis process which will be required for projects proposed outside of the established corridors. Closure of the designated corridor in Jesse Ewing Canyon upon reaching it capacity would essentially close off the only north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

It can be expected that the counties of Daggett, Duchesne, and Uintah would not be largely affected by future acquisition of public lands as the preferred method for acquisition would be through exchange. The disposal of land by sale, state selection, or R&PP would have a positive impact on the counties.

From Management Action for Recreation Programs

Recreation sites encompassing 5,500 acres would restrict those land use authorizations that would cause visual/aesthetics impacts and found to be inconsistent with the purpose of the recreational sites.

Land use authorizations would be prohibited on 414,600 acres of level 1 and 2 lands and black-footed ferret

potential reintroduction areas. Closure of the Jesse Ewing Canyon designated corridor upon reaching its capacity would essentially close the only feasible north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

Seasonal restrictions on 8.5 miles of the designated corridor route within the Browns Park Complex would limit construction periods for rights-of-way.

From Management Actions for Vegetation Programs

Approximately 3,740 acres which contain relict vegetation would exclude land use authorizations. An additional 48,000 acres which contain special status plants and/or potential habitat would be closed to all surface disturbing activities associated with land use authorization.

IMPACTS TO LIVESTOCK MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Grazing restrictions and closures involving sage grouse strutting grounds and nesting habitat would adversely affect livestock grazing on 27 allotments totaling approximately 182,700 acres. Keeping livestock 1/2 mile from strutting grounds would entail continual herding during the grazing period on 13 allotments. The six-mile seasonal restriction from March 1 to June 30, would reduce livestock AUMs approximately 12 percent on 27 allotments affecting 28 livestock grazing permittees, or necessitate a change season of use to outside the March 1 to June 30 period, putting grazing pressure on private lands during active cropland growing periods.

From Management Actions for Riparian Programs

Excluding livestock from a 700-foot buffer involving riparian areas in early and mid ecological stages to protect riparian habitat would provide a significant hardship to livestock permittees as it would exclude approximately 20,000 acres from grazing, thereby reducing current livestock use by approximately 4,000 AUMs, affecting 22 allotments. Eight of the affected allotments would require replacement watering sources for livestock.

From Management Actions for Soil and Water Programs

The closure on 6,000 acres of grazing allotments within municipal watersheds would reduce livestock use by approximately 600 AUMs and significantly affect two grazing allotments.

From Management Actions for Vegetation Programs

The grazing closure on 48,000 acres of special status plant species habitat would reduce livestock use by 3,100 AUMs affecting six grazing allotments, resulting in a significant, long-term negative impact to livestock programs.

Under this alternative, a maximum of 46,000 AUMs would be maintained for wildlife, allowing big game use to increase from the present level of 27,600 AUMS. To stay within estimated total forage limits, livestock preference could be reduced up to 11,467 AUMs or 23 percent of current total grazing preference. Preliminary forage estimates indicate the following livestock AUMs would be reduced:

Planning Area	Estimated AUM Reduction
Ashley/Duchesne	1,480
Diamond Mountain	3,071
Three Corners	6,916

The closure to domestic sheep grazing on the ten-mile protection zone in potential bighorn sheep habitat would involve approximately 114,000 acres, thereby reducing livestock preference an additional 7,825 AUMs. Such a reduction would impact 10 allotments and 7 grazing permittees. Additional forage attained through vegetation manipulation and management would be allotted to either wildlife consumptive use or for watershed maintenance. Additional forage over preference would not be allotted to livestock consumption regardless of whether wildlife needed the forage. This action would eliminate additional forage above livestock preference on a temporary, nonrenewable basis. The maximum AUMs gained from vegetation treatments and livestock management strategies is approximately 1,700 AUMs from this alternative.

IMPACTS TO LEASABLE MINERALS MANAGEMENT - OIL AND GAS

From Management Actions for Cultural and Paleontological Programs

High sensitivity cultural and paleontological areas will be closed to leasing to surface disturbing activities and will carry no surface occupancy stipulations. Approximately 56,000 acres of high potential mineral estate will be significantly and negatively impacted in the Myton Bench-Nine Mile Canyon and the Clay Basin oil and gas producing regions. These areas closed to lease operations because of no surface occupancy stipulations, will increase drilling costs due to directional drilling requirements. These stipulations will also increase the possibility of loss of oil and gas resources through drainage by state or private wells. Such drainage will cause an associated loss of federal, state, and county revenues. Significant surface disturbing seismic geophysical exploration will be precluded these areas. This will reduce the amount of information available in order to define oil and gas therefore increasing economic risks.

From Management Actions for Fish and Wildlife Habitat Programs

Seasonal timing stipulations to protect deer and elk critical winter habitat will have significant negative impacts on 13,000 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon and the Clay Basin oil and gas producing regions. Based on public comment the large amount of restrictions will alter drilling schedules, reduce the value of oil and gas leases, and increase exploration costs.

Sage grouse strutting grounds and known nests will have a 1/2 mile buffer which will have no surface occupancy stipulations. A six mile buffer which surrounds the sage grouse strutting ground will have a seasonal restriction of March 1-June 30. Significant negative impacts will occur on 76,400 acres of high potential mineral estate in the Myton-Nine Mile Canyon, Horseshoe Bend-Ashley Valley, and Clay Basin oil and gas producing regions. Seasonal restrictions may result in altering drilling schedules of lessees which may further cause increased drilling costs. Significant surface disturbing geophysical exploration will be limited to designated roads and trails. This may influence the amount and quality of data collected, which in turn may have an indirect impact of increasing exploration risks. Public comment indicates that the large amount of restrictions will reduce the value of oil and gas leases as well as increase oil and gas exploration costs.

Raptor protection zones would pose minor adverse impacts to the exploration and development for oil and gas resources.

Impacts due to restrictions applied in potential black-footed ferret reintroduction areas prior to and following reintroduction, are analyzed for all potential reintroduction areas. Table 4-8 outlines general information concerning the potential black-footed ferret habitat reintroduction areas as it relates to oil and gas activity.

Prior to ferret releases in the reintroduction areas restrictions on surface-disturbing activities would increase operational costs by rerouting or moving surface disturbing activities (such as access roads, pipelines, drilling pads, and production facilities) in order to avoid areas of high prairie dog density (>10 burrows per acre). This will affect the overall orderly development of oil and gas fields by restricting the regular and orderly placement of wells. The amount of surface disturbing activities will be limited to a maximum of 10 percent in the reintroduction areas to protect potential black-footed ferret reintroduction areas (see Table 4-10 for a comparison of allowable surface disturbance versus projected oil and gas surface use needs). This may substantially limit the amount of exploration and development activities and subsequent economic benefits to federal, state, and county governments. Significant surface disturbing seismic geophysical activities will be restricted to existing roads and trails. This may affect the quality and quantity of seismic data collected and may have an affect on subsequent exploration or production programs.

Prior to release of black-footed ferrets prairie dog colonies in the Sunshine Bench, Twelve Mile, and Antelope Flat reintroduction areas will be allowed to expand 50 percent from their present size to enhance potential black-footed ferret habitat. The restrictions outlined in Appendix 2 will also apply to the expanded areas and impacts will be similar to those described above. These restrictions would not apply to the operation and maintenance of existing production facilities.

After the release of black footed ferrets in one or several of the reintroduction areas, no new surface disturbing activities relating to oil and gas will be allowed between March 1 through August 31 within 1/4 mile of the habitat occupied by black-footed ferrets to protect reproductive and active litter periods (see the table below for the size of 1/4 mile buffer in each of the reintroduction areas. This timing restriction will limit all exploration, production, and associated oil and gas surface disturbing activities from September 1 to February 28. Such a restriction will

TABLE 4-9:
POTENTIAL BLACK-FOOTED FERRET REINTRODUCTION AREAS
UNDER ALTERNATIVE B

	SUNSHINE BENCH	SHINER	ANTELOPE FLAT	TWELVE MILE	EIGHT-MILE FLAT
Priority for Reintroduction Areas	1	2	3	4	5
Oil/Gas Potential	Moderate	Moderate	Moderate	High	High
Identified Habitat (in acres)	4,800	7,800	2,600	1,700	16,600
Percent of Area Leased*	38	0	98	98	98
Current Number of Producing Wells*	0	0	0	4	55
Projected Number of New Wells	5	5	15	20	100
Oil/Gas Spacing	160	40	40	160	40
* Source: BLM Automated Lands and Minerals Record System and Automated Inspection Records System, 8/91					

TABLE 4-10:
COMPARISON OF ALLOWABLE SURFACE DISTURBANCE VERSUS
PROJECTED OIL AND GAS SURFACE USE NEEDS

	10% OF TOTAL FERRET AREA	PROJECTED WELLS (in acres)	PRODUCING WELLS	MAXIMUM SURFACE DISTURBANCE*	TOTAL (in Acres)
Sunshine Bench	480	5	0	14	70
Shiner	780	5	0	14	70
Antelope Flat	260	15	0	14	210
Twelve Mile	170	20	4	14	308
Eight-Mile Flat	1,660	100	55	14	1,785
* 7-acre maximum surface disturbance is assume for currently producing wells					

cause some exploration and production activities and associated construction to take place during winter months. This will cause increased construction and drilling costs. Increased costs will also be incurred by operators by the requirement of installing mufflers on all equipment within 1/4 mile or within the black-footed ferret occupied reintroduction area. Periods of heavy vehicular traffic (i.e., drilling) would be encouraged during daylight hours. To the extent that BLM has the authority, human activity would only be allowed during daylight hours after sunrise to two hours before sunset. The only exceptions would be, in case of emergencies, petroleum drilling, and associated servicing related traffic. This will cause some exploration, production, and associated oil and gas activities to take place during daylight hours. In turn this will cause delays in exploration or production activities and will increase costs. There will be no impact to the maintenance and operation of existing production facilities in the Twelve Mile area.

	OIL AND GAS POTENTIAL	1/4 MILE BUFFER IN ACRES
Sunshine Bench	Moderate	8,000
Shiner	Moderate	10,200
Antelope Flat	Moderate	4,300
Twelve Mile	High	3,400
Eight-Mile Flat	High	20,600

From Management Actions for Recreation Programs

Semi-primitive non-motorized areas will have no surface occupancy stipulations under this alternative. This will have adverse impacts on 2,000 acres in those areas located in the Myton-Nine Mile Canyon and the Clay Basin oil and gas producing regions. These areas will have no surface occupancy stipulations. This will

increase drilling costs due to directional drilling requirements. These stipulations will also increase the possibility of loss of oil and gas resources through drainage by state or private wells and loss of associated federal revenues. Significant surface disturbing geophysical exploration will be precluded in the subthrust oil and gas play (see Appendix 4). This will reduce the quality and quantity of information available in order to define oil and gas prospects in this region. Based on public comment, closing semi-primitive non-motorized areas which also have high oil and gas potential to surface disturbance, will increase drilling costs, increase exploration and production costs, and reduce the value of oil and gas leases.

From Management Actions for Soil and Water Programs

The municipal watershed will be closed to leasing and significant surface disturbing geophysical exploration activities. This closure shall affect 10,600 acres of federal mineral estate. Although the majority of the municipal watershed lies within mineral estate which has low oil and gas potential, a closure to leasing will preclude all oil and gas activities. Should oil and gas resources be discovered adjacent to this area, drainage may occur from federal, state, or private lease holdings.

From Management Actions for Special Emphasis Areas Programs

The ACEC nominations under this alternative which will have adverse impacts to oil and gas operations are the Pariette area, Lower and Middle Green River area, and the Nine Mile Canyon area.

In the Pariette area, approximately 91 percent of the area is located in high potential federal mineral estate. Approximately 78 percent of this area will be closed to leasing and the remaining 22 percent of the area shall have no surface occupancy stipulations. Approximately 8 percent of the Pariette area is unleased.

In the Lower Green River area, approximately 57 percent of the area is located in high potential federal mineral estate. Approximately 87 percent of this area will be closed to leasing and the remaining 13 percent shall have no surface occupancy stipulations. All federal mineral estate is currently leased in this area.

In the Middle Green River area,approximately 50 percent of the area is located in high potential federal mineral estate. Approximately 61 percent of this area will have no surface occupancy stipulations and the remaining 29 percent will have seasonal or controlled surface use stipulations. All federal mineral estate is currently leased in this area.

In the Nine Mile Canyon area, approximately 14 percent of the area is located in high potential federal mineral estate. Approximately 33 percent of the high potential federal mineral estate in this area will have no surface occupancy stipulations. All federal mineral estate is currently unleased in this area.

The areas noted above that will be closed to leasing will have significant negative impacts to oil and gas companies, as well as, federal, state, and local governments. The loss of oil and gas resources through drainage by state or private wells will result in a loss of federal, state, and county revenues. The areas closed to lease operations because of no surface occupancy stipulations will increase drilling costs due to directional drilling requirements.

These stipulations will also increase the possibility of loss of oil and gas resources through drainage by state or private wells and loss of associated federal revenues. Significant surface disturbing geophysical exploration will be precluded in the closed to leasing and no surface occupancy areas. This will reduce the quantity and quality of information available in order to define oil and gas prospects in this region and will further increase economic risks.

From Management Actions for Vegetation Programs

The protection of defined threatened or endangered plant habitat will have a significant negative impact on oil and gas activities. The defined habitat will be closed to leasing and will preclude all oil and gas activities. The impacts will occur on 27,300 acres in high oil and gas potential area in the Myton-Nine Mile Canyon region. The possible loss of oil and gas resources through drainage by state or private wells will result in a loss of federal, state, and county revenues.

From Management Actions for Visual Programs

Minor negative impacts will occur on 3,200 acres in high potential mineral estate in the Nine Mile Canyon oil and gas region. The oil and gas operations may be required to be moved to less visible regions or painted in certain environmentally sensitive colors. Roads necessary for the operation may have to be specially routed. This may cause delays in oil and gas operations and additional operational costs.

IMPACTS TO LEASABLE MINERALS - PHOSPHATE

Lands now under preference right lease for phosphate would be closed to development and/or occupancy under this alternative. Although current development plans call for underground development upon these leases, some surface disturbance would be required.

IMPACTS TO LEASABLE MINERALS - TAR SANDS

Development of asphaltic materials in the Pariette STSA would be precluded under this alternative. Lands most suited for the development of tar sands as a source of asphalt would be designated as level 2 under this alternative. This could limit surfacing of roads in the Pariette area.

Where roads remain unpaved, erosion and dust pollution would continue. Additional maintenance costs would be carried by the counties, while public enjoyment of the back country would be diminished.

IMPACTS TO MINERAL MATERIALS MANAGEMENT

Management actions to protect or enhance other resource values would close nearly half the available high and/or moderate potential lands to mineral materials development under this alternative. The greatest impacts occur in Browns Park, Ashley Valley, Pariette, Wells Draw, and Cowboy Bench. This would be a significant long-term negative impact to the entities dependent on mineral materials due to additional costs associated with increased haul distances.

Restricted access to free-use sites would significantly increase maintenance and construction costs. These could amount to as much as $40,000 per year. Significant additional costs would result from increased haul distances.

Continued closure of blow sand country north of Vernal would lead to continued trespass and uncontrolled disturbance of public lands in the Red Mountain area near Taylor Mountain road.

IMPACTS TO RECREATION MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

OHV restrictions to designated roads with seasonal restriction to protect sage grouse strutting grounds (year long) nesting areas (March 1 to April 30), crucial deer and elk habitat (December 1 to April 30), and antelope fawning areas (May 1 to June 30) on 229,400 acres would limit driving for pleasure over much of the resource areas each year. Driving for pleasure and use of OHVs would be affected most. Some individuals that enjoy hiking or horseback riding in the area would see a positive impact. However, the majority of the users would be limited to designated roads and trails. This would affect the quality of experience people have come to expect on public lands in the area. Overall, recreation use such as driving for pleasure and OHV use would go down by an estimated 1,060 visitor days annually.

OHV restrictions to designated roads year long on 33,600 acres identified for possible reintroduction of black-footed ferrets would impact the recreation uses of driving for pleasure and hunting. After a reintroduction of ferrets is made, recreation use prohibitions during early morning and evening hours would impact antelope and small game hunting in the area. Fewer hunters would participate. This would result in a displacement of 100 visitor days for hunting each year to other parts of the resource area. This would be a long term impact.

Limiting OHV use to designated roads year long on 22,600 acres of special status raptor nesting habitat would affect driving for pleasure throughout the resource area. This would result in a displacement of an estimated 130 visitor days of recreation use annually over the long term.

From Management Actions for Lands and Realty Programs

Acquiring public foot access will provide hunters and recreationists who hike with additional opportunities on 48,400 acres of public land presently surrounded by private land and thus unreachable. Increasing access to public lands along the Green River will provide additional fishing and recreational opportunities. This would result in an increase of 2,400 visits to the area each year over the long term.

Recommending protective withdrawals on 85,000 acres in high value recreation areas would maximize the protection of scenic, historic, aesthetic and recreation values from future development over the long term.

Outstandingly remarkable wild and scenic river values would be protected under this alternative. This would assure that rafters and other river users on the river would be able to maintain the high quality experience in the future that they currently enjoy on all seven segments found eligible for study. Use is expected to increase by 10 percent annually.

From Management Actions for Recreation Programs

Semi-primitive, nonmotorized values on 60,800 acres would be protected for the enjoyment of primitive forms of recreation. This is 100 percent of the semi-primitive, nonmotorized lands in the resource area. Use in these areas is expected to increase 5 to 10 percent annually over the long term.

Not providing additional developed facilities such as campgrounds and picnic areas would limit opportunities for people preferring more developed and concentrated forms of recreation. Many of these individuals would not spend time on public lands. However, the benefit to those people preferring less developed and more extensive forms of recreation would offset this negative impact. It is estimated that overall use would increase approximately two to four percent a year over the long term.

Although it is expected that recreation visits will go down in areas where vehicle access will be limited to protect critical resource values, overall use in the resource area will not be significantly affected. Use patterns will simply change and people will move to areas with fewer restrictions.

From Management Actions for Riparian Programs

OHV travel would not be allowed year long on 20,000 acres of riparian habitat. This would preclude public vehicular access from those areas most often visited for fishing, hunting and sightseeing pursuits and is seen as a negative impact to recreation programs. This would result in a loss of 120 visitor days use each year.

From Management Actions for Soil and Water Programs

OHV closures year long on 32,100 acres to protect highly erodible soils and municipal watersheds, and the OHV restriction limiting use to designated roads with seasonal restrictions (March 1 to April 30 and September 1 to October 31) on 62,200 acres of highly saline soils could affect driving for pleasure and in the fall of the year vehicular access by hunters to some hunting areas would not be possible in a vehicle. It is expected that 2,700 visits would be lost annually because of this restriction.

From Management Actions for Special Emphasis Areas Programs

Outstandingly remarkable wild and scenic river values would be protected along all six river segments identified as being eligible for further study and possible inclusion in the Wild and Scenic River System. This status would attract recreationists who enjoy various water based recreation activities as well as those interested in scenic and cultural based forms of recreation. The upper Green River is currently receiving heavy use (10,000 visitor days annually) and is increasing.

The other segments are currently receiving light use, but Wild and Scenic River designation will cause use to increase. It is anticipated that use on these segments would reach 2,000 visitor days in 10 years.

From Management Actions for Vegetation Programs

OHV closures on 51,000 acres of relict vegetation communities and special status plant habitat would eliminate driving for pleasure and limit hunting use to access by foot or horseback. Use would be expected to decrease by 1,200 visitor days annually. This use would be displaced to other areas in the resource area over the long term.

From Management Actions for Visual Programs

OHV closures (7,430 acres) and restrictions to designated roads and trails (11,970 acres year long) in the Green River Corridor would reduce vehicle access to the Green River and improve its scenic qualities in this heavily used recreation area.

OHV restrictions to designated roads year long, Nine Mile Canyon, middle Green River, lower Green River, and Argyle Canyon would restrict access along these river courses and thus scenic values would be enhanced and protected.

It is estimated that any decrease in use caused by the travel restrictions would be more than offset by a recommendation to designate the areas as wild and scenic rivers. It is anticipated that use will increase at least 10 percent annually.

From Management Actions from Woodlands Programs

Firewood gathering would provide family-centered recreation opportunities for 100 families on 51,300 acres. This would result in a reduction in the area available to pursue this popular activity and opportunities could become hard to find. This would mean that up to 200 people currently using lands in the resource area to collect firewood and cut Christmas trees would have to find other areas for these activities. Fewer people could pursue this activity on public lands.

IMPACTS TO RIPARIAN HABITAT RESOURCES

From Management Actions for Livestock Programs

Livestock grazing closures in riparian areas presently in early and mid condition would improve riparian habitat, thereby providing physical filtering of water, bank stability, water storage, assist in the recharge of underground aquifers while improving wildlife habitat which is a product of these functions. However, not using livestock grazing to control noxious weeds on 18 percent of the early and mid ecological stage riparian areas, would result in weed expansion in riparian areas. These weed expansions could move ecological condition toward an earlier ecological stage further deteriorating riparian conditions.

Allowing wildlife forage to increase for wildlife use up to 67 percent from present forage use levels could cause unacceptable use on riparian areas, especially during drought years when wildlife would concentrate in wet areas. Livestock use could be controlled during these periods while wildlife are not easily controlled. Benefits to the riparian resource from reduced livestock grazing could be offset by increased wildlife use.

From Management Actions for Vegetation Programs

Improving 7,200 acres, or 98 miles, of riparian habitat from early and mid to late or climax ecological stage would increase species diversity and result in wildlife, recreation, and watershed benefits. Maintaining a minimum of three inches herbaceous growth after grazing use in riparian areas would insure maintenance of plant vigor, provide streambank protection, and aid deposition of sediments to rebuild degraded streambanks.

IMPACTS TO SOCIOECONOMICS

From Management Actions for Cultural and Paleontological Programs

To implement this program under Alternative B would require about a one time cost of $7,000 and $8,000 each year. This is $112,000 less than the proposed plan, but $15,000 more than Alternative A. Most of these costs would be contributed to the developing interpretive facilities at the Old Rock Saloon and self-guided tour of sites in the Browns Park Complex. Monies may also be necessary for establishment of protection zones around quality sites on the Desolation Canyon National Historic Landmark.

From Management Actions for Fish and Wildlife Habitat Programs

Increasing wildlife allocation by 18,400 AUMs to 46,000 AUMs could lead to increased animals, to increased hunting pressure, and ultimately to more expenditures. Although this relationship is not clearly understood, if there were a one-to-one relationship, an allocation increase of 67 percent would lead to an increase of $2,274,650, totalling to $5,669,650 for the fish and wildlife resource. There are many steps between the allocation of additional AUM allocation in the planning process and the additional expenditures by increased hunter participation, which makes analysis of this procedure difficult at best. Further, increased allocation may lead to more crop damage to private land owners.

Management decisions for crucial deer and elk winter range protection year round would cost $6,000 annually to administer, it differs from the proposed plan in that it is not a seasonal restriction and could increase viability of the herds in question, as well as increase related revenues.

Restricting OHV use on 7,800 acres of antelope fawning areas on Antelope Flat could cost $1,000 a year to monitor OHV use, this represents about twice as much to administer as the current alternative.

Restrictions of new surface disturbing activities within one mile of active bighorn sheep winter and rutting areas are similar to the proposed plan, however the restrictions would also apply to existing operations and could represent a greater loss of revenue to the mining industry.

Disallowing grazing, OHV use, and surface disturbing activities within 2,640 feet of sage grouse strutting grounds and within 6 miles of sage grouse nesting areas

would cost about $10,000 annually to administer. This is about $6,000 more than Alternative A.

About $12,000 each year would be required to administer the .5 mile buffer around all active special status raptor species. Watchable wildlife values could increase the most under this alternative due to this protection.

Allowing experimental reintroduction of black-footed ferrets on 2 areas where they would not conflict with other current existing uses in the reintroduction areas would necessitate about $8,000 for planning annually, $15,000 annually for inventory of 33,500 acres, and a one time cost of $100,000 for two releases of up to 100 ferrets. If these reintroductions are successful, this species could ultimately be delisted and no longer act as a barrier to economic development.

The impacts to adjoining land owners from the reintroduction of black-footed ferrets on public lands is not considered significant. Please review the DMRA guidelines for potential black-footed ferret reintroductions in Appendix 2 for further information.

Providing habitat for and allowing for reintroduction of the stated wildlife species would be the same as under the proposed plan, costing $8,000 annually for planning and $5,000 for cost share.

Improvement and maintenance of bighorn sheep reintroduction would be the same as the identical to the proposed plan, costing $4,000 for planning annually plus cost share of $5,000, which would be matched by interested parties raising a total of $10,000 annually.

No domestic sheep grazing with 10 miles of any potential bighorn sheep habitat could be major conscience to sheep permits and cost approximately $8,000 annually to administer. This restriction would reduce livestock use by 7,825 AUMs or $77,546 annually.

Total costs of administering the wildlife program under Alternative B would be an additional cost of $104,000 annually plus the one time cost of $100,000 for the black-footed ferret releases. These expenditures by the BLM and other agencies and concerned groups may be viewed as an economic injection into the community and region. Alternative B for the wildlife program has the highest costs of the five alternatives.

From Management Actions for Lands and Realty Programs

Acquiring public foot access only across established roads and trails to enhance recreational opportunities in those areas identified under Alternative A would cost about $5,000 to administer. Denying vehicle access could cost the community lost OHV use related revenues, but may be offset by increased primitive use revenues.

Land use authorizations under this alternative would cost less than either the proposed plan or Alternative A, only requiring approximately $69,404 annually. Again, there could be future constraints to development between the Wyoming and northeastern Utah corridor, which can allow only 3 more new facilities.

Making 294,000 acres available for agriculture leases within level 3 and 4 lands could help promote the agriculture sector, depending upon the productivity of such lands and economic feasibility of such operations.

New major communication site specifications would be the same as discussed under the proposed plan.

Highly restrictive stipulations for rights-of-way or withdrawals for major water development could prohibit project development and the affiliated expenditures, if there were any proposals for water projects.

From Management Actions for Livestock Programs

Establishing livestock forage assignments at 25,007 AUMs could contribute $247,819 annually. This is less than half the allocation of Alternative A and the proposed plan and could result in financial difficulties to many livestock operators. Costs to manage 108 grazing allotment under the category system outlined in Alternative B would be approximately $31,000 annually.

From Management Actions for Minerals Programs

A majority of the highest potential gilsonite lands would not be available for gilsonite disposal, which could cost all 15 potential jobs and the possible $525,000 annually.

Table 4-13 provides an estimate of the impacts to the community from Alternative B decisions as they affect oil and gas development.

Referring to Table 4-13, it is estimated that approximately $20,208,438 could be lost annually to the community. Therefore, over the life of this plan, approximately $444 million of oil and gas earnings (before royalty and tax payments) would not be realized. From these earnings, a total of $56 million (12.5 percent of total oil and gas earnings) in royalty payments would not be obtained by

TABLE 4-11:
ESTIMATED ANNUAL OIL AND GAS,
REVENUES FOREGONE BY THE COMMUNITY, ALTERNATIVE B

Region	No of Precluded Successful Wells	Estimated Precluded Annual Production		Estimated Lost Annual Revenue		
		Oil	Gas	Oil	Gas	Total
Myton Bench/Nine Mile Canyon	93	600,400 barrels	2,601,713 MCF	$12,008,000	$3,902,570	$15,910,570
Horseshoe Bend/Ashley Valley	3	79,666 barrels	39,834 MCF	$1,593,317	$59,751	$1,653,068
Clay Basin/Manila	5	7,640 barrels	1,528,000 MCF	$152,800	$2,292,000	$2,444,800

the federal and state governments. Of this total, the State of Utah would lose total royalty payments of approximately $28 million. In turn, the counties involved in the RMP would lose total royalty payments from the State of Utah of approximately $7 million. In addition, counties would lose revenues from associated and supporting taxes (i.e., property, sales, ad valorem, and severance).

Closing 95 percent of moderate to high grade phosphate lands could lead to a loss of 332 potential additional jobs and $3.8 million each year.

Closing two-thirds of federal mineral estate in existing STSAs to tar sands development could preclude paving of roads costing between $335,000 and $1,000,000 annually.

From Management Actions for Recreation Programs

Total use in the DMRA in 1990 was 138,800 visits, if these are classified as "dispersed site recreation" then participants may spend $11.76/day totalling to $1,632,288. However, if these are mostly "developed site recreation" then participants may spend $6.54/day, a total of $907,752 would be spent annually. An average of $1,270,020 each year.

Administering the OHV program could require a one time cost of $20,000 and $40,000 annually.

Maintaining recreation facilities at their present size at: Bridge Hollow, Pelican Lake, Dry Fork Canyon, Indian Crossing, Jackson Creek, Pugmire Pocket, Red Creek, Sand Wash, and Swallow Canyon would require more administration costs. In addition, developing facilities to protect natural systems on trails, along the Green River, and other primitive recreation use areas will contribute to the additional $120,000 one time costs and $6,000 maintenance costs annually.

Development of six interpretive facilities at Diamond Hoax, Taylor Flat, Pariette Wetlands, Clay Basin Gas Field, Brush Creek, and Sand Pockets would require about $60,000 over the life of the plan. This alternative provides the most interpretive facilities of the five described.

Development of 20 miles of hiking, mountain biking, and horseback trails may require $40,000 throughout the life of the plan.

Maintaining the character and values of 60,700 acres of identified semi-primitive non-motorized areas could require a one time cost $3,000 annually, drawing recreationists interested in such values. However, this would exclude OHV users and could have an overall decrease in revenues to the community.

Establishment of back-country byways would be the same as the proposed plan requiring a one time cost of $20,000 and $1,000 annually.

If these development totals are summed and divided by the number of years in the life of the plan an annual cost may be derived, in this alternative equalling $17,533. In addition, there would be $54,000 required annually to administer and maintain these projects.

Thus the estimated annual costs would increase the total average annual cost to approximately $71,533.

From Management Actions for Riparian Programs

Closing 7,200 acres to grazing and 7,200 acres to OHV use would require 84 miles of fence could cost $336,000 over the life of the plan or approximately $22,400 annually.

This restriction would reduce livestock use by approximately 4,000 AUMs. This additional expense of restricted grazing could annul livestock operations that

are not financially secure. Further, OHV use restrictions may negate the offsetting benefits attributed to riparian protection.

From Management Actions for Soil and Water Programs

Vegetation treatments outlined in the proposed plan would result in the annual retention of approximately 142,500 tons of potential sediment on site, leading to an annual savings of approximately $9,975 ($0.07/ton) to downstream Colorado River users. Assuming one percent of these retained sediments are salts, an additional savings of $93,138 ($65.36/ton) could be realized by downstream Colorado River users. Thus, total erosion savings for these vegetation treatments would equal $103,113 per year.

Oil and gas activities in the Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley regions could result in accelerated erosion producing about 5,500 tons of sediment, costing approximately $385 per year. Additionally, salinity reclamation costs would equal $3,595 per year, thus the total erosion costs from oil and gas would total $3,980. The difference between retaining the soils on site versus estimated soil loss from oil and gas activities would be $99,133 per year.

Closing 6000 acres of municipal watershed to livestock would reduce their use by 600 AUMs, again adversely affecting livestock operators.

From Management Actions for Vegetation Programs

Under this alternative, 10 AMPs, 12 AMP revisions, 48 guzzlers/spring developments, 442 reservoirs, 115 miles of fence, 23.5 miles of pipeline and 9,500 acres of vegetation treatment would be required costing a total of $1,893,600 over the life of the plan (refer to Appendix 10 for an estimated cost for rangeland improvements).

In addition, approximately $55,800 would be required to administer this program annually. If the total improvement costs are divided over the life of the plan, an average annual cost of $182,040 is calculated. When added to the annual administration costs, a total annual cost of $151,040 is derived. These projects and improvements would make essential contributions to the wildlife and livestock programs. It should be noted that approximately 50 percent of the funds will be contributed from permits, UDWR, and other interested parties.

Closing special status plant species habitat to livestock grazing would reduce livestock use by 3,100 AUMs. Livestock allocations would be further reduced by 11,467 AUMs to accommodate increased wildlife allocations. A total of 26,992 AUMs would be reduced due to various restrictions; approximately 1,700 AUMs would be gained from range improvements affecting a 25,292 net AUM loss.

From Management Actions for Woodland Programs

If 1,100 cords are taken and personal wood cutting permits cost $5 per cord, BLM may take in $5,500 annually. However, if commercial wood is sold in the Wasatch Front for $100 per cord, individuals may forgo $95 of cost per cord or derive a total value of $104,500 annually. A crude benefit/cost ratio demonstrates the large benefit to individual wood cutters, $100/$5 = 20. This does not include costs of labor, equipment, and related supplies. This activity could have a significant value to individual families in the local community due to the savings compared to commercial wood.

Further benefits may be obtained as described under the proposed plan.

IMPACTS TO SOIL AND WATER RESOURCES

From Management Actions for Minerals Programs

Phosphate leases could occur on 7,650 acres; however, actual surface-disturbing activities would involve only 500 acres. It is unlikely the total surface-disturbed area would be without any revegetation actions at any one time over the life of this plan. Thus, disturbance would have a short-term impact causing accelerated erosion only to the immediate area disturbed; however, long-term improved erosion conditions would occur due to successful reclamation as the mining activities progressed.

A no-surface-occupancy restriction on 28,000 acres of critical soils (high saline and erodible) would protect these areas from oil and gas exploration disturbance and resulting accelerated erosion.

Oil and gas development in the desert areas of Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley oil and gas regions could cause 1,100 acres of disturbance over 15 years. This disturbance would cause a long-term increase of an additional 5,500 tons per year due to an increase of 5 tons per acre per year caused by disturbance and the lack of success of revegetation in this area.

From Management Actions for Soil and Water Programs

OHV use closures and restrictions on 94,300 acres of highly erodible and saline soils and municipal watersheds would protect these areas from accelerated erosion.

From Management Actions for Riparian Programs

Improvement of 7,200 acres of riparian habitat would result in on-site and downstream watershed benefits improving water quality, raising water tables, increasing streambank stability, and reducing downstream flood damage.

From Management Actions for Vegetation Programs

Alternative B proposes 9,500 acres of vegetation treatments. Most of the vegetation treatments proposed would consist of juniper-pinyon woodlands and decadent sagebrush prescribed burns and pinyon-juniper firewood harvesting. These improvements would provide long-term watershed benefits by increasing ground cover through natural establishment and seedings of herbaceous vegetation. One benefit derived from juniper and pinyon burning is increasing diversity of herbaceous vegetation species such as western wheatgrass (Severson and Rinne, 1988). An ancillary benefit derived from this would be increased ground cover to lessen soil movement.

Any additional forage would be allocated to wildlife or watershed. If allocated to wildlife, 50 percent would go to consumptive use for wildlife and 50 percent would go toward watershed maintenance. If allocated to watershed only, 100 percent of the additional forage would go towards nonconsumptive watershed maintenance which would provide the most protection from erosion and benefit watershed principally. Even with 100 percent allocation to watershed, this alternative would benefit watershed the least due to the low number of acres identified for vegetation treatment and the least amount of pinyon-juniper woodlands and sagebrush proposed to be managed in mid-seral ecological condition.

IMPACTS TO VEGETATION RESOURCES

From Management Actions for Minerals Programs

Oil and gas activity in the desert Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas regions could disturb approximately 1,100 acres that would be cleared over a 15-year period for well pads, facilities, access roads, and pipeline development. Because of low precipitation (8 inches annually) in the area and difficulty of vegetation reclamation, these areas may remain in an early ecological seral stage for the long-term after vegetation is cleared, allowing opportunities for undesired plant species such as halogeton to invade. Wells may produce for five to twenty years before rehabilitation takes place.

From Management Actions for Vegetation Programs

Treating 9,500 acres would result in high vegetation diversity and forage production because most of this acreage is presently pinyon-juniper and sagebrush vegetation types in closed stands which are low in diversity and poor watershed condition. A benefit derived from pinyon and juniper burning is increased diversity of herbaceous vegetation (Severson and Rinne, 1988).

Allowing grazing use after April 1 on winter grazing permits only when spring grazing can be rotated, deferred, or rested would insure desert vegetation vigor during the critical spring growing season.

IMPACTS TO VISUAL RESOURCES

The identified utility corridors pass through areas identified as being VRM Class II in Jesse Ewing Canyon, the Green River Scenic Corridor in Browns Park, and along the Taylor Mountain Road north of Vernal. It is doubtful that adequate mitigation could be accomplished to maintain the Class II standard if transmission lines are constructed nearby.

Any deterioration of visual quality would impact recreation users; these scenic areas would become less popular and visitor use would decline. The amount of this decrease cannot be predicted.

IMPACTS TO WOODLAND MANAGEMENT

From Management Actions for Recreation Programs

Closures to woodland harvesting to protect semi-primitive, nonmotorized areas, riparian habitat, and special emphasis areas would combine to result in the inability of DMRA to meet local demand. Closures to cottonwood harvesting to protect wild and scenic river values along the Green River (17,500 acres) would effectively eliminate

the harvest of cottonwood by people who prefer it. This need could not be accommodated by DMRA.

From Management Actions for Woodland Programs

Community demand for pinyon and juniper firewood, juniper fence posts and Christmas trees would continue to be met on 51,300 acres (28 percent of woodland area in the resource area). Commercial-quality woodlands open for cutting could support an annual harvest of 1,100 cords over an extended period of time on a sustained-yield basis. However, this would not meet current demand for firewood; sale of wood products to commercial cutters would be reduced by approximately 75 percent. This would also mean that up to 200 people currently using public lands to collect firewood and cut Christmas Trees would have to find other areas for these activities.

CUMULATIVE IMPACTS OF IMPLEMENTING ALTERNATIVE B

AREAWIDE CUMULATIVE IMPACTS

The cumulative effect of implementing the decisions proposed in this plan, coupled with the already existing decisions implemented by other land-managing federal, state, and local agencies in the area, is expected to have some limited long-term negative significance. Proposed decisions resulting in new restrictions to OHV users and new oil and gas leases, when compounded with existing restrictions, could further limit OHV opportunities and curtail or preclude oil and gas exploration and development in certain areas of the resource area.

The proposed plan also offers specific and strongly worded decisions that would result in significant long-term positive support to the Basin's desire for increased recreation and tourism development. These proposed decisions are seen as being consistent with, and complimentary to, the current management plan of other federal, state, and local land managing agencies involved in the Uinta Basin.

The cumulative impacts to fish and wildlife under Alternative B would be:

- Special status raptor nest sites would be protected year long instead of the existing seasonal from permanent surface disturbing activities. Also, the maximum protection zones offered in the Draft RMP would be applied around each nest site. This alternative affords the most protection to these species and thus provides the most significant, positive, long-term impacts.

- Black-footed ferret reintroductions would be realized on two sites and 100 percent of all identified potential habitat in the DMRA would be maintained. This alternative affords the greatest opportunity to aid in the recovery of this endangered species.

- Approximately 173,000 acres (95 percent) of crucial sage grouse nesting habitat would be seasonally protected within 6 miles of all strutting grounds. This is a 116,000 acre (64 percent) increase over the existing situation. In addition, the protection period would increase one month from the existing period and OHV would be limited to designated roads and trails, all significant, positive, long-term impacts.

- Acres authorized for the reintroduction of bighorn sheep would increase to 123,800 acres (100 percent) from the existing 31,000 acres (25 percent), allowing a maximum population increase from about 44 animals in one area to 1,000 animal in four areas. This would be a significant positive long term impact.

- Wildlife forage assignments would be allowed to increase 66 percent over current use to 46,000 AUMs, a positive long-term impact.

- OHV use would be closed on 156,000 acres (22 percent) within the DMRA, and restricted to designated roads and trails on an additional 204,610 acres (29 percent) seasonally or year long. This action would afford the second most protection to wildlife from human disturbance during reproductive or other crucial periods of all alternatives offered, and reduce the effects of poaching on wildlife significantly.

The irreversible and irretrievable commitment of resources would be the same as described in the proposed plan.

Seasonal restriction management decisions on 8.5 miles of the corridor route (71 percent) within the Browns Park Complex will negatively impact right-of-way construction.

This will affect the region twofold: negatively by economic, cumulative impacts on a local scale, but positively by mitigating impacts to deer winter range, raptor habitat, cultural properties, semi-primitive, nonmotorized areas, and areas of highly erodible soils.

TABLE 4-12:
SUMMARY OF CUMULATIVE IMPACTS TO OIL AND GAS ACTIVITIES UNDER ALTERNATIVE B

OIL AND GAS PRODUCING REGIONS	HIGH POTENTIAL				MODERATE POTENTIAL			
	MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2		MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2	
	Acres*	%**	Acres*	%**	Acres*	%**	Acres*	%**
Myton Bench-Nine Mile Canyon	28,900	19	53,300	34	33,500	18	65,000	34
Horseshoe Bend-Ashley Valley	1,400	2	10,300	15	5,400	4	95,800	65
Clay Basin-Manila	2,200	15	7,600	50	4,900	12	18,900	45

* Acres of public mineral estate. **Percentage of total high or moderate potential oil/gas mineral estate for the region.

The cumulative impacts of restrictions and closures to livestock under Alternative B would result in a net loss of 25,292 AUMs and could force one-third of the present livestock operators out of business. Also, if the proposed increase in allocation of wildlife forage results in actual increases of wildlife numbers, they could cause significant negative impacts to private agricultural lands in the area.

The cumulative impacts to oil and gas activities under Alternative B are summarized below in Table 4-12 by 1) oil and gas producing regions, 2) oil and gas potential, and 3) level of protection (level 1 and level 2 no surface occupancy).

Referring to Table 4-13, it is estimated that approximately $20,008,438 could be lost annually to the community. Therefore, over the life of this plan, approximately $444 million of oil and gas earnings (before royalty and tax payments) would not be realized. From these earnings, a total of $56 million (12.5 percent of total oil and gas earnings) in royalty payments would not be obtained by the federal and state governments. Of this total, the State of Utah would lose total royalty payments of approximately $28 million. In turn, the counties involved in the RMP would lose total royalty payments from the State of Utah of approximately $7 million. In addition, counties would lose revenues from associated and supporting taxes (i.e., property, sales, ad valorem, and severance).

The cumulative, significant, negative impacts under Alternative B would restrict oil and gas exploration and development as well as subsequent economic benefits. The cumulative impacts are therefore significant and negative in nature (see Tables 4-5 and 4-6) since 1) the amount of lands closed to leasing or lands with restrictions of no surface occupancy is high, 2) the number of seasonal restrictions is high, and 3) there are numerous areas having multiple overlapping seasonal restrictions.

Referencing recreational management in Alternative B, approximately 294,400 acres would be open to OHV use and 258,400 acres would be restricted to designated roads. This could cumulatively impact watershed resources, soils, scenic values, wildlife habitat and nesting sites, and special status species.

Traffic counter and visitor register information in Browns Park indicate that visitor-use on the upper Green River corridor will continue to increase between ten (10) and fifteen (15) percent annually. This increase may have impacts on human health and safety, water quality, and aesthetic values within the river corridor.

The largest cost comes from the vegetation program and the biggest potential additional benefits are from the fish and wildlife program. The lowest costs are from the riparian program with the minerals program generating the lowest potential additional benefits. The problem is with inter-connected costs and benefits, for example, the costs of the vegetation program generate benefits that show up in the livestock, wildlife, and soils programs. The magnitude of most economic impacts would be dependent upon the magnitude of the individual program changes.

Management decisions in Alternative B to improve 7,200 public acres (or 98 miles) of riparian areas, and requiring a minimum of three (3) inches of herbaceous growth after grazing use and implementing range improvements and improved grazing prescriptions on the uplands, would insure maintenance of plant vigor, increase plant and animal species diversity, provide streambank protection

and aid deposition of sediments to rebuild degraded streambanks, and augment wildlife, recreation, and watershed benefits.

Ranchers and business people would probably be opposed to any lands actions that would apply for special management designations and/or restrictions on commodities. Recreation, cultural, and VRM resource programs draw tourism, which is beneficial, but may not be strongly supported by these groups.

Management decisions for oil and gas no-surface-occupancy restrictions on 32,200 acres for municipal watershed and highly erodible soils; and, oil and gas and OHV seasonal restrictions to designated roads on 85,300 acres of floodplain and highly saline soils will be used in this alternative to mitigate accelerated erosion. In addition, rangeland improvements on 9,000 acres would reduce erosion by 9,000 tons annually, and simultaneously increase vegetation diversity and forage production for livestock and wildlife. On the other hand, oil and gas development in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley regions could, over time, cumulatively disturb approximately 75 acres in the desert region per year, which may reduce vegetation ecological condition to an early stage, and promote the spread of undesirable weed species such as halogeton, thereby restraining and/or limiting reclamation success in the long-term.

SPECIAL EMPHASIS AREA CUMULATIVE IMPACTS

In Alternative B, all the proposed ACECs encompass cumulative economic, ecological, and social values affecting three distinct areas, or "influence zones", within DMRA. These may be defined as follows:

ACEC Nomination	Influence Zones within DMRA
Browns Park Complex area	Browns Park, Daggett County
Upper Green River Scenic Corridor	
Red Creek Watershed	
Red Mountain-Dry Fork	Population areas of Complex Vernal, Jensen, Maeser, Davis and Naples
Middle Green River	within Uintah County
Parlette	Uintah and Duchesne Counties
Lower Green River	
Nine Mile Canyon	
Lears Canyon	

Wild and Scenic River Nomination	Influence Zones within DMRA
2 stretches of Nine Mile Creek	Uintah and Duchesne Counties
3 stretches of the Green River	
Argyle Creek	

The following are the cumulative impacts affecting any one or all of the influence zones within the resource area.

The protection of areas and objects significant to the traditional lifeways and religious ceremonies of the Ute Tribe occurring within these areas will have long-term, positive, cumulative impacts on the social diversity, therefore social health, of the resource area, Uinta Basin, and the nation as a whole.

Long-term positive impacts to the regional network of native vegetation comparison areas will also be realized. Data gained from past, present, and future studies of these areas following wildfire disturbance will provide valuable information relating to the natural recovery processes of these communities.

Lands activity decisions involving exclusion areas and protective withdrawals in level 1 lands, and avoidance areas in level 2 lands within the areas will mitigate the negative cumulative water quality impacts to the Green River throughout the resource area.

Excluding livestock on riparian and special status plant species within the proposed ACECs would have a significant negative impact on the local livestock industry.

Mineral programs and activities would be allowed on all levels with restrictions designed to protect the significant renewable resources occurring within the area. These restrictions would range from no surface occupancy to standard restrictions. These restrictions may pose short-term negative economic impacts on energy companies; however, the long-term positive economic gain to the northeast Utah region and energy companies operating in the basin from recovery of these minerals outweighs the short-term, negative impacts.

There will be conflicting potential cumulative impacts to the Uinta Basin from increased visitor-use days due to the development of facilities (either extensive or intensive in nature) and the realization of Wild and Scenic River designations proposed under this alternative. Negative impacts may include riparian zone site damage, water quality reduction, and an overall lessening of recreation experiences. Positive impacts would include the increased economic revenues to the business

communities and county and state coffers due to increased recreational dollars spent in the area.

There are some socioeconomic cumulative impacts in the Green River Scenic Corridor ACEC, Red Creek Watershed ACEC, Red Mountain, Nine Mile, Pariette Wetlands, and the designated Wild and Scenic Rivers. The social perception in the community is divided. Although sympathetic to conservation/preservation of these areas, many individuals would want to protect industry. Social perceptions in the communities are divided over wildlife management, visual resources, and scenic resources. Ranchers and business people oppose additional restrictions placed on their use of public land, and conservation groups want to protect ecosystems.

Vegetation management decisions in Alternative B allow only biological control of noxious weeds and insects within the ACECs. This may cumulatively affect adjacent lands, via degradation and loss of desired vegetation composition and production levels, causing economic losses to state and private landowners. In contrast, manipulating 1,225 acres of pinyon-juniper woodlands in the Browns Park Complex, Nine Mile Canyon and Red Mountain-Dry Fork Complex areas would have significant, long-term, positive impacts to crucial and/or high priority wildlife habitat, watershed, and water quality values both within and outside the areas.

Wild and Scenic Rivers

Six river segments were determined to be eligible for further study in this alternative. All six were found to be suitable for inclusion into the NWSRS.

In the Lower Green River area, approximately 57 percent of the area is located in high potential federal mineral estate. Approximately 87 percent of this area will be closed to leasing and the remaining 13 percent shall have no surface occupancy stipulations. All federal mineral estate is currently leased in this area.

In the Middle Green River area,approximately 50 percent of the area is located in high potential federal mineral estate. Approximately 61 percent of this area will have no surface occupancy stipulations and the remaining 29 percent will have seasonal or controlled surface use stipulations. All federal mineral estate is currently leased in this area.

In the Nine Mile Canyon area, approximately 14 percent of the area is located in high potential federal mineral estate. Approximately 33 percent of the high potential federal mineral estate in this area will have no surface occupancy stipulations. All federal mineral estate is currently unleased in this area.

The areas noted above that will be closed to leasing will have significant negative impacts to oil and gas companies, as well as, federal, state, and local governments. The loss of oil and gas resources through drainage by state or private wells will result in a loss of federal, state, and county revenues. The areas closed to lease operations because of no surface occupancy stipulations will increase drilling costs due to directional drilling requirements.

Outstandingly remarkable wild and scenic river values would be protected along all six river segments identified as being eligible for further study and possible inclusion in the Wild and Scenic River System. This status would attract recreationists who enjoy various water based recreation activities as well as those interested in scenic and cultural based forms of recreation. The upper Green River is currently receiving heavy use (10,000 visitor days annually) and is increasing.

The other segments are currently receiving light use, but Wild and Scenic River designation will cause use to increase. It is anticipated that use on these segments would reach 2,000 visitor days in 10 years.

DIRECT AND INDIRECT IMPACTS OF IMPLEMENTING ALTERNATIVE C

IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES

From Management Actions for Livestock Programs

Accidental disturbance of both cultural and paleontology resources would continue to occur as developments such as land treatments and water developments are

completed for livestock. These disturbances would occur more frequently in this alternative than in other alternatives.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Minerals Programs

Accidental disturbance of both cultural and paleontology resources by activities associated with mineral exploration and development would occur more frequently than in any other alternative, except Alternative D, because of the increased mineral development allowed under this alternative.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Recreation Programs

Continued active management of the John Jarvie Historic District in Browns Park would allow the public to gain a better understanding of the history of this fascinating area. By preserving, displaying, and interpreting the many structures and items at the site, the public gains a better appreciation of the need to protect and preserve cultural and paleontological resources.

Protecting the Desolation Canyon National Natural Landmark on the lower Green River below the Sand Wash Recreation Site would increase public awareness of the importance of John Wesley Powell's historic trip down the Green River in 1869.

Vandalism and accidental disturbance of cultural and paleontological sites would occur more frequently than in Alternatives A, B, and E, but approximately the same as in Alternative D, because fewer restrictions and increased development and use of resources would result in more opportunities to encounter both cultural and paleontological resources.

From Management Actions for Special Emphasis Areas Programs

Not designating Nine Mile Canyon, the Browns Park Complex, and the remaining portion of the Red Mountain-Dry Fork Complex as ACECs would make it more difficult to stabilize and protect the important cultural resources in these areas due to the lack of management priority for these areas. As a result site deterioration would continue and eventually some resources would be lost.

IMPACTS TO FISH AND WILDLIFE HABITAT RESOURCES

From Management Actions for Fish and Wildlife Habitat Programs

Overall, Alternative C is the least beneficial to the wildlife management program.

Continuing to allow permanent surface disturbance and routine human activity near active ferruginous hawk and golden eagle nest sites, even after the young have left the nest, could force these species to continually seek new, possibly less quality, nesting habitats. This would be the least beneficial alternative along with Alternative A and D for these species. It could further prevent the delisting of these species and thus is a significant negative long-term impact.

Protecting only sage grouse strutting grounds and nesting habitat within 1,000 feet of each strutting ground (3,600 acres or two percent of the total identified) seasonally could eliminate 72 percent of all sage grouse nests, reducing production. This would cause a significant long-term adverse impact to the species.

No prairie dog colonies would be maintained as potential black-footed ferret habitat and no reintroductions would be allowed. This would be a significant negative long-term impact because potentially suitable habitat would not be available for the recovery of the species. BLM Special Status Species objectives, as well as those outlined in the Recovery Plan and the Endangered Species Act, would not be met. The public comments requesting the reintroductions of black-footed ferret would also not be met.

Only 3,900 acres of existing bighorn sheep habitat (about 3 percent of the identified potential habitat) would continue to be managed for the species. An opportunity

to reintroduce bighorn sheep into additional historical habitat would be lost and the maintenance of the one existing population placed in peril. This is seen as the most significantly negative long-term impact to bighorn sheep besides Alternative D in the Draft RMP.

Big game and nongame wildlife forage assignments would be reduced from current use (35,000 AUMs) by 21 percent, to previous BLM allocated levels of 27,600 AUMs. UDWR's big game herd unit objectives would not be achieved. Planned transplants of bighorn sheep, moose, pronghorn antelope, and other species would not occur.

From Management Actions for Lands and Realty Programs

No additional public access would be acquired into traditionally isolated, low human-use areas heavily used by wildlife. This is a positive, long-term impact for wildlife, and in particular, sensitive species such as black bear and mountain lion as they would not be displaced from their preferred habitats.

Allowing rights-of-way authorizations through riparian habitat as long as mitigation would improve forage would be negatively impact 14 special status species with possible road construction, increased human activity, or short-term habitat destruction.

From Management Actions for Livestock Programs

Implementation of rangeland improvements outlined for this alternative which would be designed only to improve livestock forage could have an adverse impact to those wildlife species that rely on vegetation communities in a late seral stage. Rangeland improvements identified in Appendix 8 propose to convert 8,500 acres of sagebrush to grass production. This would be a 293 percent increase over the 2,900 acres identified in the proposed plan. This loss of sagebrush would be a significant, negative, long-term impact to wildlife species such as sage grouse, vesper sparrows, black-throated sparrow, Brewer's sparrow, green-tailed towhee, and sagebrush vole who rely on mature stands of sagebrush for food and cover.

Allowing livestock use in bighorn sheep habitat would increase the risk of disease transmission from livestock to bighorn sheep. This would reduce or eliminate the successful return of Rocky Mountain bighorn sheep to their native habitat within the resource area. UDWR, BLM, and Utah sportpeoples' objectives of increasing populations of this native species range within the DMRA would not be achieved. This alternative, along with Alternative D, would have the most negative, long-term impact to this species of any alternative offered for consideration.

From Management Actions for Minerals Programs

Approximately 100 percent of the known ferruginous hawk and 90 percent of the golden eagle habitat occurs within the area affected by mineral activity. Protective stipulations would protect nest sites only during the reproductive period. Before and after this reproductive period, all nest sites would be left unprotected and if rendered unusable due to human disturbance, could lead to the loss of habitat for these species and possible decline in population levels.

Approximately 77 percent (48 miles) of priority fisheries habitat, including proposed Critical Habitat for the four endangered fish in the middle and lower segments of the Green River, would not be protected from future mineral entry under protective withdrawals afforded these areas under other alternatives. Loss or severe degradation of these habitats and increased human disturbance could have significant negative, long-term impacts on these special status species.

ACEC designation would be proposed on 6 percent of the resource area to protect and enhance critical/crucial wildlife habitat on the upper section of the Green River and Red Creek only. Other critical/crucial wildlife habitat within the proposed ACECs would not be designated and thus limiting the opportunity for increased habitat enhancement and management.

From Management Actions for Recreation Programs

OHV use would be restricted to designated roads and trails on 687,700 acres (97 percent) of the resource area seasonally or year long. This action would have the greatest positive, long-term impact to wildlife of all those considered in the Draft RMP. Wildlife would be protected from disturbance during crucial reproductive periods, etc., and vegetation would not be damaged by OHV use on most of the resource area. UDWR has reported a direct correlation between human access and increased poaching. This alternative would also have a significant positive long-term impact by reducing poaching efforts in the resource area.

From Management Actions for Riparian Programs

Management actions for 15,650 acres of riparian habitat would provide direct long-term benefits to 14 of the 23 special status species in DMRA. Improved riparian areas might help afford the opportunity for downlisting or removal from listing of the long-billed curlew, western snowy plover, black tern, white-faced ibis, and the Great Basin silverspot butterfly under the Endangered Species Act. Forage production would be expected to increase as well as vegetative cover, streambank stability, and instream habitat quality. These long term, positive impacts could correlate up to a two percent population increase for over 20 big game, upland game, and non-game species. BLM objective is to have 75 percent of all riparian areas in proper functioning condition by 1997, as well as the public's concern to improve these areas could also be initiated. Thus these actions are seen to be significant to wildlife habitat management success for the resource area and the region. However, unfenced riparian areas could allow uncontrolled human and livestock use, resulting in continued deterioration of certain riparian areas in the resource area.

From Management Actions for Vegetation Programs

Maintaining wildlife forage demands at their current levels of 27,600 AUMs with no increase and assigning additional forage to livestock would not allow DMRA to meet recreationists' and hunters' demand for increased wildlife numbers. Anticipated annual increases to the local economy of between $63,400 to $126,100 realized from increased wildlife numbers and wildlife species diversity would also not occur.

Protecting only sage grouse strutting grounds and nesting habitat within 1,000 feet of each strutting ground (3,600 acres) seasonally, could eliminate a minimum of 72 percent of all sage grouse nests, reducing production significantly, thus causing adverse impacts to the species.

IMPACTS TO LANDS AND REALTY MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Restrictions would be imposed on lands containing active nest sites for raptor species and sage grouse strutting grounds. These restrictions would affect approximately 12,500 acres and would prohibit the construction of right-of-way projects unless the impacts could be mitigated.

Seasonal restrictions would be imposed on 295,000 acres to protect wildlife resources. These restrictions would not preclude land use authorizations but would limit construction periods to specific times of the year.

From Management Actions for Lands and Realty Programs

Adherence to designated corridors would prevent the proliferation of major utility systems across undisturbed public lands. The designation of specific corridors for future major right-of-way projects may impact those companies preferring alternative locations to some extent. However, this will ensure the protection of resource values through the land use analysis process which will be required for projects proposed outside of the established corridors. Closure of the designated corridor in Jesse Ewing Canyon upon reaching it capacity would essentially close off the only north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

It can be expected that the counties of Daggett, Duchesne, and Uintah would not be largely affected by future acquisition of public lands as the preferred method for acquisition would be through exchange. The disposal of land by sale, state selection, or R&PP would have a positive impact on the counties.

From Management Action for Recreation Programs

Recreation sites encompassing 5,500 acres would restrict those land use authorizations that would cause visual/aesthetics impacts and found to be inconsistent with the purpose of the recreational sites.

Seasonal restrictions on 8.5 miles of the designated corridor route within the Browns Park Complex would limit construction periods for rights-of-way.

From Management Actions for Vegetation Programs

Approximately 3,740 acres which contain relict vegetation would exclude land use authorizations.

IMPACTS TO LEASABLE MINERALS MANAGEMENT - OIL AND GAS

From Management Actions for Fish and Wildlife Habitat Programs

Compared to all alternatives, this alternative and Alternative D have the least number of seasonal restrictions and will affect only 17 percent of high potential mineral estate. The following are specific discussions of these impacts.

Seasonal timing stipulations to protect deer and elk critical winter habitat will have adverse impacts on 13,000 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon and the Clay Basin oil and gas producing regions. This may result in altering drilling schedules of lessees which may further cause increased drilling costs.

The protection of sage grouse strutting grounds and known nests will have minor adverse impacts to exploration and development for oil and gas resources. Seasonal restrictions may result in altering drilling schedules of lessees which may further cause minor increased drilling costs.

Raptor protection zones will have minor adverse impacts to the exploration and development for oil and gas resources.

From Management Action for Soil and Water Programs

OHV use and surface disturbing activities would be precluded in areas of critical (highly saline and highly erodible) soils, floodplains, and municipal watersheds during times of saturated soils (usually the spring runoff and fall rainy seasons). This would have a minor negative impact to oil and gas activities by causing delays in operations during wet periods.

From Management Actions for Visual Programs

Minor adverse impacts would occur on 3,200 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon oil and gas region. The oil and gas operations may be required to be moved to less visible regions or painted in certain environmentally sensitive colors. Roads necessary for normal operation and maintenance may have to be specially routed. This could cause minor delays in oil and gas operations and additional operational costs.

IMPACTS TO LIVESTOCK MANAGEMENT

Overall, Alternative C is the most beneficial to the livestock management program.

Forage assigned to wildlife would not increase and any additional AUMs created from management strategies or vegetation treatments would be assigned to livestock.

Most rangeland improvements conducted under this alternative would have a significant benefit to livestock in improved quantity and quality of forage. The greatest amount of vegetation treatment would occur in this alternative (27,100 acres), producing 3,600 AUMs. Most of this treatment would consist of pinyon-juniper woodlands and decadent sagebrush prescribed burns. Additional AUMs gained from grazing systems would be approximately 500 AUMs and would apply to all alternatives.

IMPACTS TO RECREATION MANAGEMENT

From Management Actions for Cultural and Paleontological Programs

Limiting OHV use to designated roads year long on 2,400 acres to protect cultural sites eligible for or listed on the National Register of Historic Places and the Desolation Canyon National Historic Landmark would have an impact on hunters and people driving for pleasure. This would result in a reduction of approximately 100 visitor days for hunting, driving for pleasure, and the use of OHVs. These users would move to other areas in the resource area without restrictions.

From Management Actions for Fish and Wildlife Habitat Programs

Restrictions on OHV use on 5,900 acres of special status raptor nesting areas would limit recreation uses such as driving for pleasure in these areas. This would result in an estimated loss of 30 visitor days to the area.

From Management Actions for Lands and Realty Programs

No additional access to public lands presently surrounded by private lands would be provided, resulting in an adverse impact to hunters and recreationists. No additional recreation opportunities would be made available.

The recommendation to establish protective withdrawals on 8,100 public acres of high value recreation lands would protect scenic, historic, aesthetic and recreational values from future development over the long term.

From Management Actions for Livestock Programs

Grazing within the Green River Corridor through Browns Park would greatly lower the quality of the recreation experience on 7,400 acres. Cattle would congregate along the riverbank and adversely affect the visual quality of the corridor. There would be a loss in visitor days use to the area, but the amount is not known. This impact would be significant and long term.

From Management Actions for Minerals Programs

Development of identified high potential oil and gas areas would result in 165,600 acres currently identified as possessing semi-primitive, motorized values in the Three Corners and Myton areas, dropping one class to roaded natural in the Recreation Opportunity Spectrum inventory. This would change the type of recreation opportunities available in these areas from a somewhat primitive to a less natural experience. Individuals that enjoy more primitive, remote experiences would be displaced to other areas. The number of persons affected is not known at this time, but it is expected to be significant and long term.

From Management Actions for Recreation Programs

Semi-primitive, nonmotorized values on 60,800 would not be protected. This is 100 percent of this type of land in the resource area. This primitive form of recreation opportunity would, over time, no longer be available due to other management actions degrading or compromising these values. Demand for these primitive types of recreation experiences is expected to increase between 5 and 10 percent annually over the long term.

Not providing additional developed facilities, such as campgrounds and picnic areas, would limit opportunities for people who prefer more developed and concentrated forms of recreation. Many of these individuals would not spend time on public lands. However, there would be additional opportunities for people that prefer dispersed types of recreation such as hiking, backpacking, horseback riding and bicycling. These types of use would increase substantially. It is estimated that overall use would increase approximately 2 to 4 percent a year.

Although it is expected that recreation visits will go down in areas where vehicle access will be limited to protect critical resource values, overall use in the resource area will not be affected. Use patterns will simply change and people will move to areas with fewer restrictions.

From Management Actions for Soil and Water Programs

Management actions to protect highly erodible and saline soils, and municipal watersheds by limiting OHV use on 94,300 acres to designated roads (March 1 to April 30 and September 1 to October 31), could adversely affect driving for pleasure and, in the fall of the year, close access by hunters to some hunting areas. It is expected that 1,600 visits to public lands in the area would be displaced annually to other areas as a result of these restrictions.

From Management Actions for Special Emphasis Areas Programs

All six river segments identified as being eligible for further study and possible inclusion in the Wild and Scenic River System would be dropped from consideration and returned for uses that would benefit other users of public lands. Recreation use would not increase as it would have if Wild and Scenic River status were maintained, and over time, identified outstandingly remarkable values may be lost. This could result in a loss of up to 5,000 visitor days annually in 10 years. This would be a long term impact.

From Management Actions for Vegetation Programs

Limiting OHV use to designated roads year long on 3,000 acres to protect relict vegetation communities could affect driving for pleasure and, in the fall of the year, access by hunters to some hunting areas. This would result in a displacement of up to 35 visitor days use to other parts of the resource area annually. This would be a long-term impact.

From Management Actions for Woodland Programs

Firewood gathering and Christmas tree cutting could provide family-centered recreation opportunities on 183,000 acres. This is 100 percent of the woodland type in the resource area. In addition, cottonwood could be cut on an additional 17,500 acres, allowing DMRA to meet the local demand for this resource. An increase of 28 percent could be accommodated in the cutting of pinyon

and juniper in the resource area and still meet sustained yield goals.

IMPACTS TO RIPARIAN HABITAT RESOURCES

From Management Actions for Riparian Programs

Improving approximately 7,200 acres, or 98 miles, of inventoried riparian areas from an early and mid to a late or climax ecological stage would increase vegetation and wildlife species diversity and create wildlife, recreation, and watershed benefits.

Criteria for maintaining a minimum of three (3) inches of herbaceous growth after livestock grazing in riparian areas would enhance riparian vegetation productivity, resulting in streambank and water quality improvements.

IMPACTS TO SOCIOECONOMICS

From Management Actions for Fish and Wildlife Habitat Programs

Providing 27,600 AUMs probably would not lead to increased expenditures in this program. Hunter congestion may actually decrease future participation rates if number of animals do not increase along with hunter population. Number of deer to number of hunters may prove to be a function of hunter success which could directly correlate to number of hunters in the field in following years along with their affiliated expenditures.

Habitat protection is similar to the proposed plan which would cost $6,000 to administer.

Disallowing surface disturbing activities or OHV use on sage grouse strutting grounds and nesting areas could cost $2,000 annually.

Creating a .25 mile buffer around all special status raptor species would have the same implication as alternative A and cost $8,000 annually.

Providing stream habitat and allow for reintroduction of river otter and upland game birds would require about $2,000 for planning each year. Cost share would require about $2,000 annually from BLM with other parties contributing equal amounts totalling to $4,000 each year.

Total costs of administering the wildlife program under alternative C would come to $28,000 annually. These expenditures by BLM, other agencies, and concerned groups may be viewed as an economic injection into the community and region. Alternative C has the lowest cost ($28,000) of the five alternatives for the wildlife program.

From Management Actions for Lands and Realty Programs

Land use authorizations under this alternative would cost about $133,333 annually to administer. There could be future constraints to development between the Wyoming and northeastern Utah corridor, which can allow only 3 more new facilities. Making 698,500 acres available for agricultural leases could promote the agriculture sector, depending upon the productivity of such lands and economic feasibility of such operations. New communication sites would be the same as discussed under the proposed plan, requiring a one time cost of $16,000. Allowing rights-of-way for major water developments would be the least restrictive giving the

TABLE 4-13:
ESTIMATED ANNUAL OIL AND GAS,
REVENUES FOREGONE BY THE COMMUNITY, ALTERNATIVE C

Region	No of Precluded Successful Wells	Estimated Precluded Annual Production		Estimated Lost Annual Revenue		
		Oil	Gas	Oil	Gas	Total
Myton Bench/ Nine Mile Canyon	2	15,800 barrels	68,466 MCF	$316,000	$102,699	$418,699
Horseshoe Bend/ Ashley Valley	.2	5,333 barrels	2,667 MCF	$106,660	$4,000	$110,660
Clay Basin/Manila	.1	100 barrels	20,000 MCF	$2,000	$30,000	$32,000

most opportunities for water projects, if any are proposed. Trespass resolutions would be the same as under the proposed plan.

From Management Actions for Livestock Programs

Average annual actual use is 38,916 AUMs, which could contribute $385,658 annually, using $9.91/AUM. If the AUMs taken in nonuse were activated, this would be an additional 11,383 AUMs or $112,806 realized annually.

From Management Actions for Minerals Programs

Gilsonite deposits in the Myton area would be generally available for development, which could lead to 15 additional jobs and $525,000 each year.

Table 4-13 provides an estimate of the impacts to the community from Alternative C decisions as they affect oil and gas development.

Referring to Table 4-13, it is estimated that approximately $561,359 could be lost annually to the community. Therefore, over the life of this plan, approximately $9 million of oil and gas earnings (before royalty and tax payments) would not be realized. From these earnings, a total of $1 million (12.5 percent of total oil and gas earnings) in royalty payments would not be obtained by the federal and state governments. Of this total, the State of Utah would lose total royalty payments of approximately $557,000. In turn, the counties involved in the RMP would lose total royalty payments from the State of Utah of approximately $139.000. In addition, counties would lose revenues from associated and supporting taxes (i.e., property, sales, ad valorem, and severance). Losses from precluded wells would be primarily to oil and gas companies. The loss to the counties would be a loss of royalties, severance tax, ad valorem tax, property tax, and sales tax. There also would be a loss of revenues to oil service companies and community businesses.

Opening up 7,650 acres of moderate to high grade phosphate lands could lead to mineral development and ultimately to additional employment of 350 jobs and $4 million each year during full production.

Tar sand development would be authorized on 66,200 acres of federal mineral estate and Duchesne county could forego between $500,000 and $1,500,000 annually in pavement costs, perhaps leading road paving.

From Management Actions for Recreation Programs

To administer the OHV program may require a one time cost of $20,000 and an annual cost of $40,000.

Maintaining existing recreational facilities may require a one time cost of $120,000 plus $16,000 in administrative costs, and $6,000 in maintenance costs annually.

Developing interpretive sites at Diamond Hoax, Taylor Flat, Pariette Wetlands, and Clay Basin Gas Field could demand a one time cost of $40,000 plus $4,000 in administrative costs, and $1,000 in maintenance costs annually and would provide benefits identical to Alternative A.

Developing 23 miles of hiking and 12 miles of mountain bike trails as discussed under the proposed plan would require a one time cost of $70,000 and $12,000 in administrative costs, and $3,000 in maintenance costs annually. It would also attract targeted participants and their associated spending patterns.

Back Country Byway specifications would be identical to the proposed plan and have a one time cost of $20,000, $8,000, and $1,000 annually.

When these development totals are added up and divided by the number of years in the life of plan, an annual cost may be found, in this alternative $18,000. In addition, there would be $86,000 required annually to administer and maintain these projects. This additional expense would increase the total annual average cost to about $104,000. Not only will these developments cause injections into the community, but also additional recreationists will be able to use the area at any one time perhaps leading to greater expenditures for local merchants.

From Management Actions for Riparian Programs

To improve the 7,200 public acres of riparian habitat to a late or climax seral stage would require a one time cost of $88,500.

From Management Actions for Soil and Water Programs

Vegetation treatments outlined in the proposed plan would result in the annual retention of approximately 406,500 tons of potential sediment on site, leading to an

annual savings of approximately $28,455 ($0.07/ton) to downstream Colorado River users. Assuming one percent of these retained sediments are salts, an additional savings of $90,030 ($65.36/ton) could be realized by downstream Colorado River users. Thus, total erosion savings for these vegetation treatments would equal $265,688 per year.

Oil and gas activities in Myton Bench-Nine Mile Canyon and Horseshoe Bend-Ashley Valley could result in accelerated erosion of about 5,500 tons of soil costing $385 annually. Salinity savings would equal $3,595 and total erosion costs from oil and gas would total $3,980.

Total savings would equal vegetation treatments minus oil and gas costs or $261,700.

From Management Actions for Vegetation Programs

Under this alternative, 10 AMPs, 12 AMP revisions, 61 guzzlers/spring developments, 657 reservoirs, 44 miles of fence, 35 miles of pipeline, and 27,100 acres of vegetation treatment would be required costing about $2,416,700 over the life of the plan (refer to Appendix 10 for a list of estimated costs for rangeland improvements). In addition, approximately $46,500 would be required to administer this program annually. If the total improvement costs are divided over the life of the plan, an average annual cost of $161,113 is derived. When added to the annual administration costs, a total annual average cost of $207,613 is generated. These projects and improvements would make essential contributions to the wildlife and livestock programs. It should be noted that approximately 50 percent of the funds will be contributed from permits, UDWR, and other interested parties.

From Management Actions for Woodland Programs

Allowing 3,700 cords per year would generate the same benefits as the proposed plan, permitting individual wood cutters to forgo $370,000 of costs from commercial wood cutters. Further benefits may be obtained by harvesting Christmas trees, juniper fence posts, pinyon pinenuts, live trees, and non-barrel cactus on 698,000 acres.

IMPACTS TO SOIL AND WATER RESOURCES

From Management Actions for Minerals Programs

In critical soils in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas producing regions, approximately 1,100 acres could be disturbed, causing disruption of the water cycle by exposing bare soil to wind and water, thereby accelerating erosion. This area is difficult to revegetate due to low rainfall (less than 8 inches a year) and poor soil development. Because of difficulty in revegetating these sites, accelerated erosion could increase if an active drilling program continues. This disturbance from oil and gas operations could cause an increase of soil erosion loss from two to five tons per acre per year. With five tons per acre per year increase in erosion from this activity, an additional 5,500 tons of soil per year could be lost.

Oil spills or pit failures would have the potential to cause soil contamination and loss of fertility around drill sites. If the spill were significant, either in extent into sensitive areas or amount of oil spilled, contamination could enter the area's surface water system. This could result in significant negative impacts to the area's riparian ecosystem.

From Management Actions for Soil and Water Programs

Restricting OHV use to designated roads with seasonal restrictions on 94,300 acres to minimize adverse surface runoff during periods of saturated soils and to protect critical (highly erodible or saline soils) and municipal watersheds would significantly benefit these valuable resources.

From Management Actions for Vegetation Programs

The 27,100 acres of proposed vegetation treatments proposed would consist of juniper-pinyon woodlands and decadent sagebrush prescribed burns and pinyon and juniper firewood harvesting (refer to Appendix 8). These improvements would provide long-term watershed benefits by increasing ground cover through natural establishment and seedings of herbaceous vegetation. One benefit derived from juniper and pinyon burning is increasing diversity of herbaceous vegetation species such as western wheatgrass (Severson and Rinne, 1988). An ancillary benefit derived from this would be greater

ground cover to lessen soil movement (see Appendix 8 for treatment type and acres by allotment).

Under this alternative 50 percent of all additional forage would go to consumptive use and the remaining 50 percent for watershed maintenance, thus providing for a healthy watershed.

In Alternative C, 7,200 acres of riparian habitat would be improved. This improvement would result in on-site and downstream watershed benefits improving water quality, raising water tables, increasing streambank stability, and reducing downstream flood damage.

IMPACTS TO VEGETATION RESOURCES

From Management Actions for Livestock Programs

Designation of the three relict vegetation communities as ACECs, Red Mountain, Castle Cove and Lears Canyon, will be a positive commitment by management to afford priority management consideration to DMRA's foundation resource for livestock management--vegetation.

From Management Actions for Minerals Programs

Oil and gas activities in the desert Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas regions could disturb approximately 1,100 acres. Low precipitation (less than 8 inches annually) and poor soil development in these areas creates difficulty in vegetation reclamation. Surface-disturbed sites in these areas may remain devoid of desired vegetation for years, allowing opportunities for undesired plant species such as halogeton to invade. Wells may produce for five to twenty years before any rehabilitation efforts take place.

From Management Actions for Recreation Programs

Restricting OHV use to designated roads with seasonal restrictions would protect vegetation from damage on 75,000 acres of highly erodible soils and saline soils.

From Management Actions for Vegetation Programs

Treating 27,100 acres would result in high vegetation diversity and forage production because most of the treatment is pinyon-juniper and sagebrush vegetation types in closed stands. A benefit derived from pinyon and juniper burning is increasing diversity of herbaceous vegetation (Severson and Rinne, 1988).

IMPACTS TO VISUAL RESOURCES

From Management Actions for Lands and Realty Programs

Not establishing protective withdrawals on the upper and lower Green River would leave these areas open to locatable mineral development which could cause VRM standards to be degraded. VRM Class II would be affected on the upper Green River and Class III on the lower Green River. Any deterioration of visual quality would impact recreation users. These scenic areas would become less popular and visitor use would decrease. The amount of this reduction cannot be determined.

The identified utility corridors pass through areas identified as being VRM Class II in Jesse Ewing Canyon, the Green River Scenic Corridor in Browns Park, along the Taylor Mountain Road north of Vernal, and in Nine Mile Canyon near Gate Canyon. It is doubtful adequate mitigation could be accomplished to maintain the Class II standard if transmission lines are constructed nearby. Any deterioration of visual quality would impact recreation users. These scenic areas would become less popular and visitor use would go down. The amount of this reduction cannot be predicted.

From Management Actions for Minerals Programs

Disposal of mineral materials within the Green River Scenic Corridor (VRM Class II) could degrade VRM values at specific locations along the river.

Development of high potential oil and gas resources in the Nine Mile area could impact as much as 3,200 acres of VRM Class II, therefore VRM Class II could not be maintained.

IMPACTS TO WOODLAND MANAGEMENT

Woodland harvesting would continue to meet demand on 183,000 acres (100 percent of the woodland stands in the

resource area). Commercial quality woodlands open to cutting on 85,500 acres could support an annual harvest of 4,300 cords over an extended period of time on a sustained-yield basis. This means an increase of 28 percent could be accommodated in the annual cut and still meet sustained yield goals over the long term.

CUMULATIVE IMPACTS OF IMPLEMENTING ALTERNATIVE C

AREAWIDE CUMULATIVE IMPACTS

The cumulative effect of implementing the decisions outlined in this alternative, coupled with already existing decisions implemented by other land-managing federal, state, and local agencies affecting the Uinta Basin, is expected to have no significance.

The cumulative impacts to fish and wildlife under Alternative C would be:

- Special status raptor nest sites would only be protected seasonally from permanent surface disturbing activities resulting in a significant negative long-term loss of habitat for these species. This is the same impact as Alternatives A and D.

- Black-footed ferret reintroductions would not be permitted. BLM would be neglecting its policy (Manual 6840) and the Endangered Species Act of conserving special status species habitat and aiding in the recovery of the species. This is the same impact as Alternative D.

- Approximately 36,000 acres (2 percent) of crucial sage grouse nesting habitat would be seasonally protected and only within 1,000 feet of existing strutting grounds. This would protect less than 10 percent of all nests and be a significant negative, long-term impact to the survival of the species.

- Only 3,900 acres (3 percent) of identified bighorn sheep habitat would be maintained for bighorn sheep. This would limit the population to 40-50 bighorn sheep within the resource area and be a significant negative, long-term impact to the survival and reintroduction of this native species.

- Wildlife forage assignments would remain at the current use of 27,000 AUMs which would require a 21 percent reduction from current use levels of 35,000 AUMs. UDWR herd unit objectives, as well as future wildlife transplants, and the public's demand for more wildlife associated recreation would not be achieved.

- OHV use would be restricted to designated roads and trails on 687,700 acres (97 percent) of the resource area seasonally or year long. This action would be the most significant positive impact related to OHV use and wildlife, of all those considered in the Draft RMP. Wildlife would be protected from disturbance during reproductive and other crucial periods and vegetation would not be damaged from OHV use within most of the resource area. Limiting access would also reduce poaching of wildlife according to UDWR.

The irreversible and irretrievable commitment of resources would be the same as described in the proposed plan.

Utilizing a route for above-ground transmission lines through or near Nine Mile Canyon, in Alternative C, is inconsistent with land management objectives identified by other surface management agencies for lands adjacent to DMRA. Under this strategy, management in this area would be inconsistent with back-country byway objectives, and conflict with the special cultural and visual values present as well.

The cumulative impacts to oil and gas activities under this alternative are summarized below in Table 4-14 by 1) oil and gas producing regions, 2) oil and gas potential, and 3) level of protection (level 2-no surface occupancy).

For the sake of analysis, costs represent expenditures by BLM which go into the community, thus stimulating the economy. On the other hand, benefits are a bit less tangible which are often based on economic forecasts that may be lacking adequate data. For example, the cultural program has well documented costs for various projects and developments, however the additional use or benefits that may occur due to these expenditures is not clear; neither is the "cause or effect" relationship.

Comparison between the "costs" and "benefits" is not reasonable for a variety of reasons: the lack of comparables, interrelated resources, missing measurable benefits, and omitted industry sizes (to give perspective to alternative impacts). However, if the available benefits are divided by the available costs, a crude benefit/cost ratio may be devised. For Alternative C, benefits are over 10 times as much as costs, making it an economically feasible option.

The biggest cost comes from the vegetation program and the biggest potential additional benefits are from the

TABLE 4-14:
SUMMARY OF CUMULATIVE IMPACTS TO OIL AND GAS ACTIVITIES UNDER ALTERNATIVE C

OIL AND GAS PRODUCING REGIONS	HIGH POTENTIAL				MODERATE POTENTIAL			
	MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2		MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2	
	Acres*	%**	Acres*	%**	Acres*	%**	Acres*	%**
Myton Bench-Nine Mile Canyon	0	0	120	<1	0	0	2,900	1
Horseshoe Bend-Ashley Valley	0	0	630	1	0	0	2,500	2
Clay Basin-Manila	0	0	60	<1	0	0	30	<1

* Acres of public land mineral estate
** Percentage of total high or moderate potential oil and gas mineral estate for the indicated region

minerals program. The lowest costs are from the riparian program with the livestock program generating the lowest potential additional benefits (which is larger than the zero benefits under fish and wildlife). The problem is with inter-connected costs and benefits, for example, the costs of the vegetation program generate benefits that show up in the livestock, wildlife, and soils programs. The magnitude of most economic impacts would be dependent upon the magnitude of the individual program changes.

The cumulative, significant, negative impacts to oil and gas activities are minimal in this alternative (see Tables 4-9 and 4-10) since: 1) the amount of lands closed to leasing or with no surface occupancy restrictions is low, 2) the number of seasonal restrictions is low, and 3) the number of areas having multiple, overlapping seasonal restrictions is low.

Referencing recreation management objectives in Alternative C, approximately 20,500 acres would be open to OHV use and 688,500 acres would be restricted to designated and/or existing roads. This could impact watershed resources, soils, scenic values, wildlife habitat and nesting sites, and special status species. Traffic counter and visitor register information in Browns Park indicate that visitor-use on the upper Green River corridor will continue to increase between ten (10) and fifteen (15) percent annually. This increase may have cumulative impacts on human health and safety, water quality, and aesthetic values within the river corridor.

Management decisions in Alternative C to improve 7,200 acres (or 98 miles) of riparian areas, by requiring a minimum of three (3) inches of herbaceous growth after grazing use, will insure maintenance of plant vigor, increase plant and animal species diversity, provide streambank protection and aid deposition of sediments to rebuild degraded streambanks, and augment wildlife, recreation, and watershed benefits.

Ranchers, business people and workers would support lands actions that would encourage commodity development. Recreation, cultural, and visual resource programs draw tourism, which is beneficial, but if commodity development is restrained by restrictions and special management designations, support for these resources may decline.

Oil and gas development in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas producing regions may reduce vegetation ecological conditions to an early stage, disturbing and/or eroding approximately 5,500 tons of soil per year. In reference to vegetation and rangeland management objectives, improvements on 27,100 acres of rangelands will mitigate a loss of 20,250 annual tons of sediment, and increase both vegetation diversity and forage production for both wildlife and livestock.

SPECIAL EMPHASIS AREA CUMULATIVE IMPACTS

The management prescriptions for the adjoining Red Creek Watershed and Green River Scenic Corridor ACECs may create cumulative impacts in the northeast portion of the resource area. All other designated ACECs do not have significant, cumulative impacts in DMRA. The

management prescriptions proposed for the three (3) relict vegetation communities in the ACECs are small and scattered throughout the resource area, and therefore will not result in any appreciable cumulative impacts outside their immediate zones of influence, however, they may add to the overall understanding of the ecology of the Intermountain West.

Not designating the remaining ACEC proposals (Nine Mile Canyon, the middle and lower Green River, the remaining areas within the Red Mountain-Dry Fork Complex, and Pariette Wetlands) may result in long-term, negative impacts culminating in cumulative losses in recreation, aesthetics, social well being, local economics, and cultural sites within this region. Also, current and planned management under this alternative may lose sight of and/or compromise values in these local, commercial and non-commercial resources.

The protection of areas and objects to the traditional lifestyle and religious ceremonies of the Ute Tribe occurring in the Green River Corridor will have a long-term, positive impact on the social diversity and health of the people and resources area, Uinta Basin, and the nation as a whole.

Alternative C fire management objectives will give human health and safety highest priority. At the same time, however, this will allow for a build up of hazardous fire fuels, which may potentially create an even more damaging, large-scale wildfire in the reasonable foreseeable future.

Establishing a corridor for a common river crossing in level 2 lands in the Green River Scenic Corridor ACEC, and avoidance areas in level 2 lands in the Red Creek Watershed ACEC will mitigate negative, cumulative visual and watershed impacts.

There may be potential impacts to the northeast portion of the resource area from increased visitor-use days. This would be due to the development of additional facilities in level 2 areas and allowing OHV use in the Green River Scenic Corridor ACEC. Impacts may include riparian zone site damage, wildlife disturbance, increased hunting pressure, increased human health and safety risks, and an overall lessening of the recreational experience.

There are some socioeconomic cumulative impacts in the Green River Scenic corridor ACEC, Red Creek Watershed ACEC, Red Mountain, Nine Mile, Pariette Wetlands, and the designated Wild and Scenic Rivers. The social perception in the community is divided. The worker group, although sympathetic to conservation/preservation of these areas, would want to protect industry. Social perceptions in the communities are divided over wildlife management, visual resources, and scenic resources. Ranchers and business people oppose restrictions placed on commodities, labor groups want to protect industry, and conservation groups want to protect ecosystems.

Wild and Scenic Rivers

Six river segments were determined to be eligible for further study in this alternative. They are the upper, middle, and lower segments of the Green River, two segments on Nine Mile Creek and one segment on Argyle Creek.

Al six river segments would be dropped from consideration and returned for uses that would benefit other users of public lands. Recreation use would not increase as it would have if Wild and Scenic River status were maintained and, over time, identified outstandingly remarkable values could be lost. This could result in a loss of up to 5,000 visitor days annually in 10 years. This would be a long-term impact.

DIRECT AND INDIRECT IMPACTS OF IMPLEMENTING ALTERNATIVE D

IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES

From Management Actions for Fish and Wildlife Habitat Programs

Accidental disturbance of both cultural and paleontology resources would continue to occur as developments such as land treatments and water developments are completed to benefit wildlife.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Livestock Programs

Accidental disturbance of both cultural and paleontology resources would continue to occur as developments such as land treatments and water developments are completed for livestock.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Minerals Programs

Accidental disturbance of both cultural and paleontology resources by activities associated with mineral exploration and development would occur more frequently than in any other alternative because more mineral development would take place.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

From Management Actions for Recreation Programs

Continued active management the John Jarvie Historic District in Browns Park would allow the public to gain a better understanding of the history of this fascinating area. By preserving, displaying, and interpreting the many structures and items at the site, the public gains a better appreciation of the need to protect and preserve cultural and paleontological resources.

Protecting the Desolation Canyon National Natural Landmark on the lower Green River below the Sand Wash Recreation Site would increase public awareness of the importance of John Wesley Powell's historic trip down the Green River in 1869.

From Management Actions for Special Emphasis Areas Programs

Not designating Nine Mile Canyon, the Browns Park Complex, and the remaining portion of the Red Mountain-Dry Fork Complex as ACECs would make it more difficult to stabilize and protect the important cultural resources in these areas because they would not receive the management priority consideration afforded an ACEC. As a result site deterioration would continue and eventually some resources would be lost.

IMPACTS TO FISH AND WILDLIFE HABITAT RESOURCES

From Management Actions for Fish and Wildlife Habitat Programs

Allowing permanent surface disturbance and routine human activity near active ferruginous hawk and golden eagle nest sites, even after the young have left the nest, could force these species to continually seek new, possibly less quality habitat nesting sites. This action could further prevent the delisting of these species and thus be a significant negative long-term impact. This would be the least beneficial alternative along with Alternatives A and C for these species.

Protecting only sage grouse strutting grounds and nesting habitat within 1,000 feet of each strutting ground (3,600 acres or two percent of the total identified) seasonally, could eliminate a minimum of 72 percent of all sage grouse nests, reducing production. This would cause a significant, long-term negative impact to the species.

No prairie dog colonies would be maintained as potential black-footed ferret habitat and no reintroductions would be allowed. This would be a significant negative, long-term impact because potentially suitable habitat would not be available for the recovery of the species. BLM Special Status Species objectives (Manual 6840), as well as those outlined in the Recovery Plan and the Endangered Species Act, would not be met. The public's comments and request for black-footed ferret reintroductions would also not be met.

Only 3,900 acres of existing bighorn sheep habitat (3 percent of identified potential habitat) would continue to be managed for the species. An opportunity to reintroduce bighorn sheep into additional historical habitat would be lost, and the maintenance of the one existing population placed in peril. This would be the most significant negative impact to bighorn sheep along with Alternative C in the Draft RMP.

Forage allocated for wildlife would remain at the current use of 27,600 AUMs which would require a 21 percent reduction from current use levels of 35,000 AUMs. UDWR big game herd objectives would not be met. Planned reintroductions of bighorn sheep, moose, pronghorn antelope, and other species would not occur. Any additional revenues ranging between $63,400 and $126,100 annually would not be realized locally. This

would be a significant long-term negative impact to wildlife and the local economy.

From Management Actions for Lands and Realty Programs

Acquiring additional public vehicle access could open 70,700 public acres of presently inaccessible public lands, resulting in an avoidance response by big game and predator species who would move into lower quality habitat.

From Management Actions for Livestock Programs

Continuation of existing management actions will exacerbate the decline in high priority sage grouse habitat as 56 percent of known habitat has already been lost (see Chapter 3).

Allowing livestock use in bighorn sheep habitat would increase the risk of disease transmission from livestock to bighorn sheep. This would reduce or eliminate the successful return of Rocky Mountain bighorn sheep to their native habitat within the resource area. UDWR, BLM, and Utah sports people's objectives of increasing the populations of this native species would not be achieved. This alternative, along with Alternative C, would have the most negative, long-term impact to this species, of those offered in the Draft RMP.

From Management Actions for Minerals Programs

Approximately 100 percent of the known Ferruginous hawk and 90 percent of the golden eagle habitat occurs within the area affected by mineral activity. Protective stipulations would protect nest sites only during the reproductive period. Before and after this reproductive period, all nest sites would be left unprotected and if rendered unusable by human disturbance, could lead to the loss of habitat and possible decline in population levels for these species.

One hundred percent of priority fisheries habitat, including proposed Critical Habitat for the four endangered fish in the Green River would not be protected from future mineral entry under the withdrawal decision for this alternative. Loss or severe degradation of these habitats and increased human disturbance would have a significant negative, long-term impact on these special status fish species.

ACEC designation would be proposed on 3 percent of DMRA, protecting and enhancing critical/crucial wildlife habitat on the upper segment of the Green River only. Other critical/crucial wildlife habitat at the other ACEC proposals would not be protected under an ACEC designation. This alternative proposes the least amount of acreage for designation and thus affords the least opportunity for wildlife habitat enhancement and management.

Impacts from Management Actions for Recreation Programs

Allowing most of the resource area (704,500 acres) to remain open to OHV use would have a significant negative impact to wildlife as virtually 100 percent of riparian habitat, 100 percent of crucial big game habitat, all of existing and potential bighorn sheep habitat, and all sage grouse habitat except the strutting grounds would be open to OHV use year long. All these open OHV areas would significantly impact forage production with increased vegetation destruction and erosion rates. This would also increase the potential for wildlife harassment, poaching, and the possibility of species moving from their prime habitats to those of lesser quality.

From Management Actions for Riparian Programs

Management actions for 7,200 acres of riparian habitat would provide direct long-term benefits to 14 of the 23 special status species in DMRA. Improved riparian areas might help afford the opportunity for downlisting or removal from listing of the long-billed curlew, western snowy plover, black tern, white-faced ibis, and Great Basin silverspot butterfly under the Endangered Species Act. Forage production would be expected to increase as well as vegetative cover, streambank stability, and instream habitat quality. These long-term, positive impacts would correlate up to a two percent population increase for over 20 big game, upland game, and non-game species. BLM objectives to have 75 percent of all riparian areas in proper functioning condition by 1997, as well as the public's concern to improve these areas could also be initiated. Thus these actions are seen to be significant to wildlife habitat management success for the resource area and the region. However, unfenced riparian areas could allow uncontrolled human and livestock use, resulting in continued deterioration of certain riparian areas in the resource area. This would adversely affect water quality and thus fisheries habitat.

From Management Actions from Vegetation Programs

Maintaining wildlife forage demands at their current level of 27,600 AUMs with no increase and assigning additional forage to livestock would not allow DMRA to meet recreationists' and hunters' demand for increased wildlife numbers. Anticipated annual increases to the local economy of between $63,400 to $126,100 realized from increased wildlife numbers and wildlife species diversity would also not occur.

IMPACTS TO LANDS AND REALTY MANAGEMENT

From Management Actions for Fish and Wildlife Habitat Programs

Restrictions would be imposed on lands containing active nest sites for raptor species and sage grouse strutting grounds. These restrictions would affect approximately 12,500 acres and would prohibit the construction of right-of-way projects unless the impacts could be mitigated.

Seasonal restrictions would be imposed on 295,000 acres to protect wildlife resources. These restrictions would not preclude land use authorizations but would limit construction periods to specific times of the year.

From Management Actions for Lands and Realty Programs

Adherence to designated corridors would prevent the proliferation of major utility systems across undisturbed public lands. The designation of specific corridors for future major right-of-way projects may impact those companies preferring alternative locations to some extent. However, this will ensure the protection of resource values through the land use analysis process which will be required for projects proposed outside of the established corridors. Closure of the designated corridor in Jesse Ewing Canyon upon reaching it capacity would essentially close off the only north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

It can be expected that the counties of Daggett, Duchesne, and Uintah would not be largely affected by future acquisition of public lands as the preferred method for acquisition would be through exchange. The disposal of land by sale, state selection, or R&PP would have a positive impact on the counties.

From Management Action for Recreation Programs

Recreation sites encompassing 5,500 acres would restrict those land use authorizations that would cause visual/aesthetics impacts and found to be inconsistent with the purpose of the recreational sites.

Seasonal restrictions on 8.5 miles of the designated corridor route within the Browns Park Complex would limit construction periods for rights-of-way.

IMPACTS TO LEASABLE MINERALS MANAGEMENT - OIL AND GAS

From Management Actions for Fish and Wildlife Habitat Programs

Compared to all alternatives, this alternative and Alternative C will have the fewest amount of seasonal restrictions and will affect only 19 percent of high potential mineral estate.

Seasonal timing stipulations to protect deer and elk critical winter habitat will have adverse impacts on 13,000 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon and the Clay Basin oil and gas producing regions. This may result in altering drilling schedules of lessees which may further cause increased drilling costs.

The protection of sage grouse strutting grounds and known nests will have minor adverse impacts to exploration and development for oil and gas resources. Seasonal restrictions may result in altering drilling schedules of lessees which may further cause minor increased drilling costs.

Raptor protection zones shall have minor adverse impacts to exploration and development of oil and gas resources.

From Management Actions for Lands and Realty Programs

This alternative will have a positive impact on oil and gas activities by providing lands (leases, permits, and land transfers) to improve manageability and support oil and gas activities.

From Management Actions for Soil and *Water Programs*

Restrictions on OHV use and surface-disturbing activities in areas of critical (highly saline and erodible) soils, floodplains, and municipal watersheds would have minor adverse impacts to oil and gas activities by causing minor delays in operations during wet periods.

From Management Actions for Visual Programs

Visual constraints in the Nine Mile Canyon area would have minor adverse impacts on 3,200 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon oil and gas region. Operations may be required to be moved to less visible regions or roads necessary for operations or maintenance may have to be specially routed. This may cause minor delays in oil and gas operations and associated additional operational costs.

IMPACTS TO LEASABLE MINERALS MANAGEMENT - PHOSPHATE

Lands now under preference right lease for phosphate (7,650 acres) would be open to development and/or occupancy under this alternative with specific restrictions to minimize adverse impacts to crucial deer winter habitat. This development could allow for the employment of up to 350 workers, adding $4 million annually to the local economy.

IMPACTS TO LIVESTOCK MANAGEMENT

From Management Actions for Vegetation Programs

Forage assigned to wildlife would not increase and any additional AUMs created from management strategies or vegetation treatments would be assigned to livestock. This additional forage could provide extra income to local economy of approximately $133,455 a year.

Most rangeland improvements conducted under this alternative would have a significant benefit to livestock in improved quantity and quality of forage. The greatest amount of vegetation treatment would occur in this alternative (27,100 acres). Most of this treatment would consist of pinyon-juniper woodlands and decadent sagebrush prescribed burns. Additional AUMs gained from grazing systems would be approximately 500 AUMs.

From Management Actions for Woodlands *Programs*

Allowing for firewood harvesting would benefit livestock due to the increase in forage resulting from increases of native and seeded grasses after removal of the trees. This alternative would provide approximately 225 AUMs from firewood harvest with approximately 100 acres a year being harvested over the live of the plan (15 years).

IMPACTS TO RECREATION MANAGEMENT

From Management Actions for Cultural and Paleontological Programs

Limiting OHV use to designated roads year long and trails on 2,400 acres to protect cultural sites eligible for or listed on the *National Register of Historic Places* would limit off-road use by hunters and sightseers who may depend on off-road vehicular access to pursue their interests. This would result in a reduction of approximately 100 visitor days for hunting, driving for pleasure, and the use of OHVs. These users would move to other areas in the resource area without restrictions.

From Management Actions for Lands and Realty Programs

No additional access to public lands presently surrounded by private lands would be provided, resulting in an adverse impact to hunters and recreationists. No additional recreation opportunities would be made available. The recommendation to establish protective withdrawals on 8,100 public acres of high value recreation lands would protect scenic, historic, aesthetic and recreational values from future development over the long term.

From Management Actions for Mineral Programs

Development of identified high potential oil and gas areas would result in 164,500 acres currently identified as possessing semi-primitive, motorized values in the Three Corners and Myton areas, dropping one class to roaded natural in the recreation opportunity inventory. This would result in a less natural recreation experience and would negatively impact people who desire varied opportunities for primitive recreation.

Individuals that enjoy more primitive, remote experiences would be displaced to other areas. The number of

persons affected is not known at this time, but it is expected to be significant and long term.

From Management Actions for Recreation Programs

Semi-primitive, nonmotorized values on 60,800 would not be protected. This is 100 percent of this type of land in the resource area. This primitive form of recreation opportunity would, over time, no longer be available due to other management actions degrading or compromising these values. Demand for these primitive types of recreation experience is expected to increase between 5 and 10 percent annually over the long term.

Not providing additional developed facilities, such as campgrounds and picnic areas, would limit opportunities for people who prefer more developed and concentrated forms of recreation. Many of these individuals would not spend time on public lands. However, there would be additional opportunities for people that prefer dispersed types of recreation, such as hiking, backpacking, horseback riding and bicycling. These types of use would increase substantially. It is estimated that overall use would increase approximately 2 to 4 percent a year.

Although it is expected that recreation visits will go down in areas where vehicle access will be limited to protect critical resource values, overall use in the resource area will not be affected. Use patterns will simply change and people will move to areas with fewer restrictions.

From Management Actions for Soil and Water Programs

Management actions to protect highly erodible and saline soils, and municipal watersheds by limiting OHV use to designated roads with seasonal restrictions on 88,500 acres could adversely affect driving for pleasure and, in the fall of the year, access by hunters to some hunting areas.

It is expected that 2,100 visits to public lands in the area would be displaced annually to other areas as a result of these restrictions.

From Management Actions for Special Emphasis Areas Programs

All six river segments identified as being eligible for further study and possible inclusion in the Wild and Scenic River System would be dropped from consideration and returned for uses that would benefit other users of public lands. Recreation use would not increase as it would have if Wild and Scenic River status were maintained, and over time, identified outstandingly remarkable values could be lost. This could result in a loss of up to 5,000 visitor days annually in 10 years. This would be a long term impact.

From Management Actions for Woodlands Programs

Firewood gathering and Christmas tree cutting would provide family-centered recreation opportunities on 143,000 acres. This is 100 percent of the woodland type in the resource area. In addition, cottonwood could be cut on an additional 17,500 acres, allowing DMRA to meet the local demand for this resource. An increase of 28 percent could be accommodated in the cutting of pinyon and juniper in the resource area and still meet sustained yield goals.

IMPACTS TO RIPARIAN HABITAT RESOURCES

The management action is to improve 7,200 acres, or 98 miles, of riparian from early and mid to late or climax ecological stage. This improvement would increase species diversity and result in wildlife, recreation, and watershed benefits.

Criteria for maintaining a minimum of three (3) inches of herbaceous growth after livestock grazing in riparian areas would enhance riparian vegetation productivity, resulting in streambank and water quality improvements.

IMPACTS TO SOCIOECONOMICS

From Management Actions for Fish and Wildlife Habitat Programs

AUM forage allocation would be identical to Alternative C, requiring an additional $4,000 annually.

Crucial deer and elk winter range restrictions would be the same as Alternative C costing $6,000 per annum.

Sage grouse restrictions are similar to Alternative C costing $2,000 annually.

Special status raptor species restrictions are analogous with Alternative A requiring $8,000 each year.

Fence modifications would be the same as the proposed plan necessitating an additional $4,000 every year of operation.

Stream habitat and present forage allocation would be the same as Alternative A costing $4,000 for planning annually and cost share of $2,000 or as a whole $4,000 totalling to $8,000 per annum.

Habitat in Nine Mile Canyon for bighorn sheep reintroduction areas would be the same as Alternative A requiring $2,000 annually for planning.

The total cost for administering the wildlife program as described in Alternative D would come to approximately $34,500 per annum. These expenditures by BLM, other agencies, and interested parties may be viewed as an economic injection into the community and region. Alternative D has the second lowest cost ($34,500) of the five alternatives for the wildlife program.

From Management Actions for Lands and Realty Programs

Easement acquisitions would be the same as Alternative A, necessitating an additional $10,600. Land use authorizations under this alternative would cost about $138,809 to administer annually. There could be future constraints to development between the Wyoming and northeastern Utah corridor, which can allow only 3 more new facilities. Making 704,500 acres available for agricultural leases could promote the agriculture sector, if the productivity of the lands in question made such ventures feasible. New communication sites would be identical to the proposed plan, requiring a one time cost of $16,000. Rights-of-way considerations are the same as discussed under Alternative C. Trespass resolutions would be the same as under the proposed plan.

From Management Actions for Livestock Programs

Average annual actual use is 38,916 AUMs, which would contribute $385,658, using $9.91/AUM. If the AUMs taken in nonuse were activated, this would realize an additional 11,383 AUMs or $112,806 annually.

From Management Actions for Minerals Programs

Gilsonite deposits in the Myton area would be generally available for development, which could lead to 15 additional jobs and $525,000 each year.

Table 4-15 provides an estimate of the impacts to the community from Alternative D decisions as they affect oil and gas development.

Referring to Table 4-19, it is estimated that approximately $561,359 could be lost annually to the community. Therefore, over the life of this plan, approximately $9 million of oil and gas earnings (before royalty and tax payments) would not be realized. From these earnings, a total of $1 million (12.5 percent of total oil and gas earnings) in royalty payments would not be obtained by the federal and state governments. Of this total, the State of Utah would lose total royalty payments of approximately $557,000. In turn, the counties involved in the RMP would lose total royalty payments from the State of Utah of approximately $139,000. In addition, counties would lose revenues from associated and supporting taxes (i.e., property, sales, ad valorem, and severance).

Losses from precluded wells would be primarily to oil and gas companies. The loss to the counties would be a loss of royalties, severance tax, ad valorem tax, property tax, and sales tax. There also would be a loss of revenues to oil service companies and community businesses.

Opening up 7,650 acres of moderate to high grade phosphate lands could lead to mineral development and ultimately to additional employment of 350 jobs and $4 million each year during full production.

Tar sand development would be authorized on 66,200 acres of federal mineral estate and Duchesne County could forego between $500,000 and $1,500,000 annually in pavement costs, perhaps leading road paving.

From Management Actions for Recreation Programs

Administering the OHV program could require a one time cost of $20,000 $40,000 annually.

Site development is the same as Alternative A with the exception of Horseshoe Bend. This would require a one time expenditure of $385,000 and $24,000 in administrative costs and $6,000 in maintenance costs annually.

Interpretive sites would be developed as discussed under Alternative A, requiring a one time cost of $40,000, $4,000, and $1,000 in administrative and maintenance costs each year.

Trail development would be identical to the proposed plan's description, necessitating a one time cost of $70,000 and $12,000 and $3,000 to administer and maintain annually.

TABLE 4-15:
ESTIMATED ANNUAL OIL AND GAS,
REVENUES FOREGONE BY THE COMMUNITY, ALTERNATIVE D

Region	No of Precluded Successful Wells	Estimated Precluded Annual Production		Estimated Lost Annual Revenue		
		Oil	Gas	Oil	Gas	Total
Myton Bench/ Nine Mile Canyon	2	15,800 barrels	68,466 MCF	$316,000	$102,699	$418,699
Horseshoe Bend/ Ashley Valley	.2	5,333 barrels	2,667 MCF	$106,660	$4,000	$110,660
Clay Basin/Manila	.1	100 barrels	20,000 MCF	$2,000	$30,000	$32,000

As in Alternative C, no semi-primitive, nonmotorized areas will be maintained. In addition, no more back-country byways will be established.

When these one time development costs are added up and divided by the number of years in the life of the plan an annual cost may be derived, in this alternative $34,333. In addition, there would be $80,000 required and about $10,000 annually to administer and maintain these projects. This additional expense would increase the total annual average cost to about $124,333.

Not only will these developments cause injections into the community, but also additional recreationists will be able to use the area at any one time perhaps leading to greater expenditures for local merchants.

From Management Actions for Riparian Programs

To improve the 7,200 public acres of riparian habitat to a late or climax seral stage would require a one time cost of $88,500.

From Management Actions for Soil and Water Programs

Management actions to protect highly erodible and saline soils, and municipal watersheds by limiting OHV use on 94,300 acres to designated roads (March 1 to April 30 and September 1 to October 31), could adversely affect driving for pleasure and, in the fall of the year, close access by hunters to some hunting areas. It is expected that 1,600 visits to public lands in the area would be displaced annually to other areas as a result of these restrictions.

Total savings would equal vegetation treatments minus oil and gas costs or $279,130.

From Management Actions for Vegetation Programs

Limiting OHV use to designated roads year long on 3,000 acres to protect relict vegetation communities could affect driving for pleasure and, in the fall of the year, access by hunters to some hunting areas. This would result in a displacement of up to 35 visitor days use to other parts of the resource area annually. This would be a long-term impact.

From Management Actions for Woodland Programs

Like the proposed plan, 3,700 cords would be taken costing individual wood cutters $18,500 to harvest wood that may have a market value of $370,000. Further benefits may be obtained by harvesting Christmas trees, juniper fence posts, pinyon pinenuts, live trees, and non-barrel cactus on 101,200 acres.

IMPACTS TO SOIL AND WATER RESOURCES

From Management Actions for Minerals Programs

In critical watersheds in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas producing regions, approximately 1,100 acres could be disturbed, causing disruption of the water cycle by exposing bare soil to wind and water, thereby

accelerating erosion. This area is difficult to revegetate due to low rainfall (less than 8 inches a year) and poor soil development. Because of the difficulty in revegetating these sites, accelerated erosion could increase if an active drilling program continues. This disturbance from oil and gas operation could cause an increase of soil erosion loss from two to five tons per acre per year. With five tons per acre per year increase in erosion from this activity, an additional 5,500 tons of soil per year could be lost.

Oil spills or pit failures would have the potential to cause soil contamination and loss of fertility around drill sites. If the spill were significant, either in extent into sensitive areas or amount of oil spilled, contamination could enter the area's surface water system. This could result in significant negative impacts to the area's riparian ecosystem.

From Management Actions for Soil and Water Programs

Restricting OHV use to designated roads with seasonal restrictions on 94,300 acres to minimize adverse surface runoff during periods of saturated soils and to protect critical (highly erodible or saline soils) and municipal watersheds would significantly benefit these valuable resources.

From Management Actions for Vegetation Programs

The 27,100 acres of proposed vegetation treatments proposed would consist of juniper-pinyon woodlands and decadent sagebrush prescribed burns and pinyon and juniper firewood harvesting (refer to Appendix 8). These improvements would provide long-term watershed benefits by increasing ground cover through natural establishment and seedings of herbaceous vegetation. One benefit derived from juniper and pinyon burning is increasing diversity of herbaceous vegetation species such as western wheatgrass (Severson and Rinne, 1988). An ancillary benefit derived from this would be greater ground cover to lessen soil movement. Estimated a long-term reduction in soil erosion by 50 percent, 406,500 tons of sediment would be saved over 15 years, resulting in a savings of approximately $294,143. (See Appendix 8 for treatment type and acres by allotment.)

The ecological condition goal of this alternative would provide for a healthy watershed.

About 7,200 acres or 98 miles of riparian habitat would be improved under Alternative D. This improvement would result in on-site and downstream watershed benefits improving water quality, raising water tables, increasing streambank stability, and reducing downstream flood damage.

IMPACTS TO VEGETATION RESOURCES

From Management Actions for Minerals Programs

Oil and gas activities in the desert Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas regions could disturb approximately 1,100 acres. Low precipitation (less than 8 inches annually) and poor soil development in these areas creates difficulty in vegetation reclamation. Surface-disturbed sites in these areas may remain devoid of desired vegetation for years, allowing opportunities for undesired plan species such as halogeton to invade. Wells may produce for five to twenty years before any rehabilitation efforts take place.

From Management Actions for Recreation Programs

Restricting OHV use to designated roads with seasonal restrictions would protect vegetation from damage on 94,300 acres of highly erodible soils, saline soils, and municipal watersheds.

From Management Actions for Vegetation Programs

Treating 27,100 acres would result in high vegetation diversity and forage production because it provides for the most pinyon-juniper and sagebrush vegetation types in closed stands to be manipulated. A benefit derived from pinyon-juniper burning is increasing diversity of herbaceous vegetation (Severson and Rinne, 1988).

IMPACTS TO VISUAL RESOURCES

From Management Actions for Lands and Realty Programs

Not establishing protective withdrawals on the upper and lower Green River would leave the area open to locatable mineral development which could cause VRM standards to be degraded. VRM Class II would not be maintained along some sections of the upper Green River and Class III on the lower Green River.

The identified utility corridors pass through areas identified as being VRM Class II in Jesse Ewing Canyon, the Green River Scenic Corridor in Browns Park, along the Taylor Mountain Road north of Vernal, and in Nine

Mile Canyon near Gate Canyon. It is doubtful adequate mitigation could be accomplished to maintain the VRM Class II standard if transmission lines are constructed nearby. Up to 100 percent (60,000 acres) of Class II VRM could not be maintained over the long term.

From Management Actions for Minerals Programs

Disposal of mineral materials within the Green River Scenic Corridor (VRM Class II) could degrade VRM values at specific locations along the river.

Development of high potential oil and gas resources in the Nine Mile area could impact as much as 3,200 acres of VRM Class II, therefore VRM Class II could not be maintained.

IMPACTS TO WOODLAND MANAGEMENT

Woodland harvesting would continue to meet demand on 183,000 acres (100 percent of the woodland stands in the resource area). Commercial quality woodlands open to cutting on 85,500 acres could support an annual harvest of 4,300 cords over an extended period of time on a sustained-yield basis. This means an increase of 28 percent could be accommodated in the annual cut and still meet sustained yield goals over the long term.

CUMULATIVE IMPACTS OF IMPLEMENTING ALTERNATIVE D

AREAWIDE CUMULATIVE IMPACTS

The cumulative effect of implementing the decisions outlined in this alternative, coupled with already existing decisions implemented by other land-managing federal, state, and local agencies affecting the Uinta Basin, is expected to have no significance.

The cumulative impacts to fish and wildlife under Alternative D would be:

- Special status raptor nest sites would only be protected seasonally from permanent surface disturbing activities resulting in a significant negative long-term loss of habitat for these species. This is the same impact as Alternatives A and C.

- Black-footed ferret reintroductions would not be permitted. BLM would be neglecting its policy (Manual 6840) and the Endangered Species Act of conserving special status species habitat and aiding in the recovery of the species. This is the same impact as Alternative C.

- Approximately 3,600 acres (2 percent) of crucial sage grouse nesting habitat would be seasonally protected and only within 1,000 feet of existing strutting grounds. This would protect less than 10 percent of all nests and be a significant negative, long-term impact to the survival of the species.

- Only 3,900 acres (3 percent) of identified bighorn sheep habitat would be maintained for bighorn sheep. This would limit the population to 40-50 bighorn sheep within the resource area and be a significant negative, long-term impact to the survival and reintroduction of this native species.

- Wildlife forage assignments would be allowed to increase 21 percent over current use of 35,000 AUMs, a positive impact to wildlife. UDWR objectives for wildlife population levels and future transplants of native species to their historic range might not be achieved.

- OHV use would be restricted to designated roads and trails on 99,300 acres (14 percent) of the resource area seasonally or year long. This would be a moderate negative impact as wildlife poaching would not be reduced from the existing levels nor human disturbance to wildlife during reproductive or other crucial periods.

The irreversible and irretrievable commitment of resources would be the same as described in the Proposed Plan.

The cumulative impacts to the oil and gas activities under this alternative are summarized below in Table 4-16 by 1) oil and gas producing regions, 2) oil and gas potential, and 3) level of protection (level 2 no surface occupancy or special restrictions).

The cumulative significant impacts are minimal (see Table 4-16 above) because: 1) the amount of lands with no surface occupancy restrictions is low, 2) the number of seasonal restrictions are low, and 3) the areas having multiple, overlapping seasonal restrictions are not abundant.

Referencing recreation management objectives in Alternative D, approximately 609,300 acres would be open to OHV use and 99,700 acres would be restricted to designated and/or existing roads. This could impact

TABLE 4-16:
SUMMARY OF CUMULATIVE IMPACTS TO OIL AND GAS ACTIVITIES
UNDER ALTERNATIVE D

OIL AND GAS PRODUCING REGIONS	HIGH POTENTIAL				MODERATE POTENTIAL			
	MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2		MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2	
	Acres*	%**	Acres*	%**	Acres*	%**	Acres*	%**
Myton Bench-Nine Mile Canyon	0	0	80	<1	0	0	1,500	<1
Horseshoe Bend-Ashley Valley	0	0	633	1	0	0	2,500	2
Clay Basin-Manila	0	0	50	<1	0	0	20	<1

* Acres of public land mineral estate
** Percentage of total high or moderate potential oil and gas mineral estate for the indicated region

watershed resources, soils, scenic values, wildlife habitat and nesting sites, and threatened and endangered species.

Traffic counter and visitor register information in Browns Park indicate that visitor-use on the upper Green River corridor will continue to increase between ten (10) and fifteen (15) percent annually. This may have negative, cumulative impacts on human health and safety, water quality, and aesthetic values within the river corridor.

Management decisions in Alternative D to improve 7,200 acres (or 98 miles) of riparian areas, by requiring a minimum of three (3) inches of herbaceous growth after grazing use and implementing range improvements and improved grazing prescriptions, will insure maintenance of plant vigor, increase plant and animal species diversity, provide streambank protection and aid deposition of sediments to rebuild degraded streambanks, and augment wildlife, recreation, and watershed benefits.

For the sake of analysis, costs represent expenditures by BLM which go into the community, thus stimulating the economy. On the other hand, benefits are a bit less tangible which are often based on economic forecasts that may be lacking adequate data. For example, the cultural program has well documented costs for various projects and developments, however the additional use or benefits that may occur due to these expenditures is not clear; neither is the "cause or effect" relationship.

Comparison between the "costs" and "benefits" is not reasonable for a variety of reasons: the lack of comparables, interrelated resources, missing measurable benefits, and omitted industry sizes (to give perspective to alternative impacts). However, if the available benefits are divided by the available costs, a crude benefit/cost ratio may be devised. For Alternative D, benefits are over ten times as much as costs, making it an economically feasible option.

The biggest cost comes from the vegetation program and the biggest potential additional benefits are from the minerals program. The lowest costs are from the riparian program with the livestock program generating the lowest potential additional benefits (which is larger than the zero benefits under fish and wildlife). The problem is with inter-connected costs and benefits, for example, the costs of the vegetation program generate benefits that show up in the livestock, wildlife, and soils programs. The magnitude of most economic impacts would be dependent upon the magnitude of the individual program changes.

When the B/C ratios are compared by alternative, an ordinal ranking may be constructed. The following ranking may be useful: Alternative C, Alternative D, Alternative A, the Proposed Plan, and Alternative B.

From management actions for recreation, on a regional basis, the recreation visitor day total in the Uintah Basin have insignificant economic impacts, however, locally there are significant socioeconomic impacts. Assuming $25 is the visitor-user day value, then 164,000 visitor-use days will bring $4,100,000 into the local economy. Ranchers, workers and business people would support lands actions that would encourage commodity development. Recreation, cultural, and VRM resource

programs draw tourism, which is beneficial, but if commodity development is restrained by restrictions and special management designations support for these resources may decline.

Oil and gas development in the desert Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley regions may reduce vegetation ecological conditions to an early stage, disturbing and/or eroding approximately 5,500 tons of soil per year. In reference to vegetation and rangeland management objectives, improvements on 27,100 acres of rangelands will mitigate a loss of 20,250 annual tons of sediment, and increase both vegetation diversity and forage production for both wildlife and livestock.

SPECIAL EMPHASIS AREA CUMULATIVE IMPACTS

The Green River Scenic Corridor is the only ACEC proposal under this alternative. The existing designation for the Red Creek Watershed ACEC would be removed since it would be inconsistent with the general management theme for Alternative D. All other ACEC proposals discussed in this draft RMP would be managed under multiple-use concepts, as outlined in Chapter 2 under this alternative. As such, inattention will allow for degradation and/or loss of resource values creating negative, cumulative impacts to these non-designated, high resource value areas.

The suppression of wildfire to protect riparian resource values and human safety factors in the corridor will have long-term, positive impacts to the Brown's Park and adjacent recreational, scenic, and wildlife areas. This may, however, create a buildup of forage, fire fuel, which may create negative, large-scale wildfires in the reasonable foreseeable future.

Establishing a window for a common river crossing at Section 31, T.2N., R.25E., in level 2 lands in the Green River Scenic Corridor ACEC will mitigate negative cumulative visual impacts.

The Green River Corridor ACEC level 3 lands open to mineral leasing may have negative impacts to recreation, wildlife, visual, and vegetation resources; however, the leasing of these minerals, geophysical activities, mineral materials, and locatables may have enhanced, cumulative, economic impacts in the tri-state area.

There may be potential impacts to the northeast portion of the resource area from increased visitor-use days due to the development of additional facilities in level 2 areas in the corridor. Impacts range from riparian zone site damage, wildlife disturbance, increased hunting pressure, to an overall lessening of recreational experiences. Increased visitor days may adversely impact human health and safety as well.

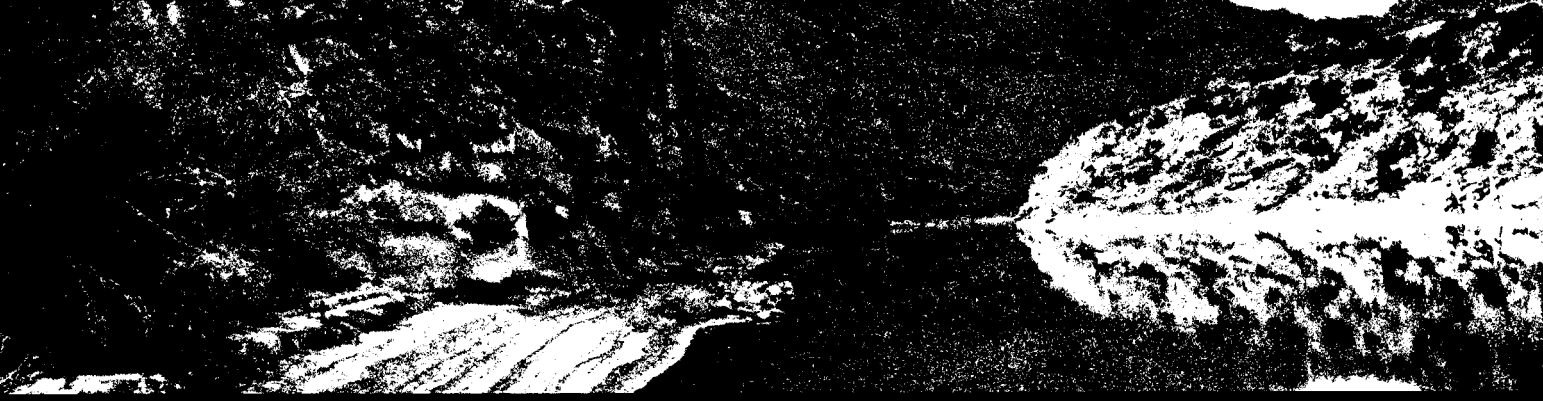
Surface-disturbing activities within the 330-foot riparian zone, and the manipulation of 900 acres of pinyon-juniper woodlands to increase forage production will have positive impacts to wildlife, recreation, special status plant species, sediment control, and overall watershed stability in the ACEC and surrounding areas.

There are some socioeconomic cumulative impacts in the Green River Scenic corridor ACEC, Red Creek Watershed ACEC, Red Mountain, Nine Mile, Pariette Wetlands, and the designated Wild and Scenic Rivers. The social perception in the community is divided. Although sympathetic to conservation/preservation of these areas, many individuals would want to protect industry. Social perceptions in the communities are divided over wildlife management, visual resources, and scenic resources. Ranchers and business people oppose restrictions placed on their use of the public lands, and conservation groups want to protect ecosystems.

Wild and Scenic Rivers

Six river segments were determined to be eligible for further study in this alternative. They are the upper, middle, and lower segments of the Green River, two segments on Nine Mile Creek and one segment on Argyle Creek.

All six river segments would be dropped from consideration and returned for uses that would benefit other users of public lands. Recreation use would not increase as it would have if Wild and Scenic River status were maintained and, over time, identified outstandingly remarkable values could be lost. This could result in a loss of up to 5,000 visitor days annually in 10 years. This would be a long-term impact.



APPENDICES

The following pages contain appendices referenced in the body of the Diamond Mountain RMP. The Appendices are arranged in this order:

APPENDIX NUMBER	APPENDIX NAME	TOPICS
1	CULTURAL/ PALEONTOLOGICAL	Cultural Site Management Category Allocations for Alternatives B and E
		Cultural Program Inventory
		Utah State Guidelines for Paleontological Resource Mitigation
2	FISH AND WILDLIFE	Wildlife Forage Allocation
		Standard Operating Procedures for Wildlife
		Vegetation Manipulation Guidelines for Sage Grouse Habitat
		Wildlife Monitoring Studies
		DMRA Guidelines for Potential Black-Footed Ferret Reintroductions
		Raptor Protection Buffers and Seasonal Dates
3	LANDS	Utility Corridor Routes Overlaying other Resource Values for the Proposed Plan
		Utility Corridor Routes Overlaying other Resource Values for the Alternatives
		Isolated Tracts Considered for Sale Under the Proposed Plan
		Community Expansion Tracts Considered for sale under the Proposed Plan
4	MINERALS	Competitive Oil and Gas Leasing
		Oil and Gas Operations
		Occurrence of Oil and Gas Resources
		Reasonable Foreseeable Development
		Current Oil and Gas Leasing Stipulations and Guidance
5	RECREATION	Recreation Opportunity Spectrum Criteria
6	RIPARIAN	Utah BLM Riparian Policy of 1988
7	SPECIAL EMPHASIS AREAS	Areas of Critical Environmental Concern (ACEC) Analysis
		Wild and Scenic Rivers Eligibility and Suitability Analysis

APPENDIX NUMBER	APPENDIX NAME	TOPICS
8	VEGETATION AND LIVESTOCK MANAGEMENT	Vegetation Inventory History and Ecological Condition
		Forage Allocation
		Allotment Categorization
		Range Monitoring Studies
		Standard Operating Procedures for Rangeland Improvements
9	WATERSHED	Utah State Water Quality Standards
10	SOCIOECONOMICS	Supporting Graphs and Analysis for Affected Environment
		BLM Utah List of Economic Values Used in Analysis of Proposed Projects
		Estimated Costs for Rangeland Improvement Projects

APPENDIX 1

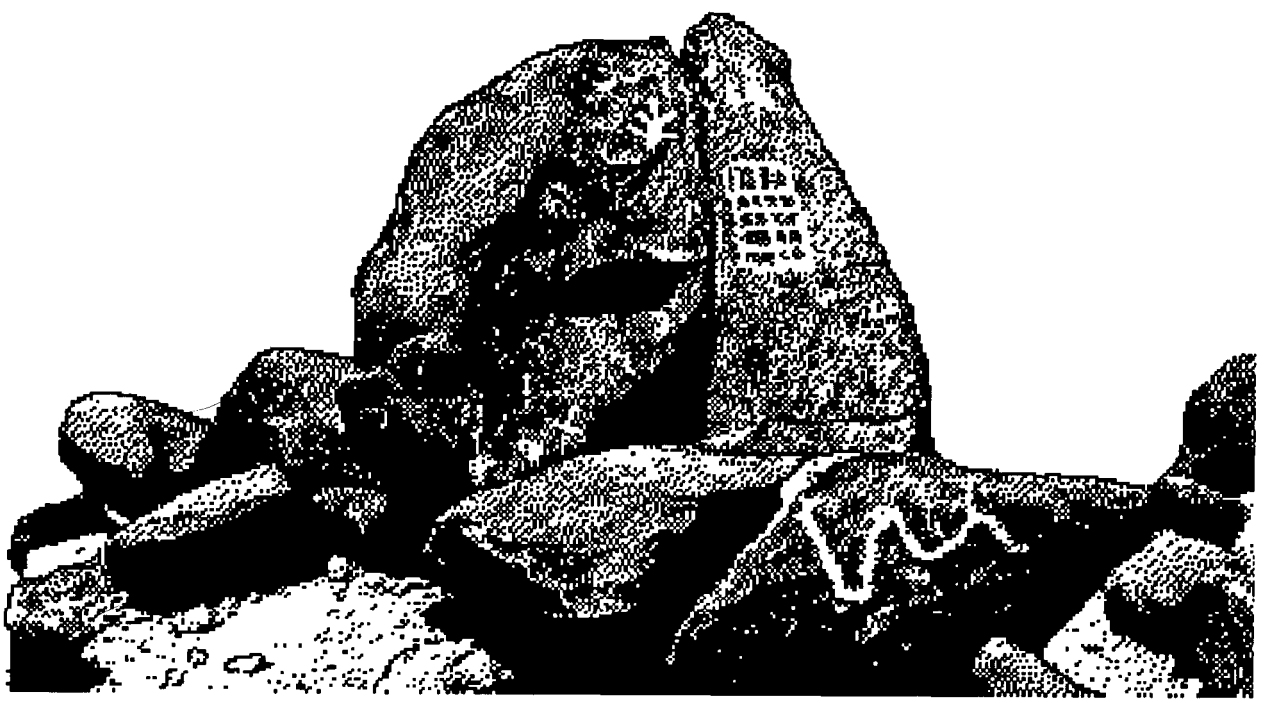
CULTURAL AND PALEONTOLOGICAL RESOURCES

CONTENTS:

Cultural Site Management Category Allocation

Cultural Program Inventory

Utah Guidelines for Paleontological Resource Mitigation



CULTURAL SITE MANAGEMENT CATEGORY ALLOCATIONS

Cultural sites including ethnographic properties within DMRA will be allocated to one of three management categories. These allocations will be made in cultural resource management plans upon completion of an approved RMP. Under Alternatives B and E, the sites will be allocated as follows.

INFORMATION POTENTIAL CATEGORY

- Prehistoric villages: 10 acres or over
- Prehistoric villages: 10 acres or less
- Stratified rock shelters, caves, overhangs
- Masonry structures/sites
- Petroglyph/pictograph sites
  - Archaic
  - Fremont
  - Anasazi

- Open camps
- Hearth/oven clusters
- Middens
- Lithic scatters
  - Without associated features
  - With associated features
  - Ceramic scatters
  - With Burntstone scatters
  - With middens

- Buried sites/features
- Prehistoric, non-Ute, burials (single/multiple)
- Historic period trail systems (Euro-American and Native American)
- Historic period ranches, corrals, isolated structures, isolated features
- Historic period middens
- Historic water works, features, and structures.
- Bedrock mortar sites, bedrock metate
- Scatters:
  - Ceramics
  - Bone, shell, horn, teeth, antlers
  - Charcoal
  - Burned/fire cracked rocks
  - Cobs
  - Jacal

- Figurine, ceramic non-ceramic scatters, caches
- Dinosaur exploration, quarry sites
- Civilian Conservation Corp. (CCC) structures, features, camps, etc. (also Works Progress Administration (WPA))
- Fur trade/trapping sites
- Mining/mineral exploration, extraction and processing sites, features, areas
- Farming/ranching sites, features, areas
- Ethnic (non Native American) sites
- Post Office
- Engineering: bridges, canals, flumes, etc.
- Military/Indian conflict sites, structures, areas
- Logging/timber sites, structures, areas
- Unknown as to period, function, age, etc.
- Kill sites including associated butchering stations, camps, features
  - Drive sites
  - Jump sites
  - Arroyo traps
  - Blinds

- Paleo-Indian sites (well preserved and threatened)
  - Plano

- Paleo-Indian sites (poor condition or threatened: Ilano period)

PUBLIC VALUES CATEGORY

- Ute cultural heritage sites (<u>all</u> types) (socio-cultural use)
- Shoshone cultural heritage sites (socio-cultural use)
- Other Native American sites

The following public value site types would also be categorized as public use sites.

- Petroglyphs/pictographs (excludes Ute, Shoshone)
- Historic sites identified by public and local CLG as important with substantiated documentation.
- National Register listed sites
- Sites, structures, objects, areas interpreted through the recreation program
- Stone saloon in Browns Park
- Site types listed under the information potential
- Category where controlled use can be instituted for education and recreational uses, i.e.
  - Open Camps
  - Small villages
  - Middens
  - Historic trail systems
  - CCC/WPA sites, structures
  - Masonry structures
  - Bed rock mortar/metate sites
  - Fur trading/trapping sites
  - Mining/mineral industry sites, structures
  - Farming/ranching sites, structures
  - Logging/timber sites, structures

- Engineering sites
  - Bridges
  - Flumes
  - Power generation structures
  - Ditches and canals

CONSERVATION CATEGORY

- Paleo-Indian sites (well preserved)
  - Ilano period (all site types)
  - Burials, human remains
- Paleo-Indian components
  - Ilano affiliation

CULTURAL PROGRAM INVENTORY

The Vernal District Class I inventory was completed in November 1980 (Jones and McKay, 1980). Since that time an area-wide Class I survey and report has not been written. The Class I documents for various projects in DRMA have updated information for certain portions of the resource area. A 1990 survey (Phillips) updated information concerning the late prehistoric Fremont horticulturalist for the Uinta Basin and Mountain areas.

Tables A1-1 and A1-2 display the suggested classifications of paleontological resources as defined by the Utah State Paleontologist. These classifications are base guidelines developed by the National Academy of Sciences (Raup, 1987). Within any sensitivity level for geological formations, there is the possibility of further classifying site-specific areas as to their paleontological significance. Therefore Table A1-2 provides suggestions for a classification system and mitigating measures for identified fossil localities.

PALEONTOLOGICAL RESOURCES

Table A1-1 displays the guidelines the Utah State Paleontologist has distributed concerning mitigation of paleontological resources.

TABLE A1-1
MITIGATION LEVEL TABLE

SENSITIVITY LEVELS	MITIGATION
Critical (Class I) Any locality from which holotype or critical reference material (eg., paratype, lectotype, etc.) has been collected. Any type geologic reference section which is critical for future reference.	Critical No action will be allowed which will damage the fossil resource or alter the contextual relationships of fossil materials. Materials may be removed, but by special permit only, to qualified professionals.
Significant (Class II) Any locality which contains rare, exceptionally well preserved or critical materials for stratigraphic or paleoenvironmental interpretation.	Significant Depending on the size of the deposit, approved mitigation may include total salvage or may be limited to a statistically valid sample of all forms present.
Important (Class III) Any locality which has produced plentiful, relatively common in the locality and elsewhere, fossil materials which are useful for stratigraphic and variability studies.	Important A statistically valid sample will be obtained to mitigate any adverse impact on the resource.
Insignificant (Class IV) Any locality which produces poorly preserved, common elsewhere, or stratigraphically unimportant material.	Insignificant Mitigation is optional.
Unimportant (Class V) Any locality which has been intensively surveyed and determined, therefore, to be of minimal scientific interest. This can include the outcrop of geological formations described as unfossiliferous in technical journals or publications.	Unimportant No mitigation necessary.

TABLE A1-2
SUGGESTED PALEONTOLOGICAL CLASSIFICATION SYSTEM FOR GEOLOGIC FORMATIONS

SENSITIVITY LEVEL	CRITERIA
Type 1	Formations known to contain fossils of significant scientific interest, or where such fossils are likely to be discovered with detailed field work.
Type 2	Formations known to contain fossils that are not of significant scientific value.
Type 3	Formations containing few fossils or fossils of little scientific value.

APPENDIX 2

FISH AND WILDLIFE RESOURCES

CONTENTS:

Wildlife Forage Requirements

Standard Operating Procedures

Vegetation Manipulation on Sage Grouse

Wildlife Monitoring Studies

Potential Wildlife Reintroduction

DMRA Guidelines for Potential Black-Footed Ferret Reintroduction

Raptor Protection Buffer Zones

WILDLIFE FORAGE ALLOCATION HISTORY

Starting in 1958, the Vernal BLM District underwent an extensive adjudication process on public rangelands to adjust them to the proper carrying capacities. Formal adjudication of forage in the Diamond Mountain Resource Area for wildlife was completed between 1958-1967 coinciding with livestock grazing adjustments. Utah Division of Wildlife Resources (UDWR)-BLM cooperative agreements since this time have emphasized big game habitat enhancement. Over 6,500 acres of habitat improvement work has been completed since the mid 1960s as well as forage reservations for wildlife (2,361 Animal Unit Months [AUMs]) in Browns Park as mitigation for lost habitat from the Flaming Gorge Reservoir development.

Wildlife forage allocations were increased to 21,888 AUMs as a result of these events as well as the completion of the 1980 Three Corners and 1982 Ashley-Duchesne Grazing Environmental Impact Statements.

Table A2-1 summarizes the forage allocation for wildlife as of 1991. Current use levels are estimated at 27,600 AUMs based on UDWR annual surveys. Objective stocking levels by herd unit were also determined by UDWR based on prior stable numbers and optimum stocking levels.

Table A2-1 reflects BLM's analysis of these requests which have been further divided to corresponding grazing allotments within each herd unit. Forage allocation decisions for wildlife were made to support objective wildlife populations identified by UDWR where they didn't exceed proper carrying capacities. Monitoring, continued vegetation improvement work, and land acquisition will eventually determine if objective levels can be met. Total AUM levels for each allotment were calculated from actual use and utilization studies where data was available. In cases where this data was not available, total AUMs were determined by vegetation type based on referenced studies from similar sites.

STANDARD OPERATING PROCEDURES FOR WILDLIFE

1. Gather baseline data on 40 management indicator species and use that data to monitor the health of and the BLM's effects on all habitats within the Diamond Mountain Resource Area. Manage to delist all special status species which are indicator species and prevent the need for listing other species.

2. Wildlife habitat improvement projects will require consultation with Utah Division of Wildlife Resources on job design and construction techniques one year in advance of implementation.

3. Keep the construction of all new stream crossings to a minimum. Culverted stream crossings will be designed and constructed to allow fish passage. All stream crossings will be designed and constructed to keep impacts to riparian and aquatic habitat at a minimum.

4. Relocate existing roads out of riparian areas where feasible or necessary to restore watershed and riparian stability.

5. Maintain the natural configuration of all streams.

6. Avoid direct and indirect support of floodplain development and new construction in wetlands wherever there is a practical alternative.

7. Quantification of instream flows to secure favorable conditions of water flow will be accomplished over a 15 year period by priority. Priority 1 = Pariette Wash; 2 = tributaries into the Green River in Browns Park; 3 = Argyle-Nine Mile drainage.

8. All powerlines will be constructed or modified to prevent electrocution of raptors.

9. Water will be provided to wildlife on all BLM water developments, including troughs, after livestock have been removed.

VEGETATION MANIPULATION GUIDELINES FOR SAGE GROUSE HABITAT

Treatments of sagebrush in sage grouse habitat would follow the guidelines for maintenance of sage grouse habitats (1977) including:

– Treatments within 2 miles of leks generally are not recommended.

– Treatments should not occur when sagebrush canopy density is less than 20 percent. A minimum of 20 percent sagebrush should remain after treatment.

– Living strips of sagebrush in irregular patterns should be maintained in 300 foot strips on each side of streams.

-- Herbicides should be applied with helicopters or ground equipment for best control of the spray.

- Herbicide treated areas should be no wider than 100 feet.

- Herbicide untreated areas should be at least 200 feet wide.

-- Sagebrush kills on treated areas should not exceed 90 percent.

-- Utah Division of Wildlife Resources should be notified of each specific proposal to control vegetation a minimum of 2 years in advance of treatment by means of an Environmental Assessment. UDWR may waive the 2-year notice in cases where sagebrush manipulation would not affect sage grouse.

WILDLIFE MONITORING STUDIES

PROCEDURES FOR ESTABLISHING PELLET GROUP TRANSECTS

Pellet Group Counts

General

The pellet-group study can provide valuable trend information on range use, especially in conjunction with, and as a supplement to browse utilization transects. Maximum worth for trend purposes is attained through use of permanent, swept plots. This assures greater precision and comparability of year to year data with far fewer total plots than random samples, even though they require a bit more initial effort and cost.

Guidelines for optimal use levels, as indicated by pellet-group densities per unit area, cannot be given separately from estimates of available forage resources and use patterns. This is largely a judgmental decision based on a sound concept of carrying capacity at each local site. Thus, an area of winter range with an exceptionally good mix of forage species might support 250 deer-days use per hectare (one hectare = 2.5 acres). Conversely, another area with sparse forage or dominated by species of lesser value might be maximally used at 50 deer-days use per hectare or less.

Plot Size

The preferred plot size is the 10 square meter circular plot (70 inches radius). This plot is 1/1000 of a hectare. A transect of 100 such plots is a tenth hectare so total pellet groups would be divided by 13 and multiplied by 10 to derive deer-days use.

The merits of the 10 square meter plot over larger sizes include: (1) one person can read and record pellet groups efficiently, (2) distribution of smaller sized plots over a larger area provides more reliable estimates than a smaller number of larger plots in a restricted area, and (3) counts are more accurate because possibility of missing groups is minimized, especially when making counts after new growth of vegetation has begun.

Number and Distribution of Plots:

Short Transect in Vicinity of Browse Utilization Transect - A transect of 100 (10 square meter) plots should be made at an interval of 10 meters apart. The pellet-group transect should be laid out so as to "criss-cross" the browse transect line, or in the case of permanent swept plots, can be laid out in a straight line for ease of relocation. The short pellet-group transect is to be used as the principal transect for management purposes.

Long Transects - The main function of the long transect is to gain supplemental information on a range unit. This transect diagonally bisects the entire range or a large portion of it. Use of the long transect is optional. A minimum of 200 (10 square meter) circular plots should be established at an interval of 20 meters. Pellet-group data should be recorded separately by cover type.

Conducting Counts

Permanent, swept-plots transects are preferred, especially in areas where there is overlap in summer and winter distribution and in the dryer climate of southern Utah.

Groups may persist more than one year so, to avoid confusion, pellets should be crushed or removed from the permanent plot. Paint spraying to mark groups is not recommended since paints do not last sufficiently well to assure positive age identification of the group. A workable sweeping method is to use a small whisk broom and a plastic scoop made from a plastic bleach bottle.

Scattered groups strung out across the plot sometimes present a problem. For consistency, use 25 individual pellets within the plot boundary as a criteria for counting the group in each case.

POTENIAL WILDLIFE REINTRODUCTIONS

It is reasonable to expect the resource area will provide suitable habitat for the following wildlife species in the

foreseeable future. To support these populations, protective actions, such as seasonal restrictions, avoidance or no-surface-occupancy stipulations, would be implemented on a site-specific basis. Additional forage for big game would be gained through vegetation treatments, or reassignment of existing AUMs from livestock to big game in their crucial habitat areas.

Bighorn Sheep

Approximately 1,200 AUMs would be assigned and maintained for bighorn sheep in Browns Park, Island Park, Dry Fork, and Nine Mile Canyon areas. Crucial habitat areas, such as lambing and rutting areas, would be protected by seasonal closures during active reproduction periods; closures to permanent human occupancy or development; and, closure to domestic sheep grazing within 10 miles of bighorn sheep occupied habitat boundaries.

Rocky Mountain Elk

Approximately 2,000 additional AUMs over current assignments would be assigned and maintained for reasonable increases in elk populations in the Browns Park and Nine Mile Canyon areas.

Antelope

Forage assignments of approximately 400 AUMs would be made to antelope on the Diamond Mountain Plateau and Browns Park areas. Presently 20-30 antelope are known to reside on the plateau and it is reasonable to expect the existing Island Park herd to expand onto Diamond Mountain in search of suitable summer habitat. Such an expansion could involve approximately 50 percent of the additional AUMs assigned to antelope. Restrictions involving this species on the Diamond Mountain Plateau would center on future fence placements and construction specifications.

Moose

During the life of this RMP, moose could be reintroduced into the DMRA. Sightings of moose have been uncommon in the resource area; however, habitat potential is excellent for additional releases. Management objectives to protect and/or enhance riparian habitat would enhance the probability of moose release throughout the DMRA.

Other species

Numerous other wildlife species have been considered for release, reintroduction or reestablishment in DMRA. These actions would be in conformance with existing cooperative agreements with UDWR and USF&WS. Vegetation needed by these species for forage and/or cover would be provided by the 50 percent of annual forage production held "in reserve" for vegetation maintenance, watershed enhancement, and non-big game species' cover and forage base. The following species that would be released onto public land within DMRA include:

Peregrine falcon	Natural reestablishment	Browns Park
River otter	Reintroduction	Green River Nine Mile Creek
Colorado cutthroat trout	Reintroduction	Browns Park, Argyle
Turkey	Reintroduction	Green River Ashley Valley
Chukar	Reintroduction	Resource areawide
Black-footed ferrets*	Reintroduction	Resource areawide

[*discussed later in this appendix]

Restrictions that would be imposed due to the presence of these animals would revolve around seasonal protection of active nesting sites (falcons), and enhancement of riparian values (otter, trout, and turkey).

Specific management objectives for any of these releases, reintroductions and/or re-establishments would be set out in habitat management plans and analyzed in the accompanying environmental assessments (or EISs, as necessary). The reader is referred to DMRA's management situation analysis (MSA) for a complete discussion of the current fisheries and wildlife management program and opportunities and challenges forecasted for the foreseeable future.

TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA[a]

Allotments	Acres PDL	Current Wildlife Use (AUMS)[b]				Objective Wildlife Stocking Level (AUMs)[c]					Total Wildlife AUMs		Livestock Use (AUMs) 5-Year		Allotment Carrying Capacity in AC/AUM PDL		Wildlife Treatment Opportunity Acres (AUMs gained)	Livestock Plus Wildlife AUM Demand		Total[d] AUMs Present
		Deer	Antelope	Elk	Bighorn	Deer	Antelope	Elk	Bighorn	Moose	Current	Objective	Pref.	Ave.Use	Current	Objective		Current	Objective	
Antelope Powers	41,672	35	65	33		100	201	106			133	407	3,421	3,421	12	11	0	3,554	3,828	3,567
Aunt Knoll	5,476	16	10	15		46	31	40			41	117	729		7	6	28	770	846	792
Argyle Ridge	9,341	298	0	90		350	0	377		50	388	777	540	187	10	7	0	928	1,317	1,352
Asphalt Ridge	545	5	6	10		5	9	35			21	49	26	26	12	7	0	47	75	76
Bates Spring	339	9	0	15		16	2	20		2	24	40	67		4	3	0	91	107	102
Bealer Basin	1,813	60	0	15		88	20	93			75	201	246		6	4	0	321	447	447
Big Wash	4,571	89	20	63		157	69	126			172	352	980	597	4	3	40	1,152	1,332	1,332*
Big Wash Draw	7,384	103	14	156		204	30	241			273	475	516	290	9	7	82	789	991	1,141*
Blair Basin	384	9	0	32		36	5	34		2	41	77	15		7	4	0	56	92	92
Bridgeport	9,179	534	25	57		534	31	100	25	5	616	695	139	190	12	11	82	755	834	1,877*
Browns Park (Colo.)[e]	5,615	112	25	60		309	75	60	244	5	197	693	530		8	5	140	727	1,233	842
Brush Creek	14,133	864	0	130		902	2	219			994	1,123	884	720	8	7	41	1878	2,007	2,115
Bull Canyon	15,974	160	10	32	49	215	31	83	227	5	251	561	1,000	670	13	10	54	1,251	1,561	1,651*
Canal	2,719	41	10	0		41	40	15			51	96	224	60	10	8	0	275	320	359*
Castle Peak	38,390	78	41	55		129	217	255			174	601	2,903		13	11	41	3,077	3,504	3,870*
Clay Basin	11,081	300	91	150		600	150	210	104	5	541	1,069	845		8	6	20	1,386	1,914	2,548
Clay Basin Meadows	4,264	45	35	150		73	60	150		20	230	303	365		7	6	55	595	668	881*
Coal Mine Basin	4,615	296	0	136		355	2	140		1	432	497	720	712	4	3	161	1,152	1,218	1,327
Cooper Draw	2,357	173	21	190		208	50	298	30		384	586	344		3	3	0	728	931	931*
Cottonwood Springs	13,688	482	10	350		515	25	685		10	842	1,235	945	945	8	6	130	1,787	2,180	2,898
Cove and W. Cow Hollow	2,057	103	0	64		120	15	84		10	167	229	277		5	4	0	444	506	506
Current Canyon	6,433	231	0	21		315	10	179	28	30	252	562	240	160	13	8	55	492	802	1,000*
Deep Creek	234	21	0	3		21	2	10		2	24	35	8	8	7	5	0	32	43	31
Devils Canyon	14,823	175	10	40	46	227	30	101	120		271	478	1,368	1,056	9	8	0	1,639	1,846	1,950*
Diamond Mountain	5,721	531	21	116		546	50	494	40	3	668	1,133	788	782	4	3	14	1,456	192	2,339*
Diamond Rim	2,535	131	0	128		201	0	174			259	375	120	120	7	5	28	379	495	495*
Dinosaur Park	1,429	96	15	10		129	25	36			121	190	103	66	6	5	14	224	293	293

TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA[a]

Allotments	Acres PDL	Current Wildlife Use (AUMS)[b]				Objective Wildlife Stocking Levels (AUMs)[c]					Total Wildlife AUMs		Livestock Use (AUMs) 5-Year		Allotment Carrying Capacity in AC/AUM PDL		Wildlife Treatment Opportunity Acres (AUMs Gained)	Livestock Plus Wildlife AUM Demand		Total AUMs Present
		Deer	Antelope	Elk	Bighorn	Deer	Antelope	Elk	Bighorn	Moose	Current	Objective	Pref.	Ave. Use	Current	Objective		Current	Objective	
Donkey Flat	5,510	550	0	154		600	0	211		2	704	813	402	431	5	5	83	1,106	1,215	1,142
Dry Fork	5,154	604	0	240		628	2	340	15	5	844	990	470	377	4	4	40	1,314	1,460	1,261
E. Cow Hollow	528	22	0	32		29	10	32			54	71	50		5	4	0	104	121	112
E. Huber	16,663	15	35	0		21	50	18			50	89	1,048	731	15	15	0	1,098	1,137	1,137*
E. Little Mountain	2,580	262	0	152		298	2	180		10	414	490	265	338	4	3	28	679	755	774
Eight Mile Flat	22,629	57	37	13		139	108	48			107	295	1,520	225	14	12	0	1,627	1,815	2,367
Five Mile	13,205	254	10	1,487		598	60	1,487	9	30	1,751	2,145	1,056	666	5	4	96	2,807	3,240	2,717*
Flynns Point	289	21	0	15		25	2	20			36	47	40		4	3	0	76	87	76
Gadsen	1,056	83	0	30		108	10	124		1	113	243	57		6	4	0	170	300	300
Gadsen Draw	1,329	61	0	56		94	10	122		1	117	227	106		6	4	0	223	333	333
Goslin Mountain	27,955	605	110	503		816	163	810	215	35	1,218	2,039	2,521	2,438	7	6	77	3,739	4,560	7,906
Green River Bottoms	6,272	192	2	25		230	35	25	90		219	380	330	331	11	9	0	549	710	756
Hacking	656	40	0	19		51	0	25		1	59	77	62	76	5	5	0	121	139	112
Halfway Hollow	3,386	5	10	0		10	25	0			15	35	154	215	20	18	0	169	189	497
Hatch Cove	2,891	154	3	63		196	25	82		1	220	303	281		6	5	42	501	584	833
Holmes-Palmer	1,707	92	2	4		92	4	10			98	106	129	92	7	7	0	227	235	235
Horseshoe Bend	2,163	43	2	0		103	6	0			45	109	145	141	11	9	10	190	254	343
Hoy Mountain	3,480	124	0	104		184	10	195		10	228	309	568	767	4	4	42	796	861	857
Island Park	7,350	227	0	166		484	25	517	175	5	393	1,206	35	33	17	6	69	428	1,241	1,854*
Jackson/Crouse/Dry Hollow	9,602	511	0	211		662	30	512	53	33	722	1,290	980		6	4	138	1,702	2,270	2,305
Johnson	823	51	0	26		62	2	81		2	77	147	86	86	5	4	28	163	233	193
Lambson/Crouse/Davis	3,592	180	0	70		221	10	120	0	5	250	356	572		4	4	10	822	928	900
Lears Canyon	8,885	240	0	18		290	2	141		30	258	461	308	202	166	12	28	566	769	809*
Little Brush Creek	10	7	0	2		10	0	3			9	13	15		1		0	24	28	
Little Desert	43,323	44	80	32		50	119	94	45	0	156	308	2,564	1,179	17	15	28	2,720	2,872	2,569*

TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA[a]

Allotments	Acres PDL	Current Wildlife Use (AUMS)[b]				Objective Wildlife Stocking Levels (AUMs)[c]					Total Wildlife AUMs		Livestock Use (AUMs)		Allotment Carrying Capacity in AC/AUM PDL		Wildlife Treatment Opportunity Acres (AUMs Gained)	Livestock Plus Wildlife AUM Demand		Total AUMs Present
		Deer	Antelope	Elk	Bighorn	Deer	Antelope	Elk	Bighorn	Moose	Current	Objective	Pref.	5-Year Ave. Use	Current	Objective		Current	Objective	
Little Hole	6,755	532	0	79		1,015	0	220	0	30	611	1,265	330		7	5	137	941	1,595	1,556
Log Cabin	639	17	0	17		29	0	31		13	34	73	58		7	5	0	92	131	161
Mame Hole-Bear Hollow	1,451	22	0	26		87	5	70		10	48	172	140		8	5	28	188	312	364
Mail Draw	817	26	0	19		31	5	45			45	81	86		6	5	28	131	167	221
Marshall Draw[f]	5,404	239	0	75		302	5	233	25	14	314	569			17	9	42	314	569	1,035
McCoy Flat	12,604	211	15	0		332	19	0			226	351	843	465	12	11	0	1,069	1,194	1,599
McFarley Flat	7,556	328	25	18		408	36	47			371	491	418	307	10	8	28	789	909	1,093
McKee Spring	795	69	0	20		77	5	58		3	89	143	170		3	3	28	259	313	313
Mosby	2,152	180	2	194		309	4	278		20	376	611	220	176	4	3	0	596	831	825*
Natural Lake	801	26	0	13		50	5	54		6	39	115	100		8	4	0	139	215	205
Oden	11	5	0	0		10	2	3			5	15	2		2	1	0	7	17	
Ouray Road	16,958	62	16	0		134	50	0			78	184	857	767	19	16	0	935	1,041	3,002
Ouray Valley	489	23	2	0		31	12	0			25	43	30	60	9	7	0	55	73	214*
Paddys Gap	3,820	289	0	23		529	0	150			312	679	291	165	6	4	56	603	970	970
Parley Canyon	14,728	316	0	53		404	0	390	41	60	369	895	355	169	20	12	35	724	1,250	2,245
Pelican Lake	6,461	56	6	0		93	25	0			62	118	544	195	11	10	0	606	662	781
Perry	1,629	97	0	125		206	0	168		10	222	384	96	19	5	4	62	318	480	451*
Powell/Sadlier	2,124	62	2	2		93	14	4			66	111	165		9	8	0	231	276	298
Red Creek Flat[f]	8,212	503	20	57		797	30	90	15	3	580	935					80			1,844
Red Mountain	6,661	567	0	103		618	2	400		10	670	1,030	275	172	7	5	28	945	1,305	1,305*
Rich and Stetson	600	5	10	0		8	12	0			15	20	65	63	8	7	0	80	85	79
Ruple Cabin	12,004	203	0	187		384	50	408	40	20	390	902	2,434		4	4	63	2,824	3,336	2,512
Rye Grass[f]	3,386	308	0	101		631	5	177	35	13	409	861					42			972*
S.J. Hatch	24,903	726	0	196		1,108	50	439		2	922	1,599	1,681	867	10	8	69	2,603	3,280	3,230*
School Bus Draw	1,529	52	0	42		75	5	98		2	94	180	180		6	4	28	274	360	377
Sears Canyon[f]	5,021	187	0	91		422	5	245	150	14	278	836					42			877

TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA[a]

Allotments	Acres PDL	Current Wildlife Use (AUMS)[b] Deer	Antelope	Elk	Bighorn	Objective Wildlife Stocking Levels (AUMs)[c] Deer	Antelope	Elk	Bighorn	Moose	Total Wildlife AUMs Current	Objective	Livestock Use (AUMs) 5-Year Pref.	Ave. Use	Allotment Carrying Capacity in AC/AUM PDL Current	Objective	Wildlife Treatment Opportunity Acres (AUMs Gained)	Livestock Plus Wildlife AUM Demand Current	Objective	Total AUMs Present
Serviceberry Spring	1,974	34	0	13		121	5	35		2	47	161	113		12	7	0	160	274	407
Shindy	2,913	175	0	66		278	2	96		2	235	378	68	140	10	7	69	303	446	498
Shiner	38,697	601	25	600		866	124	1,178	50	12	1,226	2,230	3,000	1,947	9	7	137	4,226	5,230	5,206
Smelter Springs	384	21	0	48		31	0	48		2	69	81	24	24	4	4	0	93	105	83
Spring Creek	4,164	428	0	17		441	2	74	50	10	445	577	196	182	6	5	0	641	773	773*
Taylor Flat[f]	5,371	668	0	7		668	3	24	18	2	675	715					42			1,777*
Three Corners	1,079	18	27	126		58	40	130		10	171	238	167		3	3	14	338	405	580*
Twelve Mile	4,904	14	15	0		55	103	27			29	185	316		14	10	0	345	501	712
Twin Knolls	6,032	81	15	70		129	77	92	45		166	343	596	569	8	6	0	762	939	939
N. Warren Draw	4,081	77	0	108		189	10	140	25	10	185	374	190		11	7	28	375	564	950
S. Warren Draw[f]	3,186	60	0	84		148	10	110	10	10	144	288			22	11	28			695
Water Canyon #1	1,095	55	0	40		76	0	126		10	136	212	153	130	4	3	0	289	365	234
Water Canyon #2	5,059	157	5	30		197	16	92	30		192	335	138	119	15	11	0	330	473	798
Watson[f]	6,672	1,241	0	12		1,826	2	45	32	3	536	876					28			937
Wells Draw	9,596	16	8	208		32	79	303		2	232	416	814	424	9	8	56	1,046	1,230	1,555**
West Huber	4,081	62	12	0		62	25	10			74	97	402	322	9	8	0	476	499	875
W. Little Mountain	1,156	131	0	173		144	2	288	30	20	304	484	124	94	3	2	74	428	608	551**
W. Pelican Lake	2,257	21	2	0		21	9	0			23	30	251	252	8	8	0	274	281	295
W. Pot Creek	1,368	48	0	32		125	5	114		2	80	246	107		7	4	28	187	353	285
Wetlands	17,914	126	10	10		226	78	30		3	146	337	1,096	971	14	13	0	1,242	1,433	2,583
Wild Mountain	934	120	0	48		125	0	48	50		168	223	90		4	3	0	258	313	313
Wilkerson	200	16	0	7		16	2	7		2	23	27	15		5	5	0	38	42	42
Willow Creek	6,322	83	47	173		160	75	300	35	20	303	590	501		8	6	154	804	1,091	1,385**
Willow Springs	917	51	0	26		82	2	32	5	5	77	126	93	80	5	4	0	170	219	196
Young	7,927	38	15	0		75	25	0			53	100	535	252	13	12	0	588	635	633**

TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA[a]

Allotments	Acres PDL	Current Wildlife Use (AUMS)[b] Deer	Antelope	Elk	Bighorn	Objective Wildlife Stocking Levels (AUMs)[c] Deer	Antelope	Elk	Bighorn	Moose	Total Wildlife AUMs Current	Objective	Livestock Use (AUMs) 5-Year Pref. Ave. Use		Allotment Carrying Capacity in AC/AUM PDL Current	Objective	Wildlife Treatment Opportunity Acres (AUMs Gained)	Livestock Plus Wildlife AUM Demand Current	Objective	Total AUMs Present
Allotments Located North of Carbon County Line That Price RA Administers but DMRA Allocates Forage.																				
Blind Canyon	0																			
Green River	3,706	194	6	8	0	217	30	26	3	0	208	276	185	140	9	8	0	393	461	461
Kyune I	1,235	125	0	28	1	149	0	92	0	4	154	245	53		6	4	0	207	298	298
Max Canyon	115	12	0	0	0	19	0	0	10	0	12	29	5		7	3	0	17	34	34
Stone Cabin	320	24	0	1	0	35	0	1	20	0	25	56	2		12	6	0	27	58	58
Sulfur Canyon	4,116	214	0	59	0	260	0	198	0	12	275	470	158		10	7	14	433	628	628
GRAND TOTAL											27,570	48,753	49,693							112,350

a. Wildlife forage allocation for non-game species is included in table.
b. Current Use is an estimate developed by UDWR and BLM.
c. Objective, stocking levels were determined by UDWR by herd units in 1991 and may increase or decrease according to habitat conditions. BLM divided up the herd unit totals by allotment as displayed in this table.
d. Total AUMs available on each allotment were derived from actual use and utilization studies (marked by and asterisk) or through determining carrying capacities by vegetative type from referenced studies when actual use and utilization data were not available.
e. Allotments which are located partially in DMRA but grazing is administered by Colorado (Craig District), Little Snake R.A.
f. Allotments where preference is retired for livestock on non-renewable: Red Creek Flat, Taylor Flat, Watson, Rye Grass, Marshall Draw, S. Warren Draw, and Sears Canyon.

DMRA GUIDELINES FOR POTENTIAL BLACK-FOOTED FERRET REINTRODUCTION

These guidelines are a collection of prairie dog management recommendations that originated from the draft guidelines completed by the USF&WS in July 1990. These guidelines were meant to protect prairie dog habitat that would be considered for future black-footed ferret (BFF) reintroductions and the ferrets themselves.

When USF&WS guidelines become final, only those conforming to DMRA guidelines, or those that are less restrictive, would apply to proposed reintroduction areas. An RMP amendment would be required if more restrictive guidelines were developed than those presented in this RMP.

If USF&WS approved of the guidelines presented in this RMP, a site specific management plan would be developed prior to reintroduction. BLM lease holders, private landowners, and the public would supply representatives to develop a local working group that develops the management plan. USF&WS, BLM, and UDWR personnel would also have representatives on this local working group. Public comments would be received and information on the reintroduction provided to the local communities.

All prairie dog colonies in joint ownership would require the development of a cooperative management agreement consistent with RMP guidelines prior to reintroduction. The terms of agreement for BLM administered land would be consistent with RMP guidelines. The terms of agreement on non-BLM administered lands would be developed through negotiation.

BLM management guidelines recommend no changes to currently authorized permits or leases in areas where BFF are being proposed for reintroductions. This "no change" policy also applies to the maintenance and operation of existing facilities.

More restrictive conditions could be imposed by the USF&WS once BFFs were released if other reintroduced BFF populations separate from DMRA suddenly died and those in DMRA existed.

All BFF reintroductions will be experimental, non-essential, as outlined in these guidelines.

All new activities which could negatively impact the BFF would require conferencing with USF&WS.

All proposed reintroduction areas will be uniformly managed with the BLM BFF guidelines.

The following areas were prioritized as "best" potential habitat, by alternatives, based on:

a. Current BLM planning decisions
b. Potential conflicts with other management activities and resources
c. Size of potential habitat
d. Biological parameters that define the likelihood of a successful reintroduction.

Alternative A (19,000 acres)	Acres	Alternative B and Proposed Plan (33,500 acres)	Acres
1. Sunshine Bench	4,800	1. Sunshine Bench	4,800
2. Shiner	7,800	2. Shiner	7,800
3. Antelope Flat	2,600	3. Antelope Flat	2,600
4. Twelve Mile	1,700	4. Twelve Mile	1,700
5. Buckskin Hills	2,400	5. Eight Mile Flat	16,600

Note: Alternative C & D did not maintain habitat for BFFs.

The Utah BFF Working Group has identified Coyote Basin (Book Cliffs R.A., Vernal District) and the Cisco Desert (Grand R.A., Moab District) as its two primary release sites in Utah. DMRA probably won't receive any ferrets until 1997-1999 at the earliest, if approved in the RMP, and in only 2 sites at the most. Alternatives A and B would allow for releases in 2 sites. Alternative E and the Proposed Plan would allow for a release in only 1 site.

Up to 100 ferrets would be released initially with subsequent yearly releases of additional ferrets until a self-sustaining population is established.

If BFFs leave reintroduction areas, all the protective stipulations that applied to the reintroduction area would not apply. It would be USF&WS's responsibility to trap and return the BFFs to the reintroduction area. Adjoining private and tribal land owners will not be bound by any restrictions applied to the reintroduction area(s).

Any BFF accidentally killed must be reported to USF&WS immediately. Accidental take is defined as unintentionally harassing, harming, pursuing, killing, trapping, capturing, or collecting, or an attempt to engage in such activity.

If a complete site-specific analysis results in a finding that one or more of the BFF reintroduction areas is not suitable for BFF release after all, those sites will be removed from management under the guidelines.

Surface disturbing activities, for the purpose of these guidelines, are described as any mechanical activity

resulting in removal of existing vegetation or topsoil such as pipelines, roads, reservoir construction, gravel pits, etc.

Surface Use Plan of the APD permit (BLM's 13-point plan) would serve as a means of implementing BFF mitigation during the "onsite" inspection. As leases are reissued, notification would be given that the lessee is in potential BFF habitat and additional restrictions could apply as listed in these guidelines.

A mitigation agreement should be negotiated whenever proposed oil and gas developments under new lease or within new fields can't be designed to avoid translocating ferrets out of the area or destroying habitat occupied by BFFs. All costs would be paid by the company proposing the development. This mitigation agreement should be established during the permitting process at the time of the proposed development. BFF surveys are recommended prior to construction to develop plans to avoid harm to ferrets that may occupy the site.

HABITAT PROTECTION PRIOR TO BFF REINTRODUCTION		
PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B
New surface disturbing activities would be limited to a maximum of 10% within the Eight Mile Flat potential BFF habitat.	New surface disturbing activities would be limited to a maximum of 10% within potential BFF habitat.	Total surface disturbing activities would be limited to a maximum of 10% at any one time within potential BFF habitat.
Same as Alternative A	Surface disturbing activities would avoid potential BFF habitat. If activities cannot, they would cross in areas of low prairie dog density (<10 burrows/acre), cross at the shortest distance through prairie dog habitat, or disturb sites not currently being used by prairie dogs. This guideline would not apply to the maintenance and operation of existing facilities.	Surface disturbing activities would avoid potential BFF habitat. If activities cannot, they would cross in areas of low prairie dog density (<10 burrows/acre), cross at the shortest distance through prairie dog habitat, or disturb sites not currently being used by prairie dogs.
Same as Alternative A	Potential BFF habitat would remain open to mineral entry with appropriate mitigation.	Potential BFF habitat areas would be recommended for withdrawal from additional mineral entry to protect existing habitat.
Same as Alternative A	Powerlines would avoid potential BFF habitat. If they cannot, they would be buried or designed to preclude raptors from using them as hunting perches.	Same as Alternative A
Same as Alternative A	Non Surface disturbing geophysical exploration (eg-Gravity) would be allowed year round.	Same as Alternative A

MANAGEMENT GUIDELINES ONCE BFF ARE REINTRODUCED		
PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B
Same as Alternative A	Do not allow new surface disturbing activities between March 1 through August 31 within 1/4 mile of BFF reintroduction areas to protect reproductive and active litter periods. These restrictions do not apply to maintenance and operation of existing facilities.	Same as Alternative A
Same as Alternative A	Vehicular travel within occupied BFF reintroduction areas would be restricted to designated roads and trails. Periods of heavy vehicular traffic (i.e., drilling) would be encouraged during daylight hours.	Same as Alternative A
To the extent that BLM has the authority, human activity would only be allowed during daylight hours from 2 hours after sunrise to 2 hours before sunset. The only exceptions would be: petroleum drilling, production operations, and associated service related traffic in the Eight Mile Flat area.	To the extent that BLM has the authority, human activity would only be allowed during daylight hours from 2 hours after sunrise to 2 hours before sunset. The only exceptions would be: in case of emergencies; petroleum drilling and associated servicing related traffic in all areas; and production operations in the Eight Mile Flat and Twelve Mile areas only.	Same as Alternative A
Same as Alternative A	Mufflers would be installed to reduce noise on all equipment located within 1/4 mile and within all BFF occupied reintroduction areas.	Same as Alternative A
Prairie dog colonies in Eight Mile Flat would be allowed to expand 10% from present size (1,660 total acres) to enhance potential BFF habitat. BLM's guidelines would also apply to the expanded areas. Where feasible, vegetation treatments would be planned to replace AUMs lost to prairie dog expansion.	Prairie dog colonies in Sunshine Bench and Twelve Mile would be allowed to expand 10% from present size (650 total acres) to enhance potential BFF habitat. BLM's guidelines would also apply to the expanded areas. Where feasible, vegetation treatments would be planned to replace AUMs lost to prairie dog expansion.	Prairie dog colonies in Sunshine Bench, Twelve Mile, and Antelope Flat would be allowed to expand 50% from their present size to enhance potential BFF habitat. BLM guidelines would also apply to the expanded areas at the time of BFF release. Where feasible, vegetation treatments would be planned to replace AUMs lost to prairie dog expansion.
Same as Alternative A	Animal damage control within occupied BFF reintroduction areas would be allowed with restrictions on placement of M-44s, traps, and snares to avoid accidental killing of BFFs. If prairie dog colonies needed reducing, no poisons would be permitted, only non-toxic methods.	Animal damage control within occupied BFF habitat would be allowed using only non-toxic methods. If prairie dog colonies needed reducing, no poisons would be permitted, only non-toxic methods.
Same as Alternative A	If it is not shown to be detrimental to BFFs, BLM would continue to support UDWR hunting regulations as they apply to prairie dogs.	BLM would encourage UDWR to prohibit prairie dog shooting on habitat that is occupied by the BFF.
Same as Alternative A	All owners of livestock herding dogs that are used within occupied BFF reintroduction areas would require proof of annual distemper vaccinations. No other free-roaming dogs would be allowed within established reintroduction areas.	Same as Alternative A
Same as Alternative A	Non-surface disturbing geophysical exploration (eg. gravity) would be allowed from September 1 to February 28 within BFF reintroduction areas	Same as Alternative A

Raptor Protection Buffers and Seasonal Dates

1. Special Status Species - Protected under provisions of the Endangered Species Act, Migratory Bird Treaty Act, Bald Eagle Protection Act, and BLM Policy (Manual 6840) as applicable.

SPECIES	BUFFER DISTANCE	PROTECTION DATES
Bald Eagle	0.5 miles	Year long
Peregrine Falcon	1.0 miles	Year long
Ferruginous Hawk	0.5 miles	Year long*
Mexican Spotted Owl	1000 acre NSO area with buffer zone around this core area	Mar. 1-Aug.1**

2. Utah State Sensitive Species- Protected under provisions of the Migratory Bird Treaty Act, Utah State Law, and BLM Policy(Manual 6840). BLM would continue to cooperate with UDWR in the monitoring of these species and could provide protection if a downward trend continues. BLM actions would be evaluated to determine impacts to these species and applicable mitigation could be developed and implemented from the following protection buffers and seasonal dates following NEPA review.

Burrowing Owl	0.5 miles	April 1 - July 15
Osprey	0.5 miles	April 1 - July 15
Swainson's Hawk	0.5 miles	April 1 - July 15
Northern Goshawk	0.5 miles	April 15- Aug. 20
Short-eared Owl	0.5 miles	April 10- June 15

3. Golden Eagle which is protected under the provisions of the Bald Eagle Protection Act and the Migratory Bird Treaty Act.

Golden Eagle	0.5 miles	Year long*

4. Raptor Species protected under the provision of the Migratory Bird Treaty Act considered as important raptor species by the Utah Division of Wildlife Resources and BLM as indicators of the health of the ecosystems they occupy. BLM would continue to cooperate with UDWR in the monitoring of these species and could provide protection if a downward trend continues. BLM actions would be evaluated to determine impacts to these species and applicable mitigation could be developed and implemented from the following protection buffers and seasonal dates following NEPA review.

Prairie Falcon	0.5 miles	April 1 - July 15
Merlin	0.5 miles	April 15- June 25
American Kestrel	0.5 miles	May 1 - June 30
Turkey Vulture	0.5 miles	May 15 - Aug. 15
Cooper's Hawk	0.5 miles	May 1 - Aug. 15
Sharp-shinned Hawk	0.5 miles	June 20 - Aug. 15
Northern Harrier	0.5 miles	April 1 - July 15
Red-tailed Hawk	0.5 miles	April 1 - July 15
Great Horned Owl	0.5 miles	Feb. 1 - May 15
Long-eared Owl	0.5 miles	Mar. 15 - June 15

These recommended buffer distances and protection dates will be revised as new information becomes available. Distances will also be affected by terrain and line of sight from the nest to the proposed development.

==========

* Nests must have been active within the past two years for buffer distances to apply. See Table 2-15, Chapter 2 for more information.

** No records exist to document the existence of the Mexican Spotted Owl within the Diamond Mountain Resource Area. Should any individuals be found during future inventory work, the following buffer distances and protection dates would apply. Implementation of these protection stipulations would be considered following proper NEPA review.

APPENDIX 3

LANDS PROGRAM MANAGEMENT

CONTENTS:

Standard Operating Procedures

Utility Corridor Routes Overlaying Oher Resource Values

Sales Parcels by Alternative

TABLE A3-1:
UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES FOR THE PROPOSED PLAN

MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
L1	2N	24E	13	VRM RESTRICTIONS		X	
L1	2N	25E	18	VRM RESTRICTIONS		X	
L1	2N	24E	19	VRM RESTRICTIONS		X	
L1	2N	25E	29	VRM RESTRICTIONS			
L1	2N	25E	30	VRM RESTRICTIONS			
L1	1N	25E	31	BROWN PARK, GREEN RIVER FLOODPLAIN			
L1	1N	25E	6	BROWN PARK, GREEN RIVER FLOODPLAIN			
L1	1N	25E	7	BROWN PARK, GREEN RIVER FLOODPLAIN			
L2	1N	25E	19	SEMI PRIMITIVE NON-MOTORIZED			
L2	1N	25E	30	SEMI PRIMITIVE NON-MOTORIZED			
L3	3N	24E	26	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
L3	3N	24E	27	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
L3	3N	24E	28	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
L3	2N	25E	19	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
L3	3N	24E	17	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
L3	3N	24E	20	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
L3	3N	24E	21	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
L3	3N	24E	25	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
L3	3N	24E	26	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
L3	3N	24E	27	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
L3	3N	24E	28	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
L3	3N	24E	17	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3N	24E	21	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3N	24E	25	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3N	24E	26	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3N	24E	27	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3N	24E	28	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	2N	24E	13	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	2N	25E	7	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	2N	25E	18	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	2N	25E	19	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	2N	24E	30	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	2N	25E	30	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	1N	25E	6	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	1N	25E	7	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3N	24E	21	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	3N	24E	25	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	3N	24E	26	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	3N	24E	27	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	3N	24E	28	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	2N	25E	1	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	2N	25E	6	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	2N	25E	7	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	2N	25E	31	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	1N	25E	6	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	1N	25E	7	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	2S	23E	34	NO SO ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		

TABLE A3-1:
UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES FOR THE PROPOSED PLAN

MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
L3	2S	23E	35	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3S	23E	3	NO SO ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3S	23E	10	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	2S	23E	35	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	2S	23E	3	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	2S	23E	9	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	2S	23E	10	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	2S	23E	20	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	2S	23E	29	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	2S	23E	31	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	3S	23E	3	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT,ENHANCE RIP			
L3	3S	23E	10	ONLY SD ACTIVITY 300 OF RIPARIAN, NO OTHER ALT,ENHANCE RIP			
L3	3S	20E	17	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3S	20E	20	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3S	20E	29	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3S	20E	33	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	4	23E	29	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
L3	4S	23E	33	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
L3	4S	23E	7	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
L3	6S	19E	25	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	26	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	27	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	28	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	29	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	30	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	33	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	34	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	6S	19E	35	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	7S	21E	6	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
L3	9S	16E	1	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	12	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	13	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	24	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	25	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	7	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	18	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	19	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	9S	16E	30	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
L3	2N	25E	29	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
L3	3N	24E	17	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3N	24E	20	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3N	24E	21	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	2N	24E	13	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	1N	25E	20	NO PROTECTIVE BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L2	1N	25E	7	POTENTIAL NATIONAL REGISTER SITE			X
L2	1N	25E	18	POTENTIAL NATIONAL REGISTER SITE			X
L3	1N	25E	6	RECREATION SITES SPECIAL RESTRICTIONS - REHAB			X

TABLE A3-1:
UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES FOR THE PROPOSED PLAN

MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
L3	1N	25E	7	RECREATION SITES SPECIAL RESTRICTIONS - REHAB			X
L3	1N	25E	31	RECREATION SITES SPECIAL RESTRICTIONS - REHAB			X
L3	1N	25E	19	NO PROTECTIVE BUFFER ESTABLISHED AROUND CULTURAL/PALEO SITES			
L3	1N	25E	30	NO PROTECTIVE BUFFER ESTABLISHED AROUND CULTURAL/PALEO SITES			
L3	2S	23E	26	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	2S	23E	34	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	2S	23E	35	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	23E	3	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	23E	9	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	23E	10	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	23E	20	BRUSH CREEK. NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	23E	21	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	23E	29	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	23E	31	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	4S	23E	5	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	4S	23E	6	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
L3	3S	20E	17	NO PROTECTIVE BUFFER ESTABLISHEO AROUNO CULTURAL/PALEO SITE			
L3	3S	20E	20	NO PROTECTIVE BUFFER ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3S	20E	29	NO PROTECTIVE BUFFER ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3S	20E	33	NO PROTECTIVE BUFFER ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3S	20E	17	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3S	20E	20	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3S	20E	29	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3S	20E	33	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	4S	23E	6	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	4S	23E	7	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	4S	23E	18	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	4S	23E	19	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	4S	23E	29	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	4S	23E	6	BRUSH CREEK, NEW SD ACT. IF WATERSHED VALUE MAINTAINED			
L3	4S	23E	7	BRUSH CREEK, NEW SD ACT. IF WATERSHED VALUE MAINTAINED			
L3	4S	23E	18	BRUSH CREEK, NEW SD ACT. IF WATERSHED VALUE MAINTAINED			
L3	4S	23E	19	BRUSH CREEK, NEW SD ACT. IF WATERSHED VALUE MAINTAINED			
L3	4S	23E	29	BRUSH CREEK, NEW SD ACT. IF WATERSHED VALUE MAINTAINED			
L3	4S	23E	33	BRUSH CREEK, NEW SD ACT. IF WATERSHED VALUE MAINTAINED			
L3	4S	23E	29	BRUSH CREEK, NEW SD ACT. IF WATERSHED VALUE MAINTAINED			
L3	6S	20E	31	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO ZONE			
L3	7S	20E	6	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALED ZONE			
L3	8S	16E	13	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	8S	16E	24	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	8S	16E	25	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	9S	16E	1	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	9S	16E	12	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	9S	16E	13	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	9S	16E	24	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	9S	17E	7	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	9S	17E	18	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
L3	8S	16E	19	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			

TABLE A3-1:
UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES FOR THE PROPOSED PLAN

MFA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
L3	8S	16E	13	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	8S	16E	14	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	8S	16E	24	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	8S	16E	25	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	8S	16E	1	NO PROTECTION BUFFERS ESTABLISHED AROUNO CULTURAL/PALEO SITE			
L3	8S	16E	12	NO PROTECTION 8UFFERS ESTABLISHED AROUNG CULTURAL/PALEO SITE			
L3	8S	16E	13	NO PROTECTION BUFFERS ESTABLISHED AROUNO CULTURAL/PALEO SITE			
L3	8S	16E	7	NO PROTECTION BUFFERS ESTABLISHEO AROUND CULTURAL/PALEO SITE			
L3	8S	16E	18	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	1N	25E	6	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	25E	7	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	25E	18	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	25E	19	NO SO ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	25E	30	NO SO ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	24E	25	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	24E	35	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	24E	36	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L3	1N	24E	25	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
L2	2N	25E	29	POTENTIAL NATIONAL REGISTER SITE			X
L2	2N	25E	29	WILDLIFE & VRM2 RESTRICTIONS			X
L3	2N	25E	29	VRM RESTRICTIONS			
L2	2N	24E	13	WILDLIFE & VRM RESTRICTIONS			X
L2	2N	25E	19	WILDLIFE & VRM RESTRICTIONS			X
L2	2N	25E	30	WILDLIFE & VRM RESTRICTIONS			X
L3	2N	24E	1	VRM RESTRICTIONS			
L3	2N	24E	13	VRM RESTRICTIONS			
L3	2N	25E	19	VRM RESTRICTIONS			
L3	2N	25E	30	VRM RESTRICTIONS			
L3	2N	25E	6	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L3	2N	25E	7	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L3	2N	25E	30	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L3	2N	24E	13	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L2	2N	25E	30	VRM RESTRICTIONS			X
L2	1N	25E	6	VRM RESTRICTIONS			X
L3	1N	25E	6	ONLY SHORT TERM/MITGABLE INTRUSIONS W/I 1/2M L/O/S OF BYWAY			
L2	2N	25E	30	VRM & RIPARIAN RESTRICTIONS			X
L2	2N	25E	31	VRM & RIPARIAN RESTRICTIONS			X
L2	1N	25E	6	VRM & RIPARIAN RESTRICTIONS			X
L2	1N	25E	7	VRM & RIPARIAN RESTRICTIONS			X
L2	2N	25E	30	WILDLIFE & VRM RESTRICTIONS			X
L2	1N	25E	6	WILDLIFE & VRM RESTRICTIONS			X
L2	1N	25E	7	WILDLIFE & VRM RESTRICTIONS			X
L3	2N	25E	31	NO SO ACTIVITY WITHIN 1/2 MI ACTIVE FERRUGINOUS HAWK NEST	MAR 1 - JUL 15		
L3	1N	25E	6	NO SO ACTIVITY WITHIN 1/2 MI ACTIVE FERRUGINOUS HAWK NEST	MAR 1 - JUL 15		
L3	1N	25E	7	NO SO ACTIVITY WTHIN 1/2 MI ACTIVE FERRUGINOUS HAWK NEST	MAR 1 - JUL I5		
L3	2N	25E	30	VRM RESTRICTIONS			
L3	2N	25E	31	VRM RESTRICTIONS			
L3	1N	25E	6	VRM RESTRICTIONS			

TABLE A3-1:
UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES FOR THE PROPOSED PLAN

PLANNING LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
L3	1N	25E	7	VRM RESTRICTIONS			
L3	1N	25E	18	VRM RESTRICTIONS			
L3	1N	25E	19	VRM RESTRICTIONS			
L3	1N	25E	30	VRM RESTRICTIONS			
L3	2N	25E	30	VRM RESTRICTIONS			
L3	4S	23E	5	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	4S	23E	6	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
L3	3S	23E	9	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	3S	23E	10	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	3S	23E	20	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	3S	23E	21	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	3S	23E	29	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	3S	23E	31	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	4S	23E	5	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	4S	23E	6	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	3S	23E	9	POTENTIAL HIGH T/E ANIMALS AVOID SD SUNSHINE BENCH			
L3	4S	23E	6	NO SD ACTIVITY W/I 1/2M FER. HAWK & 1/4M ACTIVE EAGLE NEST	MAR 1 - JUL 15		
L3	3S	23E	31	NO SD ACTIVITY W/I 1/2M FER. HAWK & 1/4M ACTIVE EAGLE NEST	MAR 1 - JUL 15		
L3	3S	20E	17	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L3	3S	20E	20	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L3	3S	20E	29	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L3	3S	20E	33	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S BYWAYS			
L3	4S	23E	7	POTENTIAL HIGH T/E ANIMALS AVOID SURFACE DISTURBANCE SHINER			
L3	4S	23E	6	NO SD W/I 1/2M FER. HAWK & 1/4M ACTIVE EAGLE NEST	MAR 1 - JUL 15		
L3	4S	23E	7	NO SD W/I 1/2M FER. HAWK & 1/4M ACTIVE EAGLE NEST	MAR 1 - JUL 15		
L3	4S	23E	18	NO SD W/I 1/2M FER. HAWK & 1/4M ACTIVE EAGLE NEST	MAR 1 - JUL 15		
L3	4S	23E	7	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			

TABLE A3-2:
UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
B	L1	2N	25E	29	POT NAT'L REGISTER SITE (BUFFER)		X	
B	L2	2N	25E	29	NO SDA RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L3	2N	25E	29	NO SDA W/IN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L1	3N	24E	21	RIPARIAN 700-FOOT BUFFER			X
B	L1	3N	24E	26	RIPARIAN 700-FOOT BUFFER		X	
B	L1	3N	24E	27	RIPARIAN 700-FOOT BUFFER		X	
B	L1	2N	24E	28	RIPARIAN 700-FOOT BUFFER		X	
B	L1	2N	24E	1	RIPARIAN 700-FOOT BUFFER		X	
B	L1	2N	25E	6	RIPARIAN 700-FOOT BUFFER		X	
B	L1	2N	25E	7	RIPARIAN 700-FOOT BUFFER		X	
B	L1	2N	24E	30	RIPARIAN 700-FOOT BUFFER		X	
B	L1	2N	25E	8	POTENTIAL NATIONAL REGISTER SITE		X	
B	L1	2N	24E	1	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED		X	
B	L1	2N	24E	6	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED		X	
B	L1	3N	25E	7	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED		X	
B	L2	3N	24E	26	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		X
B	L2	3N	24E	27	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		X
B	L2	2N	24E	28	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		X
B	L2	3N	25E	19	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		X
B	L2	3N	24E	17	PLUS 200 BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3N	24E	20	PLUS 200 BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	2N	24E	21	PLUS 200 BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3N	24E	13	PLUS 200 BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L3	3N	24E	17	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
B	L3	3N	24E	20	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
B	L3	3N	24E	21	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
B	L3	3N	24E	25	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
B	L3	3N	24E	26	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
B	L3	3N	24E	27	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
B	L3	3N	24E	28	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
B	L3	3N	24E	17	BIG HORN SHEEP HABITAT NO SPECIFIC RESTRICTION			
B	L3	3N	24E	17	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	3N	24E	20	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	3N	24E	21	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	3N	24E	22	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	3N	24E	25	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	3N	24E	26	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	3N	24E	27	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	3N	24E	28	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L2	3N	24E	17	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3N	24E	21	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3N	24E	25	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3N	24E	26	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3N	24E	27	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3N	24E	28	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	2N	24E	13	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	2N	25E	7	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	2N	25E	18	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X

TABLE A3-2 (Continued): UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
B	L2	2N	25E	19	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	2N	24E	30	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	1N	25E	20	PLUS 200'BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L1	2N	25E	30	BROWN PARK, GREEN RIVER 1/2 MI VIEW		X	
B	L1	1N	25E	6	BROWN PARK, GREEN RIVER 1/2 MI VIEW		X	
B	L1	1N	25E	7	BROWN PARK, GREEN RIVER 1/2 MI VIEW		X	
B	L1	2N	25E	30	RIPARIAN STREAMS/SPRINGS		X	
B	L1	1N	25E	6	RIPARIAN STREAMS/SPRINGS		X	
B	L1	1N	25E	7	RIPARIAN STREAMS/SPRINGS		X	
B	L1	1N	25E	7	POTENTIAL NATIONAL REGISTER SITE		X	
B	L1	1N	25E	18	POTENTIAL NATIONAL REGISTER SITE		X	
B	L2	2N	25E	30	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	1N	25E	6	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	1N	25E	7	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	1N	25E	19	PLUS 200'BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	1N	25E	30	PLUS 200'BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	2N	25E	30	VRM & BROWNS PARK RIPARIAN RESTRICTIONS			X
B	L2	2N	25E	31	VRM & BROWNS PARK RIPARIAN RESTRICTIONS			X
B	L2	1N	25E	6	VRM & BROWNS PARK RIPARIAN RESTRICTIONS			X
B	L2	1N	25E	7	VRM & BROWNS PARK RIPARIAN RESTRICTIONS			X
B	L3	1N	25E	7	BIG HORN SHEEP HABITAT NO SPECIFIC RESTRICTIONS			X
B	L3	1N	25E	17	BIG HORN SHEEP HABITAT NO SPECIFIC RESTRICTIONS			
B	L3	1N	25E	18	BIG HORN SHEEP HABITAT NO SPECIFIC RESTRICTIONS			
B	L3	1N	25E	19	BIG HORN SHEEP HABITAT NO SPECIFIC RESTRICTIONS			
B	L3	1N	25E	30	BIG HORN SHEEP HABITAT NO SPECIFIC RESTRICTIONS			
B	L3	1N	25E	6	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	1N	25E	7	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	2N	25E	30	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	1N	25E	31	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L1	2S	23E	34	RIPARIAN STREAMS/SPRINGS		X	
B	L1	2S	23E	35	RIPARIAN STREAMS/SPRINGS		X	
B	L1	3S	23E	3	RIPARIAN STREAMS/SPRINGS		X	
B	L1	2S	23E	10	RIPARIAN STREAMS/SPRINGS		X	
B	L2	2S	23E	34	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	2S	23E	35	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	3S	23E	3	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	3S	23E	10	NO SD ACTIVITIES RESULTING IN AOVERSE IMPACTS TO BIG GAME			X
B	L2	4S	23E	5	NO SD ACTIVITY RESULTING IN ADVERSE IMPACTS W/I IM ACT. NEST			X
B	L2	4S	23E	6	NO SD ACTIVITY RESULTING IN ADVERSE IMPACTS W/I IM ACT. NEST			X
B	L2	2S	23E	35	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		
B	L2	2S	23E	3	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		
B	L2	2S	23E	9	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		
B	L2	2S	23E	10	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		
B	L2	2S	23E	20	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		
B	L2	2S	23E	29	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		
B	L2	2S	23E	31	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		
B	L2	4S	23E	5	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	4S	23E	6	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	23E	20	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X

TABLE A3-2 (Continued): UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
B	L2	3S	23E	21	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
B	L2	3S	23E	29	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
B	L2	4S	23E	5	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
B	L2	4S	23E	6	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
B	L3	3S	23E	9	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L3	3S	23E	10	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L3	3S	23E	20	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L3	3S	23E	21	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L3	3S	23E	29	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L3	3S	23E	31	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L3	4S	23E	5	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L3	4S	23E	6	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEK	MAR 1 - JUN 30		
B	L2	3S	20E	17	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3S	20E	20	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3S	20E	29	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3S	20E	33	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			X
B	L2	3S	23E	17	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	23E	20	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	20E	29	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	20E	33	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	20E	17	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	20E	20	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	20E	29	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	3S	20E	33	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	4S	23E	6	NO SD ACTIVITY WITHIN IMI FER. HAWK NEST AND REST 1/2M NEST			X
B	L2	4S	23E	7	NO SD ACTIVITY WITHIN IMI FER. HAWK NEST AND REST 1/2M NEST			X
B	L2	4S	23E	18	NO SD ACTIVITY WITHIN IMI FER. HAWK NEST AND REST 1/2M NEST			X
B	L2	4S	23E	29	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		X
B	L2	4S	23E	33	PRECLUDE SD ACTIVITIES MAINTAIN OR ENHANCE WATERSHED	SPRING & FALL		X
B	L2	4S	23E	6	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	4S	23E	7	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	4S	23E	18	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	4S	23E	19	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	4S	23E	29	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	4S	23E	15	MIDDLE GREEN RIVER FLOODPLAIN BOUNDARY			X
B	L2	5S	23E	15	MIDDLE GREEN RIVER FLOODPLAIN BOUNDARY			X
B	L2	5S	23E	33	MIDDLE GREEN RIVER FLOODPLAIN BOUNDARY			X
B	L2	4S	23E	15	MIDDLE GREEN RIVER FLOODPLAIN BOUNDARY			X
B	L2	5S	23E	6	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED			X
B	L3	4S	23E	7	AVOID SD & MAINTAIN HABITAT FOR BLACK FOOTED FERRET			
B	L2	4S	23E	7	NO SD ACT RESULTING IN ADVERSE IMPACT W/I IM ACTIVE NEST	MAR 1 - JUL 15		X
B	L2	4S	23E	7	PLUS 200 BUF N/R SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L3	4S	19E	25	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	19E	26	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	20E	27	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	20E	28	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	20E	29	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	20E	30	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	20E	33	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			

TABLE A3-2 (Continued): UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
B	L3	6S	20E	34	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	19E	35	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	19E	25	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	26	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	20E	27	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	28	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	29	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	30	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	33	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	29	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	34	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	26	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	6S	19E	26	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L3	6S	19E	27	NO SURFACE DISTURBING ACTIVITIES WITHIN 6M RADIUS OF LEKS	MAR 1 - JUN 30		
B	L2	6S	21E	31	MIDDLE GREEN RIVER FLOODPLAIN BOUNDARY			X
B	L2	7S	21E	6	MIDDLE GREEN RIVER FLOODPLAIN BOUNDARY			X
B	L1	7S	21E	6	RIPARIAN 700-FOOT BUFFER		X	
B	L2	7S	21E	6	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
B	L2	6S	20E	31	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	7S	20E	6	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L3	9S	16E	1	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	16E	12	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	16E	13	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	16E	24	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	16E	25	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	17E	7	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	16E	18	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	16E	19	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L3	9S	16E	30	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
B	L2	8S	16E	13	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	14	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	24	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	25	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	1	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	12	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	13	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	7	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B	L2	8S	16E	18	PLUS 200'BUF N/R REG SITES & HI SENSITIVE ARCH & PALEO ZONES			X
B,C,D	L3	2N	25E	6	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	2N	25E	7	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	2N	25E	30	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	2N	24E	13	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	1N	25E	6	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	3S	20E	17	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	3S	20E	20	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	3S	20E	29	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B,C,D	L3	3S	20E	33	ONLY SHORT TERM/MITIGABLE INTRUSION W/I 1/2M L/O/S GR RVR			
B	L1	2N	24E	13	VRM RESTRICTIONS		X	
B	L1	2N	25E	18	VRM RESTRICTIONS		X	
B	L1	2N	24E	19	VRM RESTRICTIONS		X	

TABLE A3-2 (Continued): UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
B	L1	2N	25E	29	VRM RESTRICTIONS		X	
B	L1	2N	25E	30	VRM RESTRICTIONS		X	
B	L1	1N	25E	31	BROWN PARK, GREEN RIVER FLOODPLAIN		X	
B	L1	1N	25E	6	BROWN PARK, GREEN RIVER FLOODPLAIN		X	
B	L1	1N	25E	7	BROWN PARK, GREEN RIVER FLOODPLAIN		X	
B	L2	1N	25E	19	SEMI PRIMITIVE NON-MOTORIZED			X
B	L2	1N	25E	30	SEMI PRIMITIVE NON-MOTORIZED			X
C	L2	2N	25E	29	POTENTIAL NATIONAL REGISTER SITE 200 FOOT BUFFER		X	
C	L2	1N	25E	31	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
C	L2	1N	25E	6	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
C	L2	1N	25E	7	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		X
C,D	L3	2N	24E	1	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
C,D	L3	2N	25E	6	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
C,D	L3	2N	25E	7	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
C,D	L3	2N	25E	29	NO SD ACTIVITY WITHIN 1/4 MI ACTIVE EAGLE NEST	FEB 15 - JUN 15		
C,D	L3	4S	23E	6	NO SD ACTIVITY WITHIN 1/4 MI ACTIVE EAGLE NEST	FEB 15 - JUN 15		
C,D	L3	4S	23E	6	NO SD ACTIVITY WITHIN 1/4 MI ACTIVE EAGLE NEST	FEB 15 - JUN 15		
C,D	L3	4S	23E	7	NO SD ACTIVITY WITHIN 1/4 MI ACTIVE EAGLE NEST	FEB 15 - JUN 15		
C,D	L3	4S	23E	18	NO SD ACTIVITY WITHIN 1/4 MI ACTIVE EAGLE NEST	FEB 15 - JUN 15		
C,D	L3	4S	23E	7	NO SD ACTIVITY WITHIN 1/4 MI ACTIVE EAGLE NEST	MAR 1 - JUN 15		
C,D	L3	3N	24E	26	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
C,D	L3	3N	24E	27	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
C,D	L3	3N	24E	28	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
C,D	L3	2N	25E	19	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
C,D	L3	3N	24E	17	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
C,D	L3	3N	24E	20	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
C,D	L3	3N	24E	21	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
C,D	L3	3N	24E	25	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
C,D	L3	3N	24E	26	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
C,D	L3	3N	24E	27	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
C,D	L3	3N	24E	28	CRITICAL ANTELOPE NO SPECIFIC RESTRICTION			
C,D	L3	3N	24E	17	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3N	24E	21	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3N	24E	25	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3N	24E	26	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3N	24E	27	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3N	24E	28	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2N	24E	13	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2N	25E	7	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2N	25E	18	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2N	25E	19	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2N	24E	30	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2N	25E	30	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	1N	25E	6	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	1N	25E	7	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3N	24E	21	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	3N	24E	25	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	3N	24E	26	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	3N	24E	27	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			

TABLE A3-2 (Continued): UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
C,D	L3	3N	24E	28	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	2N	25E	1	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	2N	25E	6	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	2N	25E	7	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	2N	25E	31	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	1N	25E	6	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	1N	25E	7	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	2S	23E	34	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2S	23E	35	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3S	23E	3	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3S	23E	10	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	2S	23E	35	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	2S	23E	3	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	2S	23E	9	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	2S	23E	10	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	2S	23E	20	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	2S	23E	29	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	2S	23E	31	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	3S	23E	3	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	3S	23E	10	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	3S	20E	17	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3S	20E	20	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3S	20E	29	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	3S	20E	33	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 - APR 30		
C,D	L3	4S	23E	29	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	4S	23E	33	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	4S	23E	7	PRECLUDE SURFACE DISTURBING ACTIVITIES WHEN SOIL SATURATED	SPRING & FALL		
C,D	L3	6S	19E	25	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	26	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	27	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	28	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	29	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	30	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	33	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	34	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	6S	19E	35	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	7S	21E	6	ONLY SD ACTIVITY 300' OF RIPARIAN, NO OTHER ALT, ENHANCE RIP			
C,D	L3	9S	16E	1	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	12	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	13	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	24	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	25	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	7	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	18	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	19	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			
C,D	L3	9S	16E	30	ANTELOPE HABITAT NO SPECIAL RESTRICTIONS			

TABLE A3-2 (Continued): UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MPA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
C	L3	2N	25E	29	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME	DEC 1 -APR 30		
C	L3	3N	24E	17	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3N	24E	20	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3N	24E	21	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	2N	24E	13	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	1N	25E	20	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L2	1N	25E	7	POTENTIAL NATIONAL REGISTER SITE			X
C	L2	1N	25E	18	POTENTIAL NATIONAL REGISTER SITE			X
C	L3	1N	25E	6	RECREATION SITES SPECIAL RESTRICTIONS - REHAB			X
C	L3	1N	25E	7	RECREATION SITES SPECIAL RESTRICTIONS - REHAB			X
C	L3	1N	25E	31	RECREATION SITES SPECIAL RESTRICTIONS - REHAB			X
C	L3	1N	25E	19	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	1N	25E	30	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	2S	23E	26	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	2S	23E	34	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	2S	23E	35	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	23E	3	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	23E	9	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	23E	10	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	23E	20	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	23E	21	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	23E	29	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	23E	31	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	5	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	6	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	3S	20E	17	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3S	20E	20	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3S	20E	29	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3S	20E	33	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3S	20E	17	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3S	20E	20	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3S	20E	29	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	3S	20E	33	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	4S	23E	6	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	4S	23E	7	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	4S	23E	18	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	4S	23E	19	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	4S	23E	29	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	4S	23E	6	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	7	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	18	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	19	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	29	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	33	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	4S	23E	29	BRUSH CREEK, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAIN			
C	L3	6S	20E	31	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO ZONE			
C	L3	7S	20E	6	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO ZONE			
C	L3	8S	16E	13	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	8S	16E	24	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			

TABLE A3-2 (Continued): UTILITY CORRIDOR ROUTES OVERLAYING OTHER RESOURCE VALUES

ALT	MFA LEVEL	TWP	RGE	SEC	RESTRICTIONS	SEASON	CLOSED	NSO
C	L3	8S	16E	25	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	9S	16E	1	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	9S	16E	12	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	9S	16E	13	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	9S	16E	24	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	9S	17E	7	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	9S	17E	18	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	8S	16E	19	BIG WASH, NEW SD ACTIVITIES IF WATERSHED VALUE MAINTAINED			
C	L3	8S	16E	13	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	14	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	24	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	25	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	1	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	12	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	13	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	7	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
C	L3	8S	16E	18	NO PROTECTION BUFFERS ESTABLISHED AROUND CULTURAL/PALEO SITE			
D	L3	2N	25E	29	POTENTIAL NATIONAL REGISTER SITE			X
D	L3	2N	24E	13	VRM RESTRICTIONS			
D	L3	2N	25E	18	VRM RESTRICTIONS			
D	L3	2N	24E	19	VRM RESTRICTIONS			
D	L3	2N	25E	29	VRM RESTRICTIONS			
D	L3	2N	25E	30	VRM RESTRICTIONS			
D	L3	1N	25E	31	PRECLUOE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
D	L3	1N	25E	6	PRECLUOE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
D	L3	1N	25E	7	PRECLUOE SURFACE DISTURBING ACTIVITIES WHEN SOILS SATURATED	SPRING & FALL		
D	L3	2N	25E	30	VRM RESTRICTIONS			
D	L3	1N	25E	6	VRM RESTRICTIONS			
D	L3	1N	25E	7	VRM RESTRICTIONS			
D	L3	1N	25E	7	MITIGATE - GO AROUNO OR SALVAGE			
D	L3	1N	25E	18	MITIGATE - GO AROUNO OR SALVAGE			
D	L3	1N	25E	6	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	25E	7	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	25E	18	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	25E	19	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	25E	30	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	24E	25	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	24E	35	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	24E	36	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			
D	L3	1N	24E	25	NO SD ACTIVITIES RESULTING IN ADVERSE IMPACTS TO BIG GAME			

TABLE A3-3
ISOLATED TRACTS WHICH COULD BE CONSIDERED FOR SALE OR EXCHANGE UNDER THE PROPOSED PLAN

PLANNING LEVEL	TWP	RGE	SEC	ALIQUOT	ACRES	RESOURCE CONFLICTS
L4	3N	20E	22	S2SE	80	
L4	1N	23E	12	LOT 4	40	
L4	1N	24E	6	LOT 1	40	
L4	1N	23E	8	SESW	40	
L3	1N	23E	23	SESW, SWSE	80	C.WSHD
L3	1N	23E	24	NWNW	40	C.WSHD
L3	1N	23E	26	LOT 1, NENW, N2NE	160	C.WSHD, LEK2
L3	1N	23E	27	E2NE	80	C.WSHD, LEK2
L4	2S	25E	1	LOT 1,2,5	87	
L3	4S	21E	4	SWSE	40	ARCH, DEW,PALEO
L3	4S	21E	30	LOT 3,4 NENENW, NWNE, E2SW	170	ARCH.HI,H.SALT
L3	4S	21E	31	SE	160	ARCH.HI
L3	5S	19E	1	S2SWSE	20	O/S WDL
L4	5S	19E	11	NENW	40	O/S WDL
L4	5S	19E	12	E2W2, NENE, S2NE	200	O/S WDL
L3	5S	22E	25	NWNWNW, NWNWNW, W2SENW	65	H.SALT
L3	5S	22E	26	NE, E2NW, NWNW	280	H.SALT
L3	5S	22E	27	NENE	40	H.SALT
L4	7S	19E	1	LOT 2-4, SESW, SWSE	80	O/S WDL
L4	7S	20E	15	NWNE	40	O/S WDL
L3	7S	20E	33	SENW, NESW, NWSE	120	O/S WDL, H.SALT
L3	10S	11E	33	LOT 1	1	O/S WDL
L3	10S	11E	34	LOT 1,2	4	O/S WDL
L3	10S	11E	35	LOT 1-5, SWNE, SESW, SE	394	O/S WDL, VRM2
L3	11S	11E	8	LOT 1,3,4	80	O/S WDL
L3	11S	11E	9	LOT 1-5	220	O/S WDL, VRM2
L3	11S	10E	10	LOT 1-4	50	O/S WDL
L3	11S	10E	11	LOT 4	17	O/S WDL, VRM
L3	11S	10E	20	NWNE, N2NE	120	O/S WDL, VRM2
L3	11S	10E	29	W2NW, SW	240	O/S WDL, VRM2
L3	11S	10E	30	NENE, S2NE, SE	280	O/S WDL, VRM2
L3	11S	10E	31	N2NE, SWNE	120	O/S WDL
L3	11S	10E	33	N2NW, SWNW	120	O/S WDL, VRM2
L3	11S	10E	34	LOT 1	36	O/S WDL, VRM2
L3	11S	10E	11	NE	160	O/S WDL, VRM2
L3	11S	11E	12	SWNW	40	O/S WDL
L3	11S	12E	19	NWNE, NENW	70	O/S WDL, VRM
L3	11S	12E	21	NWSW	40	O/S WDL
L3	11S	13E	29	SWSW	40	O/S WDL
L3	11S	13E	30	LOT 4, SESW, SESE	120	O/S WDL
L3	11S	13E	31	LOT 4, N2NE, SESW	160	O/S WDL
L3	11S	13E	33	SW, SWSE	200	O/S WDL

TABLE A3-4:
COMMUNITY EXPANSION TRACTS WHICH COULD BE CONSIDERED FOR SALE OR EXCHANGE UNDER THE PROPOSED PLAN

PLANNING LEVEL	TWP	RGE	SEC	ALIQUOT	ACRES	RESOURCE CONFLICTS
L3	3S	20E	25	LOT 1-4, NENE, NWNW, S2NW, W2SW, E2SE	453	ARCH.HI, WSHD, DEW.CR, PALEO
L3	3S	20E	26	ALL	640	ARCH.HI, WSHD, DEW.CR, PALEO
L3	3S	20E	27	ALL	640	ARCH.HI, WSHD, DEW.CR, PALEO
L3	3S	20E	33	LOT 1-7, N2, N2SE	600	ARCH.HI, DEW.CR
L3	3S	20E	34	ALL	640	ARCH.HI, DEW.CR, PALEO
L3	3S	20E	35	ALL	640	ARCH.HI, DEW.CR, PALEO
L3	3S	21E	30	LOT 1,4,5,12	80	ARCH.HI, DEW.CR, PALEO, VRM2
L3	3S	21E	31	LOT 1-4, SWNE, E2W2, W2SE, SESE	480	ARCH.HI, DEW.CR, PALEO, VRM2
L3	4S	21E	6	LOT 1-7, S2NE, SENW, E2SW, NWSE	514	ARCH.HI, DEW.CR, PALEO, VRM2
L3	4S	20E	1	LOT 1-4, S2N2, SW, N2SE, SESE	600	ARCH.HI, DEW.CR, PALEO
L3	4S	20E	4	ALL	640	ARCH.HI, DEW.CR
L3	4S	20E	8	ALL	640	ARCH.HI, DEW.CR
L3	4S	20E	9	ALL	640	ARCH.HI, DEW.CR, H.SALT
L3	4S	20E	10	ALL	640	ARCH.HI, DEW.CR, H.SALT
L3	4S	20E	11	LOT 3,4,5,6 E2NE, SWNW, W2SW, SE	428	ARCH.HI, DEW.CR, H.SALT
L3	4S	20E	12	NENW, W2S2, W2E2SENW, W2E2NESW, SWSW	240	ARCH.HI, DEW.CR, PALEO
L3	4S	22E	3	ALL	640	H.SALT
L3	4S	22E	4	ALL	640	H.SALT
L3	4S	22E	5	ALL	640	H.SALT
L3	4S	22E	6	ALL	640	H.SALT
L3	4S	22E	7	LOT 1,7 NE, NENW, NESW, N2SE	440	H.SALT
L3	4S	22E	8	ALL	640	H.SALT
L3	4S	22E	9	ALL	640	H.SALT, HI.FER
L3	4S	22E	11	ALL	640	C.WSHD, H.SALT
L3	4S	22E	14	ALL	640	C.WSHD, H.SALT
L3	4S	22E	17	E2, N2NW	440	H.SALT
L3	4S	22E	21	ALL	640	H.SALT, HI.FER
L3	4S	22E	22	ALL	640	H.SALT, HI.FER
L3	4S	22E	27	ALL	640	H.SALT, HI.FER
L3	4S	22E	28	N2, N2S2	520	H.SALT, HI.FER
L3	4S	22E	34	NE, E2NW, SE	400	H.SALT, HI.FER
L3	5S	22E	1	ALL	640	C.WSHD, HI.FER, H.SALT
L3	5S	22E	3	LOT 1,2, S2NE, N2SE, SESE	280	H.SALT, HI.FER
L3	5S	22E	10	E2NE	80	H.SALT
L3	5S	22E	11	N2, E2SW, SE	560	H.SALT, HI.FER
L3	5S	22E	12	ALL	640	H.SALT, HI.FER

APPENDIX 4

MINERALS PROGRAM MANAGEMENT

CONTENTS:

Competitive Oil and Gas Leasing

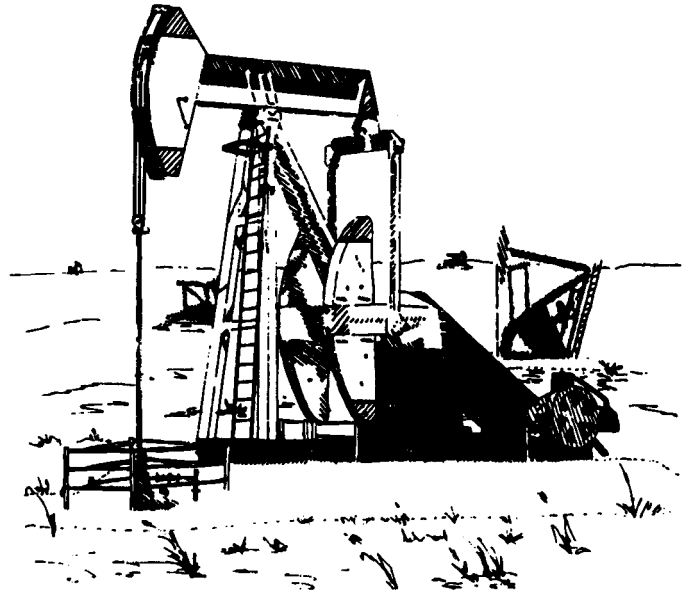
Oil and Gas Operations

Occurrence of Oil and Gas Resources

Reasonable Foreseeable Development

Existing Leasing Stipulations and Guidance

Proposed Leasing Stipulations and Guidance



COMPETITIVE OIL AND GAS LEASING

The exploration for and the development of oil and gas resources is commonly accomplished through the following stages: geophysical exploration, competitive leasing, exploration or production drilling, and development. Oil and gas operations used in oil and gas exploration or production are discussed in the next section of this Appendix.

The first stage of exploration involves the use of geophysical methods to locate accumulations of oil and gas in the subsurface. Common geophysical methods used in locating hydrocarbon traps include seismic, gravity, and magnetic methods. Surface geophysical surveys, such as seismic, gravity, or magnetic surveys, may be conducted over leased or unleased Federal lands when and where permissible. Companies, prior to initiating any geophysical exploration activities on BLM administered lands, are required to submit a notice of intent to conduct such operations to the BLM Vernal District Office.

The second stage of exploration involves acquiring an oil and gas lease from the BLM. The Federal Onshore Oil and Gas Leasing Reform Act of 1987 (FOOGLRA) defines the requirements for all oil and gas lease sales. FOOGLRA requires all lands eligible for leasing to first be offered to the public through a competitive oil and gas lease sale. The BLM's Utah State Office holds such oil and gas lease sales quarterly. The tracts of land available in a quarterly competitive oil and gas lease sale are posted in the BLM's Vernal District BLM Office, as well as, the Utah State Office 45 days prior to the sale. All tracts of land offered in the oil and gas lease sales are determined by the BLM Utah State Office. Tracts may be nominated by the public for consideration by BLM. The tracts of land to be leased are to be as compact as possible, but no larger than 2,560 acres. Competitive leases are valid for a period of five years. Lease stipulations are defined by the BLM and are documented in the appropriate land use documents. Examples of the principle lease stipulations (Rocky Mountain Regional Coordinating Committee, 1989) include: no surface occupancy stipulation (NSO), timing limitation stipulations, or controlled surface use stipulations.

Following a lease sale, those tracts of land which were offered, but not leased become available non-competitively over the counter for a two year period. Such non-competitive leases, once acquired, are valid for a ten year period. Those lands which are not leased after this two year period shall again become available for oil and gas leasing through the quarterly competitive oil and gas leasing procedure.

A different leasing process occurs for oil and gas resources located on lands rich in tar sands. A tar sand deposit is defined as one in which the hydrocarbon is highly viscous or immobile (viscosity> 10,000 centipoise) and the API gravity is less than 10 (Kuuskraa et al., 1987). Hydrocarbons from tar sands are not recoverable by conventional means and are recovered either using conventional mining methods or steam injection methods. At the request of the U.S. Congress in the early 1980s, the Minerals Management Service designated rich tar sand areas in the United States as Special Tar Sand Areas (STSAs). The following four STSAs occur in the Diamond Mountain Resource Area: Asphalt Ridge/Whiterocks STSA, Pariette STSA, Argyle/Willow Creek STSA, and Sunnyside STSA (north portion).

Oil and gas resources that lie within Special Tar Sand Areas (STSAs) must be leased following the requirements of the Combined Hydrocarbon Leasing Act of 1981. Presently, one combined hydrocarbon lease exists in each of the following STSAs: Asphalt Ridge/Whiterocks STSA, Pariette STSA, and Sunnyside STSA (North portion). The Combined Hydrocarbon Leasing Act of 1981 allows for combined rights for both tar sands and oil and gas under the conditions of the same lease. The Act basically has three major provisions: 1) the term "oil" in the Act refers not only to oil and gas, but also to tar sands, 2) the Act creates a new lease called a "combined hydrocarbon lease", and 3) the Act allowed for a valid tar sand mining claim or an oil and gas lease within an STSA to be converted to a combined hydrocarbon lease for up to two years following the enactment of the Act. All the combined hydrocarbon leases in the Diamond Mountain Resource have been formed by the conversion of valid oil and gas leases or tar sand mining claims. Oil and gas leases outside the STSA issued after 1981 carry rights to explore for and develop tar sands.

Finally, after acquiring an oil and gas lease, most companies begin exploration, production or development drilling to either explore for new oil and gas accumulations or to define the limits of already discovered oil and gas pools. Oil and gas operations associated with such drilling and production of oil and gas resources is discussed in the next section.

OIL AND GAS OPERATIONS

Oil and gas operations within the Diamond Mountain Resource Area may be divided into four different phases: (1) preliminary investigations/geophysical exploration, (2) exploration and development drilling, (3) production of the oil and gas resource, and (4) plugging and abandonment (see Figure A4-1).

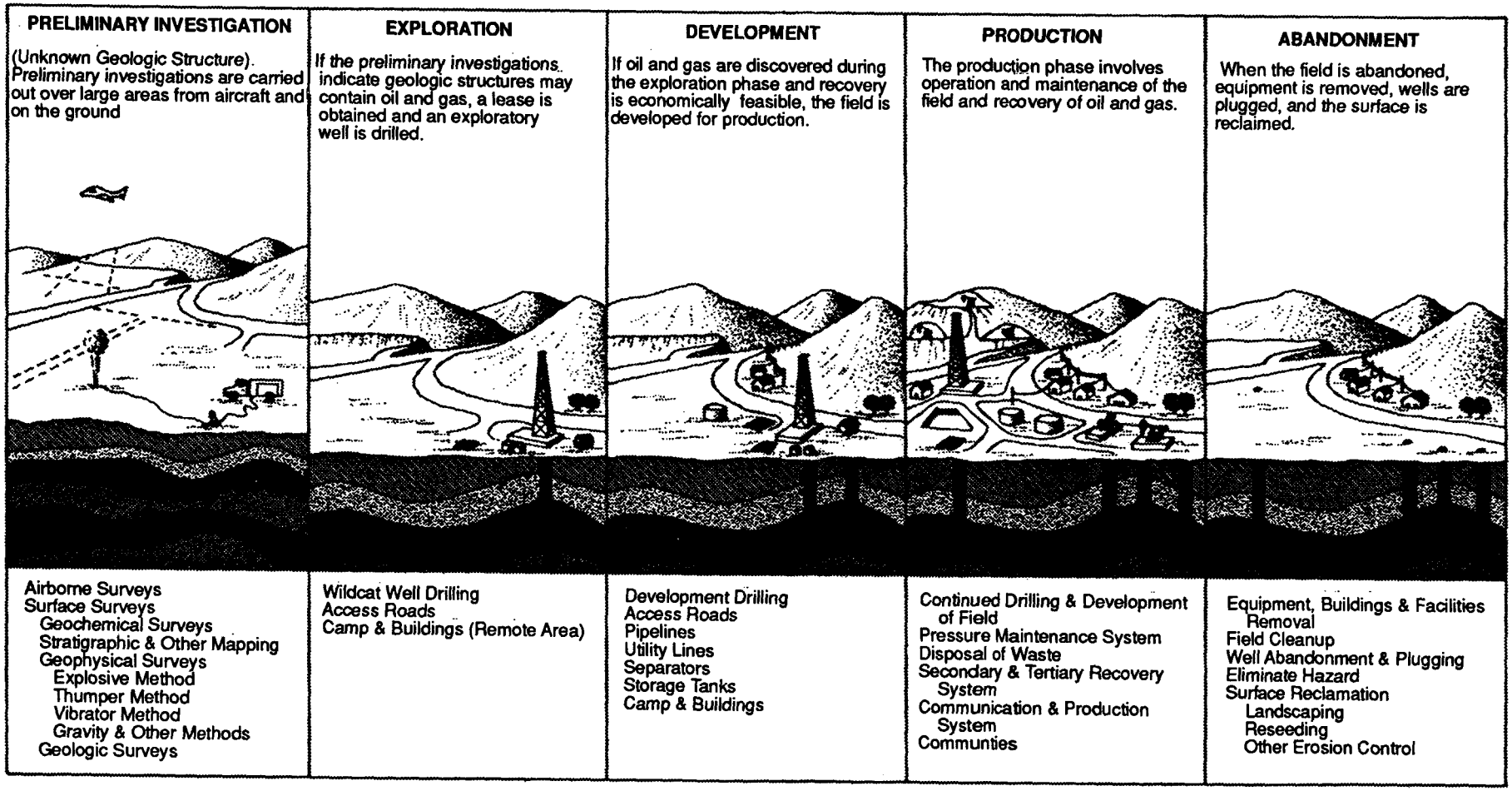


FIGURE A4-1
PHASES OF OIL AND GAS OPERATIONS
(SOURCE: BLM, 1988b)

The minimum requirements for the permitting, drilling, and production of oil and gas wells on Federal mineral estate administered by the Bureau of Land Management (BLM) are outlined in Onshore Oil and Gas Orders (OGOO) issued by the BLM.

The BLM, in conjunction with the U.S. Forest Service, outlines oil and gas surface operating standards in the following brochure: "Oil and Gas Surface Operating Standards for Oil and Gas Exploration and Development, (1989)".

An "Operator Packet" is available to all oil and gas operators in the Vernal District. The packet contains information and forms needed to complete submissions for permitting, drilling, completion, production, and/or plugging of an oil or gas well. Also, included are copies of the Onshore Oil and Gas Orders and BLM/USFS oil and gas operating brochure.

GEOPHYSICAL EXPLORATION AND OPERATIONS PHASE

Upon approval of a permit, geophysical operations may be conducted by bonded geophysical operators on BLM surface lands regardless of whether the mineral estate is leased or unleased. Prior to conducting any operations on BLM administered surface estate, the operator must contact the BLM.

A Notice to conduct geophysical operations on surface lands administered by the BLM in the Diamond Mountain Resource Area is submitted to the Resource Area Office. The minimization of any adverse impacts to the lands administered by the BLM is accomplished by close cooperation and coordination between the geophysical operator and the BLM.

A Notice of intent to conduct oil and gas exploration operations is required to be filed by an operator for all geophysical activities on surface lands administered by the BLM. The Notice of Intent should include, but is not limited to: maps showing geophysical seismic line locations, access routes, anticipated surface damages, proposed time frames for the operations, and ancillary facilities. The geophysical operator must be bonded.

Special clearances for cultural resources, threatened and endangered species, or other critical environmental concerns are required when determined to be necessary by the BLM prior to initiating geophysical activities.

Written approval for the proposed operations is required from the BLM prior to any surface disturbing activities. The operator is additionally required to comply with any written instructions and orders given by the BLM Authorized Officer at prework field conferences, site inspections, and subsequent field inspections. Periodic checks during and upon completion of the operation are conducted to ensure the compliance with the terms of the approved Notice of Intent.

A Notice of completion of oil and gas exploration operations is required upon completion of the geophysical operations following any required rehabilitation of surface lands.

State or local requirements may also exist for geophysical operations. It is the operator's responsibility to be aware of all such requirements.

TYPES OF GEOPHYSICAL EXPLORATION

There are numerous types of geophysical exploration surveys. Some typical surveys are: seismic reflection, seismic refraction, gravity, magnetic, and electrical surveys. Generally, the most common types of geophysical surveys run are seismic reflection and gravity methods.

Seismic Methods (Reflection)

This method, the most widely used geophysical survey, is used to discover the geologic structure (faults, folds, etc.) of subsurface formations. Many of these geologic structures may be associated with oil and/or gas accumulations. The reflection method best provides a structural picture of the subsurface geology comparable to that of drilling numerous, closely spaced wells.

The seismic reflection method begins by measuring the times required for seismic waves (or pulses), generated in the earth by a near-surface explosion of dynamite, mechanical impact, or vibration, to return to the surface after reflection from interfaces between rock formations having different properties. The reflections are recorded by detection instruments (geophones) responsive to ground motion. The geophones are laid along the ground, usually in a straight line, at distances from the shot point from which the seismic wave was generated. The geophones are connected by wiring to a recording truck where the seismic data is stored digitally on magnetic tape for later processing.

Gravity Methods

In gravity methods, minute variations in the pull of gravity from rocks within the first few miles of the earth's surface are recorded/measured. Different types of rocks have different densities with the denser rocks having the

greater gravitational attraction. Such minute variations are measured by an instrument called a gravimeter. For a surface gravity survey, numerous measurements are taken along a straight line with the gravimeter. The gravimeter may be transported by backpack, helicopter, or off highway vehicle (OHV). Gravity surveys may also be conducted from the air. Surface disturbance associated with gravity methods is minimal. Disturbance may occur if OHV use is permitted for the purpose of conducting the gravity survey.

The Reasonable Foreseeable Development section of this Appendix outlines the amount of geophysical activity in the Diamond Mountain Resource Area over the next 15 years.

DRILLING PHASE

Permitting Process

An operator must have an approval from the BLM prior to drilling a well on Federal mineral estate regardless of the surface ownership (See Onshore Oil & Gas Order #1 "Approval of Operations on Onshore Federal and Indian Oil and Gas Leases). The BLM also approves wells drilled on leased Indian tribal or allotted mineral land, except Osage, but does not issue the Indian leases. It is the responsibility of the lessee or operator to obtain an agreement for access and damages with the owner of privately owned surface lands.

Upon acquisition of a Federal oil and gas lease, the lessee or operator selects a drill site based on several factors which may include: spacing requirements, subsurface geology, geophysics, topography, and/or economic factors. To the extent permitted by the targeted geologic formation, the location selected (for the well site, tank battery, pits, pumping stations, etc.) should be planned so as to minimize any adverse impacts, if possible, to other surface resources. Design and construction techniques and other practices should be employed that would minimize the surface disturbance and subsequent effects on other resources.

After a drill site has been selected, two procedural options are available to the lessee or operator for securing the approval to drill: (1) Notice of Staking (NOS) or (2) Application for Permit to Drill (APD).

Notice of Staking (NOS)

Prior to filing a complete Application for Permit to Drill (APD), the lessee or operator may file a NOS with the authorized officer of the BLM. The information within the NOS will aid in identifying any need for associated rights-of-way and special use permits. The NOS system, if properly coordinated from the beginning, may expedite a final permit approval. Upon receipt of the NOS, the BLM has 15 days to schedule an on-site predrill conference. After the onsite predrill conference, the operator must submit an APD that contains the surface mitigation measures discussed and accepted at the predrill conference. Upon receipt of the APD, the BLM is mandated by Onshore Oil & Gas Order #1 and the Federal regulations to process the APD within 10 days.

Application for Permit to Drill (APD)

Whether or not an NOS is filed, the lessee or operator must file an APD. Within 7 days of receipt of the APD, the BLM shall advise the lessee or operator of its receipt and its completeness. If an operator uses the APD option, the BLM is mandated by Onshore Oil & Gas Order #1 and the Federal regulations to process the APD within 30 days of receipt of the APD provided that the APD is technically and administratively complete.

An APD consists of two main parts: (1) a 13-point surface plan which outlines all proposed surface disturbance and use, and (2) an 8-point drilling plan which outlines the proposed drilling program. Both the 13- and 8-point plans are reviewed by BLM specialists for their adequacy. The 13-point surface plan is reviewed by BLM resource specialists, while the 8-point plan is reviewed by BLM petroleum engineers, geologists, and hydrologists for technical adequacy.

Special clearances for cultural resources, threatened and endangered species, or other critical environmental concerns are required when determined to be necessary by the BLM.

An onsite predrill conference is scheduled and conducted by the appropriate BLM office within 15 days of receipt of the APD. The purpose of the onsite conference is to identify any problems and potential environmental impacts associated with the proposal by the lessee or operator and acceptable mitigation measures.

Prior to the predrill conference, the well location and proposed access roads to be constructed should be staked and flagged. Staking includes the well location, two 200 foot directional reference stakes, the exterior dimensions of the drill pad, reserve pit, other areas of surface disturbance, cuts and fills, and centerline flagging of new roads with road stakes being visible from one to the next.

Access roads and pipelines located on BLM managed surface outside of the leasehold, unitized, or communitized area require a right-of-way. The NOS or

APD is acceptable as a right-of-way application for these offlease facilities if the application details the entire development proposal.

Bonding is required for oil and gas lease operations in order to protect the United States government against any losses associated with a failure to meet royalty obligations, abandon boreholes, and/or surface restoration and cleanup of abandoned boreholes.

Drilling Procedures

Surface Procedures

Upon receipt of an approved APD from the BLM, the lessee or operator may begin construction activities, such as, construction of the access road, well site (drilling pad and mud pits) and other authorized surface actions. All construction must conform to the surface use plan of operations in the APD. Typically, the construction phase can last up to four days in length.

Minimum guidelines have been developed for the construction of access roads and well sites ("Oil and Gas Surface Operating Standards for Oil and Gas Exploration and Development", 1989; Onshore Oil and Gas Order #1: "Approval of Operations on Onshore Federal and Indian Oil and Gas Leases").

If the well site is carefully chosen in relation to pre-existing roads and trails, a minimum amount of access road construction would be necessary. The shortest feasible route, in conjunction with existing roads and trails, is usually chosen to minimize construction costs, as well as, hauling distances. If authorized in the APD, the lessee or operator may improve existing roads and/or trails (with dozers, scrapers, and graders), as well as, install culverts or cattle guards during construction of the access road.

Following the construction of the access road, the construction of the wellsite usually begins. The construction of the well site includes the construction of the well pad and drilling mud reserve pits. Generally, all the surface soil materials are removed from the entire cut and fill area and stockpiled. The area of the well pad that supports the drilling rig substructure should be level and capable of supporting the rig. The drilling rig, tanks, heater-treater, or other exploration/production equipment should not be placed on uncompacted fill material.

The drilling mud reserve pits are used for the drilling mud, cuttings, and the storage or disposal of produced water which are associated with drilling and completion operations. It may be necessary to line the drilling mud reserve pits to prevent the contamination of the surface and ground water. Bentonite, plastic, or other types of synthetic liners are most commonly used as lining material. In some environmentally sensitive areas, a self-contained drilling mud circulation system may be required. The fencing of reserve pits is required to prevent access by persons, wildlife, or livestock once drilling operation have ceased.

Water used during drilling operations is either hauled or piped from rivers, streams, reservoirs or private sources to the storage tanks or drilling mud reserve pits. Less commonly, water wells are drilled adjacent to the oil and gas exploratory or development well.

Drilling commences upon completion of the construction of the access road and drill site. Drilling and abandonment operations of dry holes on Federal and Indian lands must meet the minimum national standards devised by the BLM in Onshore Oil & Gas Order #2: "Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Drilling Operations".

Drilling operations are continuous operations, 24 hours a day, 7 days a week. Crews working onsite usually work either 8 or 12 hour shifts. The time needed for drilling depends upon the depth of the well. For shallow wells in the Myton Bench region, a well may be drilled in 8 to 10 days, while a deep well drilled in the Altamont area could take up to 60 days to drill. During drilling operations, the drill hole, or wellbore, must be stabilized to prevent contamination to fresh water aquifers, lost circulation, and hole sloughing. This is accomplished through the use of an appropriate drilling mud and casing strings (or pipe). Typically, two or more strings of casing are set in the wellbore, sometimes starting with conductor pipe. Thereafter, successively smaller diameter casing is set in the wellbore. The casing must be designed to meet the physical demands imposed upon the pipe by the formation.

During the course of the drilling operations, the BLM Petroleum Engineering Technicians (PETs) will conduct inspections of the drilling rig and general operations to ensure compliance with the Federal Onshore Orders and approved plans of operation in the approved APD.

When the total depth of the drill hole is reached, geophysical logs are run to determine primarily: (1) the depth to potential productive horizons, (2) oil and/or gas indications from the logs, (3) the presence of water and/or other valuable minerals which are required by the BLM to be isolated and protected, and (4) the physical characteristics of the drilled hole (shape). The importance of obtaining good quality logs cannot be overstated. Such logs are important, not only in successfully completing a

well, but also in successfully plugging and abandoning a well. After running logs, a lessee or operator may run tests, such as drill stem tests, on the productive formation objective to determine whether or not it has the potential to yield commercial quantities of oil and/or gas. If oil and/or gas is found in commercial quantities, the well is completed either as an oil or gas "producing well".

PRODUCTION PHASE

Primary Recovery

Once a well has been determined to be capable of a "producing oil or gas well", it may be prepared to be able to produce in several different ways. The most common type of completion consists of setting a "long or production string" of casing through the productive formation and cementing it into place. A perforating gun then fires "shots" creating perforations through the casing and cement sheath into the productive formation.

Wells may also be treated to improve the recovery of oil and/or gas resources from the reservoir. Such processes are known as well stimulation treatments and include fracturing, acidizing, and other chemical treatments.

Fracturing is a process that uses high pressure pumps to develop fluid pressure at the perforations in the well sufficient enough to actually break down or separate the rock formation. This makes it possible to introduce fluids carrying various materials to keep open newly created fractures. Typically, these materials are either sand granules or glass beads.

Acidizing is a process of cleaning the formation face and fractures to better allow fluids to enter into the wellbore. A lessee or operator does not need authorization to conduct routine well stimulation treatments on an active Federal oil and gas lease.

Each oil or gas well has a wellhead (the equipment used to maintain control of the well at the surface). Wells expected to have high pressures are equipped with a group of special valves which control the flow of oil and/or gas from the well. Because of its shape, it is called a Christmas tree. Low pressure wells are equipped with less elaborate types of wellheads.

Oil producing wells normally require the following equipment: pumpjack or other type of lifting device, separators, stock tanks, crude oil sales lines, heat treating facilities, produced water facilities, and/or emergency pit.

Gas producing wells normally require the following equipment: separator (if oil or condensate is recovered with the produced gas), meter house, and gathering line or marketing (sales) line to transport the gas to their markets. In some cases a compressor station is required so as to be able to compress the produced gas into a pipeline.

Any off-lease production equipment located on BLM managed surface estate would require a right-of-way. An APD is acceptable as a right-of-way application for offlease production equipment or facilities.

Special problems that may occur during the production of oil and/or gas resources include the following: corrosion, water disposal, paraffin/wax problems, and sour crude.

Enhanced or Secondary Recovery

While gas recovery is fairly high from gas reservoirs (85-90%), significant quantities of oil may remain in the producing formation in oil reservoirs once primary recovery is complete.

Enhanced or secondary recovery describes all efforts to increase the production of oil and/or gas from a reservoir and includes such techniques as water injection, gas injection, and thermal processes. Typically these types of operations are associated with secondary recovery units formed and approved prior to initiating any enhanced or secondary recovery operations or through the normal development of an exploration unit.

* Water injection is the most widely applied enhanced recovery technique and involves the injection of water into the oil producing reservoir. Based on reservoir engineering studies, wells are chosen as injection wells, or if necessary drilled. Water injected into these wells pushes any remaining oil to the producing wells.

* Gas injection has been an important part of oil producing operations. Gas injection involves returning part or all of the produced gas back into the oil producing reservoir.

* Thermal recovery techniques involve the injection of heated water or steam into the oil producing reservoir. The processes are designed to improve the flow characteristics of the oil.

PLUGGING AND ABANDONMENT PHASE

When a well is no longer capable of producing oil and/or gas resources in commercial quantities the well is plugged and abandoned or converted to a disposal or injection well. Approval needs to be obtained prior to the commencement of abandonment. All formations bearing usable-quality water (total dissolved solids < 10,000 parts per million), oil, gas, and/or other prospectively valuable deposits of minerals are isolated and/or protected. Protection means that cement plugs are placed in the wellbore at least 50 feet below the bottom to 50 feet above the top of the zone to be isolated and/or protected. Such plugs are designed to (1) prevent fluid migration between zones, (2) isolate oil and/or gas producing horizons, and (3) protect other mineral resources from damage. The plugging and abandonment operations normally take several days to accomplish by the lessee or operator.

Following the plugging of the well, the lessee or operator reclaims the surface as specified by the APD or surface owner's agreement. Upon completion of all lease-hold abandonment and reclamation activities, the operator is to notify the authorized officer with the BLM.

ASSOCIATED HAZARDS/IMPACTS

Hazards imposed by the "drilling environment" or impacts which occur to the environment may occur anytime during the drilling phase, the production phase, or the plugging and abandonment phase of a well in the DMRA. Such impacts to the environment may include, but are not limited to: 1) contamination of groundwater or subsurface mineral resources; 2) contamination of air resources by atmospheric venting or flaring of natural gases; or 3) contamination of surface and/or subsurface resources due to a well blowout.

The 8-point plan (discussed under Application for Permit to Drill) requires an operator to identify any expected abnormal pressures, temperatures, or potential hazards, such as hydrogen sulphide, expected to be encountered during drilling along with contingency plans for mitigating such identified hazards. Even if not identified in a submitted APD, BLM petroleum engineers, geologists, and hydrologists review the proposal for any anticipated hazards based upon data collected from other wells drilled in the vicinity. If BLM specialists feel that one or more of the hazards identified above may be encountered while drilling the well, appropriate mitigating measures are developed and proposed to be incorporated as conditions of approval.

Groundwater and Subsurface Mineral Contamination

Groundwater and subsurface mineral resource contamination may occur by the introduction of drilling fluids, produced water (saline), or oil and gas under the following conditions:

Loss of Circulation

Most wells are drilled with a drilling fluid (mainly bentonitic clay mixed with water) in order to: cool the bit, reduce the drag of the drill pipe on the sides of the bore hole, seal off any porous zones in the formation, aid in preventing an uncontrolled release of formation fluids, and carry the cuttings to the surface. Drilling muds may not contain any hazardous materials.

Should fractures or caverns be encountered in formations while drilling, it is possible that all or part of the drilling fluids in the wellbore may be lost into such permeable zones. The operator generally must halt the loss of the drilling fluids (usually by the introduction of lost circulation materials, such as walnut hulls) and restore circulation before drilling is resumed. Although hydrologic characteristics vary from site to site, the impacts will depend on such factors as hydraulic gradients in the aquifer, grain size of the aquifer, and volume of flow of drilling fluids. Generally, impacts will be minor.

Fracturing/Rupturing of Casing Strings and Production Tubing

Fresh groundwater may be subject to contamination by hydrocarbons and produced water if a discovery is made that both the 9 5/8 inch, 5 1/2 inch diameter steel casing strings, and enclosing cement have ruptured at some point in the aquifer. The probability of such an occurrence is believed to be very remote and not pose significant impacts to the environment. However, the possibility of leakage of hydrocarbons from a producing well or under a production test cannot be totally ruled out and the impact of such an occurrence could be significant.

Cementing or Casing Inadequate

If casing strings are not set and cemented properly to protect groundwater or subsurface mineral resources, any one of the following may occur:

* contamination of groundwater resources

* contamination of subsurface mineral resources
* fluid migration between zones
* producing zones would not be isolated

Casing and cementing programs are outlined to the BLM in Applications for Permit to Drill (APD). BLM petroleum engineers, geologists, and hydrologists review all such cementing and casing programs for their adequacy to protect and/or isolate groundwater aquifers and subsurface mineral resources. Should it come to the attention of BLM that casing strings and cementing programs are inadequate to protect and/or isolate either the groundwater aquifers or mineral resources, BLM will require the operator to correct the situation through conditions of approval.

Similarly, upon depletion of a producing well, the operator submits a proposed plugging and abandonment procedure to BLM for approval. BLM petroleum engineers, geologists, and hydrologists review the proposal for its adequacy to protect and/or isolate groundwater aquifers and subsurface mineral resources. Should it come to the attention of BLM that the proposal is inadequate, BLM will require the operator to correct the situation through conditions of approval.

Groundwater Contamination Due to Underground Injection/Disposal

A producing well in the DMRA typically produces gas, oil, and water. The water associated with the production of hydrocarbons is typically saline. Such waters must be disposed of either in on-site disposal pits, state approved surface disposal pits, or by disposal into the subsurface. In areas where secondary recovery processes are in place, the produced water is injected into the formation it came from.

Groundwater contamination may occur by the introduction of saline or produced water during injection or disposal of produced saline water into a designated formation. The potential for inadvertent leakage from the injection well into fresh groundwater aquifers through a break in the casing is a possibility; however, unlikely. The leakage of small quantities of saline water would be quickly diluted under normal hydrodynamic conditions and impacts would be minor and short to long term. The leakage of large quantities of saline water could have significant negative impacts to fresh groundwater aquifers. If such a situation should be discovered, the BLM would work with the State of Utah as well as the Environmental Protection Agency to correct the situation to minimize the impacts to the environment.

Blowouts

Over the past 10 years, there have been 2 blowouts from wells adjacent to the Federal mineral estate within the DMRA. One occurred during drilling operations and the other occurred several years after the well had been placed on production and from another geologic horizon. Studies were completed in these areas and mitigating measures were developed to be incorporated with approved APD's.

Should a well blow out while drilling, this could either be a subsurface or surface blowout. Impacts associated with a subsurface blowout would be possible contamination of fresh water aquifers and/or other mineral resources dependent upon the depth at which the blowout would occur. Impacts from a surface blowout would vary, but could possibly impact air quality, perennial water, property, or any other site specific surface resources.

Given the number of blowouts within or adjacent to the resource area within the past 10 years, it is determined that the impacts due to blowouts would be minimal or non-existent throughout the life of this plan.

Venting/Flaring

During initial well evaluation testing, the operator has the authority to vent or flare gas for a period not exceeding 30 days or 50 MMCF, whichever occurs first, unless a longer test period has been approved by the authorized officer. To continue venting or flaring gas from oil wells, the operator must submit an application for approval to vent or flare gas beyond the initial testing period. This application must be supported with engineering, geologic, and economic data which shows that the gas is uneconomic to gather and would result in the premature abandonment of recoverable oil reserves. This application could also be in the form of a plan that would eliminate the venting or flaring of gas within 1 year from the date of application.

For gas wells, venting or flaring may not occur except during initial well tests, well purging or evaluation tests, routine or special well tests, emergencies, or in cases of unavoidably lost production.

Impacts from venting or flaring the produced natural gas would be to air quality and, in the event of flaring, possibly being able to see the flare at night. In most cases, the wells are not flared except where large amounts of gas are being produced during well tests or if the gas was "sour" (H_2S). Therefore, it is determined that the impacts due to flaring at night is minimal or non-existent throughout the life of this plan. The impact to air

quality will be monitored by the State of Utah throughout the life of this plan.

OCCURRENCE OF OIL AND GAS RESOURCES

The occurrence of oil and gas resources in the Diamond Mountain Resource Area may be described by:

1. The presence of reservoir rocks, oil and gas traps, and source rocks and

2. The grouping of fields and prospects into "plays" having similar reservoirs, traps, source rocks, and geologic histories.

Known oil and gas fields which occur in the DMRA are oulined in Table A4-1.

RESERVOIR ROCKS, OIL & GAS TRAPS, AND SOURCE ROCKS

Elements which are common to all oil and gas fields are the presence of reservoir rocks, oil/gas traps, and source rocks.

A reservoir rock is any porous and permeable rock that yields oil and gas (Bates and Jackson, 1988). Sandstone, limestone, and dolomite are the most common reservoir rocks. The types of reservoir rocks occurring in the Diamond Mountain Resource Area as summarized by Clem (1985) and are shown in Table A4-2. The stratigraphic position of both reservoir rocks and source rocks is illustrated in Figure 3-1.

A second element common to oil and gas accumulations is the trap. An oil and gas trap is any barrier to the movement of oil or gas allowing either or both to accumulate. The elements of a hydrocarbon trap include a reservoir rock and an overlying or impermeable roof rock through which fluids can not easily migrate. There are three basic types of oil and gas traps: structural traps, stratigraphic traps, and combination traps (Bates and Jackson, 1988). Structural traps are traps formed by folding, faulting, or other structural deformation of rock layers. Stratigraphic traps are oil and gas traps resulting from lateral changes in porosity and permeability in reservoir rocks, rather than structural deformation. Combination traps are oil and gas traps that have both structural and stratigraphic elements.

The types of oil and gas traps identified in the Diamond Mountain Resource Area are summarized by Clem (1985) and are listed in Table A4-2.

Finally, the last element common to oil and gas accumulations is the source rock. Source rocks are sedimentary rocks (such as shales, limestones or dolomites) containing organic material which were transformed over time (by heat and pressure) to oil and gas (Bates and Johnson 1988). Source rocks generate oil and gas resources. The primary source rocks within the Diamond Mountain Resource Area are described by Spencer and Wilson (1988) and are listed in Table A4-2.

OIL AND GAS EXPLORATION PLAYS

Discovered and undiscovered oil and gas fields are grouped into "plays". A play is a group of geologically related known oil and/or gas fields or undiscovered fields and/or prospects having similar reservoirs, traps, source rocks, and geologic histories.

Oil and gas plays are defined by the U.S. Geological Survey for the Uinta Basin (Spencer and Wilson, 1988) for Southwestern Wyoming Basins (Law, 1988) (see Map A4-1). These defined plays represent only the major plays being pursued in the Diamond Mountain Resource Area.

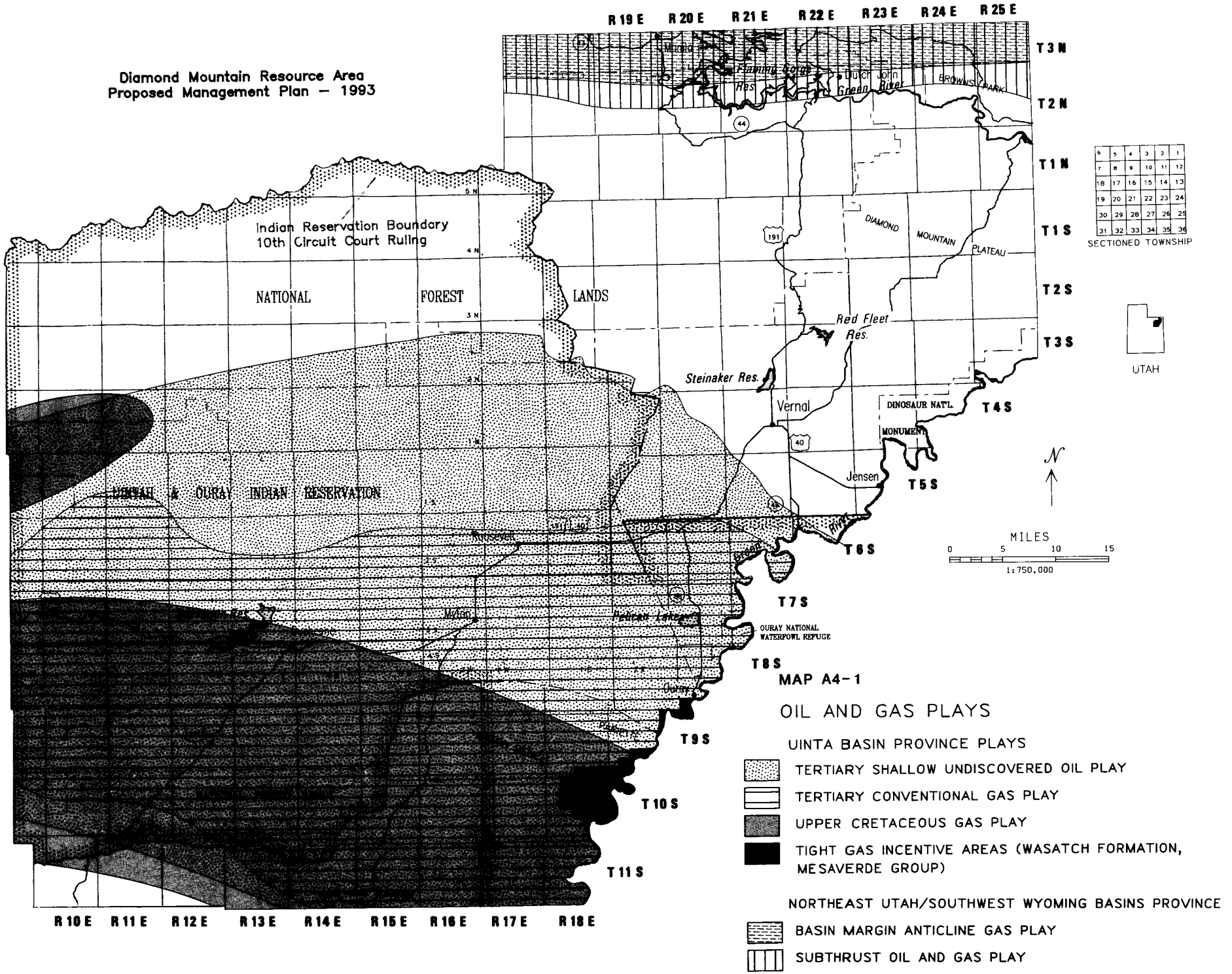

Diamond Mountain Resource Area
Proposed Management Plan — 1993
R19E R20E R21E R22E R23E R24E R25E
T3N
T2N
T1N
T1S
T2S
T3S
T4S
T5S
T6S
T7S
T8S
T9S
T10S
T11S
R10E R11E R12E R13E R14E R15E R16E R17E R18E
Indian Reservation Boundary
10th Circuit Court Ruling
NATIONAL FOREST LANDS
UINTAH & OURAY INDIAN RESERVATION
Flaming Gorge Res
Dutch John
Green River
BROWNS PARK
DIAMOND MOUNTAIN PLATEAU
Red Fleet Res.
Steinaker Res.
Vernal
DINOSAUR NAT'L MONUMENT
Jensen
Roosevelt
Myton
Pelican Lake
Ouray
OURAY NATIONAL WATERFOWL REFUGE
SECTIONED TOWNSHIP
UTAH
MILES
0 5 10 15
1:750,000
MAP A4-1
OIL AND GAS PLAYS
UINTA BASIN PROVINCE PLAYS
TERTIARY SHALLOW UNDISCOVERED OIL PLAY
TERTIARY CONVENTIONAL GAS PLAY
UPPER CRETACEOUS GAS PLAY
TIGHT GAS INCENTIVE AREAS (WASATCH FORMATION, MESAVERDE GROUP)
NORTHEAST UTAH/SOUTHWEST WYOMING BASINS PROVINCE
BASIN MARGIN ANTICLINE GAS PLAY
SUBTHRUST OIL AND GAS PLAY

TABLE A4-1:
TOTAL OIL AND GAS FIELD PRODUCTION - DIAMOND MOUNTAIN RESOURCE AREA

FIELD DESIGNATION	LOCATION	COUNTY	1989 PRODUCTION		CUMULATIVE PRODUCTION THRU 1989		ACTIVE WELLS	DISCOVERY DATE
			Oil (Bbls)	Gas (MCF)	Oil (Bbls)	Gas (MCF)		
Clay Basin	T3N, R23 & 24E, SLBM	Daggett	3,031	2,024,593	330,580	154,014,769	19	1927
Altamont/Bluebell	T1N-4S, R2E-6W, USM	Duchesne (Uintah)	6,122,535	12,731,212	202,853,783	272,739,543	655	1970/1955
Antelope Creek	T5S, R3W, USM	Duchesne	103,764	623,222	961,335	3,612,714	46	1983
Bridgeland	T4S, R3W, USM	Duchesne	0	0	73,137	25,797	0	1983
Brundage Canyon	T5S, R4 & 5W, USM	Duchesne	97,565	195,681	905,658	1,519,525	23	1984
Castle Peak	T9S, R15 & 16E, SLBM	Duchesne	41,371	209,138	569,949	1,309,110	18	1962
Cedar Rim	T3S, R6 & 7W, USM	Duchesne	296,634	655,708	11,120,605	21,924,482	35	1969
Chokecherry Canyon	T7S, R4W, USM	Duchesne	0	0	7,340	6,224	0	1959
Duchesne	T4S, R4W, USM	Duchesne	81,594	702,611	883,282	1,121,101	28	1951
East Pleasant Valley	T4S, R2W, USM	Duchesne	1,959	0	14,924	39,249	1	1986
Eight Mile Flat	T10S, R17E, SLBM T4S, R1E, USM T8 & 9S, R17 & 18E,SLBM	Duchesne (Uintah)	110,335	220,133	1,393,004	2,369,338	45	1962
Monument Butte	T8 & 9S, R16 & 17E,SLBM	Duchesne	363,318	1,359,063	4,644,377	11,966,195	136	1964
Pleasant Valley	T8S, R16E, SLBM	Duchesne	0	0	16,576	0	3	1952
South Myton Bench	T4S, R2 & 3W, USM	Duchesne	3,576	7,254	49,054	164,041	2	1984
Sowers Canyon	T6S, R5W, USM	Duchesne	0	0	334	4	4	1977
Starr Flat	T1N, R2W, USM	Duchesne	0	0	10,975	4,842	0	1958
Treaty Boundary	T4S, R1W, USM T8S, R17E, SLBM	Duchesne	1,911	15,536	146,711	493,097	7	1963
Unnamed Fields		Duchesne	9,371	19,889	151,996	259,065	5	1987
Ashley Valley	T5S, R22E, SLBM	Uintah	89,752	0	8,785,903	530	30	1925
Brennan Bottom	T7S, R20 & 21E, SLBM	Uintah	32,231	48,557	1,161,692	1,223,636	7	1953
East/West Gusher	T5 & 6S, R19 & 20E,SLBM	Uintah	1,209	0	43,536	5	4	1950
Halfway Hollow	T6S, R21E, SLBM	Uintah	0	0	54,643	2,558	1	1967
Horseshoe Bend	T6 & 7S, R21 & 22E,SLBM	Uintah	172,516	829,456	883,062	11,904,963	56	1964
Moffat Canal	T5S, R19E, SLBM	Uintah	9,249	3,550	188,850	53,296	3	1987
Pariette Bench	T8 & 9S, R19E, SLBM	Uintah	29,779	36,894	869,433	367,356	17	1962
Twelve Mile Wash	T5S, R20E, SLBM	Uintah	0	0	5,092	1,198	1	1967
Uteland Butte	T10S, R18E, SLBM	Uintah	42,311	10,032	505,175	192,064	19	1961
Unnamed Fields		Uintah	87,281	96,929	352,635	238,961	9	1987-1988
DAGGETT COUNTY			3,031	2,024,593	330,580	154,014,769	19	
DUCHESNE COUNTY			7,233,933	16,739,447	223,803,040	317,554,357	1,008	
UINTAH COUNTY			464,328	1,025,418	12,850,021	13,984,567	147	
TOTAL			7,701,292	19,789,458	236,983,641	485,553,693	1,174	
STATE OF UTAH			28,415,680	277,811,296	834,448,265	3,355,587,045	4,115	
PERCENT OF STATE			27%	7%	28%	14%	28%	

Source: Utah Division of Oil, Gas, and Mining, 1989

TABLE A4-2:
DIAMOND MOUNTAIN RESOURCE AREA RESERVOIRS, OIL/GAS TRAPS, AND SOURCE ROCKS

Reservoir Rocks

Age	Sandstone Reservoirs	Fractured Sandstone/ Limestone Reservoirs	Hydrocarbon Type
T	Duchesne River Fm		gas
T	Uinta Fm		gas
T	Green River Fm	Green River Fm.	oil, gas
T	Wasatch Fm		oil, gas
K	Mesaverde Group		gas
K	Frontier Fm		gas
K	Dakota Sandstone		gas
J	Morrison Fm		oil
P	Park City Fm		oil, gas
P	Weber Sandstone		oil, gas

Fm= formation
T=Tertiary age, K=Cretaceous age, J= Jurassic age, P=Permian age

Oil and Gas Traps

	Oil and Gas Fields
Structural traps:	Ashley Valley, Clay Basin .
Stratigraphic traps:	Castle Peak, Chokecherry Canyon, Eight Mile Flat, Starvation, Halfway Hollow, Monument Butte, Nine Mile Canyon, Nutter Canyon, Pariette Bench, Sowers Canyon, Twelve Mile Wash, Uteland Butte.
Combination traps:	Altamont, Bluebell, Blue Bench, Brennan Bottom, Cedar Rim, County Pool, Duchesne, Eight Mile Flat, East Pleasant Valley, Flat Mesa, Gusher, Horseshoe Bend, Roosevelt, Randlett, Starr Flatt.

Source Rocks

Age	Source Rocks	Rock type
Tertiary	Green River Fm	oil shale, limestone, dolomite
Tertiary	Flagstaff Limestone	limestone
Cretaceous	Mesaverde Group	shale, coal
Cretaceous	Mowry Shale	shale
Permian	Park City	dolomite

Uinta Basin Province Plays

Wasatch-Green River Formation, Shallow Uinta Basin, Oil Play.

The Tertiary Wasatch and Green River Formations produce major amounts of oil with associated gas in the Uinta basin. This play is moderately explored. Depths of occurrence range from 5,000 to over 10,000 feet. Fields with such oil production include the Altamont-Bluebell, Duchesne, Pleasant Valley, Monument Butte, and Pariette Bench fields. The reservoir rocks for this play are sandstones in the Green River and Wasatch Formations. Most traps are stratigraphic traps. Fracturing of the reservoir rock is very important to production regionally. Source rocks for this play are primarily carbonate rich Marly Shales of the Green River Formation.

Uinta Basin Tertiary Conventional Gas Play.

The Uinta Basin Tertiary Conventional Gas Play is located in the southern portion of the Uinta Basin and the Diamond Mountain Resource Area. The play is moderately explored. Accumulations lie at depths less than 3,000 feet to more than 7,000 feet. Fields with such production include the Horseshoe Bend, Brennan Bottom, Uteland Butte, and Sowers Canyon fields. Reservoir rocks for these accumulations of gas occur within the Uinta, Green River, and Wasatch Formations. Most traps are stratigraphic traps. Source rocks for this play are primarily Marly Shales of the Green River Formation.

Uinta Basin Upper Cretaceous Gas Play.

The Uinta Basin produces significant volumes of gas from sandstones of the Upper Cretaceous Mesaverde Group. This play is less explored than previous plays discussed. Gas accumulations occur at depths ranging from 2,000 to 5,000 feet. Reservoirs at greater depths are often unconventional tight gas reservoirs. Fields for this play include reservoir rocks for these accumulations include rocks within the North Horn Formation and the Mesaverde Group. Most hydrocarbon traps are stratigraphic in nature. Source rocks for this play are most likely coals from the Mesaverde Group.

Northeast Utah/Southwest Wyoming Basins

Basin Margin Anticline Gas Play.

The Basin Margin Anticline Play occurs in a narrow tract 5 to 20 miles wide paralleling the thrusted northern flank of the Uinta Mountains. Large areas of this play remain unexplored. A field with such production for this play is from the Clay Basin anticline. Gas accumulations lie at depths ranging from 5,300 to 5,800 feet. Reservoir rocks defined to date are sandstones in the Frontier and Dakota Formations. The traps are structural in nature and are broad anticlines most likely genetically related to the thrusting along the north flank of the Uinta Mountains. The source rocks for this play are believed to be the Mowry Shale (Law and Clayton, 1987).

Subthrust Oil and Gas Play.

The Subthrust Oil and Gas Play, located along the northern flank of the Uinta Mountains, is highly speculative. Three wells, described by Gries (1983), have partially tested the potential of subthrust plays both on the northern and on the southern flank of the Uinta Mountains. To date all wells testing the Subthrust Play in DMRA have been dry and abandoned. Reservoir rocks occurring in this play would most likely be the Frontier and the Dakota Formations. Oil and gas accumulations occur in reservoirs below a thrust fault surface. Like the Basin Margin Anticline Play, the source rocks are believed to be the Mowry Shale (Law and Clayton, 1987).

REASONABLE FORSEEABLE DEVELOPMENT OF OIL AND GAS RESOURCES

The Diamond Mountain Resource Area has a long history of oil and gas exploration and development. What follows is an analysis of historical and reasonable forseeable development of oil and gas resources in the following five regions in the Diamond Mountain Resource area (See Map 3-13):

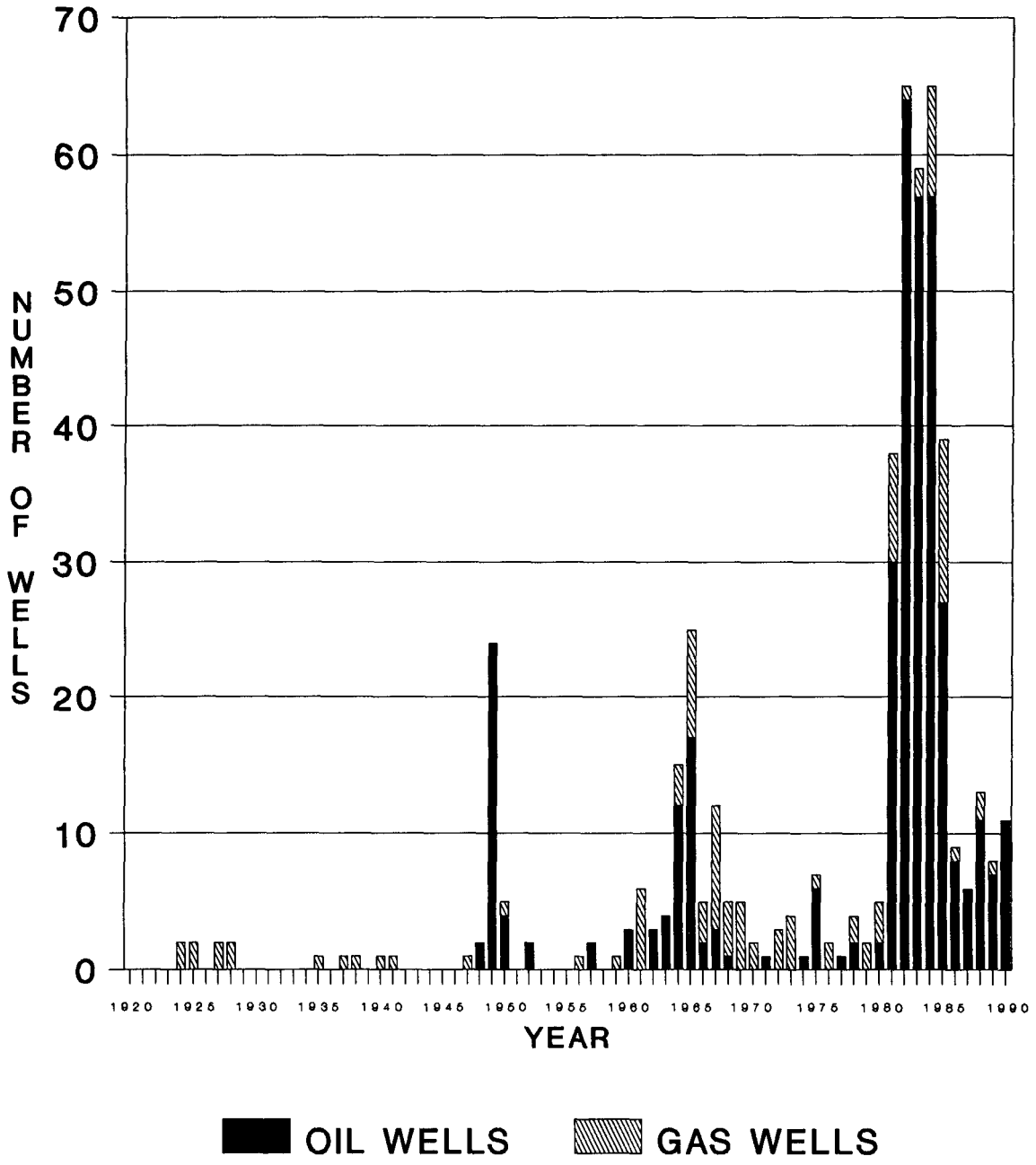
- Myton Bench-Nine Mile Region
- Horseshoe Bend-Ashley Valley Region
- Diamond Mountain Plateau Region
- Clay Basin-Manila Region
- Indian Reservation Region

The reasonable forseeable development of oil and gas resources over the next 15 years in the above regions is based upon the following analysis of the historical and present development in each region.

Oil and gas development which has occurred since 1920 in the Diamond Mountain Resource Area is listed in Table A4-1 and illustrated in Figure A4-2. Three periods in which maximum development has occurred are: 1948-1951, 1964-1969, and 1981-1985. The principal producing oil

FIGURE A4-2

DIAMOND MOUNTAIN RESOURCE AREA
OIL AND GAS DEVELOPMENT 1920-1990



and gas formations in the Diamond Mountain Resource Area are shown in Figure A4-3 and A4-4.

FIGURE A4-3

DIAMOND MOUNTAIN RESOURCE AREA
OIL PRODUCING FORMATIONS

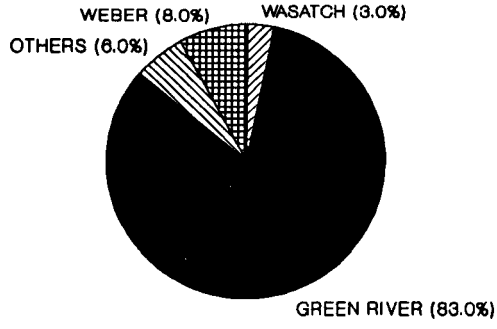
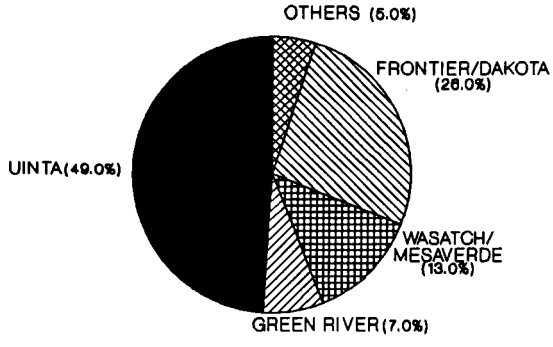


FIGURE A4-4

DIAMOND MOUNTAIN RESOURCE AREA
GAS PRODUCING FORMATIONS



Well spacing programs for oil or gas exploration or development wells (Federal or Indian mineral estate) in the Diamond Mountain Resource Area may be either: 1) one which conforms with a spacing order or field rule issued by the Utah State Board of Oil, Gas and Mining (Department of Natural Resources) and accepted by the authorized officer of the Bureau of Land Management, or 2) one which is located on a lease committed to a communitized or unitized tract at a location approved by the authorized officer of the Bureau of Land Management. In the absence of special orders established drilling units well spacing is set at 40 acres per well. Although the Federal government is not bound by these spacing orders, they are generally recognized. Spacing within each of the regions will be discussed below.

Surface disturbance associated with the drilling and development of oil and gas wells occurs with the construction of the following: 1) access roads, 2) drilling pads, 3) oil and gas facilities, and 4) pipelines. The surface disturbance associated with the construction of the drilling pad and circulation pits is estimated to be 2 acres. Access roads constructed to the drilling pad will vary in length, but will be 30 feet wide. It will be assumed that road disturbance will vary in disturbance from 2-4 acres. Oil and gas facilities, such as tank batteries, where they occur will disturb 2-6 acres. Pipelines may occur above ground or below ground and may involve 1-2 acres of disturbance for roads which the pipeline. See Table A4-3.

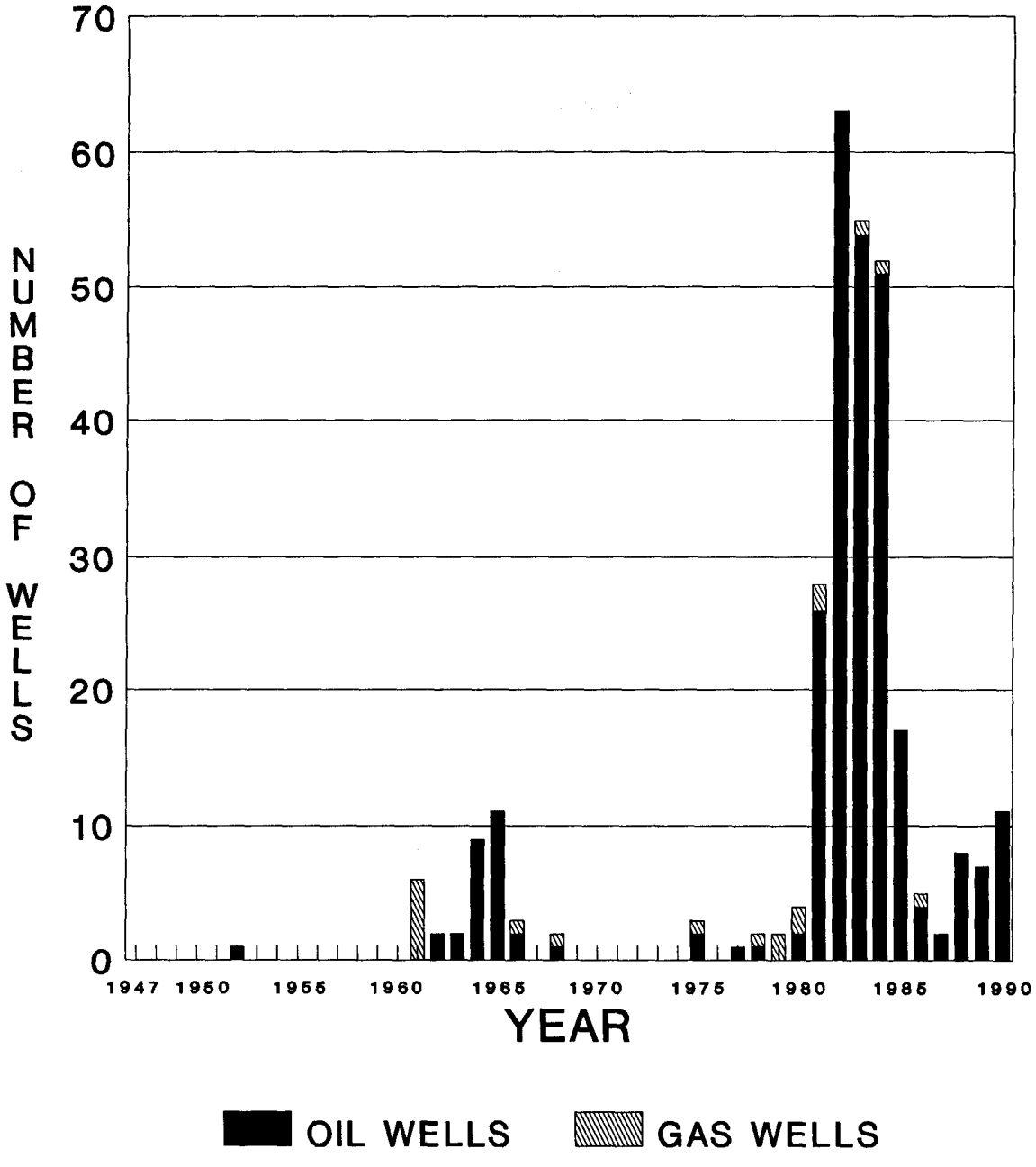
TABLE A4-3:
REASONABLE FORESEEABLE OIL AND GAS DEVELOPMENT AND ASSOCIATED SURFACE DISTURBANCE (IN ACRES)

PLAY AREA	FORECASTED WELLS Producing	Dry	WELL PADS *	ACCESS ROADS*	PIPE-LINES *	ANCILLRY FACIL-ITIES*
MYTON BENCH-NINE MILE CANYON	188	57	490	490	94	50
HORSESHOE BEND-ASHLEY VALLEY	96	84	360	360	42	15
DIAMOND MOUNTAIN PLATEAU	0	10	20	20	0	0
CLAY BASIN-MANILA	8	7	30	30	4	15
INDIAN RESERVATION	15	5	40	40	8	0
TOTAL	307	163	940	940	148	80

*- ACRES
NOTE: Forecasted oil and gas wells and related surface disturbance is over a 15 year period. Surface disturbance due to geophysical activities will be minimal for all play areas outlined above.

FIGURE A4-5

MYTON BENCH-NINE MILE REGION
OIL AND GAS DEVELOPMENT 1947-1990



MYTON BENCH-NINE MILE REGION

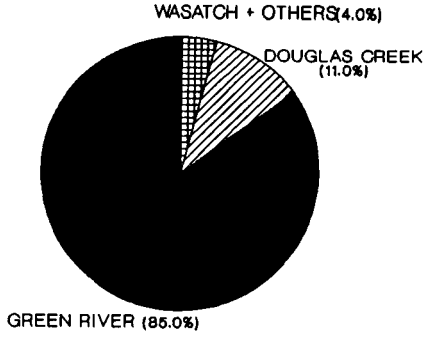
Historical Activity

Oil and gas activity began in the Myton Bench-Nine Mile region with the discovery of the Pleasant Valley oil field in 1952. Numerous oil and gas wells have been drilled since this time (See Figure A4-5). The two main periods of activity have been: 1961-1966 and 1981-1985. Between 1961 and 1966 the Uteland Butte (1961), Castle Peak (1962), Pariette Bench (1962), Eight Mile Flat (1962), and Monument Butte (1964) fields were discovered. Between 1981-1985 the Eight Mile Flat-North (1983), East Pleasant Valley (1986), and Treaty Boundary (1982) fields were discovered and many development wells were drilled in previously discovered fields.

Oil producing formations in the Myton Bench-Nine Mile region include the Green River formation (85% of total number of wells drilled), Douglas Creek member of the Green River formation (11%), and Wasatch+other older formations (4%) (See Figure A4-6).

FIGURE A4-6

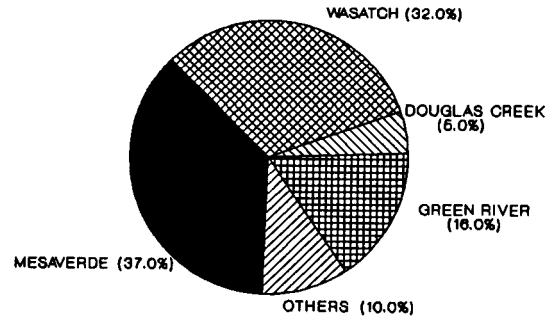
MYTON BENCH-NINE MILE CANYON REGION
OIL PRODUCING FORMATIONS



Gas producing formations in the Myton Bench-Nine Mile region include the Mesaverde Group (37%), Wasatch formation (32%), Green River formation (16%), Douglas Creek member of the Green River formation (5%), and other older formations (10%) (See Figure A4-7).

FIGURE A4-7

MYTON BENCH-NINE MILE REGION
GAS PRODUCING FORMATIONS



The initial production (IP) for an average oil or gas well in the Myton Bench-Nine Mile Canyon region is given in Table A4-4.

The total number of wells drilled through 1990 in the Myton Bench-Nine Mile region is 375. Of this total, 277 are oil wells, 19 are gas wells, 76 were dry and abandoned, and 3 have suspended operations. Of the total number of wells producing oil and/or gas, 93% are oil wells, while 7% are gas wells. A success ratio (producing oil or gas wells/total number of wells) of 79% occurs in this region.

Reasonable Forseeable Development Activity

Oil Production

The Myton Bench-Nine Mile Canyon region over the next 15 years will continue to have the most oil and gas exploration and development in the Diamond Mountain Resource Area. Oil will be the primary type of hydrocarbon explored for and developed from the Green River and Wasatch formations.

TABLE A4-4:
OIL AND GAS PRODUCTION DATA
MYTON BENCH-NINE MILE CANYON REGION

OIL WELLS

Fm.	Producing zone/ Total Depth range	Initial Production (IP) range	Average well IP and total depth
Green River	3,600-5,900'/ 4,800-10,800'	Oil : 9-350 BOPD[1] Gas : 0-300 MCFPD[2] Water: 0-295 BWPD[3]	Oil : 106 BOPD Gas : 66 MCFPD Water: 26 BWPD Depth: 6,000'
Wasatch	4,300-4,400'/ 5,850-6,034'	Oil : 45-230 BOPD Gas : 0- 15 MCFPD Water: 0- 15 BWPD	Oil : 24 BOPD Gas : 7 MCFPD Water: 10 BWPD Depth: 5,940'

1 = barrels of oil per day, 2 = thousand cubic feet of gas per day, 3 = barrels of water per day.

GAS WELLS

Fm.	Producing zone/ Total Depth range	Initial Production (IP) range	Average well IP and total depth
Green River	1,970-5,400'/ 5,400-6,400'	Gas : 60-229 MCFPD*	Gas : 215 MCFPD Depth: 6,350'
Wasatch	5,600-7,400'/ 6,700-8,100'	Gas : 315-2300 MCFPD	Gas : 830 MCFPD Depth: 7,660'
Mesaverde	6,400-10,300'/ 9,100-11,400'	Gas : 260-780 MCFPD	Gas : 520 MCFPD Depth: 10,250'

* Thousand cubic feet of gas per day

Development drilling will continue for oil on lands with high occurrence potential, especially within and adjacent to the following fields: Pleasant Valley, Castle Peak, Pariette Bench, Monument Butte, Eight Mile Flat-North, East Pleasant Valley and Treaty Boundary (see Table A4-1). Also, development drilling will continue in the Island Unit and River Bend Unit. Based upon past cycles of development, it is estimated that approximately 11 wells per year would be drilled for the entire region over a 15 year period, for a total of 165 wells. Of these wells drilled, 130 would be producing wells with average initial production rates shown in Table-A4-3.

Exploration drilling will continue for oil on lands with moderate to high oil and gas potential of occurrence lands. It is estimated that 4 exploration wells per year would be drilled for the entire region over the next 15 years, for a total of 60 wells. Of these exploratory wells drilled, 47 would be producing wells with average initial production rates shown in Table-A4-3. The number of exploratory wells drilled would increase with an increase in the price of oil. The success ratio of this region for drilling a successful oil and/or gas exploration or development well as discussed above is 79%.

Within the Myton Bench-Nine Mile region, all oil and gas wells in the identified fields have been drilled on a 40 acre spacing pattern. An oil or gas field 640 acres in size would require 16 wells to be drilled in order to be fully developed. Development would take 5-8 years if diligently pursued. If the wells were producing wells, they would have a life expectancy between 5 and 20 years depending upon the rates of production. If secondary recovery methods were employed, additional wells would be drilled for a secondary recovery process involving either water or CO_2 injection. Such secondary methods may extend the life of the well an additional 5 to 20 years.

Gas Production

Exploration and development levels for conventional gas resources in this region will remain low. Compared to oil production, present gas production is minor in the Myton Bench-Nine Mile Canyon region (7% of total production). Exploration and development of gas resources will be from the Wasatch and Mesaverde formations. It is estimated that 11 gas exploratory or development wells would be drilled over the next 15 years, 9 of which would be successful. The recovery for a typical gas reservoir would be 80-95%. The gas wells would have a similar

spacing pattern (40 acres) and life expectancy (5-20 years) as those oil wells described above in the Myton Bench-Nine Mile Canyone region.

Producing oil and gas wells from fields discovered prior to 1970 will continue to decline and many will be plugged and abandoned during the next 15 years. Following the plugging and abandonment of the well, the access road and well site would be reclaimed. BLM may assume the plugging and liability for the well and reclamation of the access road if an opportunity exists to convert the abandoned oil or gas well to a water well for livestock or wildlife watering purposes and if it is the surface managing agency.

Unconventional Reservoirs: Coal Bed Methane/Tight Gas Reservoirs

The potential exists for the development of two unconventional gas reservoirs (coal bed methane gas and tight gas reservoirs) in the Myton Bench-Nine Mile Canyon region. Coal bed methane gas and tight gas reservoirs are discussed fully in the oil and gas section of Chapter 3 (Affected Environment).

Present drilling for coal bed methane gas recovery is south of the Diamond Mountain Resource Area boundary. No wells have been drilled for coal bed methane gas in the Myton Bench-Nine Mile Canyon region. However, the trend of the principle coal beds within the Book Cliffs Coal Field extend into the southern Diamond Mountain Resource Area in the area of: Township 11 South, Ranges 10 East-18 East. Currently, Section 29 tax creditions for nonconventional fuels will expire December 31, 1992. Assuming this tax credit is not renewed, it is estimated that 10 wells would be drilled over the next 15 years.

Tight gas sandstone reservoirs of the Wasatch and Mesaverde Group have been designated by the State of Utah, the U.S. Geological Survey, and the Bureau of Land Management with the concurrence of the Federal Energy Regulatory Commission (FERC) in the following areas in the Diamond Mountain Resource Area:

Tshp	Rge	Section	Productive Wells through 1990
10S	18E	1-4, 9-16, 22-27	5
10S	19E	5,6,7,8	0
9S	18E	34,35,36	0
9S	19E	W1/2 28,29,31,32	0

Although there has been little exploration or development in the tight gas sandstone designated areas in the past, it is estimated that exploration for and development of tight gas sandstone resources with conventional drilling methods will increase in the future. Much exploration and development of tight gas sandstone resources has taken place east of this region in the Book Cliffs Resource Area within the Natural Buttes gas field. It is estimated that 10 exploration or development wells would be drilled before the Section 29 tax credit runs out December 31, 1992.

The minimum amount of on-site surface disturbance for all forecast conventional and unconventional oil and gas wells in this reigon is outlined in Table A4-3.

HORSESHOE BEND-ASHLEY VALLEY REGION

Historical Activity

Oil and gas activity began with the discovery of oil in the Ashley Valley field in 1948. Numerous new oil and gas field discoveries were drilled following this initial discovery (See Figure A4-8 and Table A4-1).

Three major periods of exploration and development have occurred: 1948-1950, 1964-1970, and 1981-1988.

Between 1948 and 1950, the Ashley Valley field was discovered and developed. Between 1964 and 1970, the Horseshoe Bend (1964), Halfway Hollow (1967), and Twelve Mile Wash (1967) fields were discovered and developed. The oil and gas activity during the period between 1981 and 1988 may be accounted by the development drilling in the Brennan Bottom and Horseshoe Bend fields.

Of those oil and gas exploration wells drilled in the Horseshoe Bend-Ashley Valley region, 61% of the producing wells drilled are oil wells, while the remaining 39% are gas wells. The oil producing formations in the Horseshoe Bend-Ashley Valley region are: Green River (46% of the total number of wells drilled), Weber (33%), Wasatch (8%), Park City (6%), Uinta (3%), and older formations (4%) (See Figure A4-9).

Gas producing formations in this region are: Uinta formation (89% of total number of wells), Green River formation (5%), and other older formations (6%) (See Figure A4-10).

The initial production (IP) for an average oil and gas well in the Horseshoe Bend-Ashley Valley region is given in Table A4-5.

FIGURE A4-8

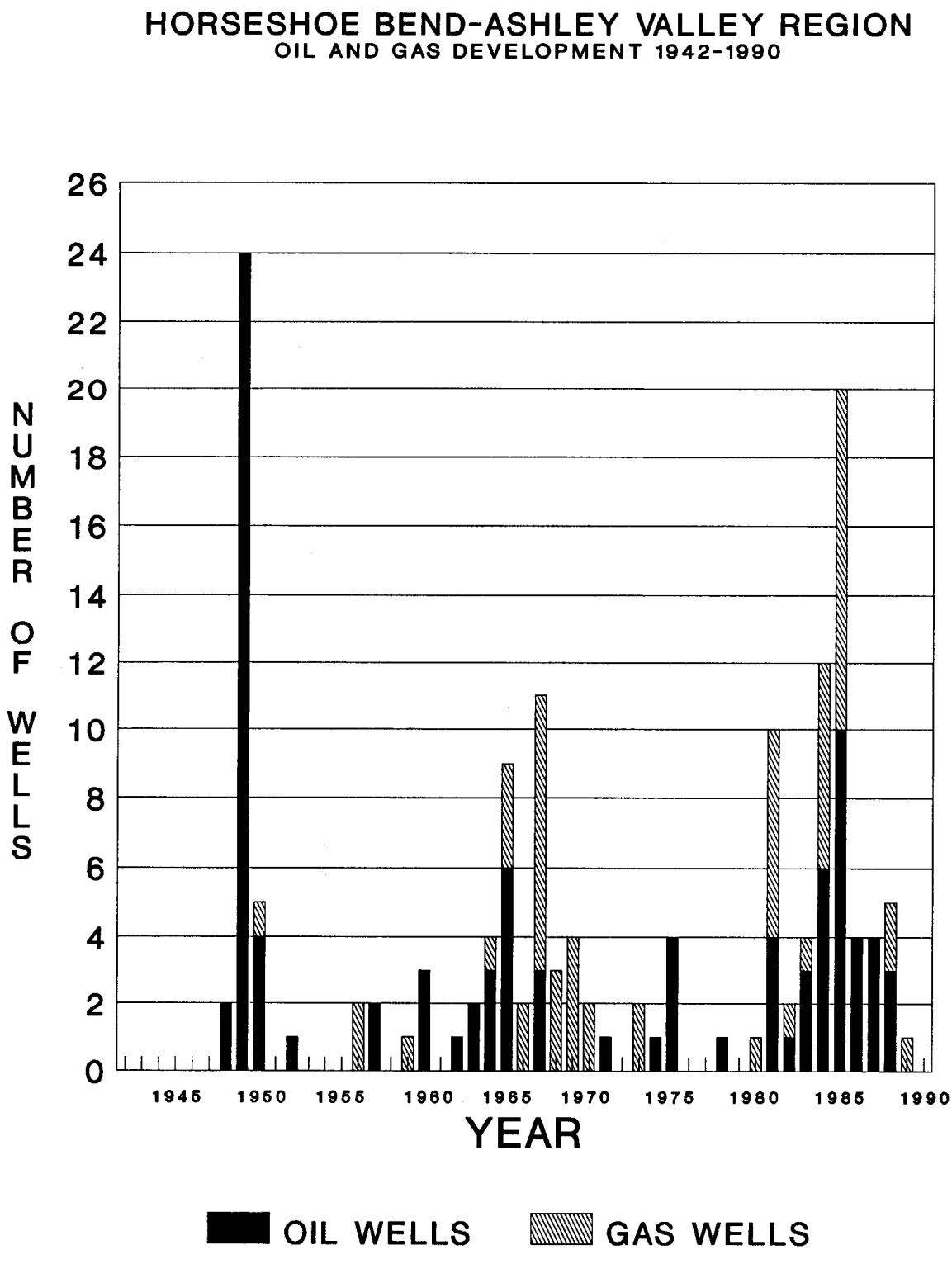

HORSESHOE BEND-ASHLEY VALLEY REGION
OIL AND GAS DEVELOPMENT 1942-1990
NUMBER OF WELLS
0
2
4
6
8
10
12
14
16
18
20
22
24
26
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
YEAR
OIL WELLS
GAS WELLS

FIGURE A4-9
HORSESHOE BEND-ASHLEY VALLEY REGION
OIL PRODUCING FORMATIONS

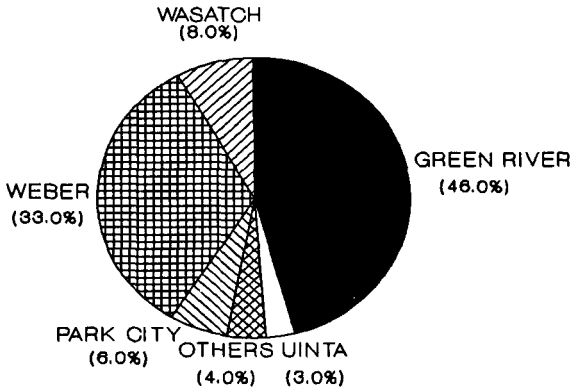


FIGURE A4-10
HORSESHOE BEND-ASHLEY VALLEY
GAS PRODUCING FORMATIONS

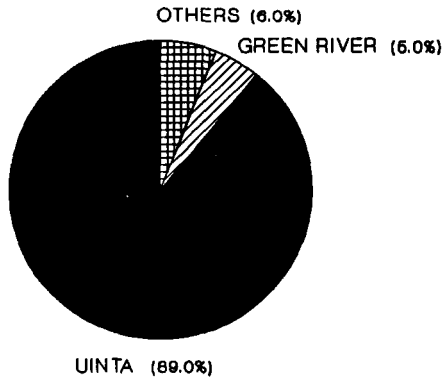


TABLE A4-5:
OIL AND GAS PRODUCTION DATA
HORSESHOE BEND-ASHLEY VALLEY REGION

OIL WELLS

Fm.	Producing zone/ Total Depth range	Initial Production (IP) range	Average well IP and total depth
Uinta	2,700-2,900'/ 4,025-4,400'	Oil : 48-206 BOPD[1] Gas : 0-1990 MCFPD[2] Water: 0-7 BWPD[3]	Oil : 127 BOPD Gas : 995 MCFPD Water: 2 BWPD Depth: 4,213'
Green River	5,100-9,100'/ 5,600-9,100'	Oil : 17-450 BOPD Gas : 0-750 MCFPD Water: 0-60 BWPD	Oil : 180 BOPD Gas : 56 MCPFD Water: 25 BWPD Depth: 7,400'
Wasatch	6,400-12,000'/ 6,900-13,000'	Oil : 17-120 BOPD Gas : 0-150 MCFPD Water: 25-157 BWPD	Oil : 68 BOPD Gas : 71 MCFPD Water: 53 BWPD Depth: 11,000'
Weber	4,000-4,300'/ 4,100-4,300'	Oil : 97-960 BOPD Gas : 0 MCFPD Water: 0-3739 BWPD	Oil : 300 BOPD Gas : 0 MCFPD Water: 380 BWPD Depth: 4,130'

1 = barrels of oil per day, 2 = thousand cubic feet of gas per day, 3 = barrels of water per day.

GAS WELLS

Fm.	Producing zone/ Total Depth range	Initial Production (IP) range	Average well IP and total depth
Uinta	2,300-3,800'/ 2,800-4,400'	Gas : 375-6,287 MCFPD*	Gas : 1,800 MCFPD Depth: 3,800'

* Thousand cubic feet of gas per day

The total number of wells drilled through 1990 in the Horseshoe Bend-Ashley Valley region is 287. Of this total, 93 are oil wells, 60 are gas wells, 125 were dry and abandoned, and 9 have suspended operations. Of the total number of producing oil and gas wells, 61% are oil wells and 39% are gas wells. A success ratio (producing oil or gas wells/total number of wells) of 53% occurs in this region.

Reasonable Forseeable Development

Oil Production

The Horseshoe Bend-Ashley region over the next 15 years will continue to have the second largest level of oil and gas exploration and development (after the Myton Bench-Nine Mile Canyon region) in the Diamond Mountain Resource Area. Oil will be the primary type of hydrocarbon explored for from the Green River, Wasatch, and the Weber formations. However, gas exploration and development will continue and may increase. Of the presently producing oil and gas wells in this region, 61% are oil wells and 39% are gas wells.

Development drilling will continue on high potential of occurrence lands, especially within and adjacent to the following fields: Horseshoe Bend, Brennan Bottoms, and Gusher (see Table A4-1). Minor development drilling may occur in Halfway Hollow and Twelve Mile Wash fields. Based upon past cycles of development, it is estimated that approximately 8 wells per year will be drilled for the entire region over a 15 year period, for a total of 120 wells. Of these wells, 64 would be producing wells with an average oil and gas initial production as given in Table A4-5.

Exploration drilling will continue mainly on lands of moderate potential of occurrence lands. It is estimated that 2 exploration wells will be drilled per year over the next 15 years, for a total of 30 wells. Of these wells, 16 wells would be producing with an average oil and gas initial production as given Table A4-5. The success ratio as discussed above of drilling such wells is 53%.

The spacing for oil and gas wells in the Horseshoe Bend-Ashley Valley region is outlined below in Table A4-6.

TABLE A4-6:
SPACING FOR OIL AND GAS WELLS
HORSESHOE BEND-ASHLEY VALLEY REGION

Spacing	Formation	Field	Location	Wells/Sec
640 acres	Lower Green River/Wasatch formations	Moffat Canal Horseshoe Bend Gusher	5S/19E 6S/19E 6S&7S/21E&22E	2 2 2
320 acres	Uinta formation		6S/21E&22E	2
160 acres	Uinta formation	Gusher Horseshoe Bend 12 Mile Wash	5S&6S/19E&20E 6S&7S/21&22E 5S/20E 7S/20E	4 4 4 4
160 acres	Green River Fm		5S/20E 6S/20E	4 4
160 acres	Morrison Fm		5S/21E	4
80 acres	Green River and transition zone between Green Riverand Wasatch formations	Halfway Hollow Horseshoe Bend	6S/21E 6S/21E 6S/20E	8 8 8

An oil or gas field 640 acres in size would require 8 wells (80 acre spacing) or 4 wells (160 acre spacing) or 2 wells (320 acre spacing) to be drilled to be fully developed. Development would take 5-8 years if diligently pursued. If the wells were producing wells they would have a life expectancy between 5 and 20 years depending upon the

rates of production. If secondary recovery methods were employed, additional wells would be drilled for a secondary recovery process involving either water or CO_2 injection. Such secondary methods may extend the life of the well an additional 5 to 20 years.

Gas Production

The development of gas from the Uinta formation will continue in the Horseshoe Bend, Gusher, and Twelve Mile Wash fields. From historical data it, is estimated that 2 gas wells will be drilled per year over the next 15 years, for a total of 30 wells. Of these drilled wells 16 would be producing wells. A gas field 640 acres in size would require 4 wells (160 acre spacing) to be drilled to be fully developed. Development would take 5 to 20 years. The recovery for a typical gas reservoir will be 80-95%. Further exploration will be along the margins of existing gas fields.
Producing oil and gas wells from fields discovered prior to 1970 will continue to decline and many will become plugged and abandoned during the next 15 years. Following the plugging and abandonment of the well the access road and well site will be reclaimed. BLM may assume the plugging liability of the well and reclamation of the access road if an opportunity exists to convert an abandoned oil or gas well to a water well for livestock or wildlife watering purposes and if it is the surface managing agency.

The minimum amount of on-site surface disturbance for all forecast conventional oil and gas wells in this region is outlined in Table A4-3.

DIAMOND MOUNTAIN PLATEAU REGION

HISTORICAL ACTIVITY

The Diamond Mountain Plateau region is the least explored region for oil and gas resources in the Diamond Mountain Resource Area. All the wells to have not produced oil or gas. The first oil and gas exploration well was drilled in 1949, whereas, the most recent exploration wells were drilled in 1987 (See Figure A4-11). The total number of wells drilled through 1990 in the Diamond Mountain Plateau region is 11. Of these wells, 8 are dry and abandoned and 3 have been converted to water wells. A success ratio (producing oil or gas wells/total number of wells) of 0% occurs in this region.

REASONABLE FORSEEABLE DEVELOPMENT

Based upon present and historical activity, the Diamond Mountain Plateau will experience the least amount of oil and gas exploration and development of any region in the Diamond Mountain Resource area. It is anticipated that 10 exploratory wells will be drilled in this region over the next 15 years.

The minimum amount of on-site surface disturbance for all forecast wells in this region is outlined in Table A4-3.

CLAY BASIN-MANILA REGION

HISTORICAL ACTIVITY

The earliest well drilled in the Clay Basin-Manila region was in 1924. Gas was first discovered in the Clay Basin field in 1927.

Since discovery of the Clay Basin gas field numerous development wells have been drilled (See Figure A4-12).

Of the gas produced in this region, 68% of it is recovered from the Frontier formation and 32% from the Dakota formation (See Figure A4-13). Table A4-7 provides gas production characteristics for gas wells drilled in the Clay Basin-Manila region.

Gas is stored by injecting it into the subsurface formations in the Clay Basin Storage Unit. The unit was formed June 1, 1976.

FIGURE A4-11

DIAMOND MOUNTAIN PLATEAU REGION
OIL AND GAS DEVELOPMENT 1949-1990

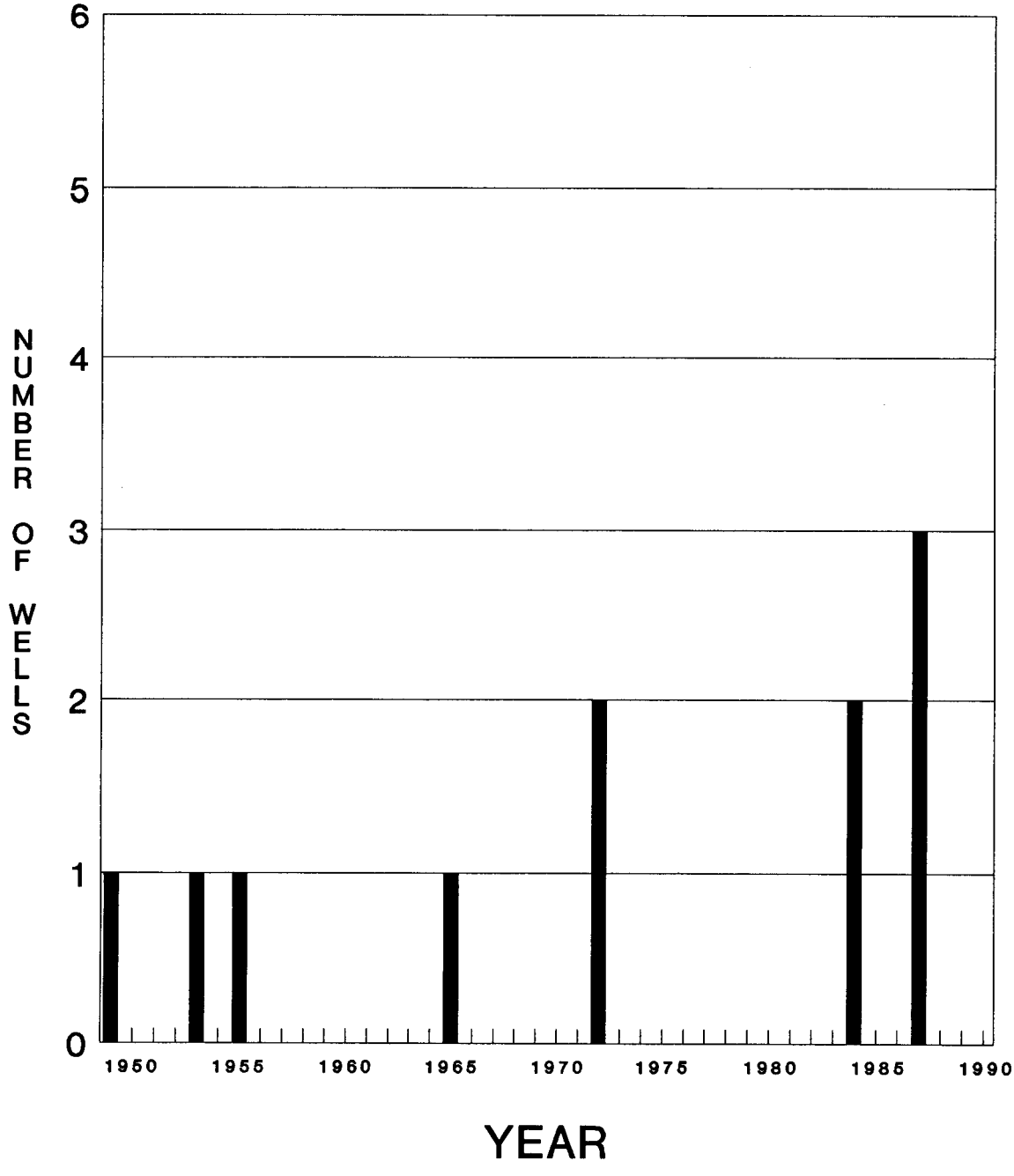


FIGURE A4-12

CLAY BASIN-MANILA REGION
OIL AND GAS DEVELOPMENT 1924-1990

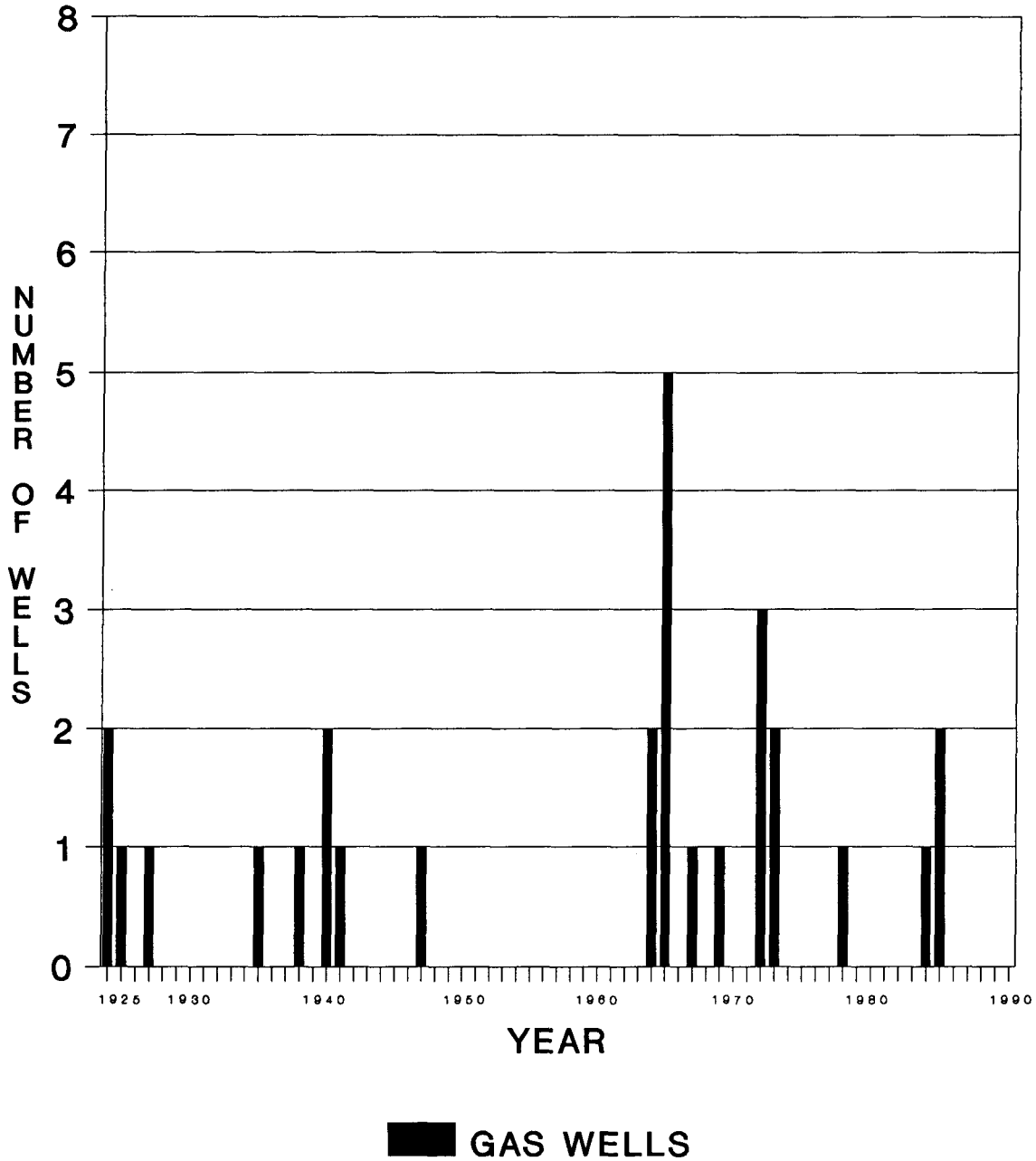
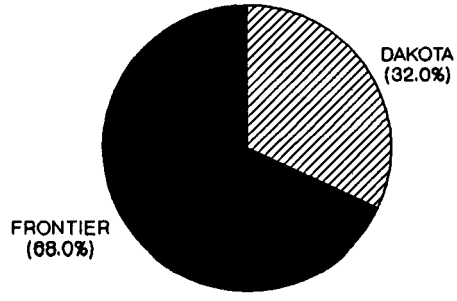


FIGURE A4-13

CLAY BASIN-MANILA REGION
GAS PRODUCING FORMATIONS



The total number of wells drilled through 1990 in the Clay Basin-Manila region is 73. Of this total, 28 are gas wells, 27 were dry and abandoned, and 18 are service wells. A success ratio (producing oil or gas wells/total number of wells-service wells) of 51% occurs in this region.

Reasonable Forseeable Development

Gas Production

The Clay Basin-Manila region will continue to be primarily a gas producing region. Exploration and development wells will be drilled primarily for gas from the Frontier and Dakota formations. Based on historical information, it is estimated that 15 gas wells will be drilled over the next 15 years. Of those 15 wells drilled, 8 will be producing wells having an average initial production as shown in Table A4-7.

TABLE A4-7:
GAS PRODUCTION DATA
CLAY BASIN-MANILA REGION

Fm.	Producing zone/ Total Depth range	Initial Production (IP) range	Average well IP and total depth
Frontier	5,200-6,300'/ 5,400-6,400'	Gas : 910-6,400 MCFPD*	Gas : 2,750 MCFPD Depth: 5,780'
Dakota	5,600-6,400	Gas : 32-21,800 MCFPD	Gas : 8,900 MCFPD Depth: 6,310'

*= Thousand cubic feet of gas per day

Within the Clay Basin-Manila region, all gas wells have been drilled on a 40 acre spacing units (Clay Basin Field). A gas field 640 acres in size would require 16 wells to be drilled to be fully developed. Development would take 5 to 20 years.

The recovery for a typical gas reservoir will be 80-95%. Further exploration for gas will be along the margin of the existing Clay Basin gas field and along the thrusted margin of the northern Uinta mountains.

The minimum amount of on-site surface disturbance for all forecast gas wells is outlined in Table A4-3.

Clay Basin will continue as a gas storage area. Also the Clay Basin Storage Unit will continue over the next 15 years.

INDIAN RESERVATION REGION

Oil and gas activity in this region occurs on split estate lands where BLM administers the subsurface mineral estate while the surface lands are administered by the fee owners is shown in Table A4-8.

Currently, the primary exploration and development in this region is for oil from the Lower Green River and Wasatch formations.

Wells in the same sections as the parcels exhibit the following ranges in total depth, depth of producing intervals, and initial production (Table A4-8):

TABLE A4-8:
OIL PRODUCTION DATA
INDIAN RESERVATION REGION: SPLIT ESTATE PARCELS

Fm.	Producing zone/ Total Depth range	Initial Production (IP) range	Average well IP and total depth
Wasatch	11,500-16,500'/ 9,300-16,200'	Oil : 200-2500 BOPD[1] Gas : 0-1900 MCFPD[2] Water: 0-150 BWPD[3]	Oil : 800 BOPD Gas : 640 MCFPD Water: 40 BWPD Depth: 15,000'

1 = barrels of oil per day, 2 = thousand cubic feet of gas per day, 3 = barrels of water per day.

Reasonable Forseeable Development

The Indian Reservation region over the next 10 to 15 years will continue to have significant oil and gas exploration and development. Oil will be the predominant type of hydrocarbon explored for from the Green River and Wasatch formations. Of the present producing oil and gas wells from the split estate parcels all are classified as oil wells.

Oil Production

A successful oil well drilled into the Green River-Wasatch formations will be an average of 15,000 feet deep and will have an initial production of 800 barrels of oil per day (BOPD), 640 thousand cubic feet of gas per day (MCFPD), and 40 barrels of water per day (BWPD).

The predominant type of wells drilled will be development wells adjacent to and within present producing fields (such as Altamont and Bluebell fields; see Table A4-1). The number of wells drilled on each split estate parcel will be controlled by spacing rules.

Based upon past spacing in this region it is assumed that wells would be drilled on 640 acre spacing with two wells per spacing unit. Based upon present spacing orders in each split estate parcel, a maximum of 83 wells could be drilled for all parcels. It is estimated that 15 wells will be drilled within these parcels over the next 15 years, with an average production as shown in Table A4-8.

Gas Production

Although associated gas is recovered from most oil wells in this region, exploration and development levels specifically for conventional gas resources in this region will remain low in most areas. However, interest is locally high in T1S, R2W, Sections 1-4 and 9-12 where the area has 640 acre spacing for gas from the Upper Green River formation. Overall, compared to oil production, present gas production is secondary in the Indian Reservation region. It is estimated that 5 wells specifically for gas will be drilled over the next 15 years.

The spacing for oil and gas wells in the Indian Reservation region is outlined below in Table A4-9.

The minimum amount of on-site surface disturbance for all forecast oil and gas wells in this region is outlined in Table A4-3.

TABLE A4-9:
BLM SPLIT ESTATE PARCELS ON THE UTE INDIAN RESERVATION
LOCATION, SPACING, AND WELLS PER SECTION

Location	Field	Spacing	# producing wells/section*	# additional Wells allowed
T1N,R1E, Sec 5	No prod.	40 acre	0	16
T1S,R4W, Sec 32	Altamont	640 acre	2(P)	0
T1S,R3W, Sec 8	Altamont	640 acre	2(P)	0
Sec 17	Altamont	640 acre	2(P)	0
Sec 27	Altamont	640 acre	2(P)	0
T1S,R2W, Sec 14	Bluebell	640 acre	1(P)	1
Sec 21	Bluebell	640 acre	2(P)	0
Sec 25	Bluebell	640 acre	2(P)	0
T1S,R1W, Sec 4	Bluebell	640 acre	1(P)	1
Sec 30	Bluebell	640 acre	1(P)	1
T1S,R1E, Sec 1	Bluebell	640 acre	0	2
Sec 11	Bluebell	640 acre	0	2
Sec 36	Bluebell	640 acre	1(D)	2
T1S,R2E, Sec 6	No prod.	640 acre	1(D)	2
Sec 7	No prod.	640 acre	0	2
T2S,R4W, Sec 5	Altamont	640 acre	1(P)	1
T2S,R3W, Sec 28	Altamont	640 acre	1(P)	1
T2S,R2W, Sec 31		640 acre	0	2
Sec 36		640 acre	0	2
T2S,R1W, Sec 2		640 acre	1(P)	1
Sec 13		640 acre	1(P)	1
Sec 24		640 acre	1(P)	1
Sec 26		640 acre	0	2
T2S,R2E, Sec 19	Bluebell	640 acre	0	2
T3S,R2W, Sec 6	No prod.	40 acre	0	16
T3S,R1W, Sec 5	No prod.	640 acre	0	2
Sec 6	No prod.	640 acre	0	2
Sec 20	No prod.	40 acre	0	16
T3S,R1E, Sec 14	No prod.	40 acre	0	16
			Total 22	94

* P=producing well, D=dry well.

EXISTING OIL AND GAS/COMBINED HYDROCARBON LEASE STIPULATIONS

Present oil and gas stipulations, as well as Combined Hydrocarbon Lease stipulations (Alternative A) are listed below. The present oil and gas stipulations, as listed below, are derived from the Vernal District Oil and Gas EA (1976) and the Utah Combined Hydrocarbon Leasing EIS (1984).

CAT2
CAT2.11.3

A lease for the above parcel will be subject to special stipulations on Form USO 3100-79a.

Archaeology TAR.2012

The Federal surface management agency is responsible for determining the presence of cultural resources and specifying mitigation measures required to protect them. Prior to under-taking any surface-disturbing activity on the lands covered by this lease, the lessee/operator, unless notified to the contrary by the authorized officer of the surface management agency shall:

Engage the services of a qualified cultural resource specialist acceptable to the surface management agency to conduct an intensive inventory for evidence of cultural values;

Submit a report acceptable to the authorized officer of the surface management agency; and

Implement such mitigation measures as required by the authorized officer of the surface management agency to preserve or avoid destruction of inventoried cultural resource values. Mitigation may include relocation of proposed facilities, testing and salvage, or other protective measures deemed necessary. All costs of the inventory and mitigation shall be borne by the lessee/ operator and all data and materials salvaged shall remain under the jurisdiction of the U.S. Government.

The lessee/operator shall immediately bring to the attention of the authorized officer of the Federal surface management agency any cultural and paleontological resources, or other objects of scientific interest, discovered by surface or subsurface operations under this lease and shall leave such discoveries intact until directed to proceed by the authorized officer.

Fish and Wildlife CAT2.7.19

In order to protect big game seasonal fish and wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 30 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Fish and Wildlife CAT2.7.118

In order to protect seasonal fish and wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from June 15 to December 1. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Fish and Wildlife CAT2.7.121

In order to protect seasonal fish and wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from July 16 to March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Fish and Wildlife CAT2.7.122

In order to protect seasonal fish and wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from July 20 to May 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Fish and Wildlife TAR.2008A

No occupancy or other surface disturbance will be allowed on slopes in excess of 40 percent without written permission from the authorized officer of the Federal surface management agency.

No more than 25 percent of the surface area of this lease may be disturbed from surface mining at any given time. Reclamation must be completed and revegetation substantially advanced to the approval of the authorized officer of BLM before additional areas can be disturbed by mining. Exceptions to this requirement may be specifically authorized in writing by the authorized officer of BLM.

To protect important elk and deer winter range, exploration, drilling, and other development activities will be allowed only from April 1 through October 31. This limitation does not apply to maintenance and operation of producing wells or mines. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of BLM.

Fish and Wildlife TAR.2008B

To protect important elk and deer summer range and mule deer fawning areas, exploration, drilling, and other development activities will be allowed only from July 16 through May 17. This limitation does not maintenance and operation of producing wells or mines. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of BLM.

Fish and Wildlife, Antelope CAT2.12.2

NOTICE: The lessee/operator is given notice that the area has been identified as crucial pronghorn (antelope) habitat. Modifications may be required in the surface use plan to protect the pronghorn during the kidding period of May 15 to June 20.

Fish and Wildlife, Mining Method TAR.2003

To protect seasonal fish and wildlife habitat, surface-disturbing activities will be allowed only from June 15 to November 1. This does not apply to maintenance and operation of producing wells and facilities.

Oil and gas resources may be extracted by conventional methods only, no in-situ or surface-mining methods will be employed. Secondary recovery methods of liquid hydrocarbons may be employed only upon the authorized officer of the Federal surface management agency.

Fish and Wildlife, Mining Method TAR.2004

To protect seasonal fish and wildlife habitat, surface-disturbing activities will only be allowed during periods from June 15 to February 15. This does not apply to maintenance and operation of producing wells and facilities.

Access roads will be placed no closer than 0.25 mile of an active nest or a nest known to be active in one of the previous 3 years.

Oil and gas resources may be extracted by conventional methods only, no in-situ or surface mining methods will be employed. Secondary recovery methods of liquid hydrocarbons may be employed only upon approval by the authorized officer of the Federal surface management agency.

Floodplain CAT2.4.17

No occupancy or other surface disturbance will be allowed within 100-year floodplains. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

No Surface Occupancy CAT3.0.1

No occupancy or other activity on the surface is allowed under this lease.

Raptor CAT2.7.79

In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from June 16 to February 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Sage Grouse CAT2.4.5

No occupancy or other surface disturbance will be allowed within 1,000 feet of sage grouse strutting grounds. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

Sage Grouse CAT2.7.108

In order to protect sage grouse strutting/nesting areas, exploration, drilling, and other development activity will be allowed only during the period from June 30 to April 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Sage Grouse CAT2.7.109

In order to protect sage grouse strutting/nesting areas, exploration, drilling, and other development activity allowed only during the period from July 01 to March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Sage Grouse Nesting TAR.2015

To protect important seasonal fish and wildlife habitat, exploration, drilling, and other development activity will be allowed only from July 15 to February 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the surface management agency.

Oil and gas resources may be extracted by conventional methods only. Secondary recovery methods of liquid hydrocarbons may be employed only upon approval by the authorized officer of BLM.

Sage Grouse Strutting Grounds TAR.3001

The area described as Township 5 South, Range 21 East, Sec. 28, NE1/4SE1/4 would contain the no surface occupancy stipulation.

Scenic CAT2.4.9

No occupancy or other surface disturbance will be allowed within 1,300 feet of the highway. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

Scenic CAT2.4.10

No occupancy or other surface disturbance will be allowed within 1,300 feet of Rainbow Park road. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

Scenic CAT2.4.18

No occupancy or other surface disturbance will be allowed within 2,500 feet north of the highway. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

Scenic CAT2.12.6

NOTICE: The lessee/operator is given notice that the area is considered part of the U.S. 40 to Blue Mountain scenic travel corridor. Modifications may be required in the surface use plan to help protect the visual qualities of the area.

Scenic, Paint CAT2.10.1

To maintain aesthetic values, all semi-permanent and permanent facilities may require painting or camouflage to blend with the natural surroundings. The paint's election or method of camouflage will be subject to approval by the authorized officer of the Bureau of Land Management.

Scenic, VRM CAT2.12.3

NOTICE: The lessee/operator is given notice that the area has high quality visual resources. Modifications may be required in the surface use plan to help protect the visual qualities of the area.

Soil, Slope CAT2.6.4

No occupancy or other surface disturbance will be allowed on slopes in excess of 40 percent without written permission from the authorized officer of the Bureau of Land Management.

Soils TAR.2006

No occupancy or other surface disturbance will be allowed on slopes that exceed 40 percent without written permission from the authorized officer of the Federal surface management agency.

To minimize erosion, exploration, drilling, and other development activity will be allowed only from November 1 to April 1 when soils are dry or ground is frozen. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the Federal surface management agency.

Soils TAR.2009

No occupancy or other surface disturbance will be allowed on slopes in excess of 40 percent without written permission from the authorized officer of the Federal surface management agency.

To minimize soil damage, exploration, drilling, and other development activity will be allowed from November 1 to April 1 only during dry soil periods, over a snow cover, or on frozen ground. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the Federal surface management agency.

T & E Species TAR.2005

The Federal surface management agency will assure that the area to be disturbed is examined prior to undertaking any surface-disturbing activities on lands covered by this lease. This examination will determine effects on any

plant or animal species listed or proposed for listing as endangered or threatened or their habitats. If the findings of this examination determine that the operation may detrimentally affect an endangered or threatened species, some restrictions to the operator's plan of operations or disallowances of use may result.

The lessee/operator may, at his discretion and cost, conduct the examination on the lands to be disturbed. This examination must be done by or under the supervision of a qualified resource specialist approved by surface management agency. An acceptable report must be provided to the surface management agency identifying the anticipated effects of the proposed action on threatened or endangered species or their habitat.

T & E Species TAR.2013

The Federal surface management agency is responsible for assuring that the area to be disturbed is examined prior to undertaking any surface-disturbing activities on lands covered by this lease. This examination shall determine effects upon any plant or animal species listed, or proposed for listing, as endangered or threatened or their habitats. If the findings of this examination determine that the operation may detrimentally affect an endangered or threatened species, some restrictions to the operator's plans or disallowances of use may result.

The lessee/operator may, at his discretion and cost, conduct the examination on the lands to be disturbed. This examination must be done by or under the supervision of a qualified resource specialist approved by able report must be provided to the surface management agency identifying the anticipated effects of the proposed action on endangered or threatened species or their habitat.

Visual Resource Management TAR.2014

These areas have been identified as having high aesthetic values and visual sensitivity requiring special protection. Therefore, locations of all long-term permanent facilities should be selected to conform to natural surroundings and color tones on all permanent and semi-permanent structures and facilities must blend with natural surroundings. Both requirements will be subject to final approval by the authorizing officer of the Federal surface management agency.

Watershed CAT2.4.7

No occupancy or other surface disturbance will be allowed within 1,200 feet of Owl Springs. This distance may be modified when specifically approved in writing by the authorized officer.

Watershed CAT2.4.33

No occupancy or other surface disturbance will be allowed within 600 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

Watershed CAT2.7.7

In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from June 01 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Watershed TAR.2001

No occupancy or other surface disturbance will be allowed within 600 feet of wetland and floodplain environments. This distance may be modified when specifically approved in writing by the authorized officer of the Federal surface management agency.

Watershed TAR.2002

No occupancy or other surface disturbance will be allowed within 600 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Federal surface management agency.

Watershed TAR.2007

No occupancy or other surface disturbance will be allowed within 600 feet of wetland and floodplain environments. This distance may be modified when specifically approved in writing by the authorized officer of the Federal surface management agency.

Watershed TAR.2010

No occupancy or other surface disturbance will be allowed within 600 feet of wetland and floodplain environments. This distance may be modified when specifically approved in writing by the authorized officer of the Federal surface management agency.

Watershed TAR.2011

No occupancy or other surface disturbance will be allowed within 600 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Federal surface management agency.

Watershed, Soil CAT2.7.3

In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from April 30 to June 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Watershed, Soil CAT2.7.6

In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Watershed, Soil CAT2.12.1

NOTICE: The area has been identified as having critical to severe soil erosion conditions. In order to minimize watershed damage during muddy and wet periods, the authorized officer of the Bureau of Land Management may prohibit surface disturbing activities. This limitation does not apply to maintenance and operation of producing wells.

Wetland, Floodplain CAT2.4.41

No occupancy or other surface disturbance will be allowed within 600 feet of wetland and floodplain environments. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

CURRENT GUIDANCE ON OIL ANG GAS AND COMBINED HYDROCARBON LEASE STIPULATIONS

Utah BLM policy (IM UT 90-157 states that new oil and gas lease stipulations will follow the format developed by the Rocky Mountain Regional Coordinating Committee (RMRCC) in 1989. The Utah BLM instruction memorandum (IM UT 90-157) and the RMRCC "Uniform Format for Oil and Gas Lease Stipulations" follow.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
324 SOUTH STATE, SUITE 301
SALT LAKE CITY, UTAH 84111-2303

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
1624/1790/
3100
(U-922)

January 24, 1990

Instruction Memorandum No. UT 90-157
Expires 9/30/91

To: District Managers

From: State Director

Subject: Uniform Format for Oil and Gas Lease Stipulations DD: 3/31/90

A uniform format for oil and gas lease stipulations (Attachment 2) was developed by the Rocky Mountain Regional Coordinating Committee (RMRCC) in 1989. The stipulation formats were designed for use throughout the Rocky Mountain region and provide a consistent approach for development of oil and gas leasing stipulations. Most State Offices have already incorporated use of these formats.

The RMRCC uniform stipulation formats and guidelines shall be utilized in all new resource management plans (RMPs)/environmental impact statements (EISs), and oil and gas plan amendments/EISs/EAs. Additionally, the new formats will be incorporated into all such documents in progress where stipulations have not been developed or finalized. The use of the formats requires the RMP/EISs or amendments to contain site-specific and detailed analysis of the oil and gas leasing and operational programs, and their interactions with other resources in order to determine mitigations (lease stipulations and conditions of approval).

Since Utah's ten standard lease stipulations and District variations generally fit into the new standard format, we are requesting you provide us information regarding the replacement of stipulations contained in existing RMPs/EISs with the new format. The level of documentation needed (e.g., administrative/no amendment necessary, or formal amendment of some type required) should be considered. Your views on whether the substitution would change the intent of existing stipulations and your input on the level of documentation required are requested (to U-922) by March 31, 1990. The anticipated effort required to make the substitutions should also be reported. Based upon your responses, we will determine if the new format should be substituted for existing stipulations on all new leases issued.

You are reminded that RMPs/EISs or amendments are to contain detailed criteria for future changes such as waivers, modifications, and/or exceptions to lease stipulations as prescribed in the Supplemental Program Guidance for Energy and Mineral Resources (BM 1624). The RMP/EIS or amendment should define whether

stipulation changes will be considered significant/substantial, therefore requiring 30-day posting pursuant to the Federal Onshore Oil and Gas Leasing Reform Act, or are minor requiring no posting (see 43 CFR 3101.1-4). By presenting any possibilities of waiver, modifications, and/or exceptions, and describing the circumstances that would lead to such actions in a pre-lease planning/NEPA document that was subject to public review, potential delays in lease issuance/APD approval could be avoided. The RMRCC uniform stipulation formats include clauses in the stipulations to establish circumstances for waivers, modifications, and/or exceptions.

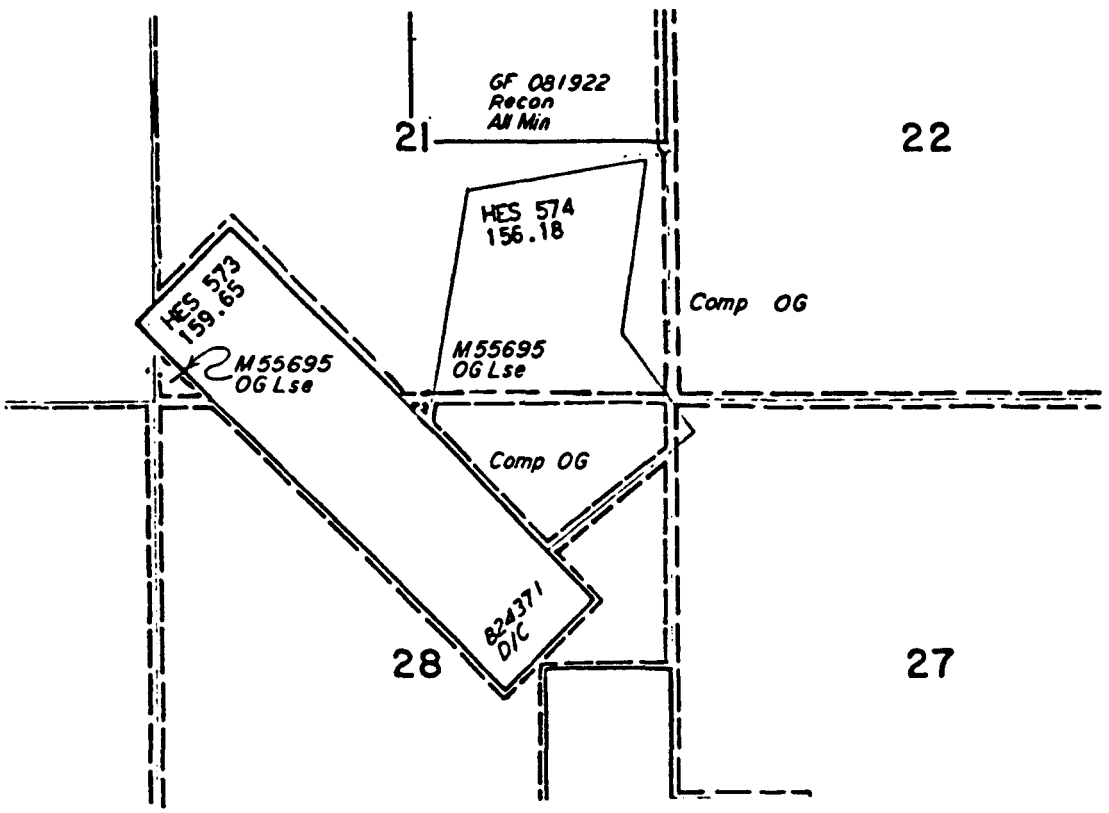
Any questions on this matter should be directed to U-922.

Randy D. Heuscher
Acting State Director

2 Attachments (one set only to each District)
1. RMRCC Brochure (1p)
2. Uniform Format for Oil and Gas Stipulations (14p)

Distribution
Director, 600, 5627 MIB (1)
SCD, SC-100 (1)

UNIFORM FORMAT FOR OIL AND GAS LEASE STIPULATIONS



Final Recommendations Prepared By:

Rocky Mountain Regional Coordinating Committee

March 1989

ROCKY MOUNTAIN REGIONAL COORDINATING COMMITTEE
STIPULATION SUBCOMMITTEE
STANDARDIZATION OF STIPULATION FORMAT

March 1989

CONTENTS

General Guidance	1
Definitions	2
No Surface Occupancy Guidance	4
No Surface Occupancy Stipulation Example (Figure 1)	5
Timing Limitation Stipulation Guidance	6
Timing Limitation Stipulation Example (Figure 2)	7
Controlled Surface Use Stipulation Guidance	8
Controlled Surface Use Stipulation Example (Figure 3)	9
Special Administration Stipulation Guidance	10
Lease Notice Guidance	11
Lease Notice Example (Figure 4)	12
Stipulation Forms	13
No Surface Occupancy Stipulation	14
Timing Limitation Stipulation	15
Controlled Surface Use Stipulation	16

GENERAL GUIDANCE

Introduction

Federal land managers and the oil and gas industry have noted inconsistency and variation in the application of lease stipulations and notices between the various offices of Federal land management agencies throughout the Rocky Mountain States. The Coordinating Committee has been requested to determine if the number of apparently similar stipulations could be reduced, their wording standardized, and guidelines developed for consistent usage. This document provides guidance for the standardization of Federal oil and gas lease stipulations, uniform definitions, format, and wording. These guidelines were developed by the Bureau of Land Management and Forest Service but may be adopted and used by other surface management agencies.

In consolidating existing stipulations to a minimum number and expressing them in a standardized format, emphasis was placed on providing a system for accommodating all necessary lease conditions recognized by Federal land managers. Stipulations are to be part of a lease only when the environmental and planning record demonstrates the necessity for the stipulations. Stipulations, as such, are neither "standard" nor "special" but rather a necessary modification of the terms of the lease.

These forms, given on Pages 14-16, provide for standardized structure, wording, and usage. In order to accommodate the variety of resources encountered on Federal lands, these stipulations are categorized as to how the stipulation modifies the lease rights, not by the resource(s) to be protected. What, why, and how this mitigation/protection is to be accomplished is determined by the land manager through the land use planning and National Environmental Policy Act (NEPA) analysis.

Implementation

If upon weighing the relative resource values, there are values, uses, and/or users identified that conflict with oil and gas operations and cannot be adequately managed and/or accommodated on other lands, a lease stipulation is necessary. Land use plans serve as the primary vehicle for determining the necessity for lease stipulations (BLM Manual 1624). Documentation of the necessity for a stipulation is disclosed in planning documents or through site-specific analysis. Land use plans and/or NEPA documents also establish the guidelines by which future waivers, exceptions, or modifications may be granted. Substantial modification or waiver subsequent to lease issuance is subject to public review for at least a 30-day period in accordance with Section 5102.f of the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (FOOGLRA).

Stipulations may be necessary if the authority to control the activity on the lease does not already exist under laws, regulations, or orders. It is important to recognize that the authorized officer has the authority to modify the siting and design of facilities, control the rate of development and timing of activities as well as require other mitigation under Sections 2 and 6 of the standard lease terms (BLM Form 3100-11) and 43 CFR 3101.1-2.

The necessity for individual lease stipulations is documented in the lease-file record with reference to the appropriate land use plan or other leasing analysis document. The necessity for exceptions, waivers, or modifications will also be documented in the lease-file record through reference to the appropriate plan or other analysis. The uniform format for stipulations should be implemented when amendments or revisions of land use plans are prepared or by other appropriate means.

The uniform format for stipulations is designed to accommodate most existing stipulations by providing space to record the local mitigation objectives. The stipulations have been developed for the categories of: (1) no surface occupancy, (2) timing or seasonal restriction, and (3) controlled surface use. This guidance also includes the use of lease notices. There is also provision for special or unique stipulations, such as those required by prior agreements between agencies when the standardized forms are not appropriate. In all cases, use of the uniform forms for stipulations will require identification of specific resource values to be protected and description of the specific geographical area covered. Stipulations attached to noncompetitive leases will require the applicant's acceptance and signature.

DEFINITIONS

Condition of Approval (COA): Conditions or provisions (requirements) under which an Application for a Permit to Drill or a Sundry Notice is approved.

Controlled Surface Use (CSU): Use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for the NSO or Timing stipulations.

Exception: Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria applies.

Lease Notice: Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A Lease Notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions. Lease Notices attached to leases should not be confused with NTLs--Notices to Lessees. (See 43 CFR 3160.0-5)

Modification: Fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may, therefore, include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

No Surface Occupancy (NSO): Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values. The NSO stipulation includes stipulations which may have been worded as "No Surface Use/ Occupancy," "No Surface Disturbance," "Conditional NSO," *and* "Surface Disturb-

ance or Surface Occupancy Restriction (by location)."

Notice to Lessees (NTL): The NTL is a written notice issued by the authorized officer. NTLs implement regulations and operating orders, and serve as instructions on specific item(s) of importance within a State, District, or Area.

Stipulation: A provision that modifies standard lease rights and is attached to and made a part of the lease.

Timing Limitation (Seasonal Restriction): Prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project-specific mitigation measures would be insufficient.

Waiver: Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

NO SURFACE OCCUPANCY STIPULATION GUIDANCE

The No Surface Occupancy (NSO) stipulation is intended for use only when other stipulations are determined insufficient to adequately protect the public interest. The land use plan/NEPA document prepared for leasing must show that less restrictive stipulations were considered and determined by the authorized officer to be insufficient. The planning/NEPA record must also show that consideration was given to a no-lease alternative when applying a NSO stipulation. A No Surface Occupancy Stipulation is not needed if the desired protection would not require relocation of proposed operations by more than 200 meters (43 CFR 3101.1-2).

The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land use plan and/or NEPA document. Land description may be stated as: the "Entire Lease", Distance from resources and facilities such as rivers, trails, campgrounds, etc.; legal description; geographic feature such as the 100-year floodplain, municipal watershed, percent of slope, etc.; Special Areas with identified boundaries--area of critical environmental concern, Wild and Scenic River, etc., or other description that specifies the boundaries of the lands affected. The estimated percent of the total lease area affected by the restriction must be given if no legal or geographic description of the location of the restriction is given. In other cases the estimated percent is optional. (See Example: Figure 1).

Land use plans and/or NEPA documents should identify the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications must be supported by appropriate environmental analysis and documentation, and subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the NSO stipulation form to provide the lessee with information or circumstances under which waivers, exceptions, or modifications would be considered. A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource values have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations will protect the public interest. Waivers, exceptions or modifications can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land use planning document, that document must be amended as necessary, or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver of the stipulation will be subject to public review (43 CFR 3101.1-4). The land use plan may also identify other cases when a public review is required for waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: "A 30-day public notice period is required prior to modification or waiver of this stipulation."

EXAMPLE

Serial No._____

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

a. T. 147 N., R. 103 W., 5th P.M.
Sec. 29: N1/2NW1/4, SW1/4NW1/4

b. 1,320 feet from scenic and recreational segments of Flathead Wild and Scenic River.

T. 31 N., R. 17 W., PMM
Sec. 28: E1/2SE1/4

For the purpose of:

a. Avoidance of steep slopes exceeding 40 percent to avoid mass slope-failure (Management D, Custer Forest Plan, page 55).

b. Protection of visual and recreational qualities as discussed in Flathead Forest Plan (p. 89) and EIS (p.171).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

FIGURE 1

TIMING LIMITATION STIPULATION GUIDANCE

The Timing Limitation (often called seasonal) Stipulation prohibits fluid mineral exploration and development activities for time periods less than yearlong. When using this stipulation, assure that date(s) and location(s) are as specific as possible. A timing stipulation is not necessary if the time limitation involves the prohibition of new surface disturbing operations for periods of less than 60 days (43 CFR 3101.1-2).

The land use plan/NEPA document prepared for leasing must show that less restrictive stipulations were considered and determined to be insufficient. The environmental effects of exploration, development, and production activities may differ markedly from each other in scope and intensity. If the effects of reasonably foreseeable production activities necessitate timing limitation requirements, this need should be clearly documented in the record. The record should also show that less stringent, project-specific mitigation may be insufficient. In such cases the stipulation language should be modified on a case-by-case basis to clearly document that the timing limitation applies to all stages of activity.

The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land use planning and/or NEPA document. The timing limitations for separate purposes may be written on separate forms or as one combined stipulation. (See Example: Figure 2.) During the review and decisionmaking process for APD's and Sundry Notices, the date(s) and location(s) should be refined based on current information.

Land use plans and/or NEPA documents should identify the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications of this stipulation such as continuing drilling operations into a restricted time period, must be supported with appropriate environmental analysis and documentation, and will be subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the stipulation form to provide the lessee with information or circumstances under which waiver, exception, or modification would be considered. The need for one-time, case-by-case exceptions of timing limitation stipulations may arise from complications or emergencies during the drilling program. The need for timely review and decisionmaking is great in such cases. For this reason, it is desirable that land use plans/NEPA documents clarify what review procedures and other requirements, if any, will apply in such cases.

A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource values have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations will protect the public interest. Waivers, exceptions or modifications can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land use planning document, and that document does not disclose the conditions under which such changes will be allowed, the plan or NEPA document must be amended as necessary, or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver of the stipulation will be subject to public review (e.g., 43 CFR 3101.1-4). The land use plan may also identify other cases when a public review is required for waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: "A 30-day public notice period is required prior to modification or waiver of this stipulation."

EXAMPLE

Serial No._____

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

a. May 1 to June 15.

b. During periods when soils are water saturated.

On the lands described below:

a. Section 21, T. 22 N., R.12 E.

b. Entire Lease.

For the purpose of (reasons):

a. Protect elk calving area; North Fork Forest Plan (p. 62) and EIS (p. A-34).

b. Prevent excessive soil erosion and stream sedimentation resulting from construction activities during periods when soils are saturated. This does not apply to operation and maintenance of production facilities; Broad Draw Resource Management Plan (p. 61).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

FIGURE 2

CONTROLLED SURFACE USE STIPULATION GUIDANCE

The Controlled Surface Use (CSU) Stipulation is intended to be used when fluid mineral occupancy and use are generally allowed on all or portions of the lease area yearround, but because of special values, or resource concerns, lease activities must be strictly controlled. This stipulation replaces stipulations commonly referred to as Limited Surface Use Stipulations. The CSU Stipulation is used to identify constraints on surface use or operations which may otherwise exceed the mitigation provided by Section 6 of the standard lease terms and the regulations and operating orders. The CSU Stipulation is less restrictive than the NSO (No Surface Occupancy) or Timing Limitation stipulations, which prohibit all occupancy and use on all or portions of a lease for all or portions of a year. The CSU Stipulation should not be used in lieu of an NSO or Timing Limitation Stipulation. The use of this stipulation should be limited to areas where restrictions or controls are necessary for specific types of activities rather than all activity.

The stipulation should explicitly describe what activity is to be restricted or controlled, or what operation constraints are required, and must identify the applicable area and the reason for the requirement. The record must show that less restrictive stipulations were considered and determined to be insufficient. The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land use plan and/or NEPA document. (See Example: Figure 3)

Land use plans and/or NEPA documents should identify the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications of this stipulation must be supported with appropriate environmental analysis and documentation, and will be subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the stipulation form to provide the lessee with information or circumstances under which waiver, exception, or modification would be considered. A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource values have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations will protect the public interest. Waivers, exceptions or modifications can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land use planning document, that document must be amended as necessary, or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification, or waiver of the stipulation will be subject to public review (43 CFR 3101.1-4). The land use plan may also identify when a public review is required for waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: "A 30-day public notice period is required prior to modification or waiver of this stipulation."

EXAMPLE

Serial No._____

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints.

Unless otherwise authorized, access to this leasehold will be limited to the established roadway.

On the lands described below:

Entire lease

For the purpose of:

To meet visual quality objectives and to protect semiprimitive recreation values; Grand Junction Resource Management Plan (p. 89).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

FIGURE 3

SPECIAL ADMINISTRATION STIPULATION GUIDANCE

There is no required or suggested uniform format for these stipulations. They are usually provided by another agency or organization. However, other agencies are to be encouraged to use the uniform stipulation format.

Special Administration Stipulations are used in situations where the three uniform stipulation forms or Lease Notices do not adequately address the concern. Special Administration Stipulations should be used only when special external conditions, such as pre-existing agreements with other agencies, require use of a one-of-a-kind stipulation that is not used in any other area or situation. The resource use or value, location, and specific restrictions must be clearly identified. In addition, the external agency, agreement or pre-existing use that dictates the special restrictions must be identified. The stipulation should state if and under what circumstances a waiver, exception, or modification may be allowed

EXAMPLES OF SPECIAL ADMINISTRATION STIPULATIONS ARE:

1. Stipulation for Lands of the National Forest System Under Jurisdiction of Department of Agriculture (Bureau of Land Management IM 84-415).

2. Stipulation for leases subject to a Highway Material Site Right-of-Way (Bureau of Land Management, New Mexico; Agreement with New Mexico Highway Department).

3. New Mexico Potash Stipulation for Oil and Gas Leases (Department of Interior, Federal Register Notice, November 5, 1975).

4. Jackson Hole Area Oil and Gas Lease Stipulation (Department of the Interior, Federal Register Notice, August 30, 1947).

5. White Sands Missile Range Stipulation (Bureau of Land Management, New Mexico; Agreement with Army Corps of Engineers).

6. Lease Stipulation, Bureau of Reclamation, Form 3109-1, (Bureau of Land Management, Utah; Agreement with Bureau of Reclamation).

7. Special State of Idaho Stipulations; Bureau of Aeronautics and Public Transportation (Bureau of Land Management, Idaho; Agreement with State of Idaho).

LEASE NOTICE GUIDANCE

Lease Notices are attached to leases to transmit information at the time of lease issuance to assist the lessee in submitting acceptable plans of operation, or to assist in administration of leases. Lease Notices are attached to leases in the same manner as stipulations, however, there is an important distinction between Lease Notices and Stipulations. Lease Notices do not involve new restrictions or requirements. Any requirements contained in a Lease Notice must be fully supported in either a law, regulations, standard lease terms, or onshore oil and gas orders. A Lease Notice is not signed by the lessee. Guidance in the use of Lease Notices is found in BLM Manual 3101 and 43 CFR 3101.1-3.

A lease notice should contain the following elements: (1) the resource/use/value; the lands affected, if applicable; (2) the reason(s); (3) the effect on lease operations or what may be required; and (4) a reference to the lease term, regulation, law or order from which enforcement authority is derived.

If a situation or condition is known to exist that could affect lease operations, there should be full disclosure at the time of lease issuance via a Lease Notice. If a lessee may be prevented from extracting oil and gas through a prohibition mandated by a specific nondiscretionary statute, such as the Endangered Species Act, then a stipulation may be used even though a Lease Notice would be sufficient. It is at the discretion of the authorized officer whether a situation is sufficiently sensitive to warrant the use of a lease stipulation. An examples of a Lease Notice is found in Figure 4.

EXAMPLE

Serial No._____

LEASE NOTICE

A 5-acre graveyard is located in the NW1/4NW1/4, Section 6, T. 5 N., R. 31 W., 6PM. In accordance with Section 6 of the lease terms and 43 CFR 3101.1-2, exploration and development activities must occur outside the graveyard.

Form #/Date

Figure 4

Serial No._____

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

Serial No._____

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

For the purpose of (reasons):

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

Serial No._____

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints.

On the lands described below:

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

APPENDIX 4
DIAMOND MOUNTAIN RESOURCE AREA PROPOSED OIL AND GAS LEASE STIPULATIONS/LEASE NOTICES

Lease Stipulations

The RMP/EIS serves as the primary vehicle for identifying and documenting the need for constraints on fluid mineral exploration and development activities. Constraints in the form of stipulations are conditions of lease issuance which provide protection for other resource values or land uses by establishing authority for substantial delay or site changes or denial of operations within the terms of the lease contract. The stipulations identified in the RMP must be applied to all new leases. Such constraints or requirements may also be applied to new use authorizations on existing leases provided that they are consistent with the authority reserved by the terms and conditions of the lease.

The plan also serves as a vehicle for explaining to the public the conditions under which waivers, exceptions, or modifications of lease stipulations may be granted. A waiver is a permanent exemption to a lease stipulation. An exception is a one time exemption to a lease stipulation which is determined on a case-by-case basis. A modification is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Substantial modification or waiver subsequent to lease issuance is subject to public review for at least a 30-day period in accordance with Section 5102.f of the Federal Onshore Oil and Gas Leasing Reform Act of 1987.

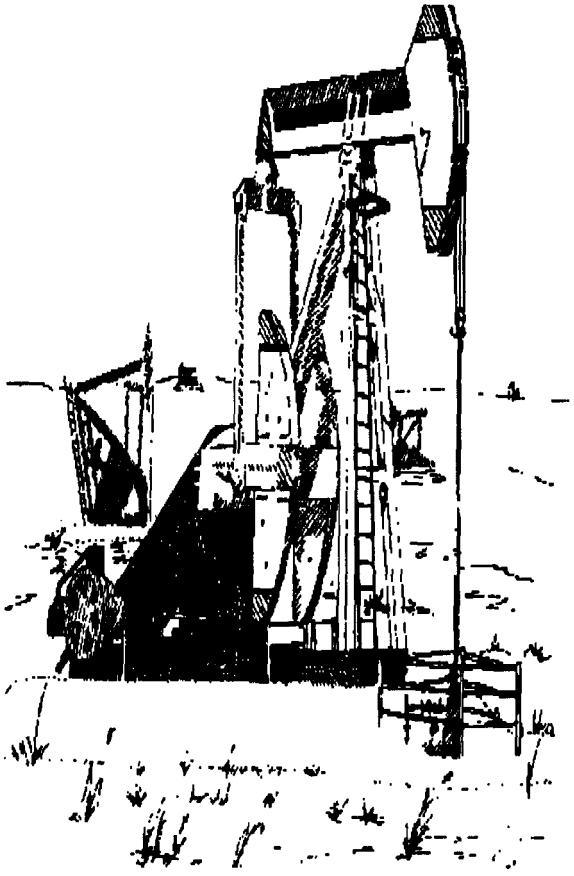
The format of the written oil and gas lease stipulations for the Diamond Mountain Resource Management Plan follow the "Uniform Format for Oil and Gas Lease Stipulations" (Rocky Mountain Regional Coordinating Committee, March 1989).

Lease Notices

Lease Notices are attached to leases to transmit information at the time of lease issuance to assist the lessee in submitting acceptable plans of operation, or to assist in the administration of leases. Lease Notices are attached to leases in the same manner as stipulations, however, there is an important distinction between Lease Notices and Stipulations. Lease Notices do not involve new restrictions or requirements, and a Lease Notice is not signed by the lessee. As per 43 CFR 3101.1-3, lease/informational notices are not a basis for denial of operations.

Application

The following oil and gas lease stipulations and notices for the Diamond Mountain Resource Area will replace previous stipulations and lease notices used to place on new oil and gas leases. Therefore, the new stipulations and notices which are described in this Appendix will apply to all new leases.



NO SURFACE OCCUPANCY STIPULATIONS

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
RELICT VEGETATION SITES

Serial No._____
GIS Map Reference: RELIC.V$

No surface occupancy or use is allowed on lands in Lears Canyon, Castle Cove, and Red Mountain areas.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting relict vegetation and associated habitat as described in the Diamond Mountain Resource Management Plan and EIS (See p._____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
SPECIAL STATUS PLANT SPECIES (FEDERALLY LISTED SPECIES ONLY)

Serial No._____
GIS Map Reference: PF.TEP$

No surface occupancy or use is allowed on the lands containing special status plant species habitat (federally listed species only).

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting special status plant habitat (Federally listed species only) as described in the Diamond Mountain Resource Management Plan and EIS (See p. ___). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
GREEN RIVER SCENIC CORRIDOR/FLOODPLAIN

Serial No._____
GIS Map Reference: BP.FLOOD$

No surface occupancy or use is allowed on the lands contained within the Green River Scenic Corridor or the Upper Green River floodplain.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting Green River Scenic Corridor or the Upper Green River floodplain for recreational values as described in the Diamond Mountain Resource Management Plan and EIS (see p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or if the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
BROWNS PARK COMPLEX

Serial No._____
GIS Map Reference: BP.VISTA

No surface occupancy or use is allowed on the lands in the Browns Park Complex area within VRM Class II areas or within line of sight or, 1/2 mile (whichever is less) of the Green River.

On the lands described below:

a.

For the purpose of:

a. Preserving the form, line, color, or texture of the landscape so as not to attract the viewer's attention as described in the Diamond Mountain Resource Management Plan and EIS (p. ____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
LOWER GREEN RIVER SEGMENT-VISUAL CORRIDOR

Serial No._____
GIS Map Reference: LWR.GR$

No surface occupancy or use is allowed in the Lower Green River segment- Visual Corridor within 1/2 mile or line of sight, whichever is less, of the Green River.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting the Lower River visual corridor as described in the Diamond Mountain Resource Management Plan and EIS (see p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
PELICAN LAKE/PELICAN LAKE SPECIAL RECREATION MANAGEMENT AREA

Serial No._____
GIS Map Reference: PELIC$/PELICAN$

No surface occupancy or use is allowed on the lands containing Pelican Lake and Pelican Lake Special Recreation Management Area.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting the area for recreational values as described in the Diamond Mountain Resource Management Plan and EIS (see p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
RED MOUNTAIN: POTENTIAL RECREATION AREA

Serial No._____
GIS Map Reference: PFREDREC$

No surface occupancy or use is allowed on the Red Mountain potential recreation area.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting the Moonshine arch potential recreational area as described in the Diamond Mountain Resource Management Plan and EIS (see p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION NATIONAL HISTORIC LANDMARK AREAS, REGISTER PROPERTIES, AND POTENTIAL REGISTER PROPERTIES

Serial No. _____
GIS Map Reference: NHL$
GIS Map Reference: NRS$
GIS Map Reference: P NRS$

No surface occupancy or use is allowed on National Historic Landmark Areas, Register Properties, and Potential Register Properties.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting National Historic Landmark Areas, Register Properties, and Potential Register Properties as described in the Diamond Mountain Resource Management Plan and EIS (see p.____). Waviers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION DEVELOPED OR POTENTIAL RECREATION SITES

Serial No._____
GIS Map Reference: REC.SIT$
GIS Map Reference: POTREC$

No surface occupancy or use is allowed on developed or potential recreation sites.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting the developed and potential recreational sites as described in the Diamond Mountain Resource Management Plan and EIS (see p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
SEMI-PRIMITIVE NONMOTORIZED AREAS

Serial No._____
GIS Map Reference: SPNME$

No surface occupancy or use is allowed in semi-primitive, nonmotorized areas.

On the lands described below:

a.

For the purpose of:

a. Protection of visual and primitive recreational qualities (These closures and limitations would not apply to BLM permitted uses that require off-road travel, such as grazing operations) as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
PEREGRINE FALCON NEST SITES

Serial No._____
GIS Map Reference: PFPENSO$

No surface occupancy or use is allowed (does not apply to casual use) within 1 mile of known peregrine falcon nests. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts could be mitigated through other management action or site specific analysis of terrain features.

On the lands described below:

a.

For the purpose of:

a. Protection of Peregrine Falcon nest sites and surrounding habitat as described in the Diamond Mountain Resource Management Plan and EIS (p._____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
BALD EAGLE NEST SITES

Serial No._____
GIS Map Reference: No Nests as of 6/93

No surface occupancy or use is allowed (does not apply to casual use) within 1/2 mile of known bald eagle nests. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts could be mitigated through other management actions or site specific analysis of terrain features.

On the lands described below:

a.

For the purpose of:

a. Protection of the bald eagle nest sites as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
GOLDEN EAGLE NEST SITES

Serial No._____
GIS Map Reference: PFGONSO$

No surface occupancy or use is allowed (does not apply to casual use) within 1/2 mile of known golden eagle nests. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts could be mitigated through other management actions or site specific analysis of terrain features. Would not apply if the proposed action would not adversely affect current use or limit or preclude potential future use unless a permit to take is obtained from the U.S. Fish and Wildlife Service.

On the lands described below:

a.

For the purpose of:

a. Protection of golden nest sites as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
FERRUGINOUS HAWK NEST SITES

Serial No._____
GIS Map Reference: PFFENSO$

No surface occupancy or use is allowed (does not apply to casual use) within 1/2 mile of known ferruginous hawk nests. This restriction would not apply to maintenance and operation of existing facilities. It would not apply if impacts could be mitigated through other management actions or site specific analysis of terrain features. Would not apply if the proposed action would not adversely affect current use or limit or preclude potential future use unless a permit to take is obtained from the U.S. Fish and Wildlife Service.

On the lands described below:

a.

For the purpose of:

a. Protection of ferruginous hawk nest sites as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications, to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
PARIETTE WETLANDS-GOOSE NEST SITES

Serial No._____
GIS Map Reference: PFGOOS$

No surface occupancy or use is allowed within 1/8 mile of active goose nest sites.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting active goose nest sites as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
BROWNS PARK COMPLEX-CRUCIAL DEER WINTER HABITAT

Serial No._____
GIS Map Reference: BP.VEP$

No surface occupancy or use is allowed on the lands in the Browns Park Crucial Deer Winter Habitat (sagebrush vegetation type).

On the lands described below:

a.

For the purpose of:

a. Protection and preservation of crucial deer winter habitat as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

NO SURFACE OCCUPANCY STIPULATION
SAGE GROUSE STRUTTING GROUNDS

Serial No._____
GIS Map Reference: LEK1K$

No surface occupancy or use is allowed within 1,000 feet of sage grouse strutting grounds.

On the lands described below:

a.

For the purpose of:

a. Protection of sage grouse strutting grounds as described in the Diamond Mountain Resource Management Plan and EIS (see p.____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

TIMING LIMITATION STIPULATIONS

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

TIMING LIMITATION STIPULATION
SAGE GROUSE LEK NESTING AREAS

Serial No._____
GIS Map Reference: PFLEK2$

No surface use is allowed within the nesting areas during the following time period. This stipulation does not apply to operation and maintenance of facilities. This stipulation would not apply if sage grouse are not present or if impacts could be mitigated.

a. From March 1 through June 30.

On the lands described below:

a.

For the purpose of:

a. Protecting and preserving sage grouse lek nesting areas on sage vegetation types as described by the Diamond Mountain Resource Management Plan and EIS (see p.____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

TIMING LIMITATION STIPULATION
ANTELOPE FLAT ANTELOPE FAWNING AREAS

Serial No._____
GIS Map Reference: ANT.FAWN$

No surface use is allowed within the Antelope Flat antelope fawning areas during the following time period. This stipulation does not apply to operation and maintenance of facilities or if animals are not present.

a. From May 1 through June 30.

On the lands described below:

a.

For the purpose of:

a. Protecting antelope fawning areas as described by the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

TIMING LIMITATION STIPULATION
CRUCIAL DEER AND ELK WINTER RANGE

Serial No_____
GIS Map Reference: PF.DEW2$

No surface use is allowed within crucial deer and elk winter range during the following time period. This stipulation does not apply to operation and maintenance of facilities or if animals are not present.

a. From December 1 through April 30.

On the lands described below:

a.

For the purpose of:

a. Preventing adverse impacts that would cause significant displacements of deer or elk herds or loss of habitat as described in the Diamond Mountain Resource Management Plan and EIS (see p._____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

TIMING LIMITATION STIPULATION
RED MOUNTAIN AREA: CRUCIAL DEER AND ELK WINTER RANGE

Serial No._____
GIS Map Reference: PFOHV.OK$

No surface use is allowed within the Red Mountain Area crucial deer and elk winter range during the following time period. This stipulation does not apply to operation and maintenance of facilities or if animals are not present.

a. From December 1 through March 31.

On the lands described below:

a.

For the purpose of:

a. Preventing adverse impacts that would cause significant displacements of deer or elk herds or loss of habitat as described in the Diamond Mountain Resource Management Plan and EIS (see p._____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

TIMING LIMITATION STIPULATION
PARIETTE WETLANDS-WATERFOWL

Serial No._____
GIS Map Reference: PFWATHAB$

No surface use is allowed in the Pariette Wetlands during the following time period. This stipulation does not apply to operation and maintenance of facilities.

a. From March 1 through May 25.

On the lands described below:

a.

For the purpose of:

a. Preventing adverse impacts that would cause significant displacements of waterfowl and/or loss of habitat as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

TIMING LIMITATION STIPULATION
BIGHORN SHEEP LAMBING AREAS

Serial No. _____
GIS Map Reference: HBSP.1MB$

No surface use is allowed in bighorn Sheep lambing areas during the following time period. This stipulation does not apply to operation and maintenance of existing facilities.

a. From April 15 through June 30.

On the lands described below:

a.

For the purpose of:

a. Protecting bighorn sheep lambing areas as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this lease notice will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

TIMING LIMITATION STIPULATION
BIGHORN SHEEP WINTER, RUTTING AREAS

Serial No._____
GIS Map Reference: HBSP.1MB$

No surface use is allowed within one mile of active bighorn sheep winter and rutting areas during the following time period. This stipulation does not apply if bighorn sheep are not present. The stipulation does not apply to operation and maintenance of existing facilities.

a. From September 1 through May 15.

On the lands described below:

a.

For the purpose of:

a. Protecting bighorn sheep winter and rutting areas as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this lease notice will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

Form #/Date

CONTROLLED SURFACE USE STIPULATIONS

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

CONTROLLED SURFACE USE STIPULATION
VRM CLASS II AREAS

Serial No._____
GIS Map Reference: VRM2$

Surface occupancy or use is subject to the following special operating constraints.

a. Allow only short-term or mitigable visual intrusions on VRM Class II lands.

On the lands described below:

a.

For the purpose of:

a. Preserving the form, line, color or texture of the landscape so as not to attract the viewer's attention as described in the Diamond Mountain Resource Management Plan and EIS (p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

CONTROLLED SURFACE USE STIPULATION
RED MOUNTAIN-DRY FORK COMPLEX
CRITICAL SOILS, MUNICIPAL WATERSHEDS, FLOODPLAINS

Serial No._____
GIS Map Reference: DM.MWP$; ERODE2$; HSALT$; DM.FLP$

Surface occupancy or use is subject to the following special operating constraints.

a. Preclude surface disturbing activities in areas of critical soils (higly saline and/or erodible), municipal watersheds and floodplains during times of saturated soils (usually Spring runoff and Fall rains.

On the lands described below:

a.

For the purpose of:

a. Preserving and protecting critical soils, floodplains, and municipal watershed from severe erosion as described in the Diamond Mountain Resource Management Plan and EIS (See p. _____). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

LEASE NOTICES

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
PEREGRINE FALCON HABITAT

Serial No._____
GIS Map Reference: PFPERIG$

LEASE NOTICE: The lessee/operator is given notice that lands in this lease have been identified as containing Peregrine Falcon Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Peregrine Falcon and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2. These lands are described as:

a.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
BALD EAGLE HABITAT

Serial No._____
GIS Map Reference: PFEAGLE$

LEASE NOTICE: The lessee/operator is given notice that lands in this lease have been identified as containing Bald Eagle Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Bald Eagle and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2. These lands are described as:

a.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
GOLDEN EAGLE HABITAT

Serial No._____
GIS Map Reference: PFGOLDE$

LEASE NOTICE: The lessee/operator is given notice that lands in this lease have been identified as containing Golden Eagle Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Golden Eagle and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2. These lands are described as:

a.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
FERRUGINOUS HAWK HABITAT

Serial No._____
GIS Map Reference: PFFERU$

LEASE NOTICE: The lessee/operator is given notice that lands in this lease have been identified as containing Ferruginous Hawk Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Ferruginous Hawk and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2. These lands are described as:

a.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
HIGH POTENTIAL PALEONTOLOGICAL RESOURCES

Serial No._____
GIS Map Reference: PF.PALEO

LEASE NOTICE: The lessee/operator is given notice that lands in this lease have been identified as having high potential paleontological resources. Modifications to the Surface Use Plan of Operations may be required in order to protect paleontological resources from surface disturbing activities in accordance with Section 6 of the lease terms and 43 CFR 3101.1-2. These lands are described as:

a.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
SPECIAL STATUS PLANTS: NOT FEDERALLY LISTED

Serial No._____
GIS Map Reference: PFSS_PLNT/TE.PAR$

LEASE NOTICE: The lessee/operator is given notice that lands in this lease have been identified as containing special status plants, not federally listed, and their habitats. Modifications to the Surface Use Plan of Operations may be required in order to protect the special status plants and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2. These lands are described as:

a.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
POTENTIAL BLACK FOOTED FERRET HABITAT AREA

Serial No._____
GIS Map Reference: PF.HIFER$

LEASE NOTICE: The lessee/operator is given notice that lands in this lease have been identified as containing potential Black Footed Ferret Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Black Footed Ferret and/or habitat from surface disturbing activities in accordance with Appendix 2 of the Diamond Mountain Resource Management Plan and EIS, Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2. These lands are described as:

a.

Form #/Date

United States Department of Interior
Bureau of Land Management
Utah State Office: Diamond Mountain Resource Area

LEASE NOTICE
BIGHORN SHEEP WINTERING, RUTTING AREAS

Serial No._____
GIS Map Reference: HBSP.1MB$

LEASE NOTICE: The lessee/operator is given notice that the area has been identified as containing bighorn sheep wintering and rutting areas. Modifications, including seasonal restrictions from September 1 through May 15, may be required in the Surface Use Plan of Operations to protect these resource values. This notice may be waived, excepted, or modified by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated. These lands are described as:

a.

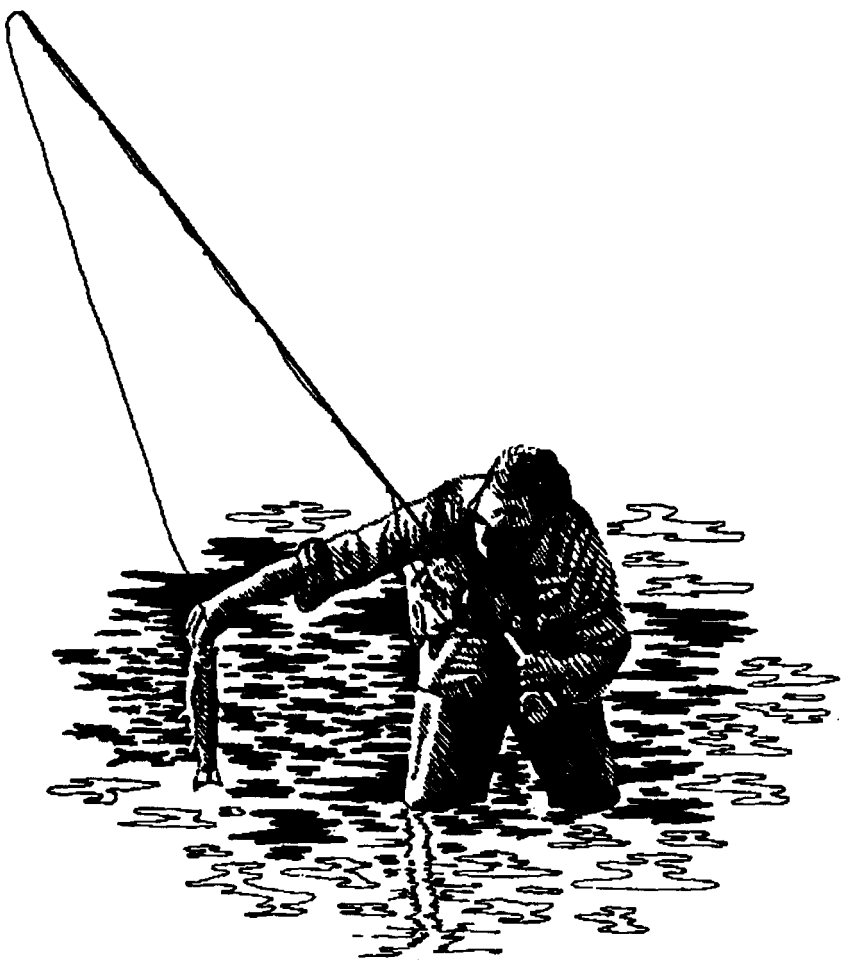
Form #/Date

APPENDIX 5

RECREATION

CONTENTS:

Recreation Opportunity Spectrum Criteria



ROS SETTING FACTORS

FACTOR	PRIMITIVE	SEMI PRIMITIVE NON MOTORIZED	SEMI PRIMITIVE MOTORIZED	ROADED NATURAL	RURAL	MODERN URBAN
Remoteness	At least 3 miles from all roads or railroads	At least 0.5 mile from all roads or railroads	Within 0.5 mile of primitive roads and at least 0.5 mile from better than primitive roads.	Within 0.5 mile of better than primitive roads.	No distance criteria	No distance criteria
Size Criteria	5,000 acres	2,500 acres	2,500 acres	No size criteria	No size criteria	No size criteria
Evidence of Human Use	Unmodified natural environment; surface disturbance rare and small; trails okay; no roads; structures small and rare.	Setting may have subtle modifications; surface disturbance limited and small, little or no evidence of primitive roads or motorized use, small isolated structures may be present.	Setting may have subtle modifications; surface disturbance limited and small, primitive roads and motorized use are present; small isolated structures may be present.	Moderate evidence of human modification harmonious with landscape; surface modification common; roads and highways present; structures scattered and visually subordinate; recreation facilities small and rustic.	Setting substantially modified; surface modifications typical; roads and highways present; cultivated lands common; structures readily apparent, small dominant clusters, developed recreation facilities.	Natural setting subordinate to culturally modified landscapes.
Social Setting	Fewer than six parties encountered on trail per day; fewer than three parties visible at campsite; little evidence of previous recreation use.	Six to ten parties encountered on trail per day; fewer than 6 parties visible at campsite; limited evidence of previous recreation use.	Low to moderate contact frequency.	Frequency of contact is moderate in developed sites and on roads; low to moderate elsewhere.	Frequency of contact is moderate to high in developed sites and on roads and trails; moderate elsewhere.	Large numbers of users on-site and in nearby areas.
Managerial Setting	No on-site conrols; only off-site; on-site facilities for resource protection only; no facilities for user convenience or safety.	Off-site controls preferred, on-site controls subtle; facilities are avoided but may be provided for resource protection or user safety.	On-site controls present but subtle; facilities for resource protection and user safety, law enforcement occasionally visible.	On-site controls noticeable, but harmonious with natural environment; rustic facilities for user convenience and resource protection, law enforcement occasionally visible.	On-site controls obvious and numerous facilities widely available for user convenience, safety, special activities and resource protection; law enforcement moderately visible.	On-site controls are numerous; facilities for intensive use are provided. Law enforcement is highly visible.

APPENDIX 6

RIPARIAN

CONTENTS:

BLM Utah Riparian Policy of 1988

INSTRUCTION MEMORANDUM UT 89-192

UTAH STATE OFFICE POLICY
RIPARIAN AREA MANAGEMENT POLICY
IM UT 87-261 REVISED
FEBRUARY 28, 1988

On January 22, 1987, Director Burford signed the riparian area management policy that provides management direction in all matters that involve riparian areas.

The definition of what a riparian area is has changed from the definition found in the manual. The main differences are the need for permanent water influence and the exclusion of ephemeral streams or washes that do not exhibit the presence of riparian vegetation. Areas which have the potential to support riparian vegetation but which are no longer supporting such vegetation or remnants thereof should be managed to enhance and improve riparian values. Also by definition, most wetland areas are included in the management policy.

It must be kept in mind, however, that the absence of characteristic vegetation may be the result of land use practices and not the lack of free water. Also, some ephemeral streams have the potential for permanent flow under different or proper management practices. An analysis of each site must be made to determine if the area should be exempt from riparian management based on the definition or whether the area should be managed based on its capability to support riparian vegetation.

Management goals must be compatible with the ecological potential of the particular area. Present knowledge about this complex subject is incomplete and will be improved as we gain experience and confidence in documenting various riparian area ecological conditions. We expect this policy to be updated and guidelines integrated as needed.

The following five items are guidelines that should be adhered to unless supporting documentation indicates that proposed actions would be of greater public benefit and other alternatives would not achieve the same result without degradation of the riparian area involved:

1. Riparian areas must be maintained in a healthy (vigorous growth and reproduction) vegetal condition. Woody plants must not show signs of hedging and must be reproducing (uneven age plants) within the riparian area. Vegetation utilization limits must be tied to specific species and specific riparian sites. Many factors such as grazing systems, seasons of use, soil types, type of vegetation, water table levels, timing of precipitation, and growing season determines the timing and amount of plant utilization that can occur while still improving riparian values. Sufficient vegetation must remain in the riparian area to allow for the full function of the floodplain. This includes enough vegetation to:

   1) Dissipate stream energies and reduce erosive forces,
   2) Allow sediment to deposit and build banks during flood stages,
   3) Develop root masses to stabilize stream banks,
   4) Regulate sunlight incident on the stream surface,
   5) Reduce heat loss and icing during cold winter months, and,
   6) Produce cover and food for aquatic organisms and native and domestic terrestrial animals.

2. There shall be no new surface disturbing activities within 100 meters of riparian areas unless it can be shown that (1) there is no practicable alternative, (2) that all long-term impacts are fully mitigated, or (3) that the construction is an enhancement to the riparian area.

3. Riparian areas are to be enhanced at every opportunity. Enhancement will be attempted though management methods unless it is obvious that structural methods are the only feasible method of enhancement. An example of structural needs would be where headcutting through a riparian area is lowering the water table resulting in destruction of the riparian zone.

4. Objectives for enhancement, protection, preservation, development, and restoration of riparian areas shall be included in all land use and/or activity plans. These objectives shall be identified on key areas and monitored on a regularly scheduled basis to assure that the objectives of planning and/or activity plan documents are being accomplished.

5. Riparian areas will not be disposed of through sale, State Indemnity Selection, Desert Land Entries, or other disposal actions unless it can be definitely shown that the areas are small, isolated, and cannot be managed through agreement with state agencies, other federal agencies, or interested conservation groups.

Exchanges with private parties will not be permitted unless it can be definitely shown that riparian areas of superior public value are being acquired, riparian areas are being enhanced, or that the areas being exchanged are small, isolated, and cannot be managed through agreement with state agencies, other federal agencies, or interested conservation groups. Exchanges with the state may be proposed where the riparian areas are part of a large upland tract. Exchanges which attempt to select only riparian areas may not be allowed.

Other laws and agreement which also affect management of riparian areas include the Fish and Wildlife Coordination Act, the Clean Water Act, Rivers and Harbors Act, E.O.'s 11990 and 11988, and the Master Memorandum of Understanding with the U.S. Fish and Wildlife Service dated December 1986. While this list is not complete, it will serve to alert managers of compliance needs.

APPENDIX 7

SPECIAL EMPHASIS AREAS

CONTENTS:

Areas of Critical Environmental Concern (ACEC) Analysis

Wild and Scenic River Analysis

Wild and Scenic River Suitability Analysis

ANALYSIS OF THE DIAMOND MOUNTAIN RESOURCE AREA FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN

The Federal Land Policy and Management Act requires that priority shall be given to the designation and protection of areas of critical environmental concern (ACECs). The ACECs are identified, evaluated and designated through the Bureau's resource management planning (RMP) process. An ACEC designation is the Bureau's principal designation for public lands where special management is required to protect important resource values. The objective of an ACEC designation is to highlight areas where special management attention is needed, serving as a reminder that significant resource values exist which must be accommodated when future management actions and land use proposals are considered near or within an ACEC.

GENERAL ACEC CRITERIA

To be considered as a potential ACEC and analyzed in this RMP, the resource area was evaluated by RMP interdisciplinary team members to determine which areas met the criteria of relevance and importance, as set out in regulations 43 CFR 1610.7-2.

Relevance

An area must contain one or more of the following:

- A significant historic, cultural, or scenic value;
- A fish and wildlife resource (including but not limited to special status animal species' habitat, or habitat essential for maintaining species' diversity);
- A natural process or system (including but not limited to special status plant species; relic plant or plant communities; or rare geological features); or
- Natural hazards (including but not limited to area of flooding, unstable soils, dangerous cliffs). A hazard caused by human action may meet this criteria if it is determined through the RMP process that it has become part of a natural process.

Importance

The value, resource, system process, or hazard must have substantial significance and is characterized by one or more of the following:

- It has more than locally significant qualities which give it special work, meaning, distinctiveness, consequence, or cause for concern, especially compared to a similar resource value.
- It has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
- It has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.
- It has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.
- It poses a significant threat to human life and safety or to property.

NOMINATION SOURCES

ACEC nominations were drawn from several sources. The sources and nominations are provided below:

Existing ACECs and areas of interest within existing Management Framework Plans:

Red Creek ACEC
Green River Scenic Corridor ACEC
Red Mountain ACEC Nomination
Crouse Canyon
Ashley Creek Gorge
Six Mile Draw

Areas of interest identified by resource area specialists:

Middle and Lower Green River Segments
Little Hole
Myton Watershed
Browns Park
Dry Fork Canyon
Red Fleet
Pariette Wetlands

Areas identified from public sources as a result of the public scoping period at the outset of the DMRA RMP. DMRA did not actively solicit nominations from state or

local government entities; however, the majority of the nominations from the resource area specialists and public sources are supported by state agencies. Areas identified by the public are:

Nomination	Nominator
South-facing Uinta Mountains	Uinta Mountain Club
Nine Mile Canyon	Utah State Archaeology Society
Castle Cove	The Nature Conservancy
Lears Canyon	The Nature Conservancy
Red Mountain	The Nature Conservancy

Table A7-1 provides a summary of the initial eligibility assessment of nominations received for possible designation as Areas of Critical Environmental Concern. The remaining public lands within the resource area were determined to lack in values, resources, systems and/or processes warranting further consideration under the Bureau's ACEC criteria and guidance.

TABLE A7-1:
INITIAL ELIGIBILITY ASSESSMENT OF ACEC NOMINATIONS

Nomination	Federal Acres	Eligibility Criteria				
		Human Value	Fish or Wildlife Resource	Natural System or Process	Natural Hazard	Eligible for Further Analysis
Ashley Creek Gorge[2]		X		X		Y
Browns Park[1]	89,550	X	X	X		Y
Castle Cove[2]	200			X		Y
Crouse Canyon[1]		X				Y
Dry Fork Canyon[2]		X				Y
Green River Scenic Corridor[1]	19,400	X	X			Y
Lears Canyon	1,375			X		Y
Little Hole[1]	8,200					Y
Middle and Lower Green River	37,500	X	X	X		Y
Myton Watershed	98,890			X	X	N[3]
Nine Mile Canyon	38,470	X	X			Y
Pariette Wetlands	8,590		X	X		Y
Red Creek	24,400				X	Y
Red Fleet[2]		X				Y
Red Mountain (BLM)[2]	8,950	X				Y
Red Mountain (TNC)[2]	1,990			X		Y
Six Mile Draw	1,500	X				N[3]
South-facing Uintas[2]	97,250	X	X	X		N[3]

1 The Browns Park complex contains portions of these nominations.
2 The Red Mountain-Dry Fork Complex contains portions of these initial nominations
3 The following section describes why these areas did not qualify for further analysis.

DISCUSSION OF NONELIGIBLE NOMINATIONS

Three nominations, as presented, failed either to meet the ACEC criteria in whole or in part. These areas are identified in Table A7-1 above as N.

Myton Watershed was nominated to draw management attention to the considerable salts and sediments from soils within the watershed to the Green River and considerable flood potential to the Pariette Wetlands, a multi-million dollar management area of the resource area. The nomination also included a small, yet potentially significant, portion of habitat for the special status plant species Sclerocactus glaucus, federally listed as threatened.

On further review, it was determined that the small habitat for the special status plant species, extending from the Pariette Wetlands nomination would be included in that nomination. Therefore, the remaining area no longer meets either the relevance or importance criteria.

Six Mile Draw area was presented in the Ashley-Duchesne Management Framework Plan as a Class II VRM area due to its essentially roadless condition. Management decisions were made in that document to ensure the roadless condition remained unchanged. The resource values, systems, processes involved in this area are typical of the south-facing alluvial benches of the Uinta Mountains. Therefore the Six Mile Draw area was dropped from further consideration as an ACEC because it did not meet the relevance and importance criteria. Management objectives; however, should continue to ensure the undisturbed nature of the area.

A principal concern resulting in the south-facing Uinta footslopes nomination was the need to protect and enhance winter deer range within the Uinta Basin. In the analysis of this nomination, it was determined that the winter range resource value although critical is relatively undisturbed and rather extensive, extending along the southern flank of the basin. When compared to the strategic location of critical deer winter range in Browns Park, serving as the principal wintering area for the northern Uinta mountains, this resource value was determined to not meet the importance criteria. The other resource values and processes were determined to meet the ACEC criteria. That portion of the south-facing Uinta footslopes nomination was included in the Red Mountain-Dry Fork nomination.

SPECIAL AREAS CARRIED FORWARD FOR FURTHER CONSIDERATION

Following initial analysis of these nominations, it was determined that for clarification of management objectives, several of these nominations could be combined into one area, acreages refined to include the highest resource values. Table A7-2 is a compilation of nominations into their considered category and a brief statement as to its continuance.

TABLE A7-2:
SPECIAL AREAS CARRIED FORWARD FOR FURTHER CONSIDERATION

Nomination	Federal Acres	Outstanding Values	Other Comments
Browns Park Complex	55,719	Critical deer winter range due to strategic location on north slope of Uinta Mountains. Area very scenic - combining dark red canyon walls with green deciduous riparian vegetation, white-water rapids and deep, quiet fishing holes. Visitors come from around the world to fish at this nationally ranked Class I trout fishery. High cultural values associated with Little Hole area. Excellent habitat for special status species: bald eagle, peregrine falcon, Colorado cutthroat trout, river otter, and the plant species: Ute ladies' tresses (creamy ladies' tresses).	Nomination includes existing Green River Scenic Corridor, recommended for inclusion in National Wild and Scenic Rivers Systems. Nomination also includes initial Little Hole and Crouse Canyon.
Lears Canyon	1,375	Contributes significantly to the Intermountain Region's biological diversity being a very good representative of the Douglas fir-pinyon-juniper vegetation communities.	
Middle and Lower Green River	12,665	Provides critical habitat for 4 special status fish species: Colorado Squawfish, humpback chub, bonytail chub, and razorback sucker. Provides habitat for 11 special status species: bald eagle, peregrine falcon, whooping crane, western yellow-billed cuckoo, Swainson's hawk, western snowy plover, long-billed curlew, white-faced ibis, spotted bat, river otter, and Uinta Basin hookless cactus. Lower segment especially has scenic qualities and undeveloped natural areas producing high quality recreation opportunities.	Segment between Dinosaur National Monument and Ouray, Utah (the "Middle" segment) lacks clear BLM control. Private, National Wildlife Refuge, and Indian Reservation lands owns and/or manages 70% of river bank. Public lands on the east side both the middle and lower segments administered by Book Cliffs Resource Area of Vernal District. Immediately upstream of the Desolation and Grays Canyons, designated a National Historic Landmark (1969), a candidate for study in NW&SR System, and included in Desolation Canyon Wilderness Study Area (recommended as WA by BLM, 1990).
Nine Mile Canyon	50,784	Attracts numerous visitors form outside areas for cultural and historical research and enjoyment. Offers exceptional opportunities for interpretation of outstanding historical and cultural properties, sight-seeing of an area rich in scenic and cultural appeal. Area very scenic. Presently includes VRM Class II lands due to steep, red-walled canyons, contrasting with pleasing rural and historical farmsteads. Includes habitat for 2 federally listed plant species - endemic to the area: Toad-flax cress and Uinta Basin hookless cactus.	

TABLE A7-2 (Continued):
SPECIAL AREAS CARRIED FORWARD FOR FURTHER CONSIDERATION

Nomination	Federal Acres	Outstanding Values	Other Comments
Pariette Wetlands	11,606	Area contributes significantly to the area's biological diversity through the representation of plant and animal species associated with wetlands habitat. Includes habitat for one of the densest concentrations of the federally-listed plant species: Uinta Basin hookless cactus.	Offers public visitors a look at a unique wildlife management aspect for the Bureau -- wetlands management and waterfowl production. Nomination expanded to include 2,600 acres of the initial Myton Watershed for special status plant species habitat: Uinta Basin hook-less cactus. Seek interest of private landowners to possibly acquire private inholdings and water rights.
Red Creek	24,400	Fragile geologic and resultant soil development contributes one of the highest sediment yields directly to the Green River (111 tons annually). Red Creek itself has excellent potential for exhibiting riparian development and enhancement.	Sediment-loading of the Green River has an immediate adverse affect on the Class I trout fisheries in Browns Park. Majority of watershed within adjoining ACEC in Rock Springs, Wyoming. Red Creek channel owned by state of Utah and administered by Division of Wildlife, who is actively managing for riparian values. Support for this nomination has been expressed by UDWR.
Red Mountain-Dry Fork	25,827	Outstanding cultural values associated with Dry Fork Canyon. Includes national significant paleontological values in Red Fleet area. Area offers 2 outstanding examples of Intermountain Region vegetation communities - Ponderosa pine-bluegrass and sagebrush-mountain browse. Such communities add to the biodiversity of the region. Dry Fork and Red Mountain areas high scenic values due to dramatic sandstone outcrops and deep red mountain uplifts. Ashley Creek Gorge has high value as riparian and scenic area, offering high quality recreation opportunities.	Ashley National Forest has considered special management for Ashley Creek Gorge within forest boundaries. Area residents express strong support for the protection of cultural and water resources values (including riparian) contained within this nomination. This nomination combines the initial nominations of Dry Fork, Castle Cove, Red Fleet, and both Red Mountain areas.

The areas outlined in Table A7-2 above are analyzed under each alternative in the RMP. Management prescriptions, based on the opportunities found in the Management Situation Analysis (MSA) are also developed and analyzed in this RMP.

CRITERIA FOR WILD AND SCENIC RIVERS ELIGIBILITY

INVENTORY LIST

The following sources were used to develop the Diamond Mountain Resource Area inventory list.

- USDI, National Park Service, Nationwide Rivers Inventory list of 1982.
- American Rivers Outstanding Rivers List of 1988.
- Vernal District list.
- Public nominations obtained during the Diamond Mountain RMP scoping public meetings.
- Professional knowledge of District and Area staff, obtained over years of field experience in the resource area.

DETERMINATION OF ELIGIBILITY

- A river as defined must be a flowing body of water or estuary; or section, portion, or tributary thereof, including rivers, streams, creeks, and small lakes.

  Dry washes which have flash flooding do not qualify and will not be considered.

  Standing riparian areas do not qualify under the above definition and will not be considered.

- Free-flowing is defined as an existing or flowing body of water, or estuary, or section, in a natural condition without impoundments, diversions, straightening, rip-rapping, or other modification of the waterway. The presence of impoundments above and/or below a river segment, or existing minor dams and diversion structures within a segment will not, of and by themselves, render a segment ineligible.

- It must possess at least one outstandingly remarkable value that relates to the river. These values include scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values, such as paleontological, ecological, biological, botanical, hydrological, scientific, and research.

- A river/stream segment must cross, at some point, lands administered by BLM. A segment will not be determined to be eligible for further study by BLM if they do not have jurisdiction along at least some portion of the stream segment.

GUIDELINES FOR ASSESSING OUTSTANDINGLY REMARKABLE VALUES

Geographic Region of Consideration

All potential Outstandingly Remarkable Values were weighed against similar values throughout the region of consideration.

For the purposes of analysis here, the Upper Colorado River Drainage as defined by U.S.G.S. Hydrologic Maps were used to determine significance.

Outstandingly Remarkable Values Under Consideration

Scenic

The landscape elements of landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modifications are unique and harmonious. The rating area must be scenic quality "A" in VRM Class I or II in the Visual Resource Inventory Handbook, H-8410-1. Scenery and visual attractions should be highly diverse over the majority of the river or river segment length and not common to other rivers in the geographic region.

Recreational

Recreational opportunities are or have the potential to be unique enough to attract visitors from outside the geographic region. Visitors would be willing to travel long distances to use the river resources for recreational purposes. River-related opportunities could include, but not be limited to, sightseeing, wildlife observation, photography, hiking, fishing, hunting, and boating.

Interpretive opportunities should be exceptional and attract or have the potential to attract visitors from outside the geographic region.

Geologic

The river or area within the river corridor contains an example(s) of a geologic feature, process, or phenomena that is rare, unusual, one-of-a-kind, or unique to the geographic region. The feature(s) may be in an unusually active stage of development, represent a "textbook" example and/or represent a unique or rare combination of geologic features (erosional, volcanic, glacial, and other geologic structures).

Fish

Fish values may be judged on the relative merits of either fish populations or habitat - or a combination of these river-related conditions.

The river is nationally or regionally one of the top producers of resident and/or anadromous fish species. Of particular significance is the presence of populations of federally listed or candidate threatened and endangered species.

The river provides exceptionally high quality habitat for fish species indigenous to the region. Of particular significance is habitat for federally listed or candidate threatened and endangered species.

Wildlife

Wildlife values may be judged on the relative merits of either wildlife populations or habitat - or a combination of these conditions.

The river or area within the river corridor contains nationally or regionally important populations of indigenous wildlife species. Of particular significance are species considered to be unique or populations of federally listed or candidate threatened and endangered species.

The river or area within the river corridor provides exceptionally high quality habitat for wildlife of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for federally listed or candidate threatened and endangered species.

Historic

The river or area within the river corridor contains a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare, unusual, or one-of-a-kind in the region. Of particular significance are sites or features listed in, or are eligible for inclusion in, the National Register of Historic Places.

Cultural

The river or area within the river corridor contains a site(s) where there is evidence of occupation or use by native Americans. Sites must be rare, one-of-a-kind, have unusual characteristics or exceptional human interest value(s). Sites may have national or regional importance for interpreting prehistory; may be rare and represent an area where a culture or cultural period was first identified and described; may have been used concurrently by two or more cultural groups; or may have been used by cultural groups for rare or sacred purposes. The river or segment should be an integral part of the occupation and not just a coincidental occurrence.

Other Similar Values

No specific evaluation guidelines have been developed for the "other similar values" category. Additional river-related values include hydrologic, ecologic/biologic diversity, paleontologic, botanic, and scientific study opportunities.

TABLE A7-3:
STREAMS AND RIVERS CONSIDERED FOR WILD AND SCENIC RIVER ELIGIBILITY

1. Allen Draw
2. Anderson Hollow
3. Argyle Creek
4. Ashley Creek
5. Beaver Creek
6. Bender Draw
7. Big Draw
8. Big Springs
9. Big Brush Creek
10. Birch Creek
11. Blair Draw
12. Bowrey Draw
13. Castle Peak Creek
14. Clay Basin Creek
15. Collier Hole Creek
16. Cow Creek
17. Crouse Creek
18. Crow Creek
19. Crumb Canyon
20. Deep Creek
21. Diamond Gulch
22. Dry Fork Creek
23. Dutch John Canyon
24. East Cottonwood Canyon
25. Eight Mile Flat Creek
26. Ford Creek
27. Four Mile Creek
28. Galloway Creek
29. Garden Creek
30. Gorge Creek
31. Goslin Creek
32. Green River
33. Grindstone Wash
34. Halfway Hollow Creek
35. Jack Canyon
36. Jackson Creek
37. Jesse Ewing Canyon
38. Jones Hole Creek
39. Jones Hollow
40. Kettle Creek
41. Lake Creek
42. Lambson Draw
43. Little Davenport Creek
44. Little Brush Creek
45. Logge Canyon
46. Lower Water Hollow
47. Marshall Draw
48. Martin Draw
49. Mill Canyon
50. Minnie Maud Creek
51. Mosby Creek
52. Nine Mile Creek
53. O-Wi-Yu-Kuts Creek
54. Pariette Draw
55. Pigeon Creek
56. Pinnacle Canyon
57. Pot Creek
58. Red Creek
59. Sage Creek
60. Sand Wash Creek
61. Sears Creek
62. Sheep Wash Creek
63. Simons Creek
64. Smelter Creek
65. South Branch Diamond Gulch
66. Spring Creek
67. Steinaker Creek
68. Tolivers Creek
69. Twelve Mile Wash Creek
70. Upper Water Hollow
71. Water Canyon
72. Wells Draw Creek
73. West Fork Willow Creek
74. Willow Spring Draw
75. Willow Creek (Browns Park)
76. Willow Creek (Indian Canyon)

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Allen Draw - Headwaters to confluence with Pot Creek	C	5.0	X				X				Dry most of year. No Outstandingly remarkable values were identified.
Anderson Hollow - Headwaters to confluence with West Fork of Willow Creek	C	1.8	X				X				The segment does not cross land administered by BLM.
Argyle Creek - Headwaters to Carbon County line (Resource Area Boundary)	C	21.5	X		A	X				X	Has Class A scenery and is VRM Class II. Potential classification has been identified as recreational based on disturbances along the river corridor. The entire 21.5 mile segment is paralleled by a county road. The high percentage of private land adjacent to the stream has resulted in the construction of numerous ranch houses and summer homes in the corridor. A power line parallels the stream for approximately 7 miles.
Ashley Creek - Forest Boundary to confluence with Green River	C	25.5	X				X				Has Class A scenery and is VRM Class II for approximately 1.5 miles below the forest boundary. Below that, scenery is Class B & C with VRM Class II, III, and IV. The majority of the creek has been channeled. There are no outstandingly remarkable values.
Beaver Creek - Section from Colorado state line to Colorado state line	C	1.5	X				X				No Outstandingly Remarkable Values were identified.
Bender Draw - Headwaters to confluence with Willow Creek	C	1.4	X				X				Dry Wash. No Outstandingly Remarkable Values were identified.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Big Brush Creek - Forest boundary to confluence with Green River	C	20.0		X			X				Red Fleet Reservoir is on Big Brush Creek. Its location eliminates this creek from further consideration in the Wild and Scenic River process. No Outstandingly Remarkable Values were identified.
Big Draw - Headwaters to National Monument boundary	C	1.4	X				X				No Outstandingly Remarkable Values were identified.
Big Springs - Source to forest boundary	C	.5		X			X				Area consists of several springs in the headwaters of Goslin Creek. No Outstandingly Remarkable Values were identified.
Birch Creek - Headwaters to confluence with Willow Creek	C	3.4	X				X				Dry Wash. No Outstandingly Remarkable Values were identified.
Blair Draw - Headwaters to confluence with Stone Bridge Draw	C	6.8	X				X				Dry Wash. No Outstandingly Remarkable Values were identified.
Bowrey Draw - Headwaters to confluence with Jensen Wash	C	2.2	X				X				Dry Wash. No Outstandingly Remarkable Values were identified.
Castle Peak Creek - Headwaters to confluence with Pariette Draw		16.3	X				X				No Outstandingly Remarkable Values were identified.
Clay Basin Creek - Wyoming state line to confluence with Red Creek	C	9.0	X				X				Dry most of the year. No Outstandingly Remarkable Values were identified.
Collier Hole Creek - Headwaters to confluence with Green River	C	3.3	X				X				No Outstandingly Remarkable Values were identified. Dry wash.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Cow Creek - Headwaters to confluence with Matt Warner Reservoir	C	6.7		X			X				No identified Outstandingly Remarkable Values. There are at least six small reservoirs on stream channel.
Crouse Creek - Headwaters to confluence with Green River	C	11.5		X			X				A two-mile section in Crouse Canyon has Class A scenery and is VRM Class II. This same section on the stream is crossed at least six times by a road that parallels the stream. Small culverts restrict flow. This section of stream cannot be considered to be free flowing. There are no Outstandingly Remarkable Values identified along the remainder of the stream.
Crow Creek - Headwaters to confluence with Deep Creek	C	4.8	X				X				Dry most of the year. No Outstandingly Remarkable Values.
Crumb Canyon - Headwaters to confluence with Willow Creek	C	1.3	X				X				No identified Outstandingly Remarkable Values. Dry most of the year.
Deep Creek - Headwaters to Indian Reservation boundary	C	5.0	X				X				No Outstandingly Remarkable Values.
Diamond Gulch - Forest Boundary to Jones Hole Fish Hatchery boundary	C	22.4	X				X				No Outstandingly Remarkable Values were identified.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Dry Fork Creek - Forest boundary to confluence with Ashley Creek	C	8.7	X				X				For approximately 2 miles directly below the forest boundary, Scenic Quality is Class A and VRM is Class II. For the remaining 6.7 miles, Scenic Quality is B and VRM Class II. Much of creek has been channeled. Scenery cannot be considered as being outstandingly remarkable. No other Outstandingly Remarkable Values were identified.
Dutch John Canyon - Headwaters to forest boundary	C	1.7		X			X				There are two dams in a 1.7 mile segment. It is dry most of the year except for impoundment areas behind dams. This wash is not free flowing.
East Cottonwood Canyon - Forest boundary to confluence with Big Brush Creek	C	2.4	X				X				Dry Wash. No Outstandingly Remarkable Values were identified.
Eight Mile Flat Creek - Headwaters to confluence with Green River	C	8.2	X				X				No Outstandingly Remarkable Values were identified. Dry wash.
Ford Creek - Fork Spring to Wyoming state line	C	3.5	X				X				No Outstandingly Remarkable Values were identified.
Four Mile Creek - Headwaters to confluence with Green River	C	14.5	X				X				No Outstandingly Remarkable Values were identified. Dry wash.
Garden Creek - Headwaters to Monument boundary	C	5.3	X				X				Dry Wash. No Outstandingly Remarkable Values were identified.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Gorge Creek - Forest boundary to confluence with Green River	C	17.0	X				X				.3 miles up from Green River; is Scenic Quality A and VRM Class II. The remaining 1.5 miles is Scenic Quality B and Class IV VRM. Based on evaluation of scenic quality, no outstandingly remarkable determination was made. Several dams on channel.
Goslin Creek - Headwaters to forest boundary	C	2.3	X				X				Dry wash most of year, except for impoundment areas behind dams. No Outstandingly Remarkable Values.
Green River - Segment between Little Hole and Utah State Line	A, B, C, E	22.0	X		A, B, D, E, G	X			X		This segment of the Green River was included in the National River inventory of 1982 and the American Rivers Outstanding Rivers list of 1988. It flows through the existing Green River Corridor ACEC. Between the dam and Indian Crossing, it possesses the outstanding remarkable values of Scenic, Recreation, Fish, and Wildlife values. Between Indian Crossing and the Utah state line, it contains the outstanding/remarkable values of Recreation, Fish, Wildlife, and Cultural Values. This segment of river has been studied and recommended for designation as a Scenic River from Little Hole to the Utah state line.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Green River - Segment between Dinosaur National Monument and the public land boundary north of Ouray	A, B, C, E	58.0	X		D	X				X	This segment of the Green River was included in the National River Inventory of 1982 and the American Rivers outstanding Rivers list of 1988. The only Outstandingly Remarkable Value identified, upon analysis, was for T & E fish. This river segment contains humpback chub and squawfish. Potential classification was determined to be recreational.
Green River - Segment between the public land boundary south of Ouray and the Carbon County Line	A, B, C, E	36.0	X		B, D	X			X		This segment was included in the National River Inventory of T & E 1982, and the American Rivers list of 1988. There are Outstandingly Remarkable Values for fish (humpback chub and squawfish) and recreation. Potential classification was determined to be Scenic.
Grindstone Wash - Headwaters to Forest Service boundary	C	4.7	X				X				No identified Outstandingly Remarkable Values.
Galloway Creek - Colorado state line to confluence with Willow Creek	C	1.4	X				X				No identified Outstandingly Remarkable Values.
Halfway Hollow Creek - Headwaters to confluence with Twelve Mile Wash	C	16.0	X				X				No Outstandingly Remarkable Values identified. Dry wash.
Jack Canyon - Headwaters to Carbon County line	C	1.7	X				X				This segment does not cross land administered by BLM.
Jackson Creek - Headwaters to confluence with Green River	C	11.2	X				X				No Outstandingly Remarkable Values were identified.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Jesse Ewing Canyon - Headwaters to confluence with Green River	C	4.2	X				X				A one-mile segment has Class A Scenic Quality and is Class II VRM. It was not identified as being an Outstandingly Remarkable Value. A road and three major pipelines parallel the creek. These intrusions impact Scenic values enough to prevent it from possessing Outstandingly Remarkable Scenic Values.
Jones Hole Creek - Jones Hole Springs to Dinosaur National Monument boundary	C	.6	X				X				Stream does not cross public land that BLM has surface management responsibility for. It is entirely on land administered by U.S.F.& W.S. and National Park Service.
Jones Hollow - Headwaters to confluence with Willow Creek	C	2.4									This segment does not cross land administered by BLM.
Kettle Creek - Headwaters to confluence with Pot Creek	C	3.9	X				X				No identified Outstandingly Remarkable Values.
Lake Creek - Forest boundary to confluence with Deep Creek	C	3.9	X				X				No identified Outstandingly Remarkable Values.
Lambson Draw - Forest boundary to confluence with Pot Creek	C	5.9	X				X				No identified Outstandingly Remarkable Values.
Little Brush Creek - Forest boundary to confluence with Big Brush Creek	C	5.8	X				X				No identified Outstandingly Remarkable Values.
Little Davenport Creek - Headwaters to confluence with Green River	C	2.0	X				X				No identified Outstandingly Remarkable Values. Creek is dry much of year.
Logge Canyon - Headwaters to confluence with West Fork of Willow Creek	C	2.7	X				X				This segment does not cross land administered by BLM.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Lower Water Hollow - Headwaters to confluence with Minnie Maud Creek	C	3.5	X				X				Scenic Quality is Class A and VRM is Class II, but visual attractions are similar to other streams in the geographic region.
Marshall Draw - Headwaters to confluence with Crouse Creek	C	3.5	X				X				No identified Outstandingly Remarkable Values. Creek is dry much of year.
Martin Draw - Headwaters to confluence with Red Creek	C	5.3	X				X				No identified Outstandingly Remarkable Values. Creek is dry much of year.
Mill Canyon - Forest boundary to confluence with Mosby Creek	C	.5	X				X				No identified Outstandingly Remarkable Values.
Minnie Maud Creek - Headwaters to Carbon County line	C	6.0	X				X				This segment has Class A Scenic Values and is VRM Class II. Based on analysis, it was not rated as being Out-standingly Remarkable because visual attractions are not highly diverse and similar river segments are found along other streams in the geographic region under consideration. There is no public land along this river segment.
Mosby Creek - Forest boundary to Indian Reservation boundary	C	4.5	X				X				No identified Outstandingly Remarkable Values.
Nine Mile Creek - Segment between Carbon County line and the confluence with Gate Canyon, that lies within Duchesne County	C, E	6.5	X		A, G	X				X	Outstandingly Remarkable Values of Scenic and Cultural are found along this segment. The stream is eligible for further study. It has been determined to have a potential classification of Recreational based on disturbances along the segment.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Nine Mile Creek - Segment that lies within Duchesne County between Green River and the Gate Canyon	C, E	11.5	X		A, G	X			X		Outstandingly Remarkable Values of scenic, cultural, and botanical values are found along this segment. The stream is eligible for further study. It has been determined to have a classification potential of Scenic based on disturbances along the segments.
O-Wi-Yu-Kuts Creek - Colorado state line to confluence with Willow Creek	C	2.0	X				X				No identified Outstandingly Remarkable Values.
Pariette Draw - Indian Reservation boundary to confluence with Green River	C	9.9	X				X				No identified Outstandingly Remarkable Values. There is one large dam and several small diversions on this stream.
Pigeon Creek - Wyoming state line to confluence with Martin Draw	C	1.4	X				X				Dry wash.
Pinnacle Canyon - Headwaters to confluence with Argyle Creek	C	2.2	X				X				No identified Outstandingly Remarkable Values. Dry most of year. Scenic Quality is Class A and VRM is Class II, but visual attraction are similar to other streams in the geographic region.
Pot Creek - Forest boundary to Colorado state line	C	23.0		X			X				No Outstandingly Remarkable Values were identified. There are three major dams and reservoirs on this creek. They are Matt Warner, Calder, and Crouse Reservoirs. They impact the streams free flowing character.
Red Creek - Wyoming state line to forest boundary	C	9.2	X				X				No Outstandingly Remarkable Values were identified. It is subject to flash flooding and can be dry during the summer months.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Sage Creek - Headwaters to Dinosaur National Monument boundary	C	1.7	X				X				No Outstandingly Remarkable Values were identified.
Sand Wash Creek - Headwaters to confluence with Green River	C	7.9	X				X				No Outstandingly Remarkable Values were identified. Dry wash.
Sears Creek - Headwaters to confluence with Green River	C	8.3	X				X				No identified Outstandingly Remarkable Values. Colorado River cutthroat trout (a state of Utah sensitive species) was introduced into Sears Creek in 1990. However, because it is not currently known if they survived in the stream, and the fact that there are numerous other streams in the geographic region that contain large populations of this fish, it was not identified here as being an Outstandingly Remarkable Value.
Sheep Wash Creek - Headwaters to confluence with Green River	C	5.2	X				X				No Outstandingly Remarkable Values were identified. Dry wash.
Simons Creek - Headwaters to confluence with Pot Creek	C	3.2	X				X				No Outstandingly Remarkable Values were identified. Several small dams along creek.
Smelter Creek - Headwaters to confluence with Deep Creek	C	2.9	X				X				No Outstandingly Remarkable Values were identified. The creek is dry much of the year.
South Branch Diamond Gulch - Headwaters to confluence with Diamond Gulch	C	3.0	X				X				No Outstandingly Remarkable Values were identified.
Spring Creek - Forest boundary to confluence with Ashley Creek	C	5.4	X				X				No Outstandingly Remarkable Values were identified. The creek is dry much of the year.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Steinaker Creek - Headwaters to Steinaker Reservoir	C	4.2	X				X				No Outstandingly Remarkable Values were identified. Dry wash.
Tolivers Creek - Headwaters to confluence with Green River	C	8.7	X				X				No Outstandingly Remarkable Values were identified.
Twelve Mile Wash Creek - Headwaters to confluence with Green River	C	16.0	X				X				No Outstandingly Remarkable Values were identified. Dry wash.
Upper Water Hollow - Headwaters to confluence with Minnie Maud Creek	C	3.6	X				X				Scenic Quality is Class A and VRM is Class II, but visual attractions are similar to other streams in the geographic region. No Outstandingly Remarkable Values were identified.
Water Canyon - Headwaters to confluence with Argyle Creek	C	2.3	X				X				Scenic Quality is Class A and VRM is Class II, but visual attractions are similar to other streams in the geographic region. No Outstandingly Remarkable Values were identified.
Wells Draw Creek - Headwaters to Indian Reservation boundary	C	16.5	X				X				No Outstandingly Remarkable Values were identified. Dry wash.
West Fork of Willow Creek - Headwaters to confluence with Willow Creek	C	4.2	X				X				This segment does not cross land administered by BLM.
Willow Creek (Browns Park) - Colorado state line to the confluence of Green River	C	11.8	X				X				No Outstandingly Remarkable Values were identified.
Willow Creek (Indian Canyon) Headwaters to Carbon County line	C		X				X				No identified Outstandingly Remarkable Values. Scenic Quality is Class A and VRM is Class II, but visual attractions are similar to other streams in the geographic region.

TABLE A7-4
ELIGIBILITY ASSESSMENT FOR RIVERS IDENTIFIED FOR POSSIBLE INCLUSION AS COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

River or Stream Segment Including Description	Reason for Consideration	Total Length (Miles)	Free Flowing Values		Outstandingly Remarkable Values	Eligibility Determination		Potential Classification			Description of Values and Remarks
			Yes	No		Eligible	Non-Eligible	W	S	R	
Willow Spring Draw - National Forest boundary to confluence with Diamond Gulch	C	5.2		X			X				There are at least ten dams on this segment of stream. It cannot be considered to be free flowing.

KEY TO TABLE A7-4:

1. Reason for Consideration

   A. USDI, National Park Service, Nationwide Rivers Inventory list of 1982.
   B. American Rivers Outstanding Rivers list of 1988.
   C. Vernal District List.
   D. Public nominations obtained during the Diamond Mountain RMP scoping public meetings.
   E. Professional knowledge of District and Area staff, obtained over years of field experience in the resource area.

2. Outstanding Remarkable Values

   A. Scenic
   B. Recreational
   C. Geological
   D. Fish
   E. Wildlife
   F. Historic
   G. Cultural
   H. Other

SUITABILITY ASSESSMENT FOR ELIGIBLE RIVER SEGMENTS

ARGYLE CREEK, HEADWATERS TO CARBON COUNTY LINE.

Characteristics Which Do Or Do Not Make The Area A Worthy Addition To The National WSR Rivers System.

The segment has Class A scenery and is VRM Class II. It goes dry in some areas during late summer and early fall months.

Status Of Landownership, Minerals (Surface And Subsurface), Use In The Area, Including The Amount Of Private Land Involved And Associated Or Incompatible Uses.

Only 5.0 miles of the 25.5 mile segment is on public land. The remainder is state and private property.

Reasonably Foreseeable Potential Uses Of The Land And Related Waters Which Would Be Enhanced, Foreclosed, Or Curtailed If The Area Were Included In The National WSR Rivers System, And The Values Which Could Be Foreclosed Or Diminished If The Area Is Not Protected As Part Of The System.

Currently the area is used for grazing, the growing of grass and alfalfa hay.

Federal, Public, State, Tribal, Local, Or Other Interests In Designation Or Nondesignation Of The River, Including The Extent To Which The Administration Of The River, Including The Costs Thereof, May Be Shared By State, Local, Or Other Agencies And Individuals.

No other Federal, public, state, tribal or local interests have expressed an interest in designation. No help could be expected in sharing the costs of administration.

Estimated Cost Of Acquiring Necessary Lands, Interests In Lands, And Administering The Area If It Is Added To The National WSR River System.

It is estimated that to acquire the private and State land along the stream, would cost approximately one million dollars ($1,000,000). Very few owners would be willing sellers.

It is estimated to cost an additional twenty thousand dollars ($20,000) annually to protect resource values and administer the increased use along the corridor if Argyle is designated a Wild and Scenic River.

Ability Of The Agency To Manage And Protect The River Area Or Segment As A WSR River, Or Other Means To Protect Identified Values Other Than WSR Designation.

The stream segment could not be managed effectively as a Wild and Scenic River unless private and State lands were acquired.

The only outstandingly remarkable value identified was scenery. If the stream segment was found to be unsuitable for further study the stream corridor would be returned to multiple use management. BLM would continue to mitigate actions to protect the Class II VRM designation.

Historical Or Existing Rights Which Would Be Adversely Affected As To Foreclose, Extinguish, Curtail, Infringe, Or Constitute A Taking Which Would Entitle The Owner To Just Compensation If The Area Were Included In The National WSR Rivers System.

None.

Other Issues And Concerns Identified In The Resource Management Planning Process.

No other concerns were identified.

NINE MILE CREEK, BETWEEN CARBON COUNTY LINE AND CONFLUENCE WITH GATE CANYON

Characteristics Which Do Or Do Not Make The Area A Worthy Addition To The National WSR Rivers System.

This segment has outstandingly remarkable Scenic (Class A scenery and is VRM Class II) and Cultural values.

It goes dry in some areas during late summer and early fall months.

Status Of Landownership, Minerals (Surface And Subsurface), Use In The Area, Including The Amount Of Private Land Involved And Associated Or Incompatible Uses.

Less than one mile of the 6.5 mile segment is on public land. The remainder is state and private property.

Reasonably Foreseeable Potential Uses Of The Land And Related Waters Which Would Be Enhanced, Foreclosed, Or Curtailed If The Area Were Included In The National WSR Rivers System, And The Values Which Could Be

Foreclosed Or Diminished If The Area Is Not Protected As Part Of The System.

The river segment is paralleled by the Nine Mile Canyon Back Country Byway. This road has been formally designated and is being managed to protect both cultural and scenic values.

Much of the private land in the corridor is cultivated or used for pasture as parts of several ranches along the creek.

Federal, Public, State, Tribal, Local, Or Other Interests In Designation Or Nondesignation Of The River, Including The Extent To Which The Administration Of The River, Including The Costs Thereof, May Be Shared By State, Local, Or Other Agencies And Individuals.

No other Federal, public, State, tribal or local interests have expressed an interest in designation. No help could be expected in sharing the costs of administration.

Estimated Cost Of Acquiring Necessary Lands, Interests In Lands, And Administering The Area If It Is Added To The National WSR River System.

It is estimated that to acquire the private and State land along the stream, would cost approximately two hundred fifty thousand dollars ($250,000) and not all owners would be willing sellers.

It is estimated to cost an additional twenty thousand dollars ($20,000) annually to protect resource values and administer the increased use along the corridor if Nine Mile Creek is designated a Wild and Scenic River.

Ability Of The Agency To Manage And Protect The River Area Or Segment As A WSR River, Or Other Means To Protect Identified Values Other Than WSR Designation.

The stream segment could not be managed effectively as a Wild and Scenic River unless private and State lands were acquired. The federally designated Nine Mile Back Country Byway will provide protection for scenic values in the corridor.

Special management proposals for the proposed Nine Mile Canyon cultural resources district, if implemented, would give protection to cultural values in the corridor.

Historical Or Existing Rights Which Would Be Adversely Affected As To Foreclose, Extinguish, Curtail, Infringe, Or Constitute A Taking Which Would Entitle The Owner To Just Compensation If The Area Were Included In The National WSR Rivers System.

None.

Other Issues And Concerns Identified In The Resource Management Planning Process.

No other concerns were identified.

NINE MILE CREEK, PORTION IN DUCHESNE COUNTY BETWEEN GATE CANYON AND THE GREEN RIVER.

Characteristics Which Do Or Do Not Make The Area A Worthy Addition To The National WSR Rivers System.

This segment has outstandingly remarkable scenic (Class A scenery and is VRM Class II) and cultural values.

It goes dry in some areas during some months in late summer and fall.

Status Of Landownership, Minerals (Surface And Subsurface), Use In The Area, Including The Amount Of Private Land Involved And Associated Or Incompatible Uses.

Approximately three miles of the 11.5 mile segment is on private or State Land. The remainder is managed by BLM.

Reasonably Foreseeable Potential Uses Of The Land And Related Waters Which Would Be Enhanced, Foreclosed, Or Curtailed If The Area Were Included In The National WSR Rivers System, And The Values Which Could Be Foreclosed Or Diminished If The Area Is Not Protected As Part Of The System.

The private land within the corridor is used for grazing livestock.

Federal, Public, State, Tribal, Local, Or Other Interests In Designation Or Nondesignation Of The River, Including The Extent To Which The Administration Of The River, Including The Costs Thereof, May Be Shared By State, Local, Or Other Agencies And Individuals.

No other Federal, public, State, tribal or local interests have expressed an interest in designation. No help could be expected in sharing the costs of administration.

Estimated Cost Of Acquiring Necessary Lands, Interests In Lands, And Administering The Area If It Is Added To The National WSR River System.

It is estimated that to acquire the private and State land along the stream, would cost approximately one hundred forty thousand dollars ($140,000) and not all owners would be willing sellers.

It is estimated to cost an additional twenty thousand dollars ($20,000) annually to protect resource values and administer the increased use along the corridor if Nine Mile Creek is designated a Wild and Scenic River.

Ability Of The Agency To Manage And Protect The River Area Or Segment As A WSR River, Or Other Means To Protect Identified Values Other Than WSR Designation.

The stream segment could not be managed effectively as a Wild and Scenic River unless private and State lands were acquired. The federally designated Nine Mile Back Country Byway will provide protection for scenic values in the corridor.

Special management proposals for the Nine Mile Canyon cultural resources district, if implemented, would give protection to cultural values in the corridor.

Historical Or Existing Rights Which Would Be Adversely Affected As To Foreclose, Extinguish, Curtail, Infringe, Or Constitute A Taking Which Would Entitle The Owner To Just Compensation If The Area Were Included In The National WSR Rivers System.

None.

Other Issues And Concerns Identified In The Resource Management Planning Process.

No other concerns were identified.

GREEN RIVER BETWEEN DINOSAUR NATIONAL MONUMENT AND THE PUBLIC LAND BOUNDARY NORTH OF OURAY

Characteristics Which Do Or Do Not Make The Area A Worthy Addition To The National WSR Rivers System.

This segment has outstandingly remarkable values for threatened or endangered fish.

Status Of Landownership, Minerals (Surface And Subsurface), Use In The Area, Including The Amount Of Private Land Involved And Associated Or Incompatible Uses.

Approximately 35 miles of the 58 mile segment is on private, State, U.S. Fish and Wildlife property or land on the Uintah and Ouray Indian Reservation. The remaining 15 miles are administered by BLM. There is more public land on the south side of the river than the north (24 miles south, 6 miles north). Most of the public lands are within a developed gas field and numerous mining claims have been worked in the Horseshoe Bend and Escalante Ranch areas for gold contained in river gravels.

Reasonably Foreseeable Potential Uses Of The Land And Related Waters Which Would Be Enhanced, Foreclosed, Or Curtailed If The Area Were Included In The National WSR Rivers System, And The Values Which Could Be Foreclosed Or Diminished If The Area Is Not Protected As Part Of The System.

The private land within the corridor is primarily used for grazing with some areas cultivated.

The area has high potential for oil and gas and much of it is currently within a producing gas field.

There is some activity periodically on mining claims filed on gold contained in the river gravels.

The corridor also contains sand and gravel deposits important for the development of Uintah County.

Federal, Public, State, Tribal, Local, Or Other Interests In Designation Or Nondesignation Of The River, Including The Extent To Which The Administration Of The River, Including The Costs Thereof, May Be Shared By State, Local, Or Other Agencies And Individuals.

Uintah County opposes a wild and scenic designation on this segment of the river. They are concerned that the area is too important to the economic development of Ashley Valley to warrant the restrictions a Wild and Scenic River Designation would entail.

The Park Service at Dinosaur National Monument would probably support designation of the river where it borders the monument boundary, a distance of about 11 miles of which 5 miles are public lands.

Estimated Cost Of Acquiring Necessary Lands, Interests In Lands, And Administering The Area If It Is Added To The National WSR River System.

Because of high mineral values of both private and state lands in the river corridor, it would not be feasible to acquire the necessary lands.

It is estimated to cost an additional thirty thousand dollars ($30,000) annually to protect resource values and administer the increased use along the corridor if the

middle segment of the Green River is designated a Wild and Scenic River.

In addition, a one-time cost of two hundred thousand dollars ($200,000) would be required to develop facilities such as campgrounds and raft ramps.

Ability Of The Agency To Manage And Protect The River Area Or Segment As A WSR River, Or Other Means To Protect Identified Values Other Than WSR Designation.

BLM is currently managing the corridor to maintain scenic values on public lands. This would continue if the river segment is not found to be suitable for designation.

Historical Or Existing Rights Which Would Be Adversely Affected As To Foreclose, Extinguish, Curtail, Infringe, Or Constitute A Taking Which Would Entitle The Owner To Just Compensation If The Area Were Included In The National WSR Rivers System.

None.

Other Issues And Concerns Identified In The Resource Management Planning Process.

No other concerns were identified.

GREEN RIVER BETWEEN THE PUBLIC LAND BOUNDARY SOUTH OF OURAY AND CARBON COUNTY LINE

Characteristics Which Do Or Do Not Make The Area A Worthy Addition To The National WSR Rivers System.

This segment has outstandingly remarkable recreational and threatened or endangered fish values. It currently receives very little use, and is largely undeveloped.

Status Of Landownership, Minerals (Surface And Subsurface), Use In The Area, Including The Amount Of Private Land Involved And Associated Or Incompatible Uses.

Approximately 3 miles of the 30-mile segment is private, state, or Uintah and Ouray Indian Reservation lands. The remaining 27 miles are administered by BLM.

Reasonably Foreseeable Potential Uses Of The Land And Related Waters Which Would Be Enhanced, Foreclosed, Or Curtailed If The Area Were Included In The National WSR Rivers System, And The Values Which Could Be Foreclosed Or Diminished If The Area Is Not Protected As Part Of The System.

The private land within the corridor is used for grazing livestock.

Approximately 50 percent of the river corridor has high potential for oil and gas development. Very little activity can be detected from within the river corridor.

Federal, Public, State, Tribal, Local, Or Other Interests In Designation Or Nondesignation Of The River, Including The Extent To Which The Administration Of The River, Including The Costs Thereof, May Be Shared By State, Local, Or Other Agencies And Individuals.

No other public, state, tribal or local interests have expressed an interest in designation. No help could be expected in sharing the costs of administration.

Estimated Cost Of Acquiring Necessary Lands, Interests In Lands, And Administering The Area If It Is Added To The National WSR River System.

It is estimated that to acquire the remaining private and State lands along the river would cost at least one hundred thousand dollars ($100,000).

It is estimated to cost an additional forty thousand dollars ($40,000) annually to protect resource values and administer the increased use along the corridor if the lower Green River is designated a Wild and Scenic River.

In addition, a one time cost of two hundred thousand dollars ($200,000) would be required to develop facilities such as campgrounds and raft ramps.

Ability Of The Agency To Manage And Protect The River Area Or Segment As A WSR River, Or Other Means To Protect Identified Values Other Than WSR Designation.

The river segment is currently being managed to protect wild and scenic river values. However, designation would assure that this relatively undisturbed river segment would be protected into the future.

Historical Or Existing Rights Which Would Be Adversely Affected As To Foreclose, Extinguish, Curtail, Infringe, Or Constitute A Taking Which Would Entitle The Owner To Just Compensation If The Area Were Included In The National WSR Rivers System.
None.

Other Issues And Concerns Identified In The Resource Management Planning Process.

No other concerns were identified.

GREEN RIVER BETWEEN LITTLE HOLE AND UTAH STATE LINE.

Characteristics Which Do Or Do Not Make The Area A Worthy Addition To The National WSR Rivers System.

This segment has outstandingly remarkable scenic, recreation, fish, wildlife and cultural values. It is a popular river for both fishing and floating. It has been studied for inclusion into the National Wild and Scenic River System

Status Of Landownership, Minerals (Surface And Subsurface), Use In The Area, Including The Amount Of Private Land Involved And Associated Or Incompatible Uses.

Approximately 7 miles of the 22 mile segment is private and state land. The remainder is administered by either the Forest Service or BLM.

Reasonably Foreseeable Potential Uses Of The Land And Related Waters Which Would Be Enhanced, Foreclosed, Or Curtailed If The Area Were Included In The National WSR Rivers System, And The Values Which Could Be Foreclosed Or Diminished If The Area Is Not Protected As Part Of The System.

The private land within the corridor is cultivated or used for grazing livestock.

Fishing and floating are very popular activities within the corridor.

The area has low to moderate potential for oil and gas development. Some interest has been expressed in the past about mining claims and prospecting for gold in the gravels along the river. The corridor also contains sand and gravel deposits important for development at Daggett County.

Federal, Public, State, Tribal, Local, Or Other Interests In Designation Or Nondesignation Of The River, Including The Extent To Which The Administration Of The River, Including The Costs Thereof, May Be Shared By State, Local, Or Other Agencies And Individuals.

The Forest Service is currently moving ahead and pursuing designation of the river corridor between Flaming Gorge Dam and the forest boundary as a Wild and Scenic River. This proposed action by them would cover about 6 miles of this river segment. Other public, state and local interests have not expressed strong support for designation. No help other than the Forest Service can be expected in sharing the costs of administration.

Estimated Cost Of Acquiring Necessary Lands, Interests In Lands, And Administering The Area If It Is Added To The National WSR River System.

It is estimated that to acquire the remaining private lands along the river would cost at least five hundred thousand dollars ($500,000) and the land owner would probably not be a willing seller.

Currently, BLM and the State of Utah, Division of Wildlife Resources have acquired most of the private land that was originally along the river.

It is estimated to cost an additional forty thousand dollars ($40,000) annually to protect resource values and administer the increased use along the corridor if the upper Green River is designated a Wild and Scenic River.

In addition, a one time cost of three hundred thousand dollars ($300,000) would be required to develop facilities such as campgrounds and raft ramps.

Ability Of The Agency To Manage And Protect The River Area Or Segment As A WSR River, Or Other Means To Protect Identified Values Other Than WSR Designation.

The river segment could, and is, being managed to protect wild and scenic river values without acquiring the remaining private lands, even though it has not been formally designated.

The Green River Corridor ACEC was established in 1983 to protect the river corridor.

Historical Or Existing Rights Which Would Be Adversely Affected As To Foreclose, Extinguish, Curtail, Infringe, Or Constitute A Taking Which Would Entitle The Owner To Just Compensation If The Area Were Included In The National WSR Rivers System.

None.

Other Issues And Concerns Identified In The Resource Management Planning Process.

The river bank provides habitat for the threatened plant *Spiranthes diluvialus.*

APPENDIX 8

VEGETATION AND LIVESTOCK MANAGEMENT

CONTENTS:

Vegetation Inventory History & Ecological Condition

Grazing Allotment Information

Forage Allocation History

Allotment Categorization

Range Monitoring Studies

Rangeland Improvements

VEGETATION INVENTORY HISTORY AND ECOLOGICAL CONDITION

Forage surveys were conducted in a portion of the Three Corners Planning Unit in 1958, and in the Ashley Unit in 1960, Diamond Mountain forage survey was completed in 1978. The Ocular Reconnaissance Method was used in all cases and determined grazing capacity estimates through vegetation density and composition ocular estimates.

In December 1982, the BLM adopted as its principal rangeland inventory method the Range Site Inventory procedure described in the Soil Conservation Service (SCS) *National Range Handbook.* This procedure involves the correlation of a soil series to a specific range site. A range site is a distinctive kind of rangeland that differs from other types of rangeland in its ability to produce a characteristic natural plant community. The species composition and total production levels vary between range sites, providing different potentials, objectives, and stocking capabilities for each specific plant community.

Ecological conditions of the resource area were estimated using existing ocular reconnaissance data (the "Utah-2s range condition record") collected in conjunction with the Uintah, Diamond Mountain, and Henry's Fork soils surveys completed in partnership with the U.S. Soil Conservation Service between 1978 and 1989. The estimates of species' composition by weight, in relation to the applicable standardized ecological site description's climax community composition (as outlined by the SCS), allowed for the determination of the present ecological condition. For example, if 25% or less of the theorized "potential" climax community was present at the time of the data collection, then an ecological condition of "early" was assigned; if between 26-50%, then a mid-seral condition was assigned; if between 51-75%, then "late", and if greater than 76%, then an ecological condition of "climax" was assigned. Those public lands not falling into one of these classes (i.e., badlands and rock outcrop) are included in the "Undetermined" category.

Present ecological condition by allotment is summarized in Table A8-1. Of the total 655,273 acres mapped, 1% is in Potential Natural Condition/climax, 27% in late, 67% in mid, and 6% in early ecological seral stage.

Ecological condition is dependent on many variables and their associations with each other and is highly complex. Range conditions are dynamic and are influenced by both controlled and uncontrolled variables. Vegetation site potentials change due to past conditions. Ecological condition ratings are approximate and are used as a tool for evaluating management towards attaining desired goals (W.H. Moir, 1989). Maximum vegetation diversity, often the most desirable objective for livestock and most species of big game in the resource area, occurs frequently not at climax but in the mid to late seral stages.

Squawbush

TABLE A8-1:

Allotment Name	Allot. No.	Mgmt. Catgy	Permittee	Current Season of Use From To	Class Live-Stock	Live-Stock Pref. AUMs	Susp'd AUMs
Antelope Powers	15879	I	E. Moon & Son (Lee)	1201 0420	Sheep	3421	1372
Aunt Knoll	15807	I	Strawberry River Livestock Inc.- Chad Peatros	1101 0120	Sheep	729	231
Argyle Ridge	04873	M	L & L Bryner J & L Oliver-Wimmer Dave & Vilate Terry	0516 1015 0601 1015 0615 1115	Cattle Cattle Cattle	540	220
Asphalt Ridge	05807	C	G. Sprouse	0111 0208	Cattle	26	15
Bates Spring	14823	C	C. McKeachnie	0511 1110	Sheep	67	
Bealer Basin	14806	M	G & E Holmes-Buist	0515 1031	Cattle	246	159
Big Wash*	05881	I	O J & A N Moon	0301 0310 1116 0228	Cattle	980	
Big Wash Draw	15885	I	E C Smith	1101 0228	Cattle	516	
Blair Basin	14824	C	Searle Bros.	0615 1001	Cattle	15	
Bridgeport	14805	I	Willow Cr. Land & Lvstk	0411 0530	Cattle	139	
Browns Park (Colo)[6]	C4806	C	Lazy VD L & Lvstk	1201 0430	Cattle	530	
Brush Creek	04858	I	L E McNeil D A Soderquist J W Shield	1101 0205 0506 0605 0506 0605 0506 0605	Cattle Cattle Cattle	884	
Bull Canyon	04878	M	G & G Fasselin	1101 0228 0301 0430	Cattle	1000	1000
Canal	15816	M	N K Huber	1205 0215	Cattle	224	
Castle Peak*	05886	I	L W (Lamont) Moon	1101 0420	Sheep	2903	897
Clay Basin*	14802	I	L Myers	0301 0320 0301 0430 0421 0531 1001 1031 1101 0228 1110 0228	Cattle Horses Cattle Cattle Cattle Horses	384	
Clay Basin Meadows*	14804	I	Allen Livestock Inc.	1001 1201	Cattle	365	
Coal Mine Basin*	4885	M	R S & R C Hacking	1115 1230 0501 0615	Cattle	720	
Cooper Draw	4835	M	N Holmes & Sons	0516 0630 0916 1030	Sheep	344	
Cottonwood Springs*	04853	I	G Sprouse Blue Diamond Oil	1120 0110	Cattle	945	382
Cove & W Cow Hollow	14817	C	R S & R C Hacking	0601 1031	Cattle	277	
Current Canyon	04877	I	W G Parrot	1101 0228 0301 0330	Cattle	240	240

COMPREHENSIVE GRAZING ALLOTMENT INFORMATION

Current Acreage				Fed ACS/ AUM	Current Ecological Condition [5](Seral Stage) (Pct Public Acres)				Year Monitoring Established		Existing Range Improvements						[4]Veg TrtmA UM
Fed	Sta	Pvt	DWR		E	M	L	PNC /C	Rng	Wldlf	Fnc Mi	Spg	Guz	Pln	Tr	Res	
39559	4192			12	1	57	42		1957	1989	1.2					20	0
5477	1200			8		100			1981								28
9341	1173	8123		17	2	47	51		1981	1987	4.3						0
545	7111	495		21		26	74										
339		879		5		46	54		1990								
1813		1051		7		46	54		1990								14
4571	762			5	93[7]	6	1		1982	1987	8.1						40
7384	979			14	2	98[7]			1969	1986	3.5						82
384		1018		26		100											0
9179	678	728	111	66		94	6		1982	1985	1						96
5625	1280	160				81	9		1971		1						140
14133	1607	645		16	2	53	45		1982	1981	15		1	3	2	25	100
15974	651	467		16	2	83	15		1982		2.5						54
2633	653	769		12	2	86	12				2.4						0
36278	5632	17		12	5	90	5		1957		5					18	41
11081	617	184	1329	29		70	26	4	1967		2	3		0.7	1	115	21
4264	278	689		12		62	38		1967		4	2				3	55
4615	534	1162		6		100[7]			1967		4.6						161
2358		617		7		97[7]	3		1981								0
13688	2580	195		15	10	54[7]	36		1967		7.6	1		1.2	2	5	130
2057	2391	11		7		33	67		1990		0.7						14
6433	462	184		27		24	76		1982		3.3						55

TABLE A8-1 (Continued):

Allotment Name	Allot. No.	Mgmt. Catgy	Permittee	Current Season of Use From	To	Class Live-Stock	Live-Stock Pref. AUMs	Susp'd AUMs
Deep Creek	04884	C	R E & H Jensen	0525	1024	Cattle	8	
Devil Canyon	04882	M	G & G Fasselin	1101	0430	Cattle	1368	1352
Diamond Mountain	04837	I	F Cook Estate	0501	0630	Cattle	788	
				0916	1031			
			J W Chivers	0501	0630	Cattle		
				0916	1031			
Diamond Rim	04861	I	W.B. Searle	0401	0531	Horses	120	
				1101	1231			
Dinosaur Park	04867	C	A & N Kidd	0414	0515	Cattle	103	
			D Karren	1205	0104	Cattle		
Donkey Flat*	04859	I	L E McNeill	0515	0531	Cattle	402	
			I Sadlier	0516	0530	Cattle		
			Colton Ranch Inc.	1201	1205	Cattle		
				0501	0531	Cattle		
Dry Creek (Colo)[2]	04890	M	Dr & Mrs J Allen	0516	1030	Cattle	275	
Dry Fork	04854	I	Dwayne Holmes	0520	1022	Cattle	470	
E. Cow Hollow	14822	C	N B Rasmussen	0601	1031	Cattle	50	
E. Huber	15811	M	N Holmes & Sons	1216	0430	Sheep	1048	167
E. Little Mtn*	04845	I	G Huber	0516	1015	Cattle	265	70
Eight Mile Flat	05887	M	Strawberry River Livestock Inc. - Chad Peatros	1101	0401	Sheep	1520	1274
Five Mile	04874	I	G & G Fasselin	1101	0228	Cattle	1056	1034
			J & G Bedwell	1201	0301	Cattle		
			Bill & Jenni Fasselin	0301	0430	Cattle		
			M W Burdick	0201	0228			
Flynns Point	04889	C	Randy Searle	0515	1031	Cattle	40	
Gadsen	04881	C	M G Jackson	0516	1031	Cattle	57	43
Gadsen Draw	14810	C	R Anderson	0501	0630	Sheep	106	
				0916	1031			
Goslin Mtn.*	14803	M	Blue Diamond Oil	0501	1120	Cattle	2521	
Green River Bottoms*	15878	M	G L & J Hadden	0510	1031	Cattle	330	132
Green River (PRRA)[1]	04049	I	Jim Wilcox	0201	1015	Cattle	185	
Hacking	04850	C	E & C Investment Co.	0501	0530	Cattle	62	32
			E & C Gardner	1001	1030	Cattle		
Halfway Hollow	15808	M	Blue Diamond Oil	0223	0304	Cattle	154	61
			G. Sprouse					
Hatch Cove	04834	M	C L Oldaker	0515	1031	Cattle	281	
			S L & R Boren	0516	1015	Cattle		
Holmes-Palmer	15810	C	N Holmes & Sons	1101	1215	Sheep	129	174

COMPREHENSIVE GRAZING ALLOTMENT INFORMATION

Current Acreage				Fed ACS/ AUM	Current Ecol. Condition [5](Seral Stage) (Pct Public Acres)				Year Monitoring Established	Existing Range Improvements						[4]Veg Trtm AUM
Fed	Sta	Pvt	DWR		E	M	L	PNC/C	Rng Wldlf	FncMi	Spg	Guz	Pln	Tr	Res	
234	172	595		29		7	93		1974	1.5						0
14823	1957	267		11		83	17		1982	2.5						0
5721	2591	6683		7	1	65	34		1981	0.1		1	4	1	6	14
2535	6			21		96[7]	4		1981 1982							28
1429	1190	478		14		100									2	14
5510	300	55		14		80	20		1967	11.2		1			6	55
6147		800				82	19		1974							42
5154	1134	1312		11	2	83	6	9	1983	1.5						40
528	6	1507		11	14	82	4			0.5						0
16663	2174	195		16		77	23		1982						15	0
2580	172	973		10		100[7]			1968	10		1				28
22629	2085	2580		15	1	96	3		1957	7.6					12	0
13205	1918	512		13	7	76[7]	17		1982 1987	9.5		2			15	96
289	601	929		7		40	60									0
1056	33	2052		19		13	87		1989	1.5						0
1329	22	2602		13		82	18			0.1						0
16874	1740	504	1167	10		39	57	4	1967 1985	11	1		3	3		56
6272	456	839		19	19	80	1		1981	1.6						0
3706																0
656		28		11	8	35	57									0
3386	6670	334		22		75	25		1982	3					2	0
2891	289	450		10		28	72		1981	0.7					2	42
1707	2680	267		13	24	34	42			2.4					1	10

Allotment Name	Allot. No.	Mgmt. Catgy	Permittee	Current Season of Use From To	Class Live-Stock	Live-Stock Pref. AUMs	Susp'd AUMs
Horseshoe Bend*	05814	I	V D & D M Massey	0501 0915	Cattle	145	
Hoy Flat (Colo)[2]	04840	M	Pease, Martin & Sutton	0511 1031	Cattle	315	
Hoy Mountain*	14815	I	D & C Boren	0516 1030 0516 1030	Cattle Horses	568	
Island Park	04870	I	W L Staley	0301 0430 1101 0228	Cattle	35	
Jackson-Crouse-Dry Hollow	14812	M	C W McCoy Sheep Co.	0505 1110	Cattle	980	
Johnson	04851	C	O W Johnson	0520 0619 1101 1130	Cattle	86	
Kyune I (PRRA)[1]	04128	M	J,J,D Jensen	0601 1030	Cattle	53	
Lambson-Crouse-Davis[3]*	14818	M	R H & L Siddoway	0506 0705 0901 1105	Sheep	572	
Lears Canyon	04875	I	J D & L Oliver-Wimmer J H & N L Wimmer M W Burdick	0515 1015 0601 0715	Cattle Cattle	308	895
Little Brush Creek	04865	C	B & L Nielson	0501 0930	Horses	15	
Little Desert*	05880	I	D J & A N Moon	0301 0415 1116 0228	Sheep Sheep	2564	1240
Little Hole	14811	I	R Hunting	0516 1015	Cattle	330	
Log Cabin	04830	C	Diamond Mtn. Assoc. J R Siddoway	0601 1015	Cattle	58	
Mame Hole-Bear Hollow	04816	C	G & M Hacking	0510 1026	Cattle	140	
Mail Draw	14826	M	Green River Cattle Co. H Wilkins	0516 1031	Cattle	86	
Marshall Draw[3]	14814	M					
Max Canyon (PRRA)[1]	14073	C	G & G Fasselin			5	
McCoy Flat	05805	M	Vernon Richens A D Atwood	1216 0315	Sheep	843	433
McFarley Flat	04863	M	S Rasmussen	1101 0117 0401 0430	Cattle	418	
McKee Spring	14825	C	J Drollinger	0601 1130	Cattle	170	
Mosby	04847	M	D D Jenkins	0601 0831	Cattle	220	
Natural Lake	14820	C	J Siddoway L & I	0601 0701 0901 1101		100	
Oden	04880	C	Scott Baese	1101 0331	Cattle	2	

COMPREHENSIVE GRAZING ALLOTMENT INFORMATION

Current Acreage				Fed ACS/ AUM	Current Ecol. Condition [5](Seral Stage) (Pct Public Acres)				Year Monitoring Established	Existing Range Improvements						[4]Veg TrtmA UM
Fed	Sta	Pvt	DWR		E	M	L	PNC/C	Rng Wldlf	FncMl	Spg	Guz	Pln	Tr	Res	
2163	2680	267		13	24	34	42		1970	2.4					1	10
8445		1560		27					1989							42
3480	445	1490		6		52	8	40	1969	5.2						56
7350	1156	200		210		53[7]	47		1979			2				69
9602	1840	6904		10	8	40	52		1974	4	4				8	130
823	128	200		10		100				1						28
1235																0
3892	233	1095	2102	7	16[7]	22	62		1984							31
8885	828	962		29	5	74	21		1989	1.1						28
							100									0
43323	5810			17	2	70	28		1957	8.5					15	28
6755	345		667	20		69	31		1987	1.3	2		0.5	4	6	137
640		111		11			100									0
1452	83	1340		10		33	67		1990							28
817		311		10		88	12		1988	1						0
5404	1018	72	2241	11		9	90	1	1990	0.7						42
115																0
12604	4737	1201		15	1	78	21		1984							0
7556		222		18	16	69	15		1982	1.3	5	1	2			58
795		2330		5		10	90		1967	0.7						28
2152	300	111		10	50[7]	17	29	4	1982 1981	0.8	3		2.5	3		0
801		1974		8		71	29	100	1990							0
11	66	1		6			100									0

TABLE A8-1 (Continued):

Allotment Name	Allot. No.	Mgmt. Catgy	Permittee	Current Season of Use From	To	Class Live-Stock	Live-Stock Pref. AUMs	Susp'd AUMs
Offield Mtn. (Colo)[2]	04841	M	F L Massey	0511	1031	Cattle	255	
Ouray Road	15802	M	W E Brown	0511 0903 1101	0610 1014 1231	Cattle	857	
Ouray Valley	15815	C	W Cattle Mgmt Inc	0601	0930	Cattle	30	
Paddys Gap	04860	I	Colton Ranch Inc B Hatch	1206 0412 1215	0105 0430 0125	 Sheep	291	
Parley Canyon	04883	I	D & V Terry G & G Fasselin	0801 1101	1001 1201	Cattle	355	357
Pelican Lake	05812	M	Blue Diamond Oil G. Sprouse	0403	0429		544	
Perry	04852	I	M Huber	0501	0630	Cattle	96	
Powell/Sadlier	04872	C	L E McNeill I Sadlier	0416	0515	Cattle	165	
Red Creek Flat[3]*	04809	I						
Red Mountain	04857	M	Gibson Ranch L C Taylor D Rasmussen	0505 0503 0415 0901	0604 0602 0531 1018	Cattle Cattle	275	
Rich & Stetson	15801	C	N Holmes & Sons	0501	0510	Sheep	65	29
Ruple Cabin*	14833	I	R S & R C Hacking UBGA	1001 0601	1010 1001	Cattle Cattle	2434	10
Rye Grass[3]	14807	M						
S J Hatch*	04862	I	L Siddoway L Karren	0301 1101	0505 0228	Sheep	1681	62
School Bus Draw	04838	M	Richard Pedersen	0515	0726	Cattle	180	
Sears Canyon[3]	14809	M	L Siddoway	0510 0910	0620 1010	Sheep		
Serviceberry Spring	04828	C	D M Walker R O Walker	0516 0516	1031 1031	Cattle Cattle	113	
Shindy*	04849	M	R S & R C Hacking	0501	0531	Cattle	68	
Shiner*	04869	I	F Cook Estate J W Chivers	1101 1101	0430 0430	Cattle Cattle	3000	
Shiner (Colo)[2]	04842	C	D Karren	0516	1025	Cattle	177	
Smelter Springs	04848	C	M R & O C Todd	0516	1031	Cattle	24	
S. Pot Creek[2]* (Colo)	04843	I	S Rasmussen	0515	0930	Cattle	877	
Spring Creek	04856	I	L C Taylor D B Murphy Dean Johnson	0503 0516 1116	0602 0530 1215	Cattle Cattle	196	

COMPREHENSIVE GRAZING ALLOTMENT INFORMATION

Current Acreage				Fed ACS/ AUM	Current Ecol. Condition [5](Seral Stage) (Pct Public Acres)				Year Monitoring Establish	Existing Range Improvements						[4]Veg Trtmt AUM
Fed	Sta	Pvt	DWR		E	M	L	PNC/C	Rng Wldlf	Fnc Ml	Spg	Guz	Pln	Tr	Res	
7305		965		29					1989							42
16958	1201	1062		20	4	82	13		1969	0.1					10	0
489		350		16		90	10			0.5						0
3820	323			13	11	83	6		1990 1990	6.8					20	56
14728	1168	773		45	3	53	44		1981	2.7		1			6	35
6461	684	523		12	22	62	3	13	1990	2.7					10	0
1629	1006	1646		17		84	16		1983 1982	0.5						62
2124	11	17		13	3		97									0
8212	1346	111		11		69	31		1967 1985	9			0.5	1		80
6661	1079	3225		24	3	69	3	25	1984 1981	1.5						28
600	11	6		9	9	17	74									0
12004	1006	2075		5		62	35	3	1967	14		2			20	63
3386	506	395	867	3		49	51		1967 1985							42
24903	2897	817		15	9	69	22		1981 1981	8.8						83
1529		667		8		9	91		1989							28
5021	206		784		13[7]	60	27									42
1974	111	2863	773	18		77	23		1990							0
1913	323	17		28		95[7]	5		1971	3	1					83
38697	3703	2135		13		48	52		1973 1985	3.7	2	2			35	137
1440		2835		8		100										0
384	128	195		16		23	75	2	1974	1.5						0
6213		800		7					1974	0.2						42
4164	1918	1657		21	9	80	2	9	1974	0.6		2				0

TABLE A8-1 (Continued):

Allotment Name	Allot. No.	Mgmt. Catgy	Permittee	Current Season of Use From To	Class Live-Stock	Live-Stock Pref. AUMs	Susp'd AUMs
Smokem-up	04817	C					
Stone Cabin* (PRRA)[1]	04109	I	G & G Fasselin	0501 0930	Cattle	2	
Sulfur Canyon (PRRA)[1]	04111	C	G & G Fasselin	0501 1015	Cattle	158	
Taylor Flat[3]	04808	I					
Three Corners	14800	M	Raftopoulos Bros.	0801 0930	Cattle	167	
Twelve Mile	15813	M	Blue Diamond Oil G. Sprouse	0209 0222	Cattle	316	58
Twin Knolls	04891	M	A Moon & Sons	1116 0310	Cattle	596	369
N. Warren Draw	14813	M	U Gardiner C & K Gardiner	0515 1031 0515 1024	Cattle Cattle	190	
S. Warren Draw	14827	M					
Water Canyon #1	04876	M	A Leautaud	0516 0930	Cattle	153	82
Water Canyon #2	04879	M	J D Wilcox	0216 0228	Cattle	138	260
Watson[3]	04804	I					
Wells Draw	15884	I	A N Moon & Sons	1201 0228 0301 0415	Sheep Cattle	814	406
W. Huber	15803	M	G Huber W E Brown	0401 0430 0501 0601 0511 0610	Cattle Cattle Cattle	402	61
W. Little Mtn	04846	I	K Huber	0516 0615 1010 1204	Cattle Cattle	124	
W. Pelican Lake	04886	C	J B Jenkins	1101 0331	Cattle	251	
W. Pot Creek	04829	C	M McCarrel	0518 1017	Cattle	107	
Wetlands*	15877	I	R Lamb Bar F Partnership	0301 0415 0416 0605 1016 0215 0216 0228 0516 0215	Cattle	1096	365
Wild Mtn[2] (Colo)	04844	M	R S & R C Hacking A & H & VE	0610 0910 0601 0930 0601 1031	Cattle	249 20	65
Wilkerson	04887	C	R C Wilkerson	0601 1015	Cattle	15	
Willow Creek	14801	I	Lazy VD L Lvstk.	0516 0930	Cattle	501	
Willow Springs	04885	M	E R & C Gardiner	0515 1031	Cattle	93	
Young	15809	M	Blue Diamond Oil G Sprouse	0305 0402	Cattle	535	

FOOTNOTES:
* - Current AMP
1. The preference represents Diamond Mountain lands. These allotments are administered by Price River R.A. The planning is the responsibility of Vernal District.
2. The grazing on these (approx. 24,000 acres) allotments is administered by Diamond Mountain R.A. and the planning is the responsibility of the Craig District (Little Snake) R.A.
3. Allotments where preference is retired or nonrenewable is as follows: Red Creek Flat, Taylor Flat, Watson, Rye Grass, Marshall Draw, S. Warren Draw, and Sears Canyon.

COMPREHENSIVE GRAZING ALLOTMENT INFORMATION

Current Acreage				Fed ACS/ AUM	Current/Objective Ecol. [5](Seral Stage) (Pct Public Acres)				Year Monitoring Established	Existing Range Improvements						[4]Veg TrtmA UM
Fed	Sta	Pvt	DWR		E	M	L	PNC/C	Rng Wldlf	FncMil	Spg	Guz	Pln	Tr	Res	
																0
320																0
4116																0
5371	917	373	728	10	16[7]	74	10		1967 1985	7.5			3	2		42
1079	306	723		13		23	77		1988		1			1		14
4909	495			11	2	95	3		1982	4					4	0
6033	979			10		39	61		1989						20	0
4081	339	1557	33	22	9	87	4		1990	1.4						42
3186	406	1496	2235			54	46									42
1095	612	2508		7		21	79		1981		2					0
5060	751	1001		37		83	17		1982	5.5						0
6672	767	6	645	34	11[7]	44	45		1967	1			1.5	1	2	28
9596	1284	50		12	4	95	1		1982 1987	2.1					20	56
4081	867	2324		10	3	97			1982							0
1157	395	1668		9		87	13			10						74
2257	6	56		9	7	65	26	2	1990	1.5						0
1368	133	1565		13		95		5								28
17915	1796	695		15	22	63	15		1957 1974	26						0
4679	858	319		19		99	1		1974	1.5						42
200				13		23	68	9								0
6322	3859	2052		10		51	46	3	1989	2					6	140
917	11	445		11			100		1968							0
7927	963	887		15		9	75	16	1982	2.7		1			10	0

4. Additional estimated AUMs from Range Improvements which could be allocated to wildlife, livestock, or watershed.
5. Seral stage: E=Early; M=Mid; L=Late; PNC/C=Potential Natural Community/Climax.
6. Allotments which are located partially in Diamond Mountain R.A. but grazing is administered by Colorado (Craig District), Little Snake R.A.
7. Acres are in early seral stage due to vegetation manipulation of pinyon-juniper stands to provide more forage and diversity.

TABLE A8-2:
EXISTING RIPARIAN INFORMATION BY GRAZING ALLOTMENT

	PRESENT RIPARIAN STATUS				
Allotment Name	Name	Miles	Priority	Ecological Stage	Year Rip. Mon. Est.
Antelope Powers					
Aunt Knoll					
Argyle Ridge					
Asphalt Ridge					
Bates Spring					
Bealer Basin					
Big Wash					
Big Wash Draw					
Blair Basin					
Bridgeport	U. Green River	8	1	Mid	1990
Browns Park (Colo)	U. Green River	0.5	1	Mid	
Brush Creek	Brush Creek	1.5	19	Early	1990
Bull Canyon	Nine Mile Creek	5	13	Mid	1990
Canal					
Castle Peak					
Clay Basin	Clay Basin Creek	3	5	Early	1990
Clay Basin Meadows	Clay Basin Creek	1	5	Early	1990
Coal Mine Basin					
Cooper Draw					
Cottonwood Springs					
Cove & W. Cow Hollow					
Current Canyon					
Deep Creek					
Devil Canyon	Nine Mile Creek	4	13	Mid	1990
Diamond Mountain	Diamond Gulch	7	9	Mid	1990
Diamond Rim					
Dinosaur Park					
Donkey Flat	Little Brush Creek	2	3	Mid	1989

TABLE A8-2: (Continued)
EXISTING RIPARIAN INFORMATION BY GRAZING ALLOTMENT

	PRESENT RIPARIAN STATUS				
Allotment Name	Name	Miles	Priority	Ecological Stage	Year Rip. Mon. Est.
Dry Creek (Colo)					
Dry Fork	Dry Fork Creek	2	29	Late	1990
East Cow Hollow					
East Huber					
East Little Mountain					
Eight Mile Flat	Pariette Wash	6	10	Mid	
Five Mile					
Flynns Point					
Gadsen					
Gadsen Draw					
Goslin Mountain	Martin Draw Grindstone Wash Red Creek	4 5 4	12 9 4	Early Mid Early	1989
Green River Bottoms	Lower Green River	6	2	Early	1984
Green River (PRRA)					
Hacking					
Halfway Hollow					
Hatch Cove					
Holmes-Palmer					
Horseshoe Bend	Lower Green River	1	2	Early	1990
Hoy Flat (Colo)					
Hoy Mountain					
Island Park					
Jackson-Crouse-Dry Hollow	Upper Green River	2	1	Late	1990
Johnson					
Kyune I (PRRA)					
Lambson-Crouse-Davis	Upper Sears Creek	3	20	Late	1990
Lears Canyon	Argyle Creek	2	16	Early	1989
Little Brush Creek					

TABLE A8-2: (Continued)
EXISTING RIPARIAN INFORMATION BY GRAZING ALLOTMENT

	PRESENT RIPARIAN STATUS				
Allotment Name	Name	Miles	Priority	Ecological Stage	Year Rip. Mon. Est.
Little Desert	Four Mile Wash Lower Green River	1 6	18 2	Mid Late	1990
Little Hole	Upper Green River Jackson Draw Creek L. Davenport Creek Gorge Creek	5 1 1 1	1 23 24 25	Mid Mid Late Late	1989
Log Cabin					
Mame Hole- Bear Hollow					
Mail Draw					
Marshall Draw					
Max Canyon (PRRA)					
McCoy Flat					
McFarley Flat					
McKee Spring					
Mosby	Mosby Creek	1	11	Mid	1989
Natural Lake					
Oden					
Offield Mountain (Colo)					
Ouray Road					
Ouray Valley					
Paddys Gap					
Parley Canyon	Argyle Creek	0.5	16	Early	1989
Pelican Lake	Lower Green River Pelican Lake Draw	2 1.5	2 22	Late Mid	1990
Perry	Deep Creek	0.3	34	Late	
Powell/Sadlier	Lagoon Creek	1	35	Mid	
Red Creek Flat	Upper Green River	5	1	Mid	
Red Mountain	Coyote Creek	1	31	Late	
Rich & Stetson					
Ruple Cabin	Pot Creek	0.2	32	Mid	1990

TABLE A8-2: (Continued)
EXISTING RIPARIAN INFORMATION BY GRAZING ALLOTMENT

	PRESENT RIPARIAN STATUS				
Allotment Name	Name	Miles	Priority	Ecological Stage	Year Rip. Mon. Est.
Rye Grass					
S.J. Hatch					
School Bus Draw					
Sears Canyon	Upper Sears Creek	3	8		
Serviceberry Spring					
Shindy					
Shiner					
Shiner (Colo)					
Smelter Springs	Smelter Creek	0.3	33	Late	
S. Pot Creek (Colo)					
Spring Creek	Spring Creek Ashley Creek	2.5 2	14 21	Mid Mid	1990
Smokem-up					
Stone Cabin (PRRA)					
Sulfur Canyon					
Taylor Flat	Upper Green River Lower Sears L. Tolivers Creek	7 1 1.5	1 7 6	Mid Mid Mid	1990
Three Corners					
Twelve Mile					
Twin Knolls					
North Warren Draw	U. Tolivers Creek	1.5	15	Late	1989
South Warren Draw					
Water Canyon #1					
Water Canyon #2					
Watson	Upper Green River Crouse Creek	4 2	1 30	Mid Late	
Wells Draw					
West Huber					
West Little Mountain					

TABLE A8-2: (Continued)
EXISTING RIPARIAN INFORMATION BY GRAZING ALLOTMENT

	PRESENT RIPARIAN STATUS				
Allotment Name	Name	Miles	Priority	Ecological Stage	Year Rip. Mon. Est.
West Pelican Lake					1990
West Pot Creek					
Wetlands	Lower Green River Pariette Wash	5 4	2 10	Early Mid	1990
Wild Mountain (Colo)					
Wilkerson					
Willow Creek	Upper Willow Creek Lower Willow Creek Birch Creek Beaver Creek Clay Basin Creek	0.2 3 1 1 1	17 28 26 27 5	Early Late Mid Mid Early	1990
Willow Spring					
Young	Lower Green River	1.5	2	Late	1990

FORAGE ALLOCATION HISTORY

Following passage of the Taylor Grazing Act in 1934, grazing allotments were organized and significant reductions in livestock forage allocations implemented. Formal adjudication of grazing privileges were completed from 1958-1967. More than half of the grazing allotments received reductions. For example, more than half the cattle allotments in the Nine Mile Canyon area were reduced by 50% (BLM, 1980).

During this same period, the newly constructed Flaming Gorge Dam, and its resultant reservoir, flooded or covered important big game winter habitat and migration routes. As partial mitigation for these losses, the Bureau of Reclamation purchased private ranch property and conveyed it to the Utah Division of Wildlife Resources for management. This property served as base land for 2,361 federal Animal Unit Months (AUMs) of cattle grazing privileges in the Browns Park area. As a result of this transaction, the Diamond Mountain Resource Area retired the attached grazing privileges on six allotments to partially replace winter forage for big game.

Livestock husbandry and economic factors changed to favor cattle from 1967-1977. Converting from sheep to cattle grazing in the Diamond Mountain and Three Corners areas during this period resulted in a net loss of approximately 3,800 AUMs.

Since the time the Three Corners and Ashley-Duchesne Grazing EISs were completed in 1980 and 1982, livestock preference has continued to decline while wildlife forage use has increased. At the time the grazing EISs were written, livestock preference totaled 55,203 AUMs and wildlife allocations were 21,888 AUMs. Current livestock preference is 50,299 AUMs while current wildlife use totals 27,570 AUMs.

Problems in resource management and possible solutions are identified in Table A8-3. Table A8-4 lists rangeland improvement proposals under each alternative by allotment and Table A8-5 lists priorities for allotment management plan development and/or revisions. Table A8-6 documents the proposed allotment management recategorization for Alternatives B through E.

TABLE A8-3:

PROBLEMS, CONFLICTS, AND OPPORTUNITIES IN RANGELAND MANAGEMENT FOR THE DIAMOND MOUNTAIN RESOURCE AREA

(Numbers refer to key on next 2 pages)

ALLOTMENT	RESOURCE CONFLICT/ PROBLEM
ANTELOPE POWERS	3, 8, 18
AUNT KNOLL	1, 6, 3, 2
ARGYLE RIDGE	2, 4a
ASPHALT RIDGE	
BATES SPRING	11, 3
BEALER BASIN	5, 9, 11
BIG WASH	3, 5, 1, 14
BIG WASH DRAW	1, 7
BLAIR BASIN	11
BRIDGEPORT	4h, 11
BROWNS PARK (UTAH)	2
BRUSH CREEK	1, 4e, 5, 6, 7, 8, 10
BULL CANYON	1, 8, 11
CANAL	
CASTLE PEAK	1, 6, 7, 13, 16, 18
CLAY BASIN	1, 4fq, 7, 11
CLAY BASIN MEADOWS	1, 4f, 5, 6, 9, 11
COAL MINE BASIN	4s, 6, 11, 12, 14, 17
COOPER DRAW	1, 9, 11
COTTONWOOD SPRINGS	1, 6, 10, 17
COVE & WEST COW HOLLOW	5, 6
CURRENT CANYON	1, 6, 11
DEEP CREEK	3
DEVILS CANYON	1, 8, 11
DIAMOND MOUNTAIN	1, 4g, 5, 11
DIAMOND RIM	6, 11, 17
DINOSAUR PARK	1
DONKEY FLAT	1, 3, 4j, 5, 11, 12, 17
DRY FORK	1, 3, 6, 11
EAST COW HOLLOW	
EAST HUBER	1, 8, 13, 16
EAST LITTLE MOUNTAIN	4s, 6
EIGHT MILE FLAT	1, 4o 7, 13, 16, 18
FIVE MILE	5, 6, 7, 8, 11
FLYNNS POINT	
GADSON	
GADSON DRAW	
GOSLIN MOUNTAIN	1, 3, 4imq, 5, 11, 14
GREEN RIVER BOTTOMS	4h, 3, 11
GREEN RIVER (PRRA)	
HACKING	3, 14
HALFWAY HOLLOW	1, 8, 10
HATCH COVE	9, 11
HOLMES-PALMER	
HORSESHOE BEND	1, 3, 4h, 9, 11
HOY FLAT (COLO)	
HOY MOUNTAIN	2, 6, 11
ISLAND PARK	1, 11
JACKSON/CROUSE/DRY HOLLOW	1, 6, 9, 11
JOHNSON	6
KYUNE I (PRRA)	
LAMBSON/CROUSE/DAVIS	4s, 5, 11, 12
LEARS CANYON	4a, 6, 11
LITTLE DESERT	1, 3, 6, 8, 13, 16, 18
LITTLE HOLE	1, 4hs, 6, 11
LOG CABIN	
MAME HOLE/BEAR HOLLOW	6, 11
MAIL DRAW	11
MARSHALL DRAW	1, 4s, 5, 6, 11
MAX CANYON (PRRA)	
McCOY FLAT	1, 10, 13, 16
McFARLEY FLAT	1, 8
McKEE SPRING	3
MOSBY	1
NATURAL LAKE	
ODEN	11
OFFIELD MOUNTAIN (COLO)	
OURAY ROAD	1, 10
OURAY VALLEY	
PADDY'S GAP	1, 6, 7
PARLEYS CANYON	6
PELICAN LAKE	1, 8, 10, 11
PERRY	5, 6
POWELL/SADLIER	1, 10
RED CREEK FLAT	4q, 11, 17
RED MOUNTAIN	2, 4s, 12, 15
RICH & STETSON	
RUPLE CABIN	1, 2, 11, 12
RYE GRASS	6, 11
S. J. HATCH	1, 6, 7, 10, 16
SCHOOL BUS DRAW	4s, 6, 9, 11
SEARS CANYON	6, 10, 11
SERVICEBERRY SPRING	
SHINDY	1, 12, 17
SHINER	1, 6, 8
SHINER (COLO)	
SMELTER SPRINGS	3
SOUTH POT CREEK (COLO)	
SPRING CREEK	1, 4r, 8
STONE CABIN (PRRA)	
SULFUR CANYON (PRRA)	
TAYLOR FLAT	1, 3, 4kl, 6, 11, 12
THREE CORNERS	5
TWELVE MILE	1, 8, 10
TWIN KNOLLS	1, 7
NORTH WARREN DRAW	6, 11
SOUTH WARREN DRAW	6, 11
WATER CANYON #1	
WATER CANYON #2	10
WATSON	1, 11
WELLS DRAW	1, 3, 6, 7
WEST HUBER	1, 8
WEST LITTLE MOUNTAIN	5, 6
WEST PELICAN LAKE	10
WEST POT CREEK	4p
WETLANDS	4h
WILD MOUNTAIN (COLO)	
WILKERSON	
WILLOW CREEK	1, 4ds, 5, 6, 11
WILLOW SPRINGS	3
YOUNG	1, 8

TABLE A8-3 (Continued): KEY TO PROBLEMS AND OPPORTUNITIES

TYPES OF PROBLEMS AND CONFLICTS	MANAGEMENT OPPORTUNITIES
1. Existing water sources are insufficient to allow uniform distribution in the allotment as a whole or are unreliable. Some areas are being over-utilized near existing water; other portions of the allotment are not providing the number of AUMs authorized.	Improve livestock and wildlife distribution by developing additional water projects and/or salting. Implement grazing management systems that would alter traditional grazing patterns and provide for improved distribution of use.
2. Monitoring indicates existing livestock preference exceeds the current production of the vegetation communities involved.	Continue to monitor actual livestock utilization in relation to actual numbers to determine proper carrying capacity. Place excess preference shown by monitoring into suspended preference or non-use. Increase available forage through range improvement practices.
3. Forage estimates indicate that total forage available plus additional forage possible from rangeland improvements appears less than the forage required to meet future objective forage levels for wildlife and livestock preference combined.	Lower wildlife objective levels to meet total forage capabilities. Allow objective wildlife levels to be reached while reducing livestock preference where there is dietary overlap between livestock and wildlife in crucial wildlife habitat. Continue to monitor actual use and utilization to insure allotments are properly stocked.
4. Portions of the one or more of the following riparian areas are in unsatisfactory condition: A. Argyle Creek B. Ashley Creek C. Beaver Creek D. Birch Creek E. Brush Creek F. Clay Basin Creek G. Diamond Gulch H. Green River I. Grindstone Wash J. Little Brush Creek K. Lower Sears Creek L. Lower Tolivers Creek M. Martin Draw N. Nine Mile Creek O. Pariette Wash P. Pot Creek Q. Red Creek R. Spring Creek S. Springs	Improve riparian habitat by implementing grazing systems with grazing deferment, utilization limits, and/or seasons of use conducive for riparian improvement. Exclude riparian areas from livestock grazing. Install fences where needed to control grazing (deferment or exclusion). Install instream structures where needed to stabilize streams. Plant riparian vegetation to accelerate improvement. Control noxious weeds which are encroaching on beneficial plant species.
5. Certain portions of this allotment have excessive sagebrush canopy and/or decadent non-productive, old-age stands of sagebrush or greasewood which reduces vegetation diversity and the amount of desirable forage available for wildlife and/or livestock.	Improve forage quality through the implementation of various vegetation manipulations such as prescribed burning and plowing and seeding (See "Standard Operating Procedures for Rangeland Improvements" later in this Appendix).
6. Certain portions of this allotment contain large amounts of unproductive, closed stands of pinyon/juniper reducing vegetation diversity, ground cover, and the amount of desirable forage available for wildlife and livestock.	Improve forage diversity, quality, and quantity for wildlife and livestock while improving long term watershed stability through prescribed burning or chaining followed by seeding (See "Standard Operating Procedures for Rangeland Improvements" later in this Appendix).
7. Excessive soil erosion is occurring on certain portions of the allotment because of a lack of vegetation cover.	Improve soil stability or highly erosive soils by constructing improvement projects designed to provide watershed stability (See "Standard Operating Procedures for Rangeland Improvements" later in this Appendix).
8. Continuous, early spring grazing on semi-desert winter/spring use allotments is resulting in stress to desirable forage species that require periodic rest during the growing season.	Provide periodic spring grazing rest by implementing grazing systems that rotate spring use. discontinue grazing during spring "green up" on winter/spring allotments. Delay turnout until after seedripe on spring/summer allotments.
9. Continuous grazing during the growing season on summer allotments results in stress to desirable forage species that require periodic rest during the growing season.	Provide periodic growing season rest by implementing grazing systems that rotate growing season use. Delay spring turnout until maximum herbaceous growth is attained.
10. The boundary of the allotment is not fenced or secured by natural boundaries that will control authorized livestock. Livestock occasionally drift into or out of the authorized allotment, resulting in trespass situations.	Control livestock use by constructing boundary fences or additional cross fences.

TYPES OF PROBLEMS AND CONFLICTS	MANAGEMENT OPPORTUNITIES
11. Plant or insect pests are a problem to the vegetative productivity of the allotment.	Coordinate with other affected agencies to control noxious weeds and insect pests.
12. Recreational activities by the public are resulting in gates being left open. This causes livestock to drift in and out of authorized areas.	Install cattle guards in problem locations to minimize livestock drifting.
13. Certain areas used as sheep bedding grounds for too long a period or successively each year is causing localized vegetation degradation.	Rotate sheep bedding grounds each year and limit utilization to 60% maximum.
14. Certain fences in place on cattle allotments are not built to wildlife specifications and inhibit free movement.	Modify fences to meet BLM wildlife specifications.
15. Periodic ORV use within the allotments is resulting in accelerated erosion on areas with fragile soils.	Restrict ORV use to existing road and trails, designated roads and trails, or close areas to ORV use.
16. Desert allotments with shrub vegetation types and grass understory are being utilized by one class of livestock with predominant use on shrubs if sheep are stocked and grass if cattle are stocked.	Periodically rotate class of livestock on allotments where agreements can be reached with permittees, periodically resting vegetation types.
17. Old pinyon/juniper chainings (20 years plus) are re-establishing themselves back to P/J and reducing the vegetation understory. This degrades the watershed, decreases forage production for wildlife and livestock and lessens plant diversity.	Re-establish a mid-seral vegetation stage through vegetation manipulation such as prescribed burning and seeding (See "Standard Operating Procedures for Rangeland Improvements" later in this Appendix).
18. Well pads and roads from oil and gas development are accelerating erosion.	Where possible, install erosion control structures, and use existing roads for new locations of wells. Insure compliance of actual construction of well pads and access roads. Where necessary, relocate proposed access routes and well pad sites located in highly erosive areas.

TABLE A8-4:
RANGELAND IMPROVEMENTS - PROPOSED PLAN AND ALTERNATIVE A

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION						STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	Inter-seed	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Antelope Powers	15879	X								100					
Aunt Knoll	15807	X			200					10					
Argyle Ridge	04873		X								3				
Asphalt Ridge	05807	X													
Bates Spring	14823									1					
Bealer Basin	14806		X								2			.5	
Big Wash	05881			300						20			2		
Big Wash Draw	15885		X[1]				400		200[C]	20	1				
Blair Basin	14824									1					
Bridgeport	14805				600					5	1.5*		1		
Browns Park	04806				800					10				1	
Brush Creek	04858	X[1]		200	300					20	10,1*				
Bull Canyon	04878	X[1]			200					5			3		
Canal	15816									2					
Castle Peak	05886						300			50					
Clay Basin	14802		X							15			1	1	
Clay Basin Meadows	14804		X[1]		300					15	.5*		1	.5	
Coal Mine Basin	04855				1,400					5	.5*		2	.5	
Cooper Draw	04835		X							3	2				
Cottonwood Springs	04853	X			1,300					15			3	4.5	
Cove & W. Cow Hollow	14817									2					
Current Canyon	04877				200		200			5			2		
Deep Creek	04884														

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - PROPOSED PLAN AND ALTERNATIVE A

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION						STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	Inter-seed	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Devils Canyon	04882	X[1]								5			2		
Diamond Mountain	04837		X		100					6	.5	2.5	1	4	
Diamond Rim	04861				200										
Dinosaur Park	04867									2				1	
Donkey Flat	04859				200	200			400[P]	15		2	1	1	
Dry Fork	04854	X			200		100			2			2	.5	
E. Cow Hollow	14822														
E. Huber	15811	X								15			1		
E. Little Mountain	04845				200								1		
Eight Mile Flat	05887	X								12			1		
Five Mile	04874	X			200		500			10			2		
Flynns Point	04889														
Gadsen	04881														
Gadsen Draw	14810														
Goslin Mountain	14803			200	200					25	2*		1	3	
Green River (PRRA)[6]	04806									5					
Green River Bottoms	15878												1		
Hacking	04850												1		
Halfway Hollow	15808	X								2					
Hatch Cove	04834				200					2					
Holmes-Palmer	15810														
Horseshoe Bend	05814		X					200			1.5*		1		
Hoy Mountain	14815				200							.5		.5	
Island Park	04870				500					5			2		

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - PROPOSED PLAN AND ALTERNATIVE A

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION						STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	Inter-seed	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Jackson/Crouse/Dry Hollow	14812		X[1]		900					15			2		
Johnson	04851				200					2					
Kyune I[6] (PRRA)	04129														
Lambson/Crouse/Davis	14818				150					5					
Lears Canyon	04875				200										
Little Brush Creek	04865														
Little Desert	05880	X								25			2		
Little Hole	14811		X[1]		1,000					6	1*		2	.5	
Log Cabin	04830														
Mame Hole-Bear Hollow	04816				200					3					
Mail Draw	14826				200					3					
Marshall Draw	14814			200	200					3					
McCoy Flat	05805									15			1		
McFarley Flat	04863	X			200						1.5		4	1	
McKee Spring	14825				200					3					
Mosby	04847		X[1]										3	2.5	
Natural Lake	14820														
Oden	04880														
Ouray Road	15802									15		9			
Ouray Valley	15815														
Paddys Gap	04860				400					20					
Parley Canyon	04883				100		100			6			1		
Pelican Lake	05812	X								10			1		
Perry	04852				450					5					

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - PROPOSED PLAN AND ALTERNATIVE A

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION						STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	Inter-seed	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Powell/Sadlier	04872									2					
Red Creek Flat	04809				800					15				.5	
Red Mountain	04857				200								1		
Rich & Stetson	15801									2					
Ruple Cabin	14833			500						10			2		
Rye Grass	14807				300										
S.J. Hatch	04862				300					10					
School Bus Draw	04838				200					2	2*				
Sears Canyon	14809				300										
Serviceberry Spring	04828														
Shindy	04849			100	500								1	.5	
Shiner	04842		X		1,000					35	2		4	3	
Smelter Springs	04848														
Spring Creek	04856	X									.5		2		
Stone Cabin (PRRA)	04109														
Sulfer Canyon (PRRA)	04111			200						2					
Taylor Flat	04808		X		300						2			2	
Three Corners	14800			200						2			1		
Twelve Mile	15813	X								4			1		
Twin Knolls	04819									20					
N. Warren Draw	14813				200					5					
S. Warren Draw	14827				200					3					
Water Canyon #1	04876												2		
Water Canyon #2	04879														

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - PROPOSED PLAN AND ALTERNATIVE A

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION						STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn [3]	Burn & Seed [2]	Chem.	FrwdH vst	Inter-Seed	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Watson	04804				200					2				1.5	
Wells Draw	15884				200				200 [C]						
West Huber	15803	X								2					
W. Little Mountain	04846				400	250									
W. Pelican Lake	04886											1			
W. Pot Creek	04829				200						.2				
Wetlands	15877										3*				
Wild Mountain	04844														
Wilkerson	04887														
Willow Creek	14801				800					10					
Young	15809	X								15	5		1	5	1
TOTALS				1,900	18,000	450	1,600	200	800	687	42.7	15	63	34.5	1

* - Fencing to improve riparian habitat.
P - Plow and Seed
C - Contour Furrow & Seed
1 - Possible Allotment Management Plan Development.
2 - Predominantly P/J. If pinyon/juniper areas will not carry a fire, chaining may be substituted.
3 - Predominantly sagebrush. If sagebrush understory will not carry a fire, chemicals may be substituted for control.
4 - Includes division, boundary, and exclosure fences.
5 - A preferred treatment method is selected for each allotment.
6 - Allotments where grazing is administered by Price River Resource Area.
7 - Commercial and personal firewood cutting/seeding.

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVE B

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn [3]	Burn & Seed [2]	Chem.	FrwdH vst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Antelope Powers	15879	X							20					
Aunt Knoll	15807	X			100				10					
Argyle Ridge	04873		X							6*,3				
Asphalt Ridge	05807													
Bates Spring	14823													
Bealer Basin	14806		X							2				
Big Wash	05881								20					
Big Wash Draw	15885		X[1]				200	200[P]	20	1				
Blair Basin	14824													
Bridgeport	14805				300				5	1.5*				
Browns Park	04806								10					
Brush Creek	04858	X[1]			150				20	10,1*				
Bull Canyon	04878	X[1]							5					
Canal	15816								2					
Castle Peak	05886						150							
Clay Basin	14802		X						15	3*		3	1	
Clay Basin Meadows	14804		X[1]		150				5	5*		1	.5	
Coal Mine Basin	04855			150	700				5	.5*			.5	
Cooper Draw	04835		X						3	2				
Cottonwood Springs	04853	X			650				5			1	1.5	
Cove & W. Cow Hollow	14817			100										
Current Canyon	04877				100				5	.5*				
Deep Creek	04884									2.5*				

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVE B

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn [3]	Burn & Seed [2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Devils Canyon	04882	X [1]							5					
Diamond Mountain	04837		X		100				6	.5	2.5	1	4	
Diamond Rim	04861				100									
Dinosaur Park	04867			100					2		1		1	
Donkey Flat	04859				200	200			6		2	1	1	
Dry Fork	04854	X			200		100		2			2	.5	
E. Cow Hollow	14822													
E. Huber	15811	X							15					
E. Little Mountain	04845											1		
Eight Mile Flat	05887	X [1]							12	20*		1		
Five Mile	04874	X [1]			100		250		10			2		
Flynns Point	04889													
Gadsen	04881													
Gadsen Draw	14810													
Goslin Mountain	14803			200	100				15	12*		1	3	
Green River (PRRA) [6]	04806								5					
Green River Bottoms	15878													
Hacking	04850											1		
Halfway Hollow	15808								2					
Hatch Cove	04834	X			100				2					
Holmes-Palmer	15810													
Horseshoe Bend	05814		X						1	1.5				
Hoy Mountain	14815			200	100						.5			
Island Park	04870				250							2		

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVE B

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Jackson/Crouse/Dry Hollow	14812	X[1]		200	350									
Johnson	04851				100				2					
Kyune I[6] (PRRA)	04129													
Lambson/Crouse/Davis	14818								5					
Lears Canyon	04875													
Little Brush Creek	04865													
Little Desert	05880	X			100				15			2		
Little Hole	14811		X[1]		400				6	1*		2	.5	
Log Cabin	04830													
Mame Hole-Beau Hollow	04816				100				3					
Mail Draw	14826								3					
Marshall Draw	14814								3					
McCoy Flat	05805								5			1		
McFarley Flat	04863	X								3		6	1	
McKee Spring	14825				100				3					
Mosby	04847		X[1]							2*		3	2.5	
Natural Lake	14820													
Oden	04880													
Ouray Road	15802								10		9			
Ouray Valley	15815													
Paddys Gap	04860				200				20					
Parley Canyon	04883								6			1		
Pelican Lake	05812	X							10			1		
Perry	04852				200				5					

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVE B

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn [3]	Burn & Seed [2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Powell/Sadlier	04872								2					
Red Creek Flat	04809				200						2		.5	
Red Mountain	04857				100							1		
Rich & Stetson	15801													
Ruple Cabin	14833				100				10			2		
Rye Grass	14807													
S.J. Hatch	04862				100				10					
School Bus Draw	04838				100				2	3*				
Sears Canyon	14809													
Serviceberry Spring	04828													
Shindy	04849			200	250							1	.5	
Shiner	04842		X		300				35	2		4	3	
Smelter Springs	04848													
Spring Creek	04856	X								5		2		
Stone Cabin (PRRA)	04109													
Sulfer Canyon (PRRA)	04111			200					2					
Taylor Flat	04808		X		150								2	
Three Corners	14800								2			1		
Twelve Mile	15813	X							4			1		
Twin Knolls	04819								20					
N. Warren Draw	14813								5					
S. Warren Draw	14827								3					
Water Canyon #1	04876											2		
Water Canyon #2	04879													

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVE B

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Watson	04804				100				2				1.5	
Wells Draw	15884				100			200[C]						
West Huber	15803	X							2					
W. Little Mountain	04846				200									
W. Pelican Lake	04886										1			
W. Pot Creek	04829				100					.2				
Wetlands	15877									7*				
Wild Mountain	04844													
Wilkerson	04887													
Willow Creek	14801				150				6	2*				
Young	15809	X							10		5	1		
TOTALS				1,350	6,900	200	700	400	444	97.2	23	48	24.5	

* - Fencing to improve riparian habitat.
P - Plow and Seed
C - Contour Furrow & Seed
1 - Possible Allotment Management Plan Development.
2 - Predominantly P/J. If pinyon/juniper areas will not carry a fire, chaining may be substituted.
3 - Predominantly sagebrush. If sagebrush understory will not carry a fire, chemicals may be substituted for control.
4 - Includes division, boundary, and exclosure fences.
5 - A preferred treatment method is selected for each allotment.
6 - Allotments where grazing is administered by Price River Resource Area.
7 - Commercial and personal firewood cutting/seeding.

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVES C and D

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Antelope Powers	15879	X							20					
Aunt Knoll	15807	X			200				10					
Argyle Ridge	04873		X							3				
Asphalt Ridge	05807													
Bates Spring	14823													
Bealer Basin	14806		X	200						2			.5	
Big Wash	05881			300					20			2		
Big Wash Draw	15885		X[1]				400	200[C]	20	1				
Blair Basin	14824								1					
Bridgeport	14805			200	600				5	1.5*		1		
Browns Park	04806			800					10					
Brush Creek	04858	X[1]		200	300				20	10,1*				
Bull Canyon	04878	X[1]							5			3		
Canal	15816								2					
Castle Peak	05886						300		100					
Clay Basin	14802		X	300					15			1	1	
Clay Basin Meadows	14804		X[1]	200	300				15			1	.5	
Coal Mine Basin	04855			300	1,400				5	.5*		2	.5	
Cooper Draw	04835		X						3	2				
Cottonwood Springs	04853	X			1,300				15	2		3	4.5	
Cove & W. Cow Hollow	14817			200					2					
Current Canyon	04877				200		200		5			2		
Deep Creek	04884													

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVES C and D

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn[3]	Burn & Seed[2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Devils Canyon	04882	X[1]							5			2		
Diamond Mountain	04837		X		100				6	.5	2.5	1	4	
Diamond Rim	04861				200									
Dinosaur Park	04867			200					2		1		1	
Donkey Flat	04859			400		200		400[P]	15	2*		1	1	
Dry Fork	04854	X			300				2			2	.5	
E. Cow Hollow	14822													
E. Huber	15811	X							15			1		
E. Little Mountain	04845			200								1		
Eight Mile Flat	05887	X[1]							12			1		
Five Mile	04874	X[1]			200		500		10			2		
Flynns Point	04889													
Gadsen	04881													
Gadsen Draw	14810													
Goslin Mountain	14803			400	200				25	2*		1	3	
Green River (PRRA)[6]	04806								5					
Green River Bottoms	15878											1		
Hacking	04850											1		
Halfway Hollow	15808	X							2					
Hatch Cove	04834			200	200				2					
Holmes-Palmer	15810													
Horseshoe Bend	05814		X						1	1.5*				
Hoy Mountain	14815			400	200						.5			
Island Park	04870				500				5			2	.5	

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVES C and D

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn [3]	Burn & Seed [2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Jackson/Crouse/Dry Hollow	14812		X [1]	200	900				15			2		
Johnson	04851				200				2					
Kyune I [6] (PRRA)	04129													
Lambson/Crouse/Davis	14818			150	150				5					
Lears Canyon	04875				200									
Little Brush Creek	04865													
Little Desert	05880	X			200				25			2		
Little Hole	14811		X [1]		1,000				6	1*		2	.5	
Log Cabin	04830													
Mame Hole-Beau Hollow	04816				200				3					
Mail Draw	14826								3					
Marshall Draw	14814			200	200				3					
McCoy Flat	05805								15			1		
McFarley Flat	04863	X			200					1.5		4	1	
McKee Spring	14825				200				3					
Mosby	04847		X [1]									3	2.5	
Natural Lake	14820													
Oden	04880													
Ouray Road	15802								15		9			
Ouray Valley	15815													
Paddys Gap	04860				400				20					
Parley Canyon	04883			100	100		100		6			1		
Pelican Lake	05812	X							10			1		
Perry	04852				450				5					

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVES C and D

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn [3]	Burn & Seed [2]	Chem.	Frwd Hvst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Powell/Sadlier	04872								2					
Red Creek Flat	04809				800				15				.5	
Red Mountain	04857				200				2			1		
Rich & Stetson	15801													
Ruple Cabin	14833			500	200				10			2		
Rye Grass	14807				300									
S.J. Hatch	04862			200	500				10					
School Bus Draw	04838				200				2	2*				
Sears Canyon	14809				300									
Serviceberry Spring	04828													
Shindy	04849			200	500							1	.5	
Shiner	04842		X		1,000				35	2		4	3	
Smelter Springs	04848													
Spring Creek	04856	X								.5		2		
Stone Cabin (PRRA)	04109													
Sulfer Canyon (PRRA)	04111			200										
Taylor Flat	04808		X		300				2*				2	
Three Corners	14800				200				2				1	
Twelve Mile	15813	X							4			1		
Twin Knolls	04819								20					
N. Warren Draw	14813			200	200				5					
S. Warren Draw	14827			200	200				3					
Water Canyon #1	04876											2		
Water Canyon #2	04879													

TABLE A8-4 (Continued):
RANGELAND IMPROVEMENTS - ALTERNATIVES C and D

ALLOTMENTS		GRAZING SYSTEM		VEGETATION MANIPULATION					STRUCTURAL PROJECTS					
		Spring Defer	Rest Rotate	Burn [3]	Burn & Seed [2]	Chem.	FrwdH vst	P/C	Res.	Fencing (Miles) Div.	Fencing (Miles) Bndry	Guzzlers & Spgs.	Pipe-lines (Mi.)	Wells
Watson	04804				200				2				1.5	
Wells Draw	15884				200			200 [C]						
West Huber	15803	X							2					
W. Little Mountain	04846				400	250								
W. Pelican Lake	04886										1			
W. Pot Creek	04829				200					.2				
Wetlands	15877									3*				
Wild Mountain	04844													
Wilkerson	04887													
Willow Creek	14801			400	800				10					
Young	15809	X							15		5	1	1.5	1
TOTALS				7,050	17,300	450	1,500	800	657	39.2	19	61	31	1

* - Fencing to improve riparian habitat.
P - Plow and Seed
C - Contour Furrow & Seed
1 - Possible Allotment Management Plan Development.
2 - Predominantly P/J. If pinyon/juniper areas will not carry a fire, chaining may be substituted.
3 - Predominantly sagebrush. If sagebrush understory will not carry a fire, chemicals may be substituted for control.
4 - Includes division, boundary, and exclosure fences.
5 - A preferred treatment method is selected for each allotment.
6 - Allotments where grazing is administered by Price River Resource Area.
7 - Commercial and personal firewood cutting/seeding.

TABLE A8-5
PRIORITY FOR NEW ALLOTMENT MANAGEMENT PLANS AND REVISIONS

NEW AMPS	PRIORITY
Antelope Powers	7
Big Wash Draw	18
Brush Creek	6
Clay Basin Meadows	14
Eight Mile Flat	13
Five Mile	3
McFarley Flat	16
Shiner	4
**Diamond Mountain	
Willow Creek	15
AMP REVISIONS	
Cottonwood Springs	1
*Pelican Lake	
*Twelve Mile	
*Young	
Goslin Mountain	2
Horseshoe Bend	5
Hoy Mountain	12
Little Desert	9
Red Creek Flat	11
S.J. Hatch	17
Taylor Flat	8
Wetlands	10

* These allotments are currently used in conjunction with the Cottonwood Springs allotment and would be part of that AMP.
** This allotment is currently used in conjunction with the Shiner Allotment and would be part of that AMP.

THE ALLOTMENT CATEGORIZATION PROCESS

ASSIGNMENT OF CATEGORY

The criteria used for the placement of the allotments into the categories were based on resource potential, resource use conflicts or controversy, opportunity for positive economic return on public investments, and the present management situation. The specific criteria used for each category are as follows:

Category "M": Maintaining Existing Resource Conditions

- The present ecological condition and management are satisfactory.
- Late to climax condition, if desired, will be maintained under present management, or mid condition, if desired, or improving with improvement expected to continue under present management, or opportunities for BLM management are limited because percentage of public land is low or acreage of public lands is small.
- Allotment has a potential for moderate or high vegetation production and is producing at or near this potential.
- There are no significant land-use resource conflicts with livestock grazing.
- Landownership status may or may not limit management opportunities.
- Opportunities for positive economic return from public investment may exist.

Category "I": Improve Existing Resource Conditions

- Present ecological condition is unsatisfactory.
- Ecological condition is in early to mid seral stage.
- Ecological condition is in mid to late seral stage.
- Ecological succession is expected to regress further.
- Allotment has a potential for medium to high vegetation production but production is low to moderate.
- Resource conflicts/controversy with livestock grazing are evident.
- There is potential for positive economic return on public investment.

Category "C": Custodial Management

- Present ecological condition is not in a downward trend.
- Allotment has a low vegetation production potential and is producing near this level.
- There may or may not be limited conflicts between livestock grazing and other resources.
- Present management is satisfactory or is the only logical management under existing conditions.
- Opportunities for positive economic return on public investments do not exist.

MANAGEMENT OBJECTIVES

"M" Allotments

To authorize actions that are consistent with or will maintain current uses and satisfactory range condition and productivity. Monitoring studies will be established at a level that will detect changes in present resource management and/or condition. The intensity and workload requirements of the studies will depend on the resource values involved.

"I" Allotments

To implement management actions that will improve existing resource condition and productivity and enhance overall multiple use opportunities. Monitoring will be carried out at an intensity sufficient to support actions taken toward achieving management objectives and will be implemented on a priority basis. Monitoring will continue at a higher intensity to ensure the effectiveness of the actions.

"C" Allotments

To manage the allotment in a custodial manner while protecting the existing resource values. Management actions will emphasize the issuance of billings, grazing leases, and transfers. Monitoring will consist of periodic allotment inspections, use supervision, and photo plots to detect possible changes in existing resource values. A specific schedule for monitoring will not be developed, but monitoring will be conducted as the opportunity arises in conjunction with other range management work.

CURRENT GRAZING ALLOTMENT INFORMATION

Table A8-1 lists livestock grazing information specific to each allotment in the resource area.

TABLE A8-6:
RECORD OF PROPOSED ALLOTMENT CATEGORIZATION

Allotment Name	Range Condition Sat.	Range Condition Unsat.	Allotment Potential Hi.	Allotment Potential Med.	Allotment Potential Low	Present Productivity Hi.	Present Productivity Med	Present Productivity Low	Resource Conflicts Many	Resource Conflicts Few	Resource Conflicts None	Controversy Hi	Controversy Low	Controversy None	Present Management Satis.	Present Management Unsat.	Willingness to Invest Yes	Willingness to Invest Maybe	Willingness to Invest No	Other Criteria Allotment Characteristics	Category M	Category I	Category C
Antelope Powers	X				X		X			X			X			X	X			Critical Pronghorn Antelope habitat Critical Watershed Area		X	
Aunt Knoll		X			X		X			X			X			X	X			Critical Watershed Area		X	
Argyle Ridge	X				X		X			X			X			X			X	Riparian Concern	X		
Asphalt Ridge	X				X			X			X			X	X				X				X
Bates Spring	X				X			X			X			X	X				X				X
Bealer Basin	X			X			X			X			X		X			X			X		
Big Wash	X			X		X				X		X			X		X			Potential Livestock/ wildlife conflict		X	
Big Wash Draw		X		X			X			X		X			X		X			Potential Livestock/ wildlife conflict		X	
Blair Basin	X				X			X			X			X	X				X				X
Bridgeport	X		X				X		X			X			X		X			Wildlife habitat pot'nt'l High critical deer winter range		X	
Brush Creek	X			X			X		X			X				X	X			Critical deer winter range; Pot. livestock/ wildlife conflict		X	
Browns Park (Utah)	X			X			X		X			X			X		X			Critical deer winter range; High wildlife habitat potential		X	
Bull Canyon	X				X			X		X			X			X		X		No spring use rest		X	
Canal	X				X			X		X			X		X			X			X		
Castle Peak	X				X		X			X		X			X		X			Critical Pronghorn Antelope habitat; Critical Watershed		X	
Clay Basin	X			X			X		X			X				X	X			Riparian Concern		X	
Clay Basin Meadows	X		X				X		X			X				X	X			Riparian Concern		X	
Coal Mine Basin	X		X				X			X			X		X		X			High Potential wildlife habitat		X	

TABLE A8-6 (Continued):
RECORD OF PROPOSED ALLOTMENT CATEGORIZATION

Allotment Name	Range Condition Sat.	Range Condition Unsat.	Allotment Potential Hi.	Allotment Potential Med.	Allotment Potential Low	Present Productivity Hi.	Present Productivity Med	Present Productivity Low	Resource Conflicts Many	Resource Conflicts Few	Resource Conflicts None	Controversy Hi	Controversy Low	Controversy None	Present Management Satis.	Present Management Unsat.	Willingness to Invest Yes	Willingness to Invest Maybe	Willingness to Invest No	Other Criteria Allotment Characteristics	Category M	Category I	Category C
Cooper Draw	X				X	X				X			X		X			X			X		
Cottonwood Springs	X		X				X			X			X			X	X			High pot. wldlife habitat		X	
Cove & Cow Hollow	X				X			X		X			X		X				X				X
Current Canyon	X			X			X			X			X		X			X			X		
Deep Creek	X				X		X			X			X		X				X				X
Devils Canyon	X			X				X		X			X			X	X			No spring use rest		X	
Diamond Mountain	X			X		X				X			X			X	X			Riparian concern		X	
Diamond Rim	X		X				X			X		X			X		X			High pot. wldlife habitat		X	
Dinosaur Park	X				X		X			X			X		X				X				X
Donkey Flat	X		X				X		X			X			X		X			Crit. deer winter rng; Pot. lvstk/wldlf conflicts		X	
Dry Fork	X		X					X	X			X				X	X			High pot. wldlf habitat		X	
E. Cow Hollow	X				X		X			X			X		X				X				X
E. Huber	X			X				X		X			X			X	X			Critical pronghorn antelope habitat; no spring use rest		X	
E. Little Mountain	X		X				X			X			X		X		X			High pot. wldlf. habitat		X	
Eight Mile Flat	X			X			X			X		X				X	X			Critical pronghorn antelope habitat; Critical Watershed		X	
Five Mile	X		X			X				X		X			X		X			Pot. lvstk/wldlf conflict		X	
Flynns Point	X				X		X			X			X		X				X				X
Gadsen	X				X		X			X			X		X				X				X
Gadsen Draw	X				X		X			X			X		X				X				X
Goslin Mountain	X		X				X		X			X				X	X			Pot. lvstk/wldlf conflict; Riparian concern		X	
Green River Bottoms		X		X			X		X			X				X	X			Riparian Concern		X	
Green River (PRRA)		X		X				X	X			X				X		X		No spring use rest		X	

TABLE A8-6 (Continued):
RECORD OF PROPOSED ALLOTMENT CATEGORIZATION

Allotment Name	Range Condition Sat.	Range Condition Unsat.	Allotment Potential Hi.	Allotment Potential Med.	Allotment Potential Low	Present Productivity Hi.	Present Productivity Med	Present Productivity Low	Resource Conflicts Many	Resource Conflicts Few	Resource Conflicts None	Controversy Hi	Controversy Low	Controversy None	Present Management Satis.	Present Management Unsat.	Willingness to Invest Yes	Willingness to Invest Maybe	Willingness to Invest No	Other Criteria Allotment Characteristics	Category M	Category I	Category C
Hacking	X				X		X			X			X		X				X				X
Halfway Hollow	X			X			X			X			X			X		X			X		
Hatch Cove	X			X		X				X			X		X			X			X		
Holmes/Palmer	X				X		X				X			X	X				X				X
Horseshoe Bend		X		X				X		X		X				X	X			Riparian concern		X	
Hoy Mountain	X			X			X		X			X				X	X			Riparian concern		X	
Island Park	X		X			X			X				X		X		X			High pot. wldf. habitat		X	
Jackson-Crouse-Dry Hollow	X		X				X			X			X			X	X			High pot. wldf. habitat		X	
Johnson		X		X			X			X			X		X			X			X		
Kyune I (PRRA)	X		X				X			X			X		X		X				X		
Lambson-Crouse-Davis	X			X			X			X			X		X			X			X		
Lears Canyon	X			X			X			X			X		X			X			X		
Little Brush Creek	X				X			X			X			X	X				X				X
Little Desert	X			X			X			X			X			X	X			No spring use rest		X	
Little Hole	X		X				X		X		X				X		X			Riparian concern		X	
Log Cabin	X				X			X			X			X	X				X				X
Mame Hole-Bear Hollow	X			X			X			X			X		X				X				X
Mail Draw	X			X			X			X			X		X			X			X		
Marshall Draw	X			X		X				X			X		X			X			X		
Max Canyon (PRRA)		X			X			X			X			X	X				X				X
McCoy Flat	X			X			X			X			X		X			X			X		
McFarley Flat		X		X				X		X			X			X	X			No spring use rest		X	
McKee Spring	X			X			X			X			X		X				X				X

TABLE A8-6 (Continued):
RECORD OF PROPOSED ALLOTMENT CATEGORIZATION

Allotment Name	Range Condition Sat.	Range Condition Unsat.	Allotment Potential Hi.	Allotment Potential Med.	Allotment Potential Low	Present Productivity Hi.	Present Productivity Med	Present Productivity Low	Resource Conflicts Many	Resource Conflicts Few	Resource Conflicts None	Controversy Hi	Controversy Low	Controversy None	Present Management Satis.	Present Management Unsat.	Willingness to Invest Yes	Willingness to Invest Maybe	Willingness to Invest No	Other Criteria Allotment Characteristics	Category M	Category I	Category C
Mosby	X			X		X				X			X		X			X			X		
Natural Lake	X				X			X			X		X		X				X				X
Oden	X			X			X			X			X		X				X				X
Ouray Road	X			X		X				X			X		X			X			X			
Ouray Valle	X				X		X			X			X		X				X				X
Paddys Gap	X		X			X				X			X		X		X			No spring use rest High pot. wldf. habitat		X	
Parley Canyon	X			X			X			X			X		X			X			X		
Pelican Lake		X		X			X			X			X			X		X		Crit. Pronghorn habitat No spring use rest		X	
Perry	X		X				X			X			X		X		X			High pot. wldf. habitat		X	
Powell/Sadlier	X			X			X			X		X				X		X			X		
Red Creek Flat	X		X				X		X				X		X		X			Crit. deer winter range; high pot. wldf. habitat		X	
Red Mountain	X			X			X		X			X				X	X			Resource Conflict		X	
Rich & Stetson	X				X			X			X			X	X				X				X
Ruple Cabin		X		X			X			X			X			X	X			Resource Conflict		X	
Rye Grass	X			X			X			X			X		X			X			X		
S.J. Hatch	X		X				X			X			X		X		X			High Pot. wildlife habitat		X	
School Bus Draw	X			X			X			X			X		X			X			X		
Sears Canyon	X		X				X		X				X		X		X			High Pot. wildlife habitat		X	
Serviceberry Spring	X				X			X		X			X		X				X				X
Shindy	X		X			X				X			X		X		X			High Pot. wildlife habitat		X	
Shiner	X		X				X		X				X			X	X			No spring use rest		X	
Smelter Springs	X			X			X			X			X		X				X				X
Smokem-up	X				X			X			X			X	X				X				X
Spring Creek		X		X			X			X			X		X		X			Riparian Concern		X	

TABLE A8-6 (Continued):
RECORD OF PROPOSED ALLOTMENT CATEGORIZATION

Allotment Name	Range Condition Sat.	Range Condition Unsat.	Allotment Potential Hi.	Allotment Potential Med.	Allotment Potential Low	Present Productivity Hi.	Present Productivity Med	Present Productivity Low	Resource Conflicts Many	Resource Conflicts Few	Resource Conflicts None	Controversy Hi	Controversy Low	Controversy None	Present Management Satis.	Present Management Unsat.	Willingness to Invest Yes	Willingness to Invest Maybe	Willingness to Invest No	Other Criteria Allotment Characteristics	Category M	Category I	Category C
Stone Cabin (PRRA)		X	X				X			X			X			X	X					X	
Sulfer Canyon (PRRA)	X				X			X		X			X		X				X				X
Taylor Flat		X	X				X		X			X				X	X			Riparian concern; Crit. deer winter range		X	
Three Corners	X			X			X			X			X		X			X			X			
Twelve Mile	X			X				X		X			X			X	X			Crit. pronghorn anelope hbt; No spring use rest		X	
Twin Knolls	X			X			X			X			X		X			X			X			
N. Warren Draw	X			X			X			X			X		X			X			X			
S. Warren Draw	X			X			X			X			X		X			X			X			
Water Canyon #1	X			X			X			X			X		X			X			X			
Water Canyon #2	X			X			X			X		X			X		X				X			
Watson	X		X				X		X				X			X	X			Crit. deer winter rng.; high pot. wldlf. habitat		X	
Wells Draw	X			X			X		X				X		X		X			Crit. elk winter rng.; Pot. lvstk/wldlf. coriflict		X	
West Huber		X		X				X		X			X			X		X		No spring use rest		X	
W. Little Mountain	X		X				X			X			X		X		X			High pot. wldlf. habitat		X	
W. Pelican Lake	X			X			X			X			X		X				X				X
W. Pot Creek	X			X			X			X			X		X				X				X
Wetlands		X		X			X		X			X				X		X		Riparian concern		X	
Wilkerson	X				X		X			X			X		X				X				X
Willow Creek	X		X				X		X				X			X	X			Riparian concern		X	
Willow Springs	X			X			X			X			X		X			X			X			
Young	X			X			X			X			X			X	X				X		

RANGE MONITORING STUDIES

Purpose

The purpose of monitoring studies is to provide the data needed for making management decisions, determining the effectiveness of on-the-ground management actions, and evaluating progress toward meeting management objectives on high priority allotments. Management objectives in the resource area are (a) to gather adequate data on all "I" and "M" category allotments, (b) to determine the effects of management actions on the rangeland resources, and (c) to provide quantifiable data needed to support management decision. All monitoring plans will follow BLM Manual 4400, Technical References 4400-1 through 4.

Methods

A formal evaluation of any allotment or management unit must examine the effects of consumptive uses in that area, such as livestock grazing and wildlife. A high degree of interdisciplinary coordination will ensure that multiple use principles are considered.

Resource objectives will be developed for each allotment. Objectives will be meaningful, specific, and measurable.

The monitoring studies established in specific allotments where wildlife-livestock conflicts have been identified will be designed to provide information for wildlife and range management personnel to determine actual problems or conflicts. At a minimum, information will be needed on actual use levels and forage utilization by each ungulate species involved. This will require close cooperation and specific input from UDWR during the planning, implementation, and analysis of the monitoring studies.

Currently there are 247 vegetation monitoring sites (223 livestock and/or wildlife and 24 riparian) in the resource area, employing any one or all of the following methods: three plot density, frequency, line intercept, photo plot, and big game pellet group transects.

The method, amount, and intensity of monitoring established and conducted for each allotment will depend on category, resource values, and specific allotment objectives. High intensity monitoring will be implemented in allotments identified as top "I" priority. Low-intensity monitoring studies will be carried out on the remaining lower priority "I" and "M" category allotments so that significant changes in current management or resource values can be detected.

High-intensity studies provide sufficient data to support decisions that establish grazing capacities, seasons of use, and the kind and number of grazing animals by allotment. Studies at this level of monitoring are those that determine actual use and forage utilization as well as climatic studies.

Trend studies will be used along with annual climatic data and information on actual use and forage utilization to analyze the effectiveness of the management decisions taken to achieve specific allotment objectives.

Low-intensity studies are those that detect undesirable changes in existing range condition that could warrant re-evaluation of the priority or category for that allotment. At a minimum, such studies include an allotment inspection and the completion of an allotment inspection form.

Management adjustments would not be made until monitoring over time verified a conflict or problem and determined its extent. Data gathered by monitoring and consultation and coordination with affected parties would support management decisions related to livestock and wildlife stocking levels and other adjustments.

STANDARD OPERATING PROCEDURES FOR RANGELAND IMPROVEMENTS

Prescribed Burns

The pattern of vegetation modification would be an irregular or mottled design to maintain aesthetics and provide habitat diversity.

Soil moisture conditions and the season of the burn would be selected to benefit the survival of desired species.

Fire lines and breaks would be built in conformance with the district fire plan. Following treatment, fire lines would be rehabilitated, berms smoothed, disturbed areas reseeded, etc. as necessary to conform to the original conformation of the site.

Burning would be conducted in such a manner as to allow convection to vent smoke and provide the most complete combustion of material, thus restricting air pollution.

In order to protect known cultural values and threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to burning.

The need for buffer zones to protect critical wildlife habitat would be coordinated with the UDWR.

Care will be taken to locate and protect all legal markers including cadastral, property, and claim markers.

Protection of the watershed would be considered to reduce any short term loss of soil. Gully plugging, reseeding, and

other watershed preserving practices would be applied when warranted.

Permittees might have to defer grazing in some rangeland for periods of up to three years. Temporary fencing would be used to protect certain sites.

If funding and conditions warrant, burned areas will be seeded with a variety of plant species providing forage and watershed benefits.

Chemical Treatment

Projects would conform to state and Environmental Protection Agency (EPA) pollution standards. Application of chemicals would conform to EPA regulations and BLM requirements.

The patterns of the vegetation modification would be designed to blend into the landscape to maintain the natural appearance of the area.

In order to control drift, chemical sprays would be applied only when winds are less than 5 miles per hour.

The need for and proper dimensions of buffer zones to protect wildlife habitat would be jointly agreed upon by the BLM and UDWR.

Chemically treated vegetation would be left in place, with the exception of woodland products, which could be harvested.

Season of treatment and soil moisture conditions would be selected to give the best kill to target species and preserve desired species.

In order to protect known cultural values, threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to treatment.

Visual resources would be considered in the development of the treatment area.

Care would be taken to locate and protect all legal markers including cadastral, property, and claim markers.

Cooperation with the range user would be maintained to protect treated areas from grazing following treatment. Deferments in grazing would generally be one to three growing seasons. Where grazing systems with rest periods in the grazing cycle are being followed, treatments and deferment of use would be worked in with the normal rest periods in the grazing cycle.

Chainings

The patterns of the vegetation modification would be designed to blend into the landscape to maintain the natural appearance of the area. Irregular patterns would be implemented to increase the edge effect for wildlife and maintain aesthetics.

Areas within 200 feet of well-traveled roads would not be chained.

The need for, and proper dimensions of buffer zones would be jointly agreed to by BLM and the Utah Division of Wildlife Resources (UDWR) prior to on-the-ground development of projects. Buffer zones would be provided, where necessary, to prevent disturbance to riparian ecosystems.

Vegetation would be left in place or burned. Permits would be given for salvage of woodland products following treatment.

Areas will be seeded with a variety of plant species adapted to the specific site. The mixture would be a variety of browse, forbs, and grass species that are desirable for both livestock, wildlife, and watershed.

Treatment areas would not be grazed by livestock until vegetation becomes established. In most cases, two growing seasons of rest would be required.

In order to protect known cultural values, threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to chaining.

Care would be taken to locate and protect all legal markers including cadastral, property, and claim markers.

Firewood Harvesting

Harvest areas will be designed in an irregular fashion to maintain aesthetics and produce edge effect for wildlife and maintain sustained timber yield.

Cutting and harvesting areas would be closed when weather conditions would result in excessive erosion, soil compaction, and rutting of roads.

Areas within 100 feet of well-traveled roads would not be harvested.

Stump height would not exceed 12 inches.

Approximately 75% of slash piles would be burned and slash would be scattered on slopes greater than 30% and in drainage bottoms.

In order to protect known cultural values, threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to cutting.

Reservoirs

In order to protect known cultural values, threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to construction and the least amount of ground possible would be disturbed for access to the site.

The borrow areas and reservoir dikes would be revegetated.

BLM earthwork guidelines and specifications would be followed for the construction of retention dams and reservoirs.

Seeps-Springs

A cooperative agreement between BLM and permittee for construction and maintenance would be developed where applicable.

In order to protect known cultural values, threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to development.

The sites would be restored to the original conformation of the site. Seeding of adapted species would be used to restore disturbed areas.

Some water would be left at the original source for wildlife purposes.

A wildlife escape device would be installed in all open water troughs capable of trapping wildlife.

Spring construction and fencing to restrict livestock from the spring source would comply with BLM specific fencing specifications.

Water troughs and above-ground tanks and facilities would be designed and painted to blend with the natural environment. Water tanks would be anchored with wooden posts.

Guzzlers

The shape and color of guzzlers would blend with the natural environment.

A wildlife escape ramp would be installed in conjunction with all open water troughs capable of trapping wildlife.

Fencing to restrict livestock and wildlife from the collection and storage areas would comply with BLM fence stipulations.

Fencing

All fences would be built according to BLM specifications including design to facilitate wildlife movement.

Clearing of fence lines prior to construction would be limited to brush removal.

Gates would be installed along the fence at intersections of all official access roads or trails; in natural passes, and other strategic places to facilitate movement of recreators, livestock, and wildlife.

A cooperative agreement between BLM and permittee for construction and maintenance of fences would be developed where applicable.

A clearance for cultural values, and threatened, endangered, and sensitive species would be required prior to construction.

Water Pipelines

A cooperative agreement between BLM and permittee for construction and maintenance of fences would be developed where applicable.

In order to protect known cultural values, threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to development.

The sites would be restored to the original conformation of the land. Seeding of adapted species would be used to restore disturbed areas.

A wildlife escape device would be installed in all watering troughs capable of trapping wildlife.

Water troughs and above-ground tanks and facilities would be designed and painted to blend with the natural environment. Water tanks would be anchored with wooden posts.

Contour Furrowing and Plow and Seed

In order to protect known cultural values, threatened, endangered, and sensitive plant and animal species, a clearance would be required prior to development.

Design projects on contour to prevent erosion hazards and insure optimum water infiltration.

Seed with a variety of species adapted to site providing watershed and forage benefits.

APPENDIX 9

WATERSHED RESOURCES

CONTENTS:

Utah State Water Quality Standards for DMRA

STATE OF UTAH WATER QUALITY STANDARDS

The following information are excerpts from the current State of Utah water quality standards as they apply to waters within the boundaries of the Diamond Mountain Resource Area. These state regulations are provided under the authority of 26-1-1 through 20, Utah Code Annotated 1953, as amended, and most recently revised April, 1988.

R448-2 Standards of Quality for Waters of the State

R448-2-0 Public Policy

Whereas the pollution of the waters of this state constitute a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish, and aquatic life, and impairs domestic, agricultural, industrial, recreational, and other legitimate beneficial uses of water, and whereas such pollution is contrary to the best interests of the state and its policy for the conservation of the water resources of the state, it is hereby declared to be the public policy of this state to conserve the waters of the state and to protect, maintain and improve the quality thereof for public water supplies, for the propagation of wildlife, fish, and aquatic life, and for domestic, agricultural, industrial, recreational, and other legitimate beneficial uses; to provide that no waste be discharged into any waters of the state without first being given the degree of treatment necessary to protect the legitimate beneficial uses of such waters; to provide for the prevention, abatement, and control of new or existing water pollution; to place first in priority those control measures directed toward elimination of pollution which creates hazards to the public health; to insure due consideration of financial problems imposed on water polluters through pursuit of these objectives; and to cooperate with other agencies of the state, agencies of other states, and the federal government in carrying out these objectives.

R448-2-3 Antidegradation Policy

3.1 Maintenance of Water Quality

Waters whose existing quality is better than the established standards for the designated uses will be maintained at high quality unless it is determined by the committee, after appropriate intergovernmental coordination and public participation in concert with the Utah continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. However, existing instream water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing instream water uses.

In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with Section 316 of the Federal Clean Water Act.

3.2 Antidegradation Segments

Waters of high quality which have been determined by the committee to be of exceptional recreational or ecological significance or have been determined to be a State or National resource requiring protection, shall be maintained at existing high quality through designation, by the Committee after public hearing, as antidegradation segments. New point source discharges of wastewater, treated or otherwise, are prohibited in such segments after the effective date of designation. Protection of such segments from pathogens in diffuse, underground sources is covered in R448-5 and R448-7 and the Regulations for Individual Wastewater Disposal Systems (R449-201). Other diffuse sources (nonpoint sources) of wastes shall be controlled to the extent feasible through implementation of best management practices or regulatory programs.

Projects such as, but not limited to, construction of dams or roads will be considered in antidegradation segments on a case-by-case basis where pollution will result only during the actual construction activity, and where best management practices will be employed to minimize pollution effects.

Waters of the state designated as antidegradation segments are listed in Section 2.12.

R448-2-4 Colorado River Salinity Standards

In addition to quality protection afforded by these regulations to waters of the Colorado River and its tributaries, such waters shall be protected also by requirements of "Proposed Water Quality Standards for Salinity including Numeric Criteria and Plan of Implementation for Salinity Control, Colorado River System, June 1975" and a supplement dated August 26, 1975, entitled "Supplement, including Modifications to Proposed Water Quality Standards for Salinity including

Numeric Criteria and Plan of Implementation for Salinity Control, Colorado River System, June 1975", as approved by the seven Colorado River Basin States and the U.S. Environmental Protection Agency, as updated by the 1978 Revision and the 1981, 1984, and 1987 Reviews of the above documents.

R448-2-6 Use Designations

The Committee as required by 26-11-6 Utah Code Annotated in 1953, as amended, shall group the waters of the state into classes so as to protect against controllable pollution the beneficial uses designated within each class as set forth below. Surface waters of the state are hereby classified as shown in Section 2.13.

6.1 Class 1 -- protected for use as a raw water source for domestic water systems.

a. Class 1A -- Reserved
b. Class 1B -- Reserved
c. Class 1C -- protected for domestic purposes with prior treatment by treatment processes as required by the Utah Department of Health.

6.2 Class 2 -- protected for in-stream recreational use and aesthetics.

a. Class 2A -- protected for recreational bathing (swimming).
b. Class 2B -- protected for boating, water skiing, and similar uses, excluding recreational bathing (swimming).

6.3 Class 3 -- protected for in-stream use by aquatic wildlife.

a. Class 3A -- protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.
b. Class 3B -- protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.
c. Class 3C -- protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.
d. Class 3D -- protected for waterfowl, shore birds, and other water-oriented wildlife not included in classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.

6.4 Class 4 -- protected for agricultural uses including irrigation of crops and stock watering.

6.5 Class 5 -- Reserved

6.6 Class 6 -- waters requiring protection when conventional uses as identified in Sections 2.6.1 through 2.6.5 do not apply. Standards for this class are determined on a case-by-case basis.

R448-2-7 Water Quality Standards

7.1 Application of Standards

The numeric criteria listed in Section 2.14 shall apply to each of the classes assigned to waters of the State as specified in Section 2.6 of these regulations. It shall be unlawful and a violation of these regulations for any person to discharge or place any wastes or other substances in such manner as may interfere with designated uses protected by assigned classes or to cause any of the applicable standards to be violated, except as provided in R448-1-3.1. The Committee may allow, on a case-by-case basis, site specific modifications based upon bioassay or other tests performed in accordance with standard procedures determined by the Committee.

7.2 Narrative Standards

It shall be unlawful, and a violation of these regulations, for any person to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum, or other nuisances such as color, odor, or taste; or conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, as determined by bioassay or other tests performed in accordance with standard procedures determined by the Committee.

R448-2-8 Protection of Downstream Uses

All actions to control waste discharges under these regulations shall be modified as necessary to protect downstream designated uses.

R448-2-9 Intermittent Waters

Failure of a stream to meet water quality standards when stream flow is either unusually high or less than the 7-day, 10-year minimum flow shall not be cause for action against persons discharging wastes which meet both the requirements of R448-1 and the requirements of applicable permits.

R448-2-12 Antidegradation Segments

In addition to assigned use classes, the following surface waters of the Diamond Resource Area are hereby designated as antidegradation segments:

Strawberry River and tributaries, from confluence with Red Creek to headwaters.
Avintaquin Creek, from confluence with Strawberry River to confluence with Cottonwood Creek.
Ashley Creek and tributaries, from Steinaker diversion to headwaters.
Jones Hole Creek and tributaries, from confluence with Green River to headwaters.
Green River, from state line to Flaming Gorge Dam.
Tollivers Creek, from confluence with Green River to headwaters.

12-13 Statewide

All surface waters geographically located within the outer boundaries of U.S. National Forests whether on public or private lands.

R448-2-13 Classification of Waters of the State of Utah Within DMRA.

UPPER COLORADO RIVER BASIN GREEN RIVER DRAINAGE			
AREA	STATE CLASSIFICATION		
Nine Mile Creek and tributaries, from confluence with Green River to headwaters	1C	3A	4
Pariette Draw and tributaries, from confluence with Green River to headwaters		3B, 3D	4
Duchesne River and tributaries, from confluence with Green River to Myton Water Treatment Plant intake		3B	4
Duchesne River and tributaries, from Myton Water Treatment Plant intake to headwaters	1C	3A	4
Uinta River and tributaries, from confluence with Duchesne River to Highway US-40 crossing		3B	4
Uinta River and tributaries, from Highway US-40 crossing to headwaters		3A	4
Power House Canal from confluence with Uinta River to headwaters		3A	4
Lake Fork River and tributaries, from confluence with Duchesne River to headwaters	1C	3A	4
Lake Fork Canal from Dry Gulch Canal diversion to Moon Lake	1C		4
Dry Gulch Canal, from Myton Water Treatment Plant to Lake Fork Canal	1C		4
Whiterocks River and Canal, from Tridell Water Treatment Plant to headwaters	1C	3A	4
Ashley Creek and tributaries, from confluence with Green River to Steinaker diversion		3B	4
Ashley Creek and tributaries, from Steinaker diversion to headwaters	1C	3A	4
Big Brush Creek and tributaries, from confluence with Green River to Tyzack (Red Fleet) Dam		3B	4

R448-2-13 Classification of Waters of the State of Utah Within DMRA.

UPPER COLORADO RIVER BASIN GREEN RIVER DRAINAGE			
AREA	STATE CLASSIFICATION		
Big Brush Creek and tributaries, from Tyzack (Red Fleet) Dam to headwaters	1C	3A	4
Jones Hole Creek and tributaries, from confluence with Green River to headwaters		3A	
Diamond Gulch Creek and tributaries, from confluence with Green River to headwaters		3A	4
Pot Creek and tributaries, from Crouse Reservoir to headwaters		3A	4
Green River and tributaries, from state line to Flaming Gorge Dam except as listed below:	2B	3A	4
Crouse Creek and tributaries, from confluence with Green River to headwaters		3A	4
Willow Creek and tributaries, from confluence with Green River (Daggett County) to headwaters		3A	4
Sears Creek and tributaries, Daggett County		3A	
Tollivers Creek and tributaries, Daggett County		3A	
Red Creek and tributaries, from confluence with Green River to state line		3C	4
Jackson Creek and tributaries, Daggett County		3A	
Davenport Creek and tributaries, Daggett County		3A	
Goslin Creek and tributaries, Daggett County		3A	
Gorge Creek and tributaries, Daggett County		3A	
Beaver Creek and tributaries, Daggett County		3A	
O-Wi-Yu-Kuts Creek and tributaries, County		3A	
Cart Creek and tributaries, from Flaming Gorge Reservoir to headwaters		3A	
Eagle Creek and tributaries, from Flaming Gorge Reservoir to headwaters		3A	
Carter Creek and tributaries, from Flaming Gorge Reservoir to headwaters		3A	

R448-2-13 Classification of Waters of the State of Utah Within DMRA.

UPPER COLORADO RIVER BASIN GREEN RIVER DRAINAGE				
AREA	STATE CLASSIFICATION			
Sheep Creek and tributaries, from Flaming Gorge Reservoir to headwaters			3A	4
Birch Spring Draw and tributaries, from Flaming Gorge Reservoir to headwaters			3C	4
Spring Creek and tributaries, from Flaming Gorge Reservoir to headwaters			3A	
Birch Creek and tributaries, from state line to headwaters			3A	4
Burnt Fork and tributaries, from state line to headwaters			3A	4
Middle Fork Beaver Creek and tributaries, from state line to headwaters			3A	4
West Fork Beaver Creek and tributaries, from state line to headwaters			3A	4
Henry's Fork and tributaries, from state line to headwaters			3A	4
NATIONAL WILDLIFE REFUGES AND STATE WATERFOWL MANAGEMENT AREAS				
Browns Park Waterfowl Management Area, Daggett County			3A, 3D	
Ouray National Wildlife Refuge, Uintah County			3B, 3D	
Stewart Lake Waterfowl Management Area, Uintah County			3B, 3D	
UINTAH COUNTY				
Brough Reservoir		2B	3A	4
Calder Reservoir		2B	3A	4
Crouse Reservoir		2B	3A	4
Pelican Lake		2B	3B	4
Red Fleet Reservoir	1C	2B	3A	4
Steinaker Reservoir	1C	2B	3A	4

TABLE 2.14.1
NUMERIC CRITERIA FOR DOMESTIC, RECREATION, AND AGRICULTURAL USES

PARAMETER	DOMESTIC SOURCE 1C	RECREATION AND AESTHETICS 2A	2B	AGRICULTURE 4
BACTERIOLOGICAL				
(30-day geometric mean) (No.)/100 ML				
Max. total coliforms	5000	1000	5000	
Max. fecal coliforms	2000	200	200	
PHYSICAL				
MIN. DISSOLVED OXYGEN (MG/L) (1)	5.5	5.5	5.5	
pH (Range)	6.5-9.0	6.5-9.0	6.5-9.0	6.5-9.0
Tubidity Increase (NTU)		10	10	
METALS (Acid soluble, maximum MG/L)(2):				
Arsenic	0.05			0.1
Barium	1.0			
Cadmium	0.01			0.01
Chromium	0.05			0.10
Copper				0.2
Lead	0.05			0.1
Mercury	0.002			
Selenium	0.01			0.05
Silver	0.05			
INORGANICS (Maximum MG/L)				
Boron				0.75
Fluoride (3)	1.4-2.4			
Nitrates as N	10			
Total dissolved solids (4)				1200
RADIOLOGICAL (Maximum pCi/L)				
Gross Alpha	15			15
Radium 226, 228 (Combined)	5			
Strontium 90	8			
Tritium	20000			
ORGANICS (Maximum UG/L)				
Chlorophenoxy Herbicides				
2,4-D	100			
2,4,5-TP	10			
Endrin	0.2			
Hexaclorocyclohexane (Lindane)	4			
Methoxychlor	100			
Toxaphene	5			
POLLUTION INDICATORS (5)				
Gross Beta (pCi/L)	50			50
Bod (MG/L)		5	5	5
Nitrate as N (MG/L)		4	4	
Phosphate as P (MG/L)		0.05	0.05	

FOOTNOTES:

(1) These limits are not applicable to lower water levels in deep impoundments.

(2) The acid soluble method as used by the State Health Laboratory involves acidification of the sample in the field, no digestion process in the laboratory, filtration, and analysis by atomic absorption spectrophotometry.

(3) Maximum concentration varies according to the daily maximum mean air temperature.

Temp (C)	MG/L
12.0	2.4
12.1-14.6	2.2
14.7-17.6	2.0
17.7-21.4	1.8
21.5-26.2	1.6
26.3-32.5	1.4

(4) Total dissolved solids (TDS) limits may be adjusted on a case-by-case basis.

(5) Investigations should be conducted to develop more information where these pollution indicator levels are exceeded.

TABLE 2.14.2
NUMERIC CRITERIA FOR AQUATIC WILDLIFE

PARAMETER	AQUATIC WILDLIFE			
	3A	3B	3C	3D
PHYSICAL				
Total dissolved gases	(1)	(1)		
Dissolved oxygen (MG/L) (2)				
30 day average	6.5	5.5	5.0	5.0
7 day average	9.5/5.0	6.0/4.0		
1 day average	8.0/4.0	5.0/3.0	3.0	3.0
Max. temperature (C)	20	27	27	
Max. temperature change (C)	2	4	4	
pH (range)	6.5-9.0	6.5-9.0	6.5-9.0	6.5-9.0
Turbidity increase (NTU)	10	10	15	15
METALS (3)				
(Acid Soluble, UG/L) (4)				
Arsenic (trivalent)				
4 day average	190	190	190	190
1 hour average	360	360	360	360
Cadmium (5)				
4 day average	1.1	1.1	1.1	1.1
1 hour average	3.9	3.9	3.9	3.9
Chromium (hexavalent)				
4 day average	11	11	11	11
1 hour average	16	16	16	16
Chromium (trivalent) (5)				
4 day average	210	210	210	210
1 hour average	1700	1700	1700	1700
Copper (5)				
4 day average	12	12	12	
1 hour average	18	18	18	18
Cyanide (free)				
4 day average	5.2	5.2	5.2	
1 hour average	22	22	22	22
Iron (maximum)	1000	1000	1000	1000
Lead (5)				
4 day average	3.2	3.2	3.2	3.2
1 hour average	82	82	82	82
Mercury				
4 day average	0.012	0.012	0.012	0.012
1 hour average	2.4	2.4	2.4	2.4
Nickel (5)				
4 day average	160	160	160	160
1 hour average	1400	1400	1400	1400
Selenium				
4 day average	5.0	5.0	5.0	5.0
1 hour average	20	20	20	20
Silver				
4 day average	0.12	0.12	0.12	
1 hour average	4.1	4.1	4.1	4.1
Zinc (5)				
4 day average	110	110	110	110
1 hour average	120	120	120	120
INORGANICS (MG/L) (3)				
Ammonia as N (un-ionized) (6)				
4 day average	(6a)	(6a)		
1 hour average	(6b)	(6b)	(6b)	(6b)
Chlorine (total residual) (7)				
4 day average	0.011	0.011		
1 hour average	0.019	0.019	0.2	(8)
Hydrogen Sulfide (undissociated, max, UG/L)	2.0	2.0	2.0	2.0
Phenol (maximum)	0.01	0.01	0.01	0.01
RADIOLOGICAL (maximum pCi/L)				
Gross Alpha (9)	15	15	15	15

TABLE 2.14.2 (Continued)
NUMERIC CRITERIA FOR AQUATIC WILDLIFE

PARAMETER	3A	3B	3C	3D
ORGANICS (UG/L) (3)				
Aldrin (maximum)	3.0	3.0	3.0	3.0
Chlordane				
4 day average	0.0043	0.0043	0.0043	0.0043
1 hour average	2.4	2.4	2.4	2.4
Endosulfan				
4 day average	0.056	0.056	0.056	0.056
1 hour average	0.18	0.18	0.18	0.18
Endrin				
4 day average	0.0023	0.0023	0.0023	0.0023
1 hour average	0.18	0.18	0.18	0.18
Guthion (maximum)	0.01	0.01	0.01	0.01
Heptachlor				
4 day average	0.0038	0.0038	0.0038	0.0038
1 hour average	0.52	0.52	0.52	0.52
Hexachlorocyclohexane (Lindane)				
4 day average	0.08	0.08	0.08	0.08
1 hour average	2.0	2.0	2.0	2.0
Methoxychlor (maximum)	0.03	0.03	0.03	0.03
Mirex (maximum)	0.001	0.001	0.001	0.001
Parathion (maximum)	0.04	0.04	0.04	0.04
PCB's				
4 day average	0.014	0.014	0.014	0.014
1 hour average	2.0	2.0	2.0	2.0
Pentachlorophenol (10)				
4 day average	13	13	13	13
1 hour average	20	20	20	20
Toxaphene				
4 day average	0.0002	0.0002	0.0002	0.0002
1 hour average	0.73	0.73	0.73	0.73
POLLUTION INDICATORS (9)				
Gross Beta (pCi/L)	50	50	50	50
Bod (MG/L)	5	5	5	5
Nitrate as N (MG/L)	4	4	4	
Phosphate as P (MG/L) (11)	0.05	0.05		

FOOTNOTES:

(1) Not to exceed 110% of saturation

(2) These limits are not applicable to lower water levels in deep impoundments. First number in column is for when early life stages are present, second number is for when all other life stages present.

(3) Where criteria are listed as 4-day average and 1-hour average concentration, these concentrations should not be exceeded more often than once every three years on the average.

(4) The acid soluble method as used by the State Health Laboratory involves acidification of the sample in the field, no digestion process in the laboratory, filtration, and analysis by atomic absorption spectrophotometry.

(5) Hardness dependent criteria. 100 mg/l used. See Table 2.14.3 for complete equation.

(6) Un-ionized ammonia toxicity is dependent upon the temperature and pH of the waterbody. For detailed explanation refer to Federal Register, Vol. 50, 30784, July 29, 1985.

(6a) The 4-day average concentration of un-ionized ammonia in mg/l as N: (0.80/FT/FPH/Ratio) * 0.822

(6b) The 1-hour average concentration of un-ionized ammonia in mg/l as N: (0.52/FT/FPH/2) * 0.822

Where: FT is a function of temperature which adjusts the criteria concentration for the ambient temperature.

$FT = 10^{0.03\,(20-TCAP)}$;TCAP $\leq T \leq 30$.

$FT = 10^{0.03\,(20-T)}$;$0 \leq T <$ TCAP

and FPH is a function of pH which adjusts the criteria concentration for ambient pH.

$FPH = 1$; $8.0 \leq pH \leq 9.0$

$= (1 + 10^{7.4-pH)/1.25}$; $6.5 \leq pH < 8.0$

and RATIO is the ratio between acute and chronic criteria and is dependent upon pH.

$RATIO = 16$; $7.7 \leq pH \leq 9.0$

$= 24\,(10^{7.7-pH}/\,(1 + 10^{7.4-pH})$; $6.5 \leq pH < 7.7$

and TCAP is the maximum temperature that the criteria can be applied and is dependent upon the aquatic community present (i.e., warm water or cold water).

For Class 3A only: TCAP = 15C in equation 6a

For Class 3A only: = 20C in equation 6b

For Class 3B: TCAP = 20C in equation 6a

For Class 3B, 3C, and 3D: TCAP = 25C in equation 6b

For Tables of Values, see following page. (FOOTNOTES CONTINUED ON BOTTOM OF NEXT PAGE.)

TABLE 2.14.2 (Continued)
NUMERIC CRITERIA FOR AQUATIC WILDLIFE

1-HOUR AVERAGE CONCENTRATION OF UN-IONIZED AMMONIA AS N (MG/L)
FOR CLASS 3A WATERS
TEMPERATURE (C)

pH	0.00	5.00	10.00	15.00	20.00	25.00	30.00
6.50	0.008	0.011	0.015	0.021	0.030	0.030	0.030
7.00	0.019	0.027	0.038	0.054	0.076	0.076	0.076
4.50	0.037	0.053	0.075	0.105	0.149	0.149	0.149
8.00	0.054	0.076	0.107	0.151	0.214	0.214	0.214
8.50	0.054	0.076	0.107	0.151	0.214	0.214	0.214
9.00	0.054	0.076	0.107	0.151	0.214	0.214	0.214

4-DAY AVERAGE CONCENTRATION OF UN-IONIZED AMMONIA AS N (MG/L)
FOR CLASS 3A WATERS
TEMPERATURE (C)

6.50	0.001	0.001	0.001	0.002	0.002	0.002	0.002
7.00	0.002	0.002	0.003	0.005	0.005	0.005	0.005
7.50	0.005	0.008	0.011	0.015	0.015	0.015	0.015
8.00	0.010	0.015	0.021	0.029	0.029	0.029	0.029
8.50	0.010	0.015	0.021	0.029	0.029	0.029	0.029
9.00	0.010	0.015	0.021	0.029	0.029	0.029	0.029

1-HOUR AVERAGE CONCENTRATION OF UN-IONIZED AMMONIA AS N (MG/L)
FOR CLASS 3B, 3C, AND 3D WATERS
TEMPERATURE (C)

6.50	0.008	0.011	0.015	0.021	0.030	0.042	0.042
7.00	0.019	0.027	0.038	0.054	0.076	0.107	0.107
7.50	0.037	0.053	0.075	0.105	0.149	0.210	0.210
8.00	0.054	0.076	0.107	0.151	0.214	0.302	0.302
8.50	0.054	0.076	0.107	0.151	0.214	0.302	0.302
9.00	0.054	0.076	0.107	0.151	0.214	0.302	0.302

4-DAY AVERAGE CONCENTRATION OF UN-IONIZED AMMONIA AS N (MG/L)
FOR CLASS 3B WATERS
TEMPERATURE (C)

6.50	0.001	0.001	0.001	0.002	0.002	0.002	0.002
7.00	0.002	0.002	0.003	0.005	0.007	0.007	0.007
7.50	0.005	0.008	0.011	0.015	0.022	0.041	0.041
8.00	0.010	0.015	0.021	0.029	0.041	0.041	0.041
8.50	0.010	0.015	0.021	0.029	0.041	0.041	0.041
9.00	0.010	0.015	0.021	0.029	0.041	0.041	0.041

(7) Special case segments and maximum TRC concentrations as follows:
Mill Race from Interstate Highway 15 to the Provo City wastewater treatment plant discharge: 0.2 mg/l.
Ironton Canal (Utah County), from Utah Lake (Provo Bay) to east boundary of Denver and Rio Grande Western Railroad right-of-way: 0.05 mg/l.
Beer Creek (Utah County) from 4850 West (in NE1/4NE1/4 sec. 36, T.8 S., R.1 E.) to headwaters: 0.3 mg/l
(8) Numeric criteria determined on a case-by-case basis.
(9) Investigations should be conducted to develop more information where these levels are exceeded.
(10) pH dependent criteria. pH 7.8 used in table. See Table 2.14.4 for equation.
(11) Phosphate as P (mg/l) limit for lakes and reservoirs shall be 0.025.

TABLE 2.14.3
EQUATIONS FOR PARAMETERS WITH HARDNESS (1) DEPENDENCE

PARAMETER	4-DAY AVERAGE CONCENTRATION (UG/L)	1-HOUR AVERAGE CONCENTRATION (UG/L)
Cadmium	e(0.7852 [1n (hardness)]-3.490)	e(1.128[1n (hardness)]-3.828
Chromium (Trivalent)	e(0.8190[1n (hardness)]+1.561)	e(0.8190[1n (hardness)]+3.688)
Copper	e(0.8545[1n (hardness)]-1.465)	e(0.9422[1n (hardness)]-1.464
Lead	e(1.273[1n (hardness)]-4.705)	e(1.273[1n (hardness)]-1.460)
Nickel	e(0.8460[1n (hardness)]+1.1645)	e(0.8460[1n (hardness)]+3.3612
Silver	N/A	e(1.72[1n (hardness)]-6.52
Zinc	e(0.8473[1n (hardness)]+0.7614)	e(0.8473[1n (hardness)]+0.8604
FOOTNOTE: (1) Hardness as mg/1 $CaCO_3$		

TABLE 2.14.4
EQUATIONS FOR PENTACHLOROPHENOL (pH DEPENDENT)

4-DAY AVERAGE CONCENTRATION (UG/L)	1-HOUR AVERAGE CONCENTRATION (UG/L)
e[1.005(pH)]-5.290	e[1.005(pH)]-4.830

APPENDIX 10

SOCIOECONOMICS MANAGEMENT

CONTENTS:

Supporting Graphs and Analysis for Chapter 3

1990 Economic Values

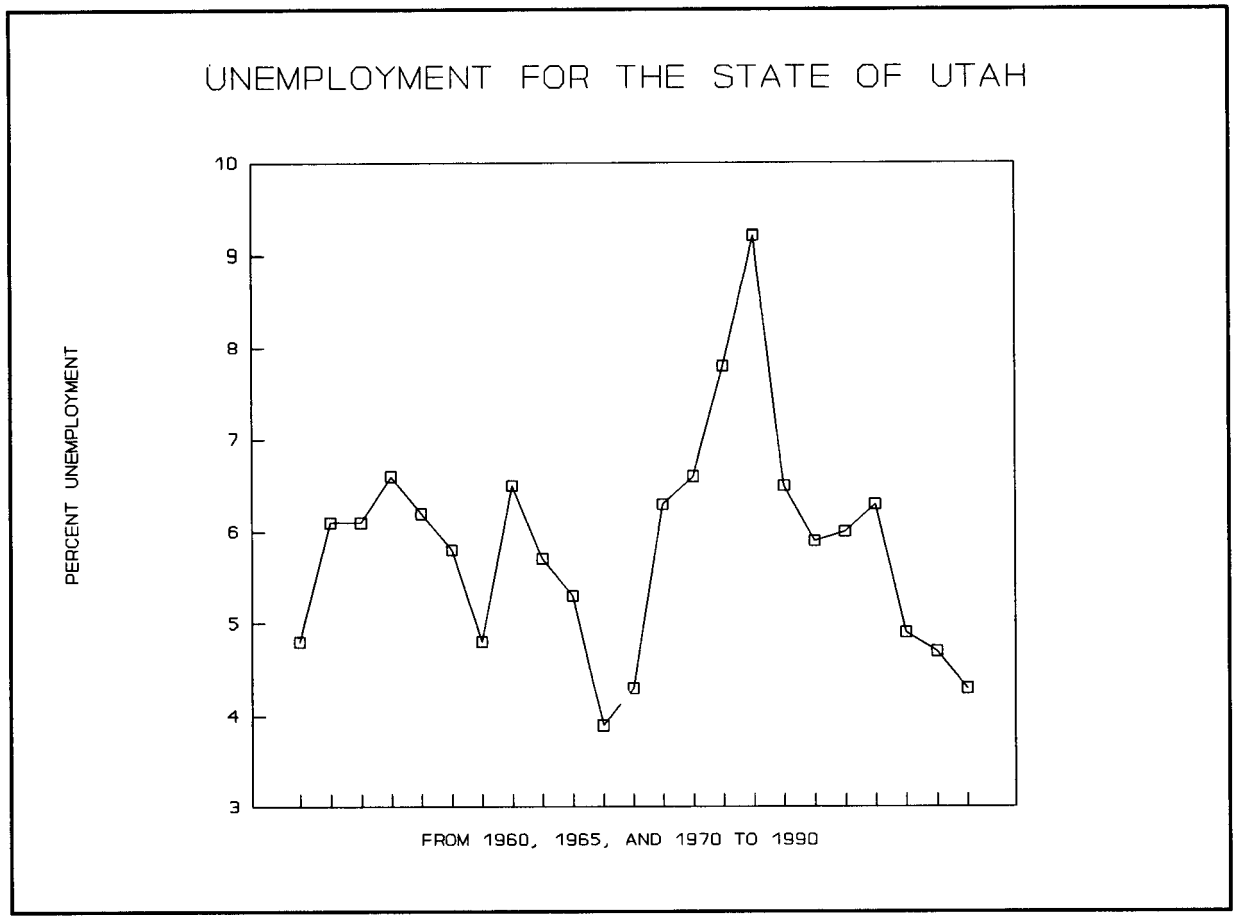
Estimated Costs for Rangeland Improvement Projects

Appendix 10 - Socioeconomic Management

The following set of graphs is based on data from the State of Utah's Office of Planning and Budget. The period of time covered in the socioeconomic analysis is 1960 through 1990. Such information provides sufficient data to establish trends and outline reasonable forecasts. The order of presentation of these graphs follows the order of presentation in the socioeconomics section of Chapter 3.

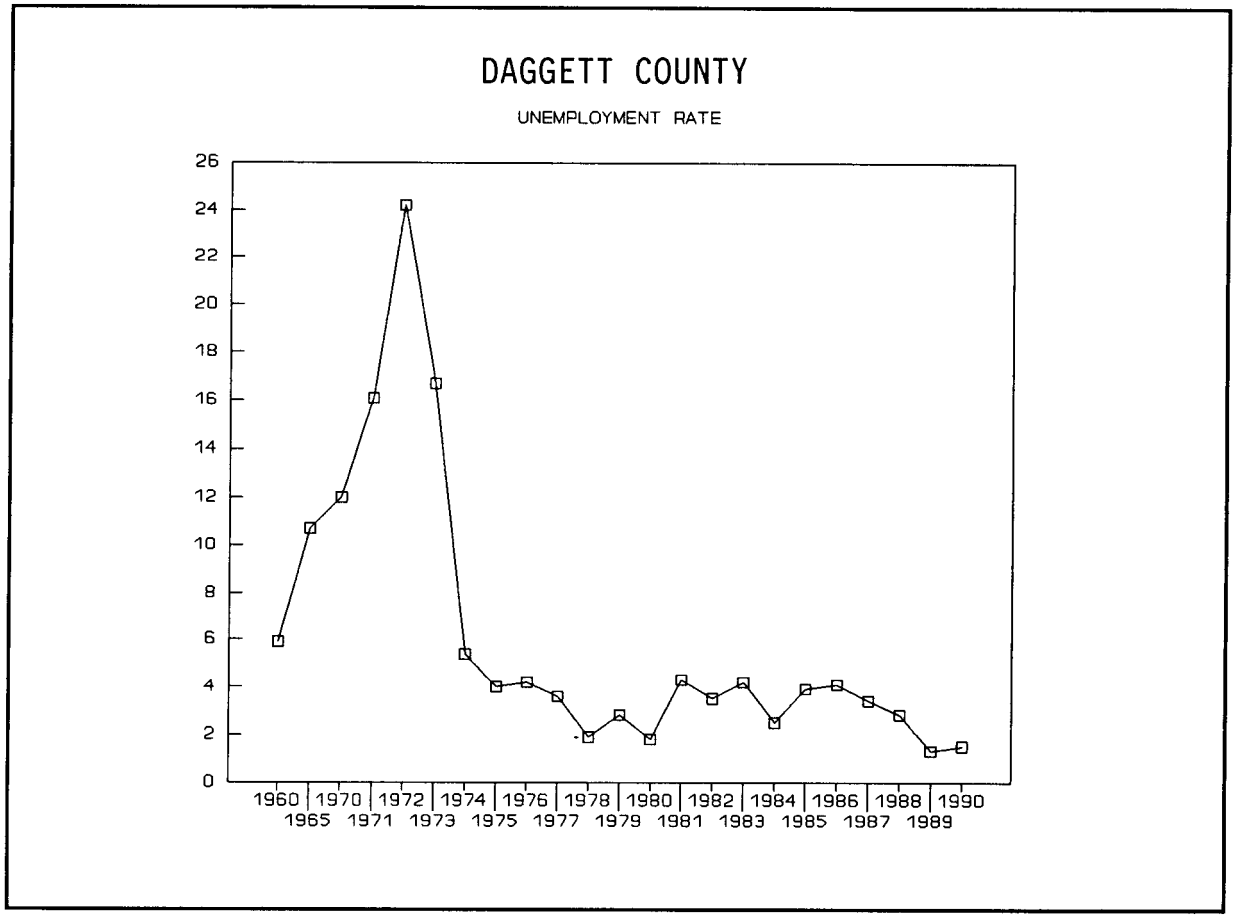
Please note, any dollar figures for a given year are most meaningful for that year only; they have not been adjusted for inflation. Therefore, dollar amounts between various years are not wholly comparable. However, when a number of other parameters for each year in question are used in association, the analysis becomes more valuable.

Graph A10-1. Unemployment Rates. State of Utah



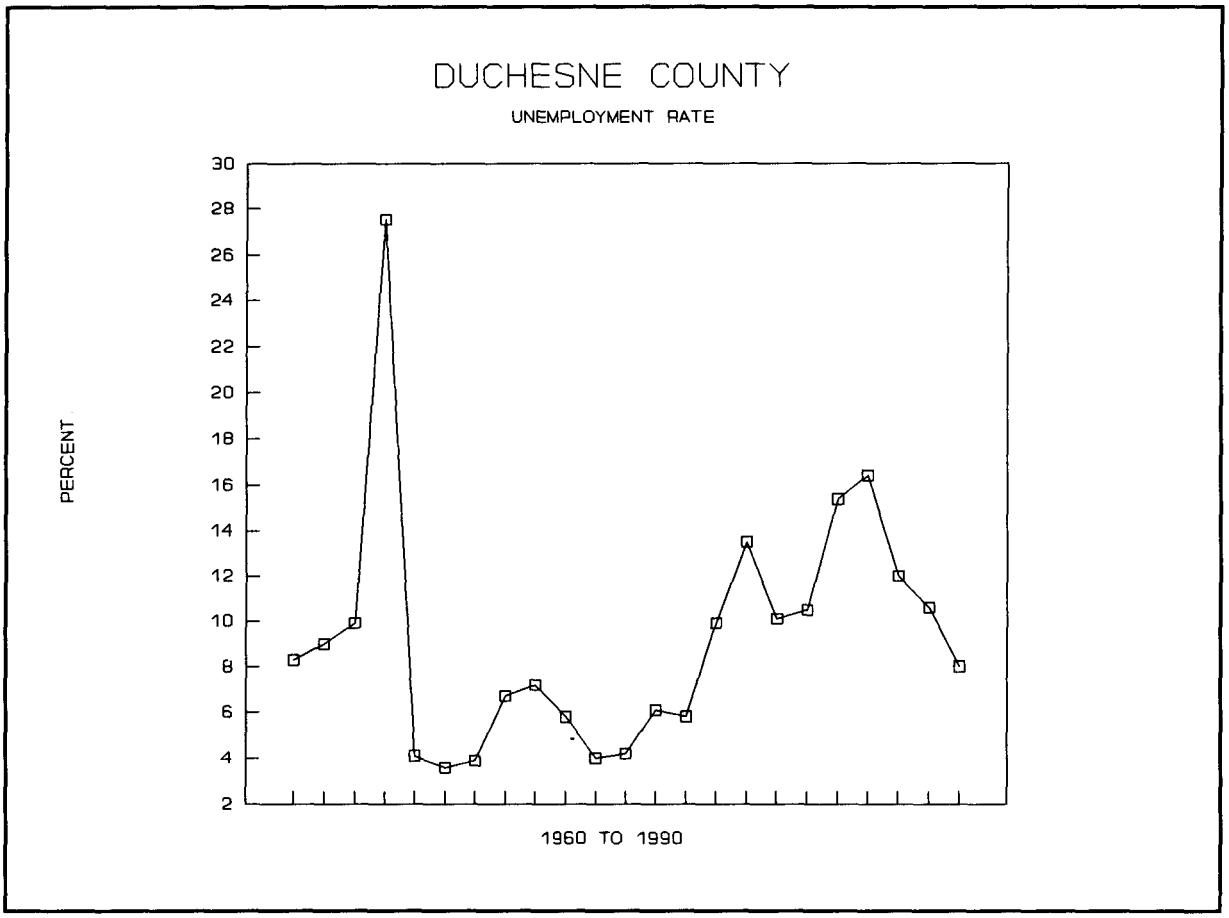
Utah's average unemployment rate of 5.8% over the last thirty years has experienced little fluctuation. Variations between about 4% and 9% have come about since 1960. However, for most years the vacillations have been even less.

Graph A10-1a: Unemployment Rates - Daggett County



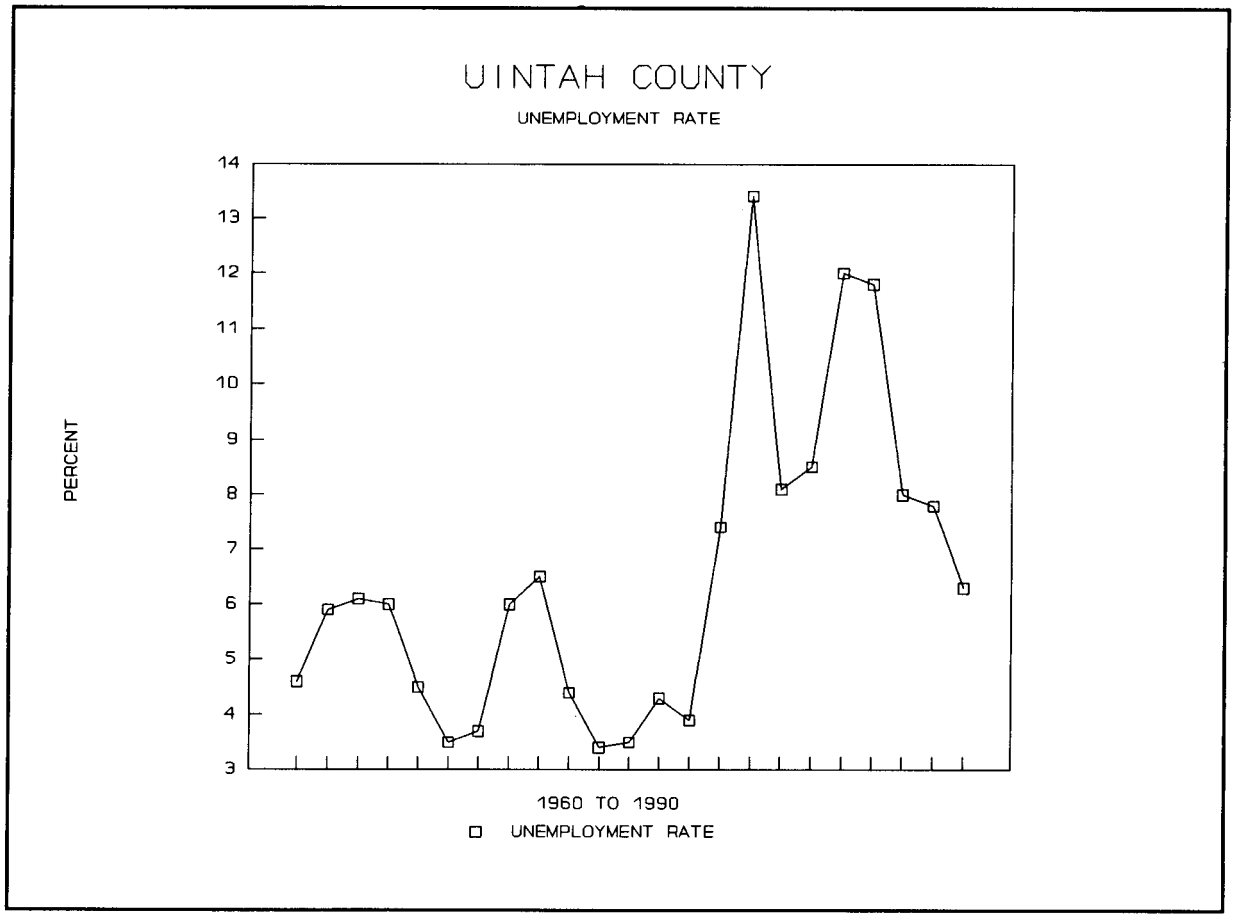
Daggett County has experienced substantial fluctuations in unemployment, although the average has been a reasonable 6.1% over the last thirty years. The early 1970's were challenging times for workers in this county, where double digit unemployment persisted and peaked at 24.2%. This depression type unemployment was relieved in 1974 and has gone as low as 1.3%. This county's average unemployment is only .3% higher than the State's, showing little reason for real concern in the long run.

Graph A10-1b: Unemployment Rate - Duchesne County



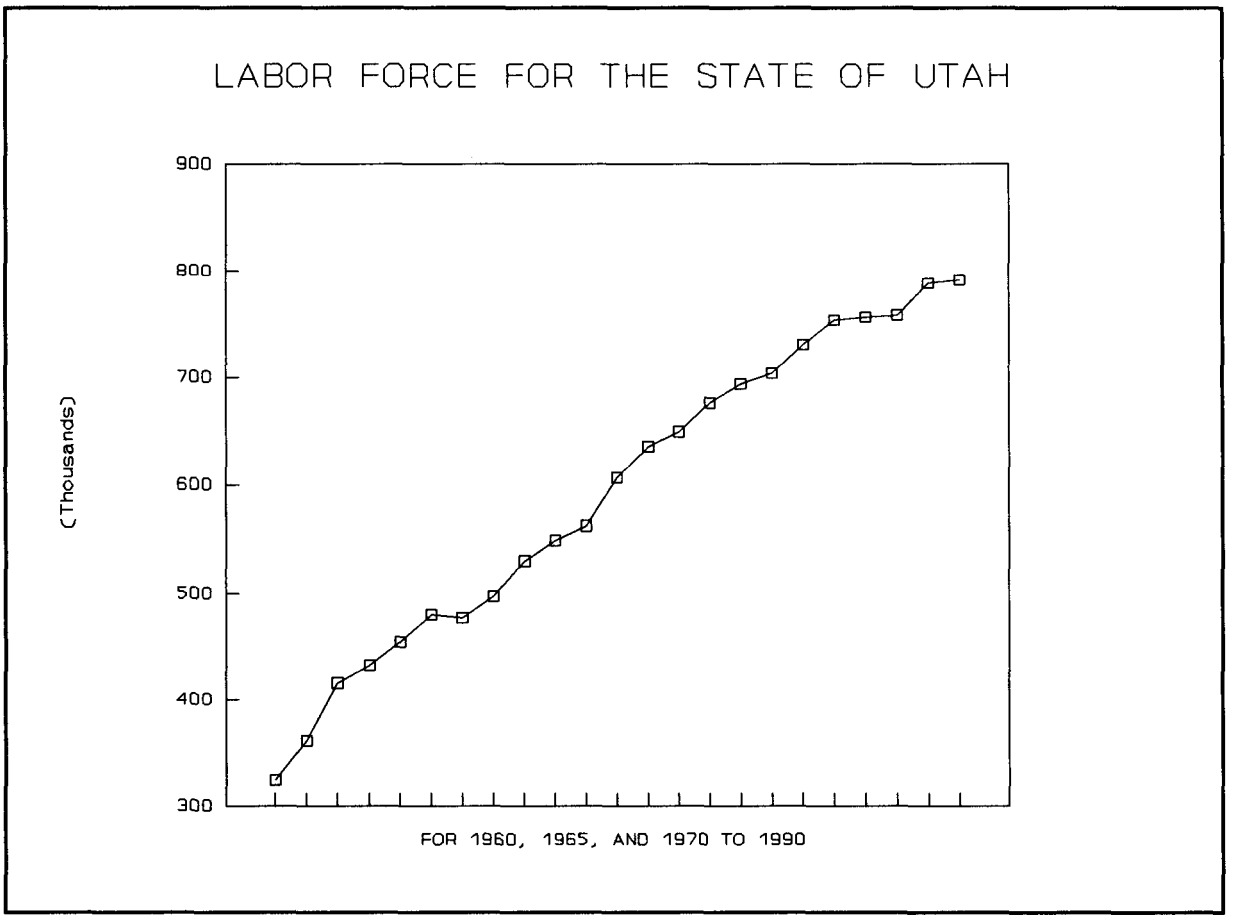
Duchesne County's unemployment has varied almost as much as Daggett County's. In 1971, a high of 27.5% unemployment wreaked havoc on the local economy, but soon dropped to around 4%. Average unemployment has remained a problem for this county at 9.2%, 3.4% higher than the state's. Seven of the last twenty years have had double digit unemployment.

Graph A10-1c: Unemployment Rate - Uintah County



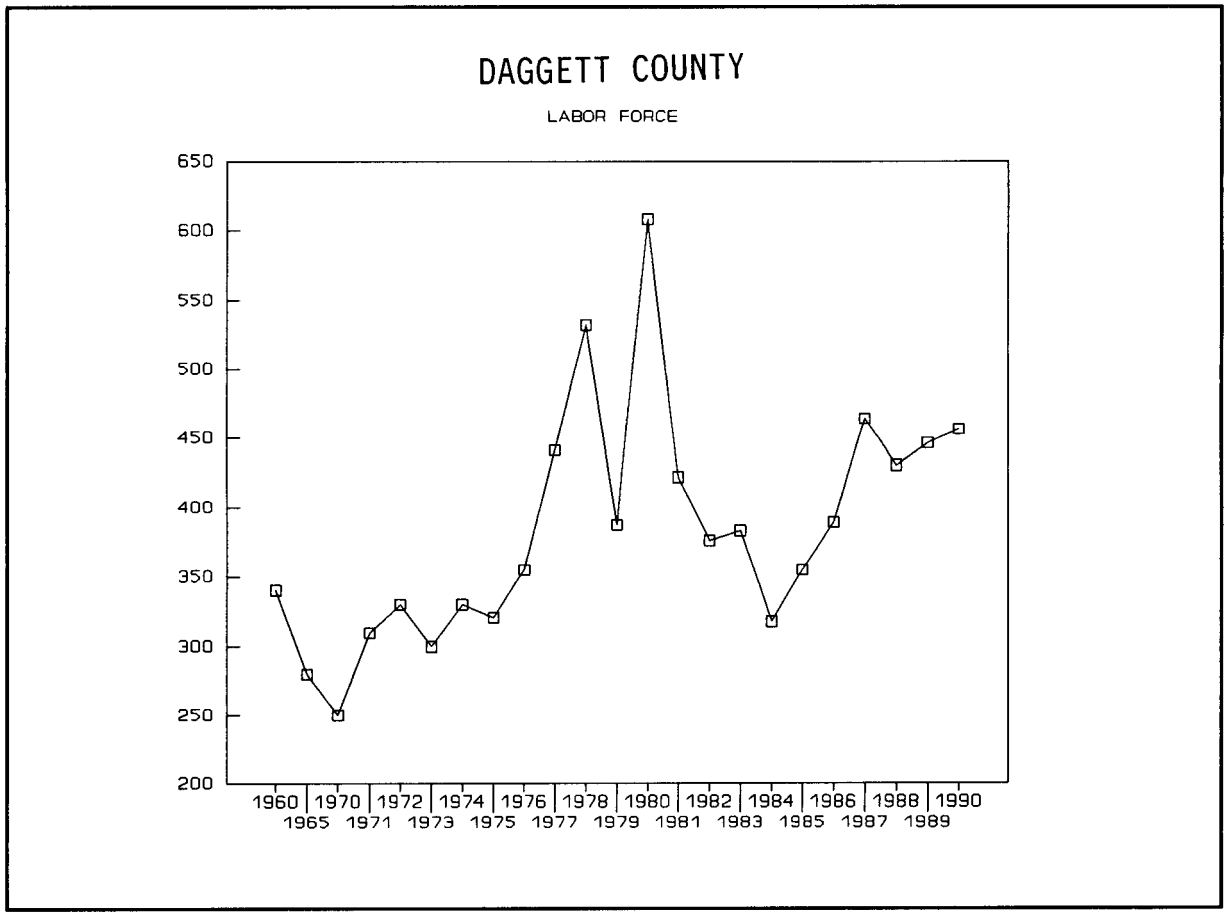
Uintah County's average unemployment of 6.5% is still less than one percent higher than the state's, giving little reason for concern. Uintah has experienced the smallest fluctuation of the three counties, varying between three and fourteen percent. Further, this county has only had three years of double digit unemployment.

Graph A10-2: Labor Force - State of Utah



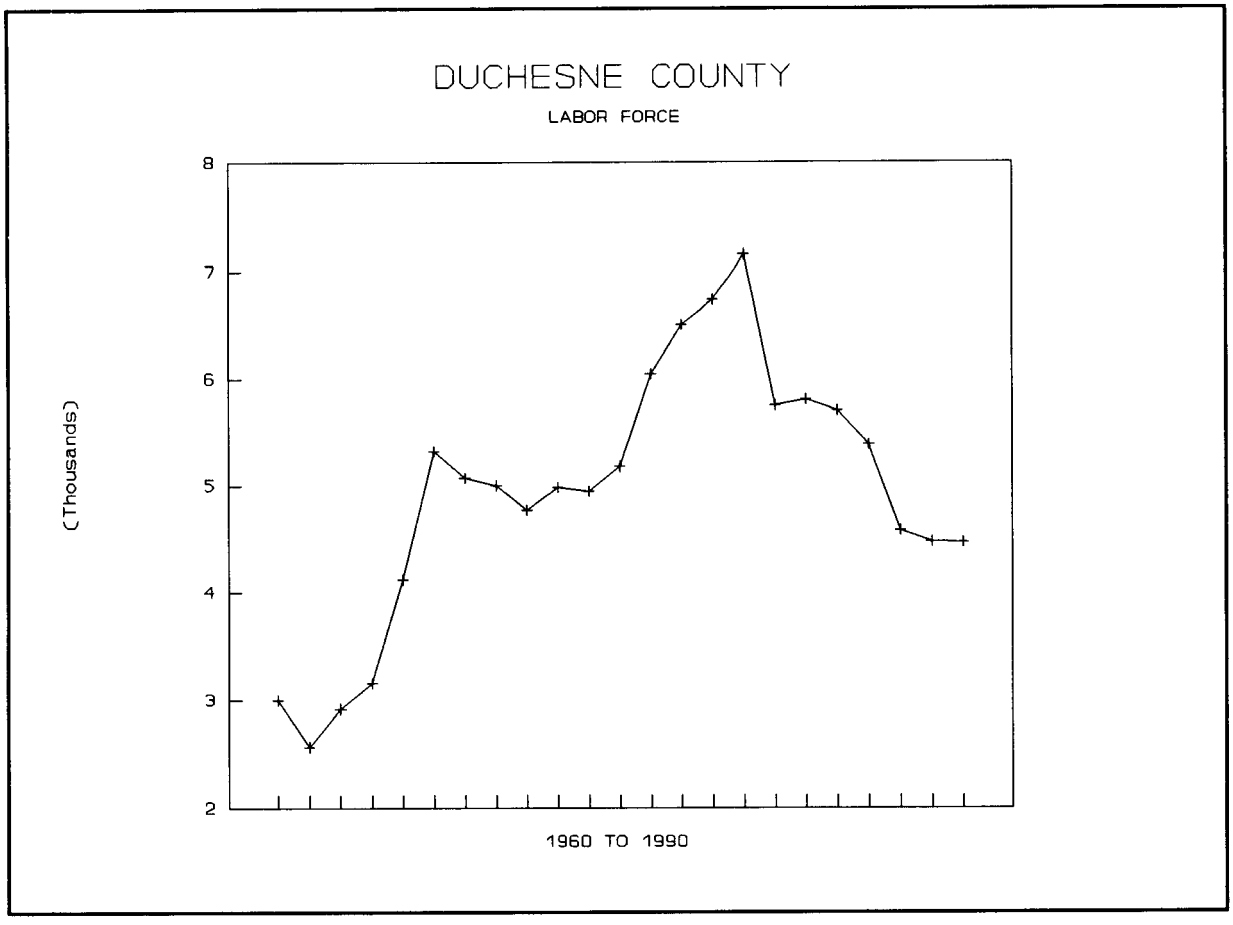
Utah has experienced few years where the labor force decreased and closely follows a linear trend.

Graph A10-2a: Labor Force - Daggett County



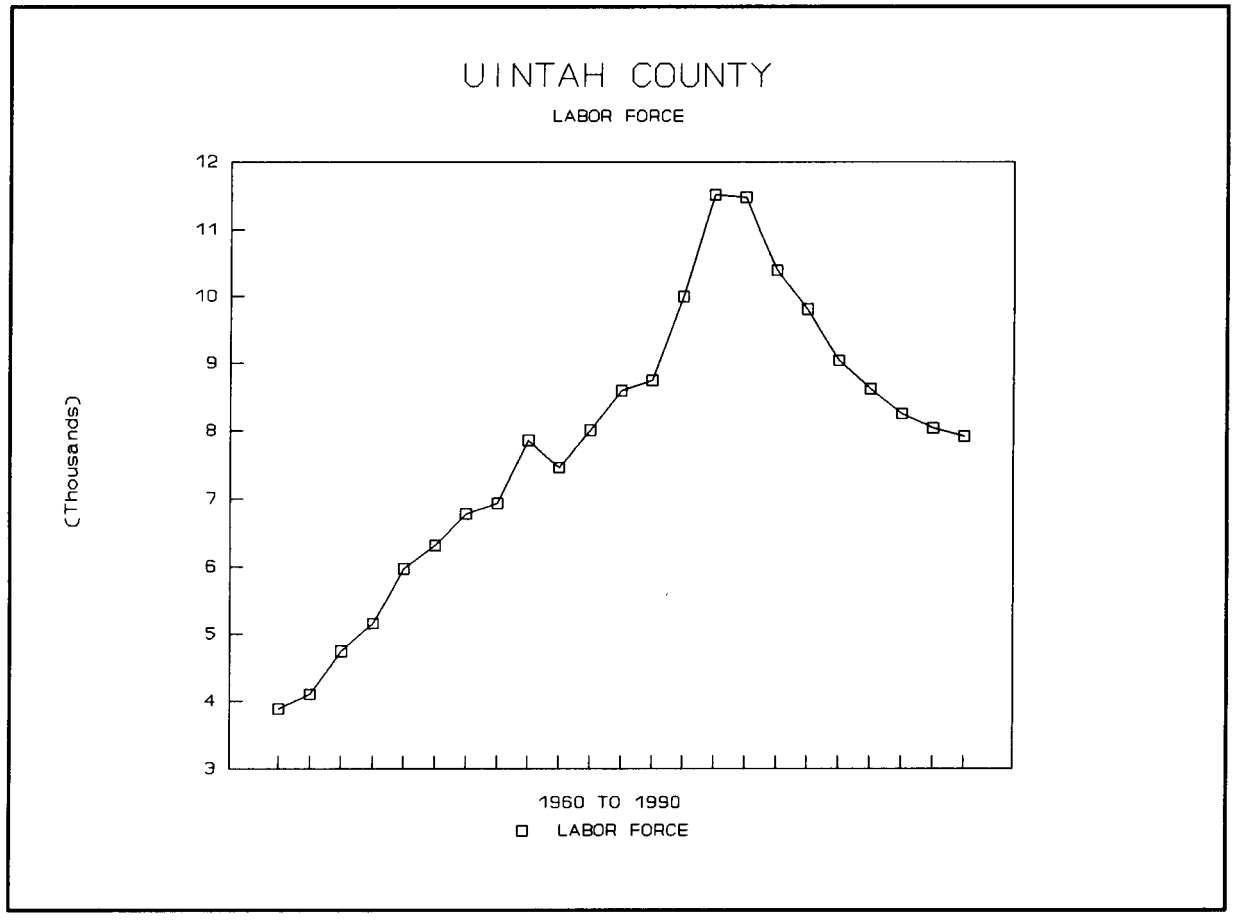
Daggett County's labor force has undergone vacillations of up to sixty percent. However, a gentle upward slope can be delineated through the number of peaks and valleys in between the beginning and ending years.

Graph A10-2b: Labor Force - Duchesne County



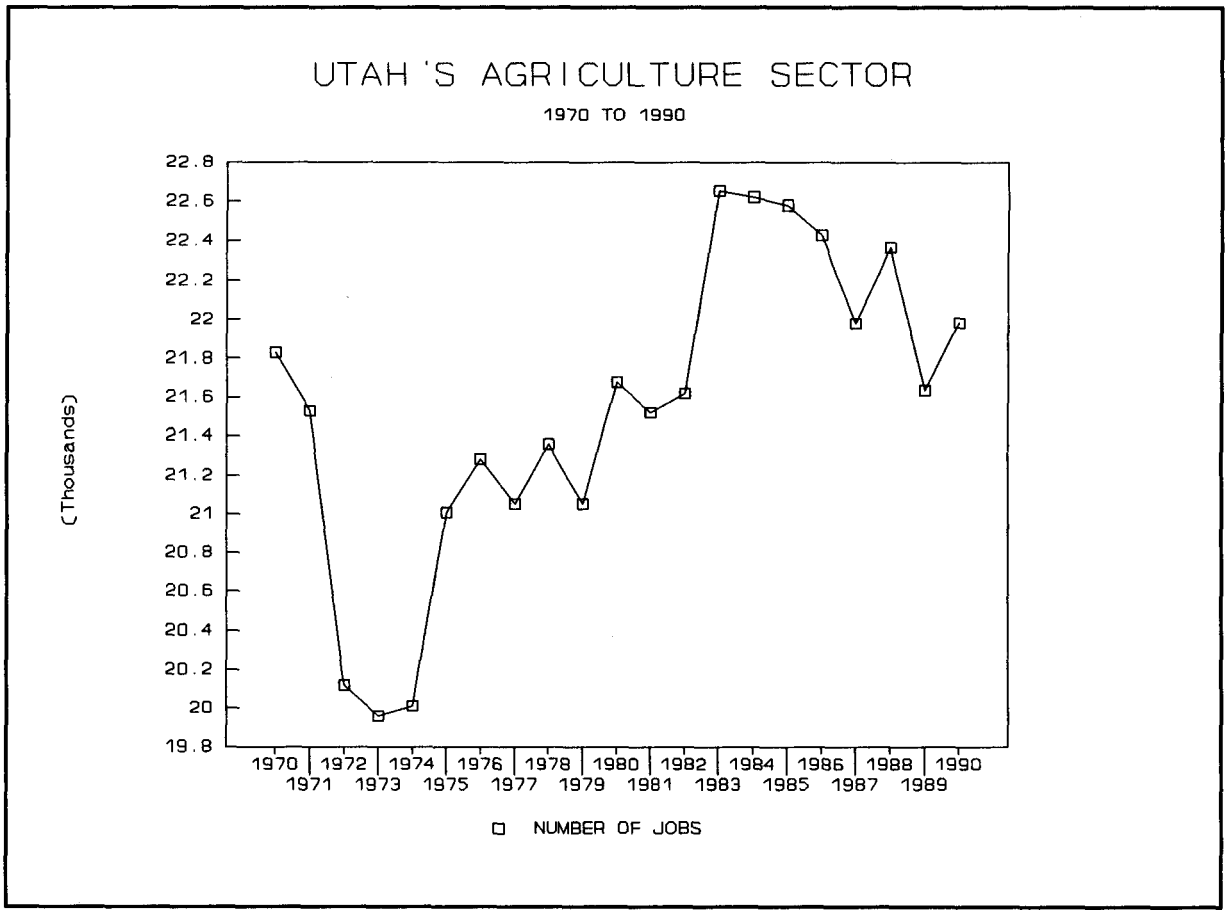
Two peaks are illustrated along Duchesne's positively sloped labor force curve. Since 1983, there has been a downward step pattern, perhaps giving cause for concern. A fluctuation of over sixty percent in the last thirty years has been witnessed.

Graph A10-2c: Labor Force - Uintah County



An exponential increase in Uintah's labor force developed until 1982. For two years the rates remained stable until 1983, when there was a downward exponential decrease in the labor force. In the last thirty years, variations of up to sixty-five percent of the labor force has resulted.

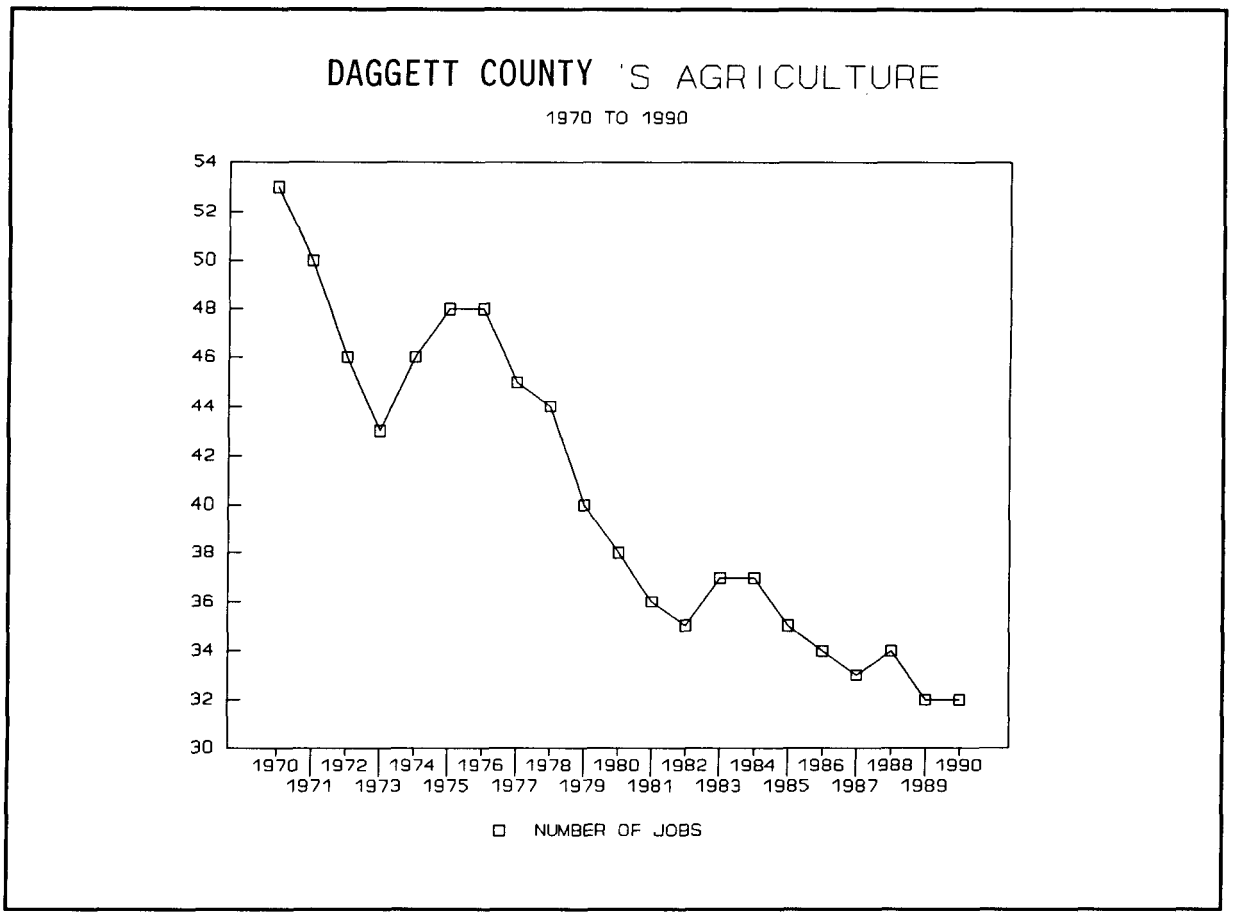
Graph A10-3 - Job Sector, Agriculture - State of Utah



Utah's agriculture industry has shown only a small percent fluctuation over the last twenty years. This fairly constant pattern contrasts with most of Utah's other industries, which display linear increasing or additive trends. In other words, agriculture has been contributing a smaller and smaller portion of total jobs in the State.

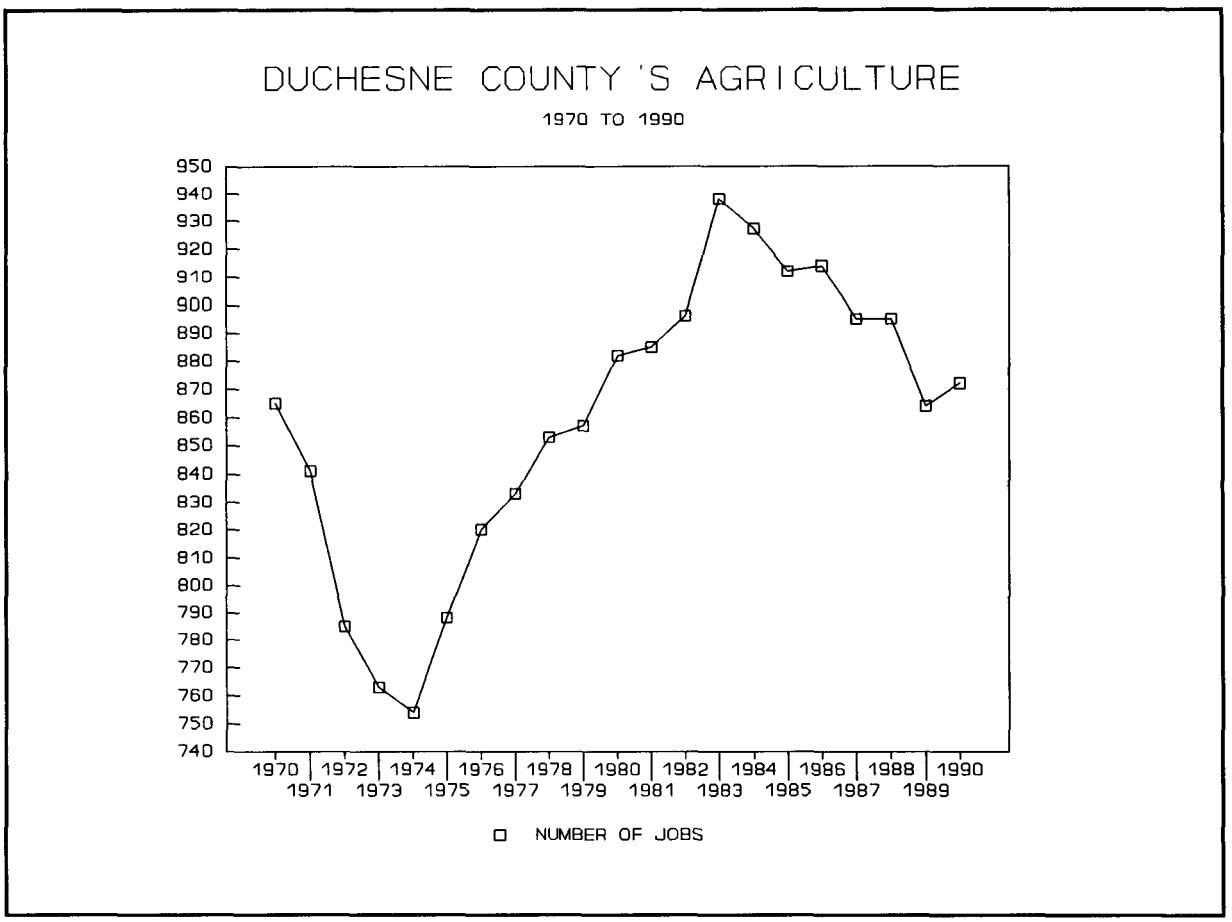
The agriculture sector serves as the basis of most production and includes: crops, livestock, agricultural services, forestry, and fishing and hunting. BLM's management of resources, especially livestock and fishing and hunting, could directly impact the number of jobs in this industry.

Graph A10-3a - Job Sector, Agriculture - Daggett County



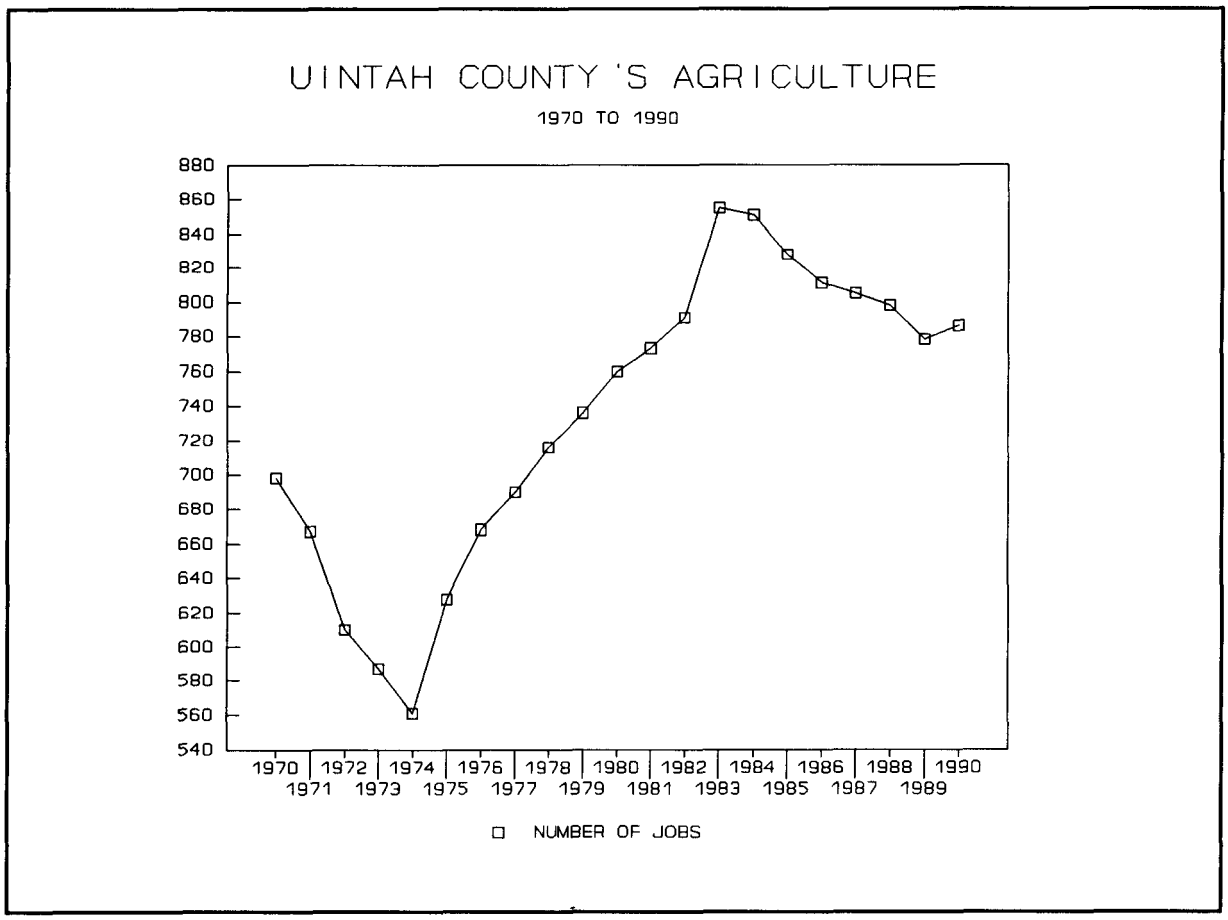
Daggett County's agriculture sector has exhibited a step pattern, downward. In the last twenty years, agriculture has decreased forty percent. This trend should not require highly sophisticated models to project future number of jobs.

Graph A10-3b - Job Sector, Agriculture - Duchesne County



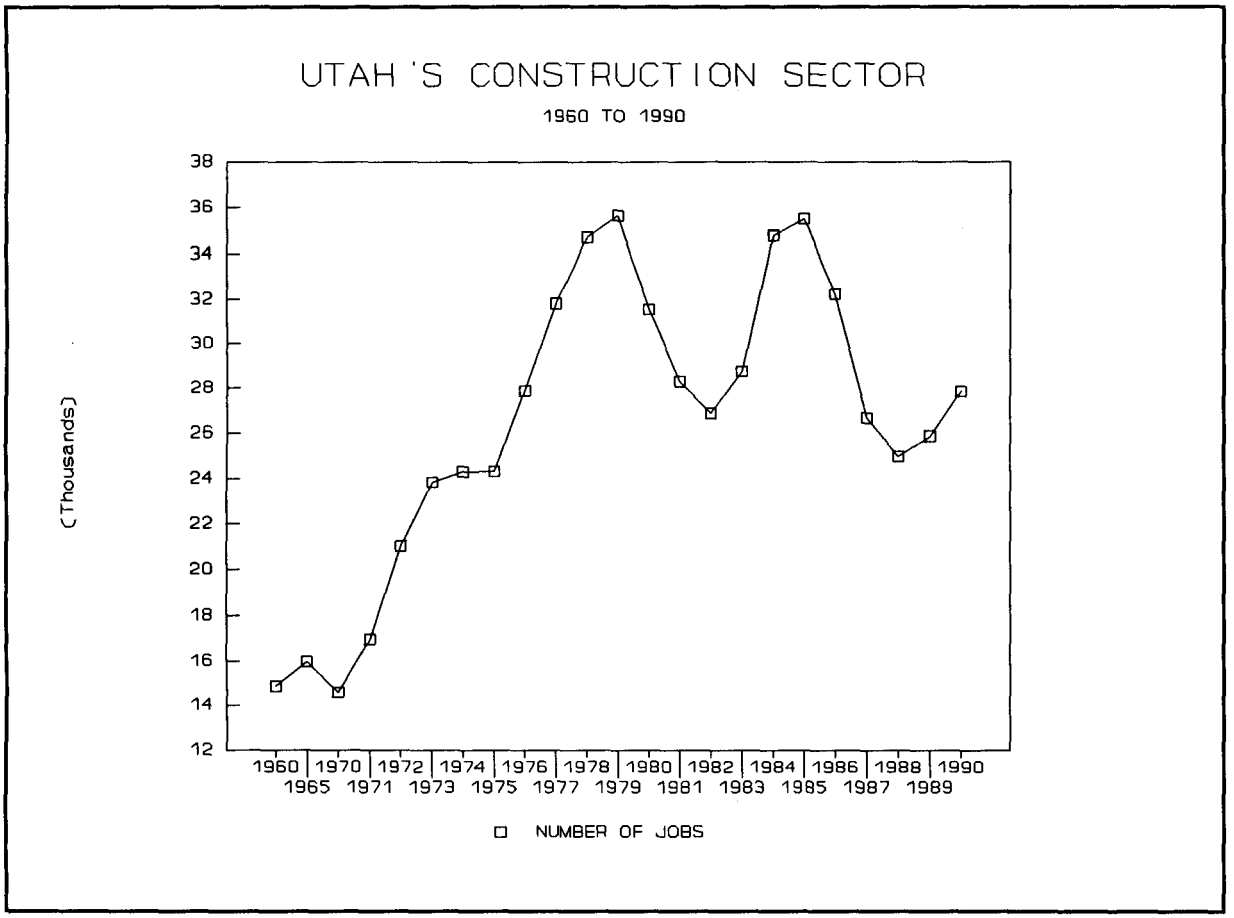
Duchesne County's agriculture underwent one complete cycle in the last twenty years. In 1970, there were approximately 860 jobs, but by 1990, about the same number of workers were employed in this sector after a large decline and large increase. Duchesne, though it has a considerably smaller labor force, has a large number of agriculture jobs than Uintah County. This higher reliance upon agriculture could make Duchesne more sensitive to BLM's management practices. Fluctuations of approximately twenty percent may be a matter of concern for planners.

Graph A10-3c - Job Sector, Agriculture - Uintah County



Uintah County's agriculture sector has also undergone a nearly complete cycle in the last twenty years. There were approximately 700 jobs in 1970 and roughly 80 additional jobs, totalling to 780, in 1990. Fluctuations of about thirty-five percent have occurred in the last two decades, indicating the instability of this industry.

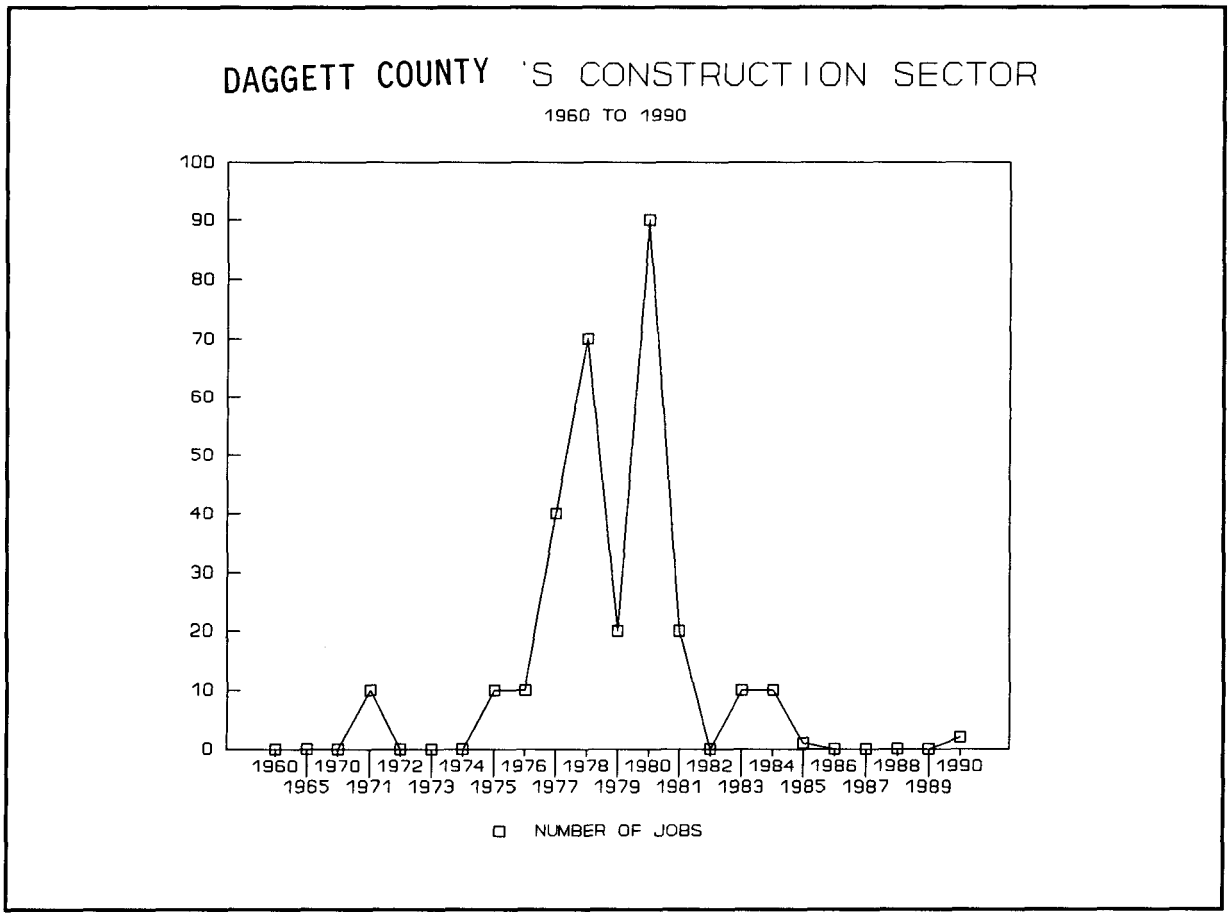
Graph A10-4 - Job Sector, Construction - State of Utah



Until 1974, Utah's construction experienced an increasing trend. After that time, however, a classic cyclic pattern developed.

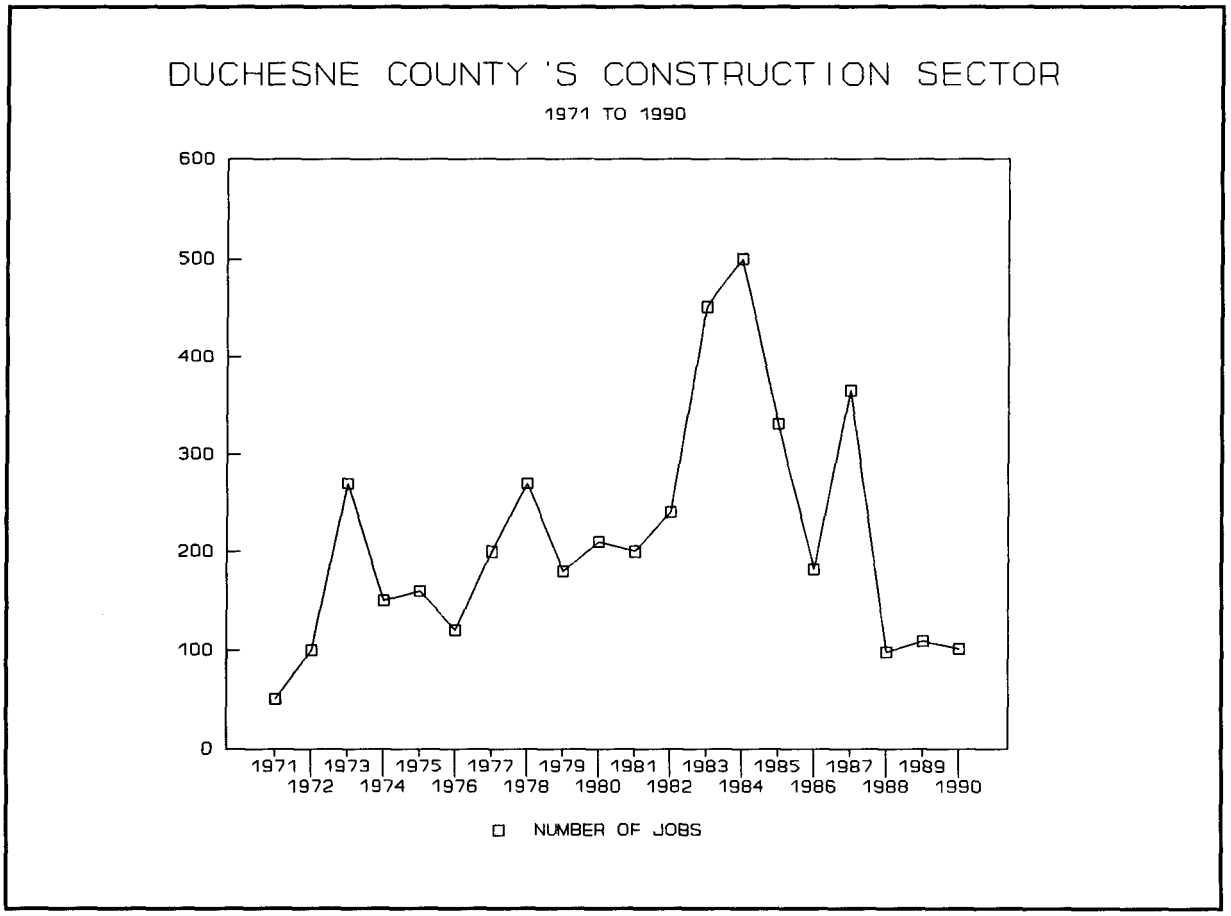
The construction sector is made up of: General building contracting, heavy construction, and special trade contract, see SIC manual 1987.

Graph A10-4a - Job Sector, Construction - Daggett County



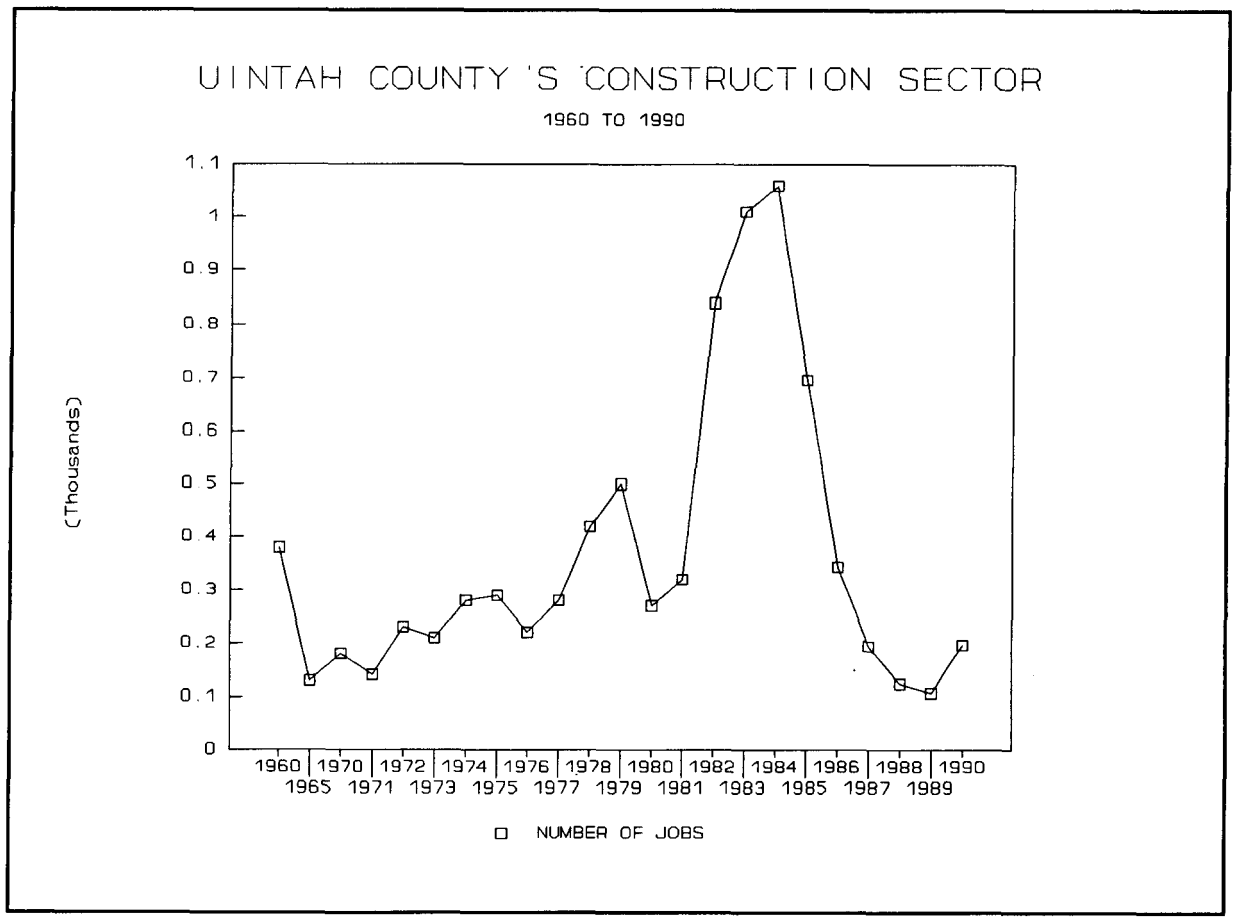
Daggett County experienced a " boom and bust" phenomenon in the late 1970's. The degree of this event has been very volatile going from zero to ninety workers in six years and within two years back to zero. Again the small population of this county makes these large fluctuations more probable.

Graph A10-4b - Job Sector, Construction - Duchesne County



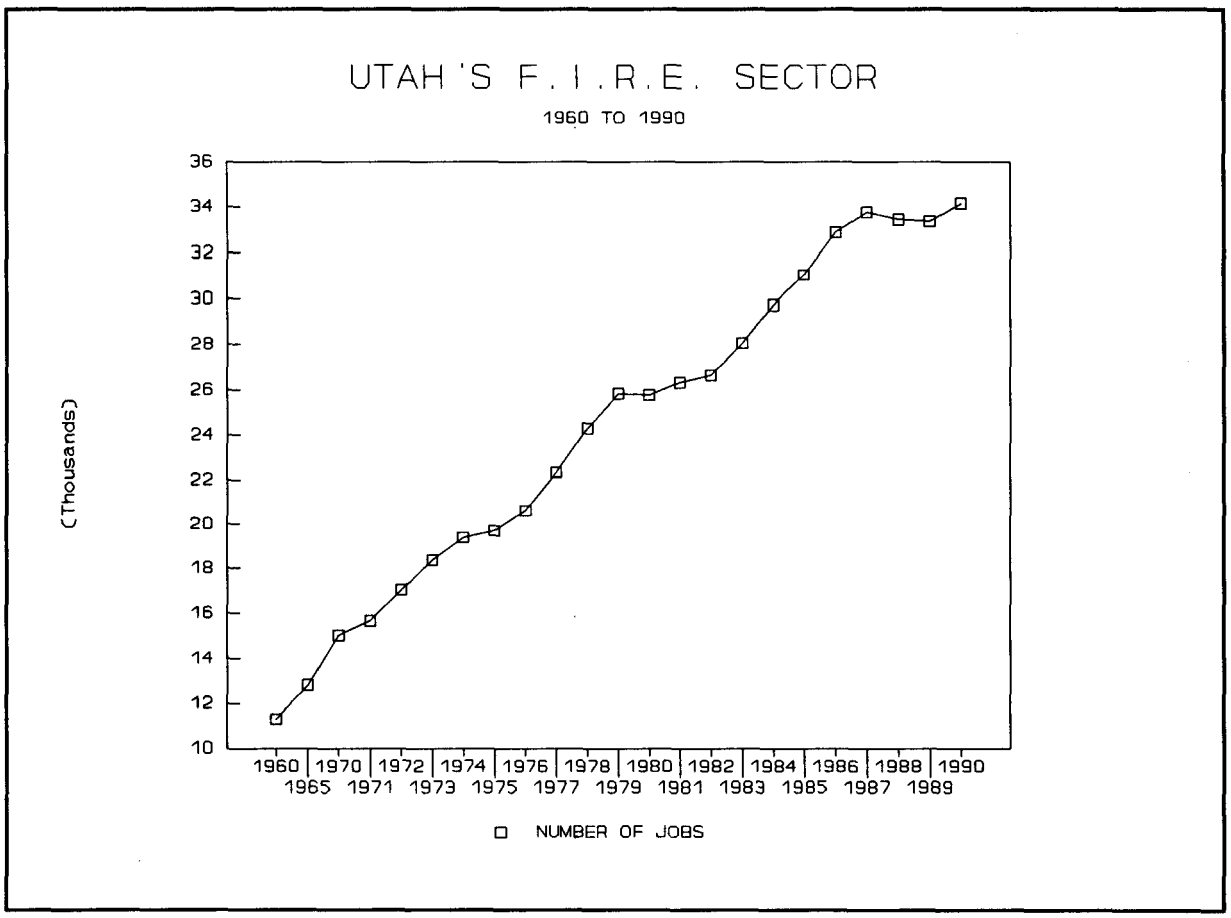
There is no apparent trend in Duchesne County's construction sector. There are a few phases when the number of jobs grew, but only for a year or two. Overall, however, there has been a fairly constant pattern. Vacillations of up to 90 percent have occurred in the last two decades, illustrating the volatility of this sector.

Graph A10-4c - Job Sector, Construction - Uintah County



Uintah County's construction industry shows an exponential trend with a number of peaks or cycles. This multiplicative nature is extremely volatile, however, exhibiting a very unstable pattern, a variation of about 90 percent can be observed during the above period, between 1984 and 1988, about a thousand jobs were lost. A strong correlation can be seen between the construction and labor force from 1981 and 1990.

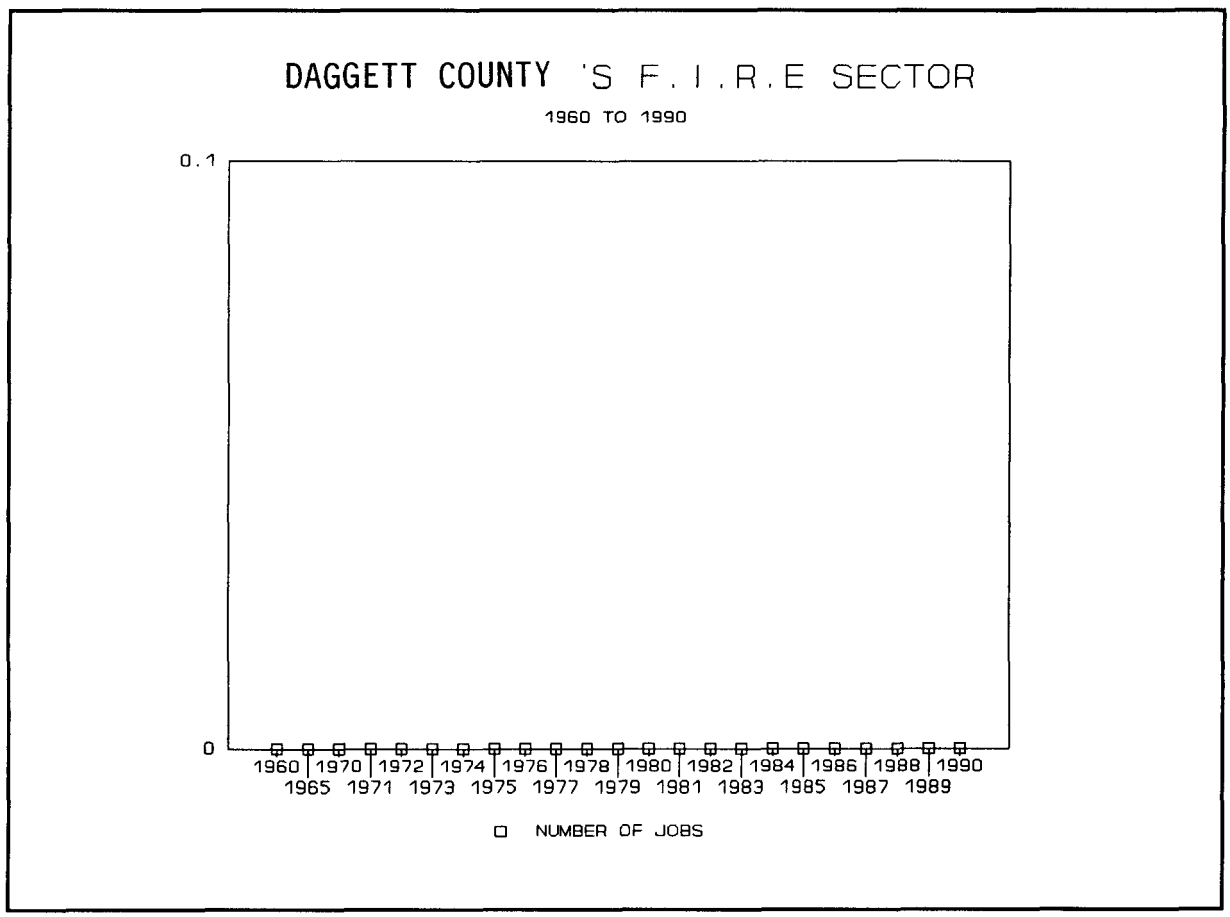
Graph A10-5 - Job Sector, FIRE - State of Utah



Utah's finance, insurance, and real estate (FIRE) sector has been steadily growing since 1960, however, it did level off in the late 1980's. This industry illustrates a stable long-term trend that is fairly simple to forecast.

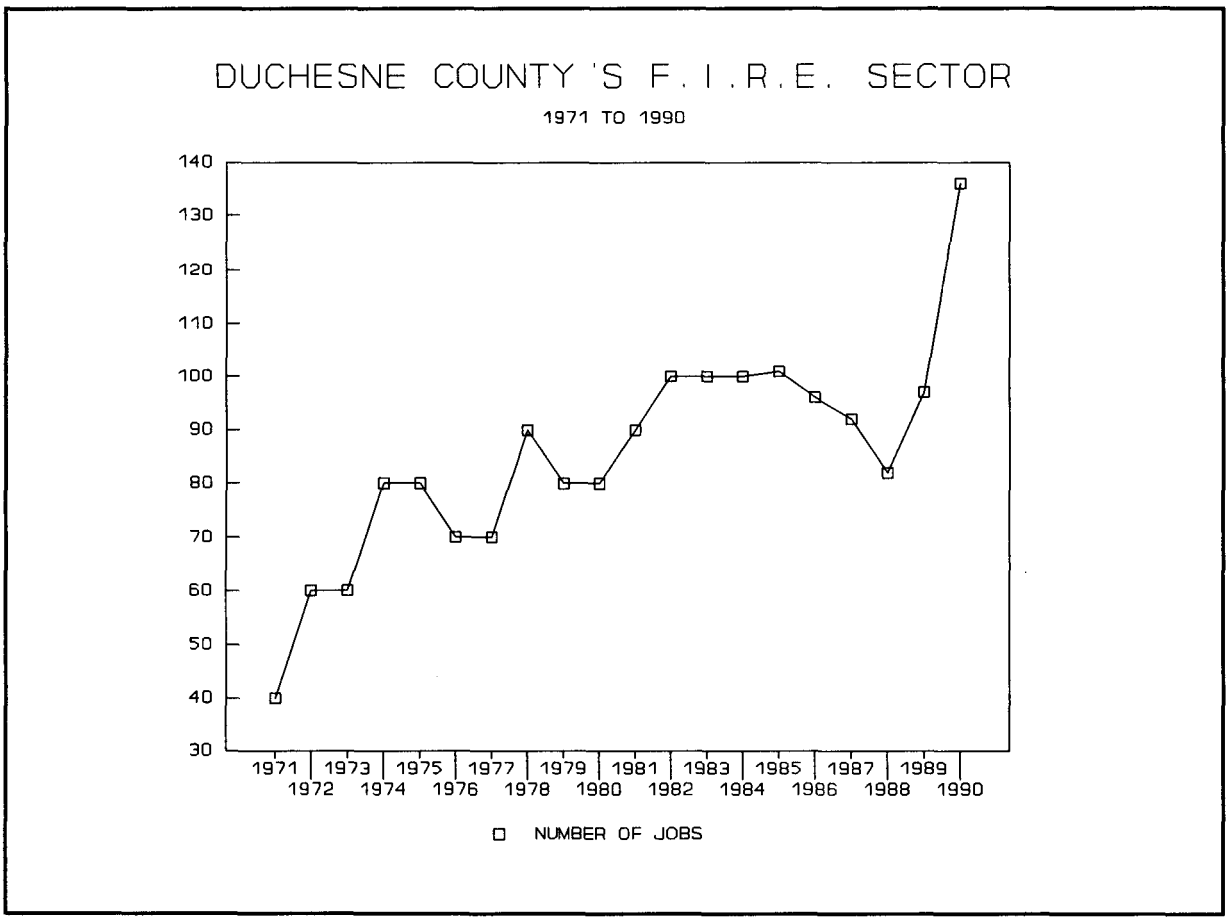
Businesses in the FIRE sector would include: Banks, insurance, and real estate. It seems unlikely that BLM's management could make any discernable impact on this industry.

Graph A10-5a - Job Sector, FIRE - Daggett County



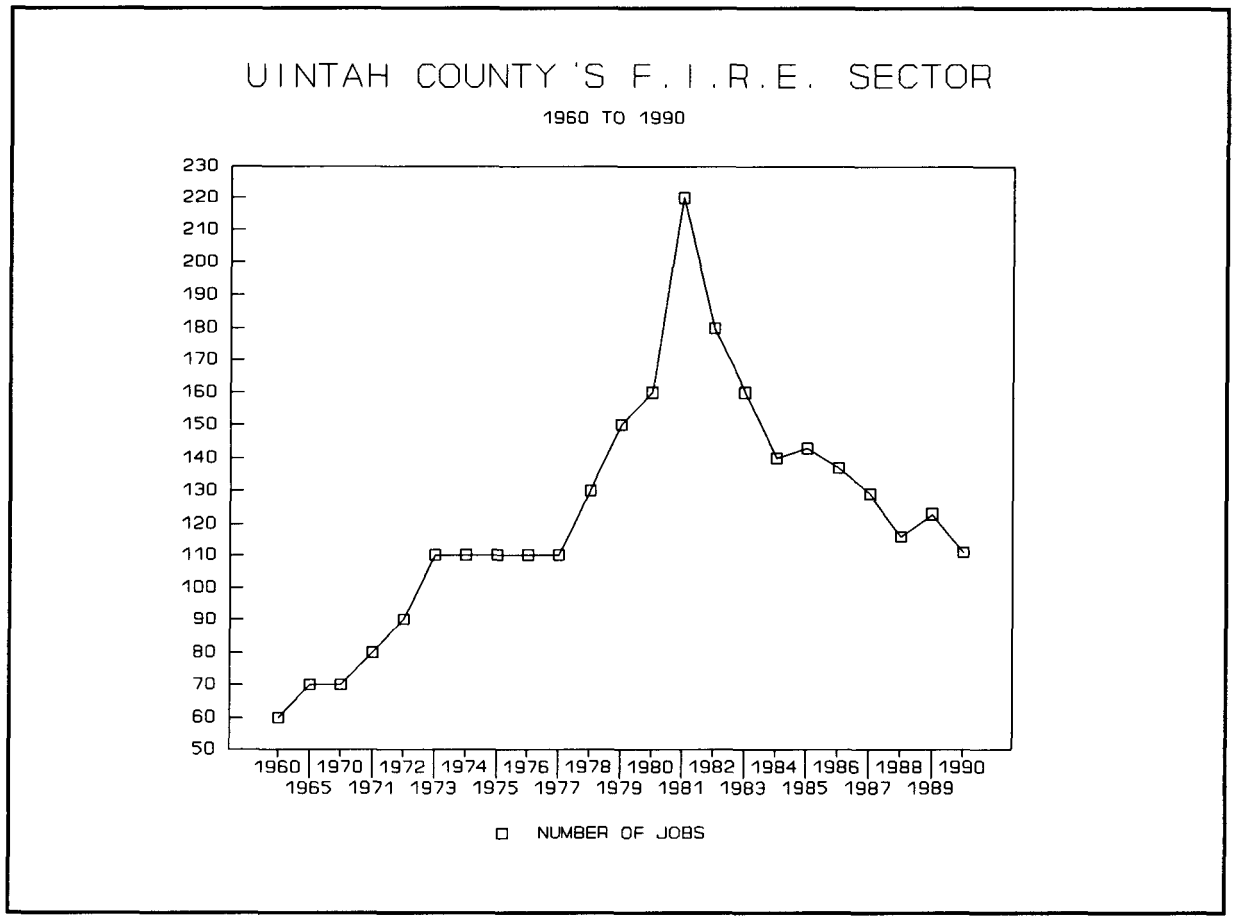
Daggett County has had no FIRE jobs in the last thirty years, according to the Utah Office of Planning and Budget.

Graph A10-5b - Job Sector, FIRE - Duchesne County



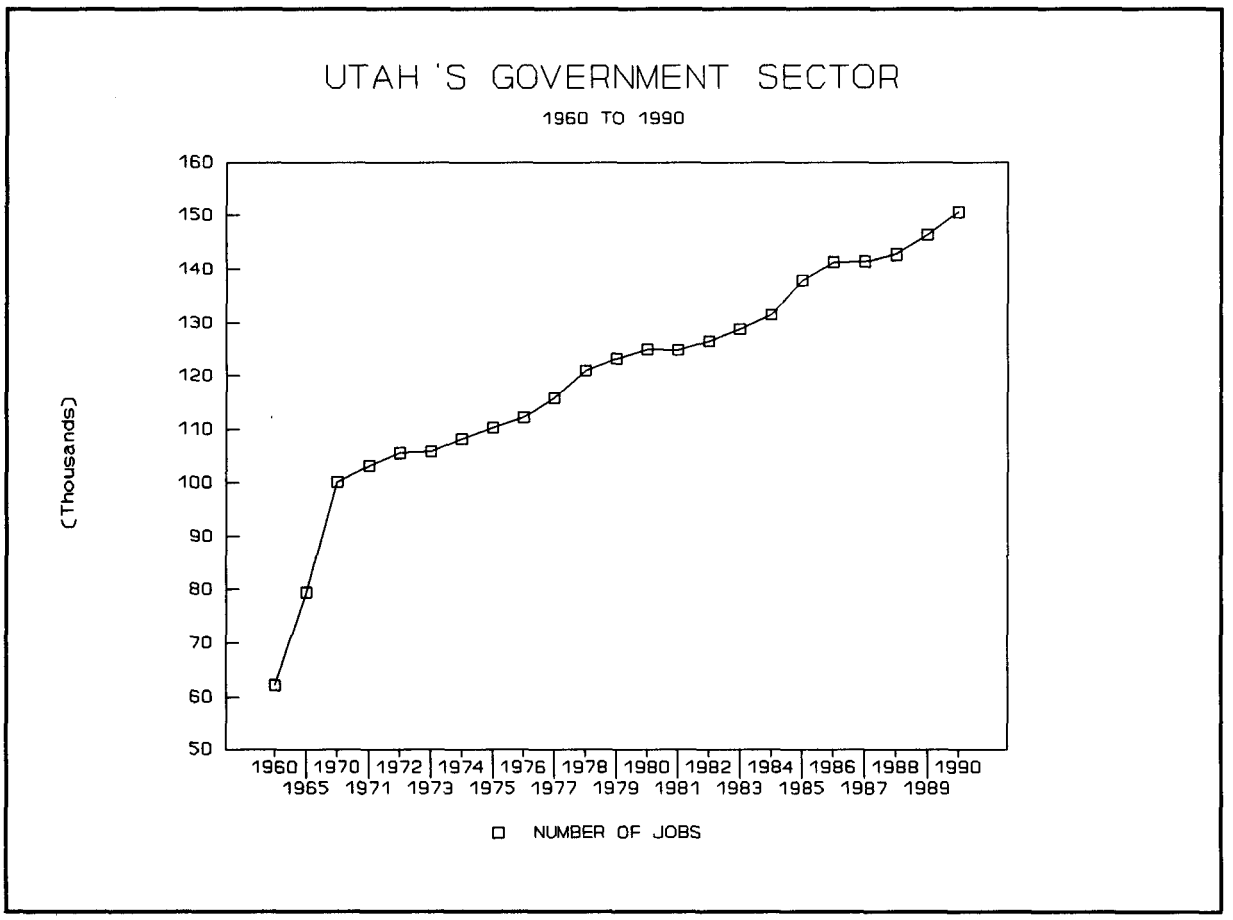
Duchesne County's FIRE sector displays a mostly upward trend scattered with a few years of bursts and declines. The number of years with increasing employment out number the number of years with decreasing employment in this industry. This does no significantly contribute to the labor force, however, and would be of little conscience regardless of BLM management practices.

Graph A10-5c - Job Sector, FIRE - Uintah County



Uintah County's sector illustrates a step pattern in the early 1970's followed by a burst of growth until 1980. After that time a steady drop off in the number of jobs has occurred. Again, this industry represents a small percentage of the labor force and seems to be beyond the reasonable control of the BLM.

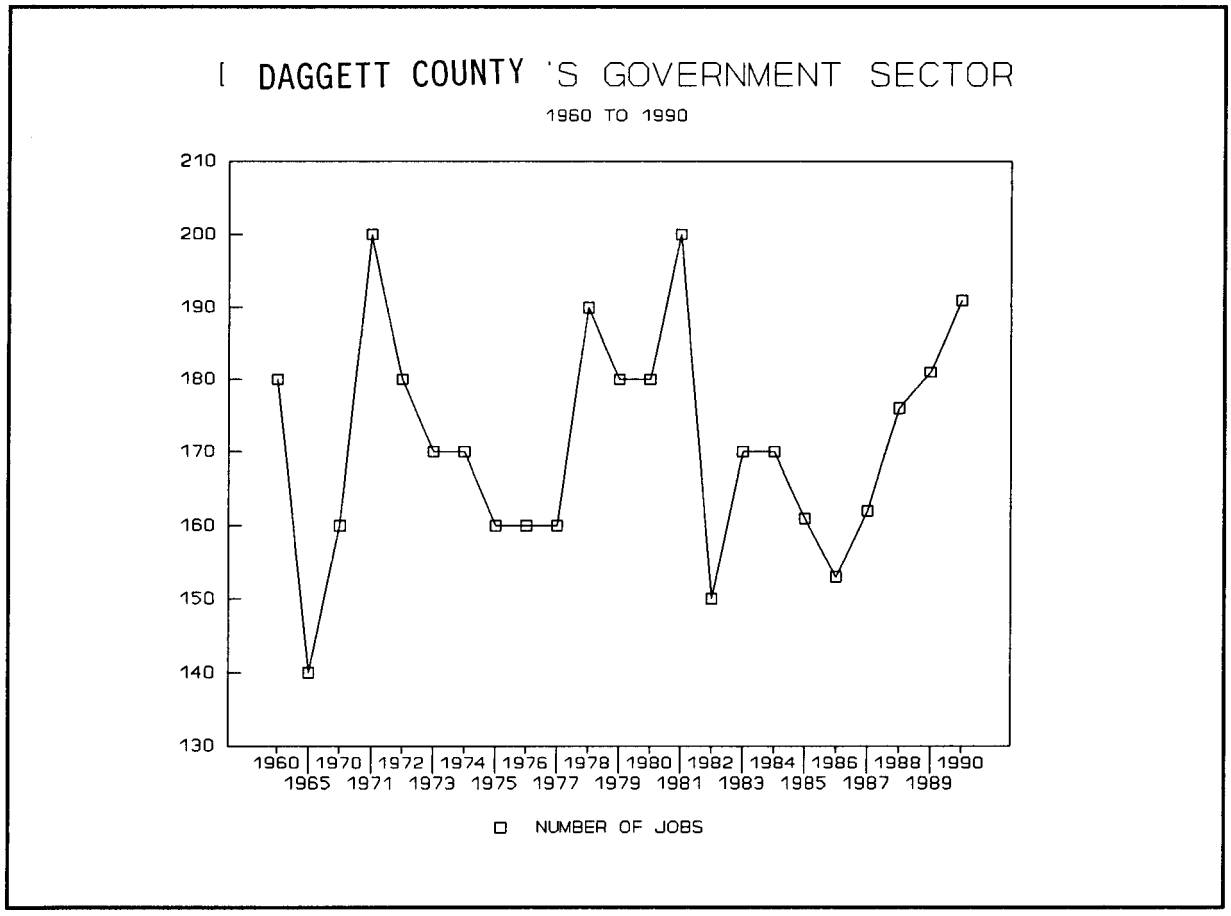
Graph A10-6 - Job Sector, Government - State of Utah



Utah's government sector has been steadily growing in number of jobs for the last thirty years. This could be correlated to the large percent of federally owned land in Utah, as well as the increased pressure from users of public land. This sector illustrates an additive trend.

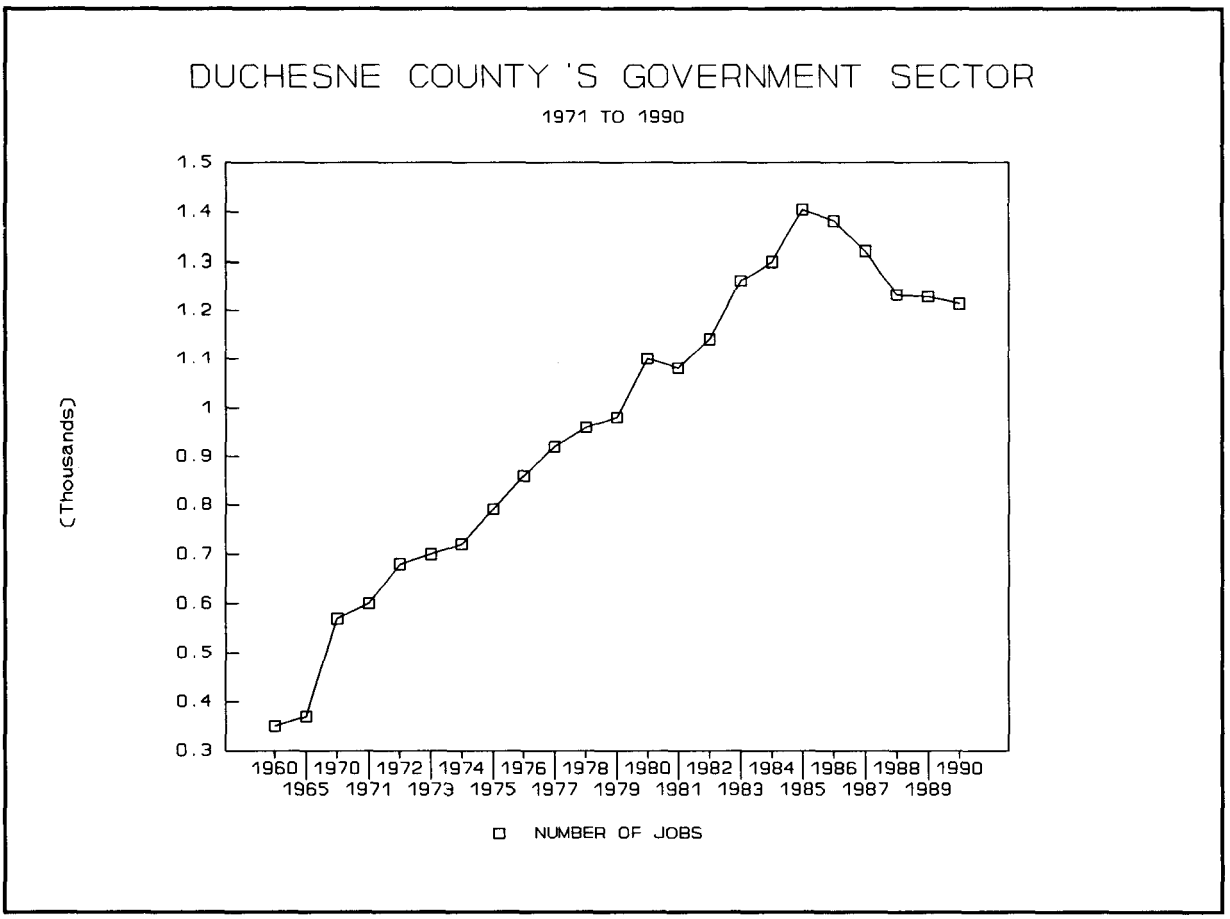
The SIC manual classifies the government sector as public administration, which includes: Legislative, justice, finance, human resources, environmental, and economic programs.

Graph A10-6a - Job Sector, Government - Daggett County



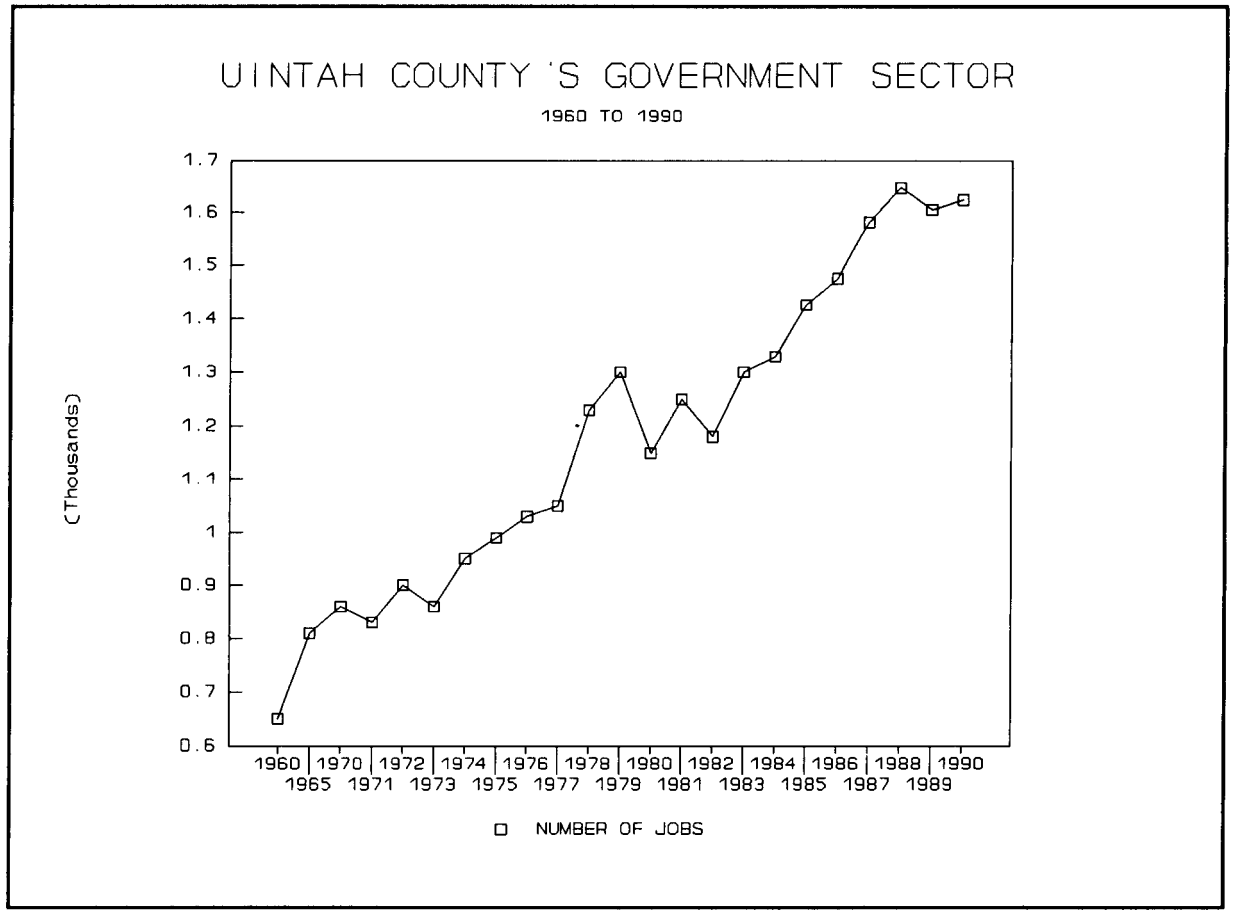
Daggett County's government sector has remained fairly constant, especially when compared to its other sectors. A large portion of workers are employed in this sector relative to the labor force. The number of years that employment increased are approximately equal to the number of years that employment decreased.

Graph A10-6b - Job Sector, Government - Duchesne County



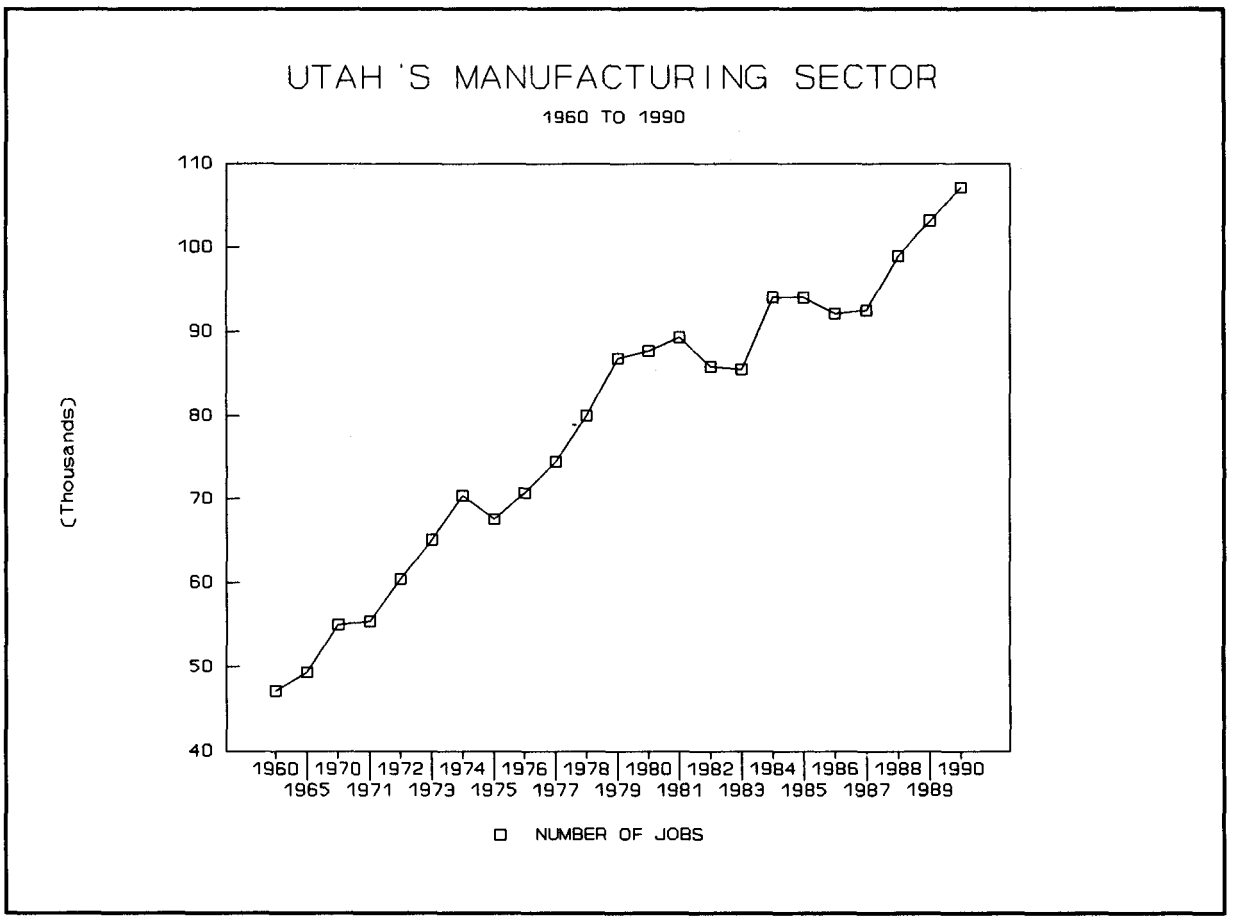
Duchesne County's government sector displayed a linear trend until the mid 1980's, when the number of workers started to drop off. This sector also accounts for a major portion of Duchesne's labor force.

Graph A10-6c - Job Sector, Government - Uintah County



Uintah County's government sector illustrates a linear trend with a few bursts of growth. The number of years that the quantity of workers increased surpassed the number of years of declining employment. The government sector also makes up a large portion of the labor force.

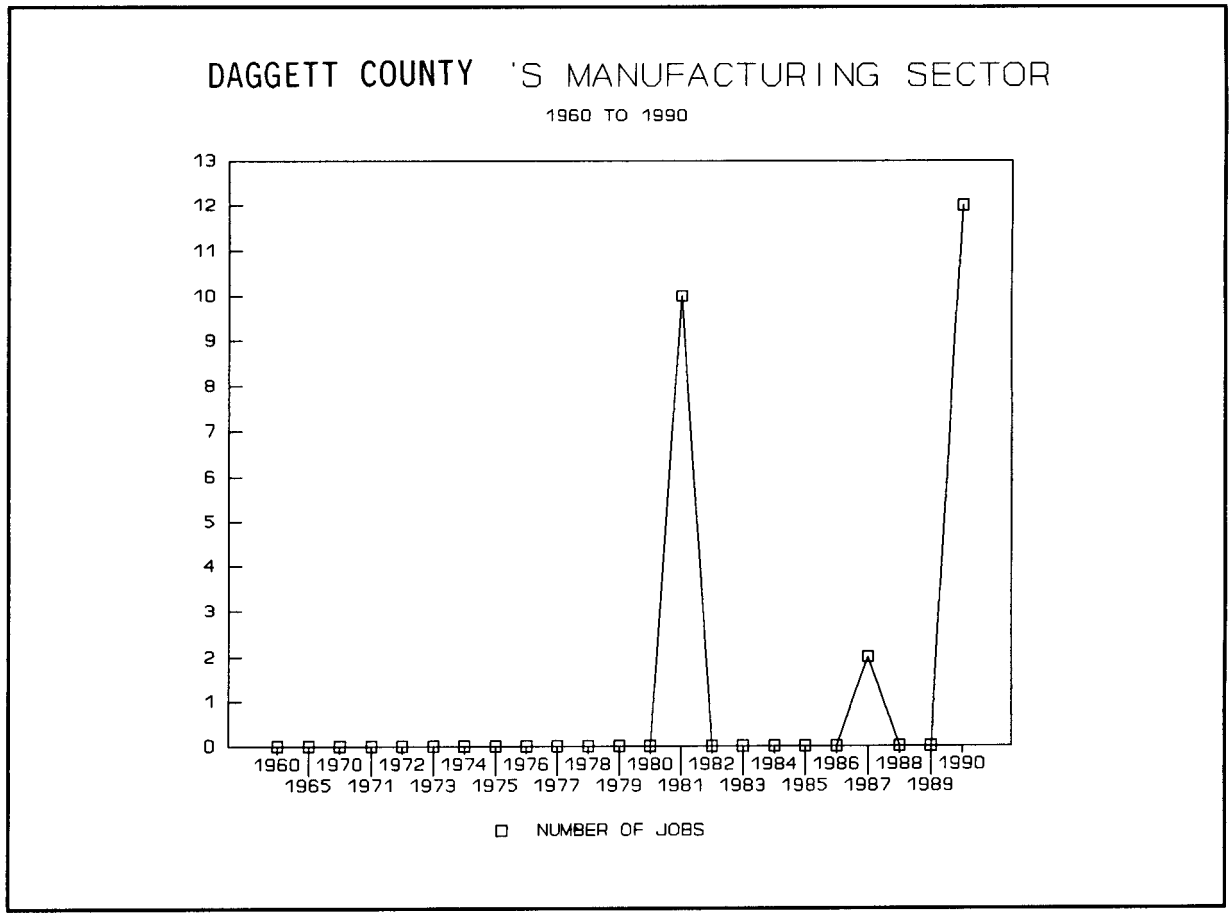
Graph A10-7 - Job Sector, Manufacturing - State of Utah



A number of expansion periods have contributed to Utah's growing manufacturing sector. Years when number employed increased in this industry dwarf the number of years when jobs decreased. Overall this industry is growing at a stable rate.

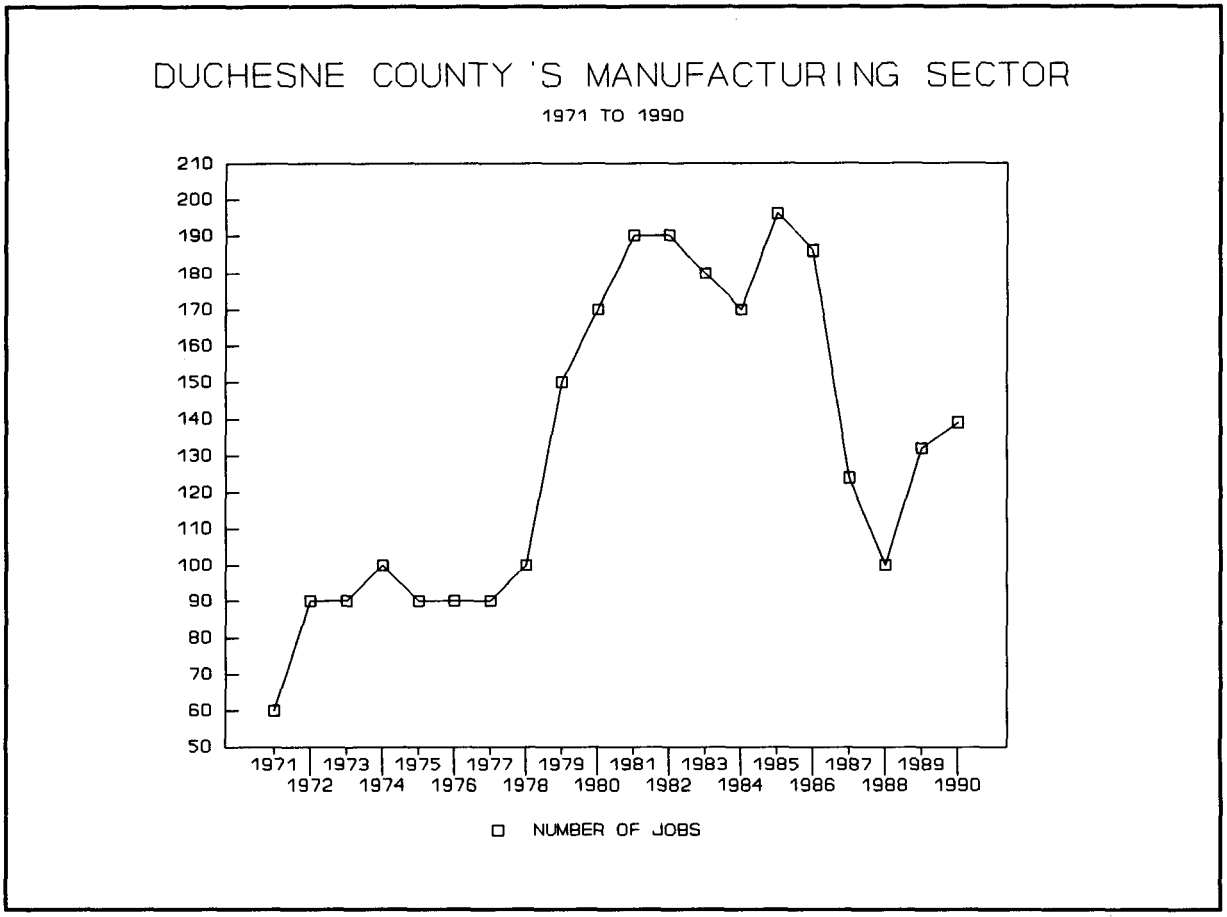
Manufacturing illustrates the "value added" concept by taking raw materials and processing them for use. Examples would include: Food, textiles, lumber products, chemical products, metal products, and transportation equipment, see SIC manual 1987. BLM's management of raw materials could indirectly affect manufacturers in and around the state.

Graph A10-7a - Job Sector, Manufacturing - Daggett County



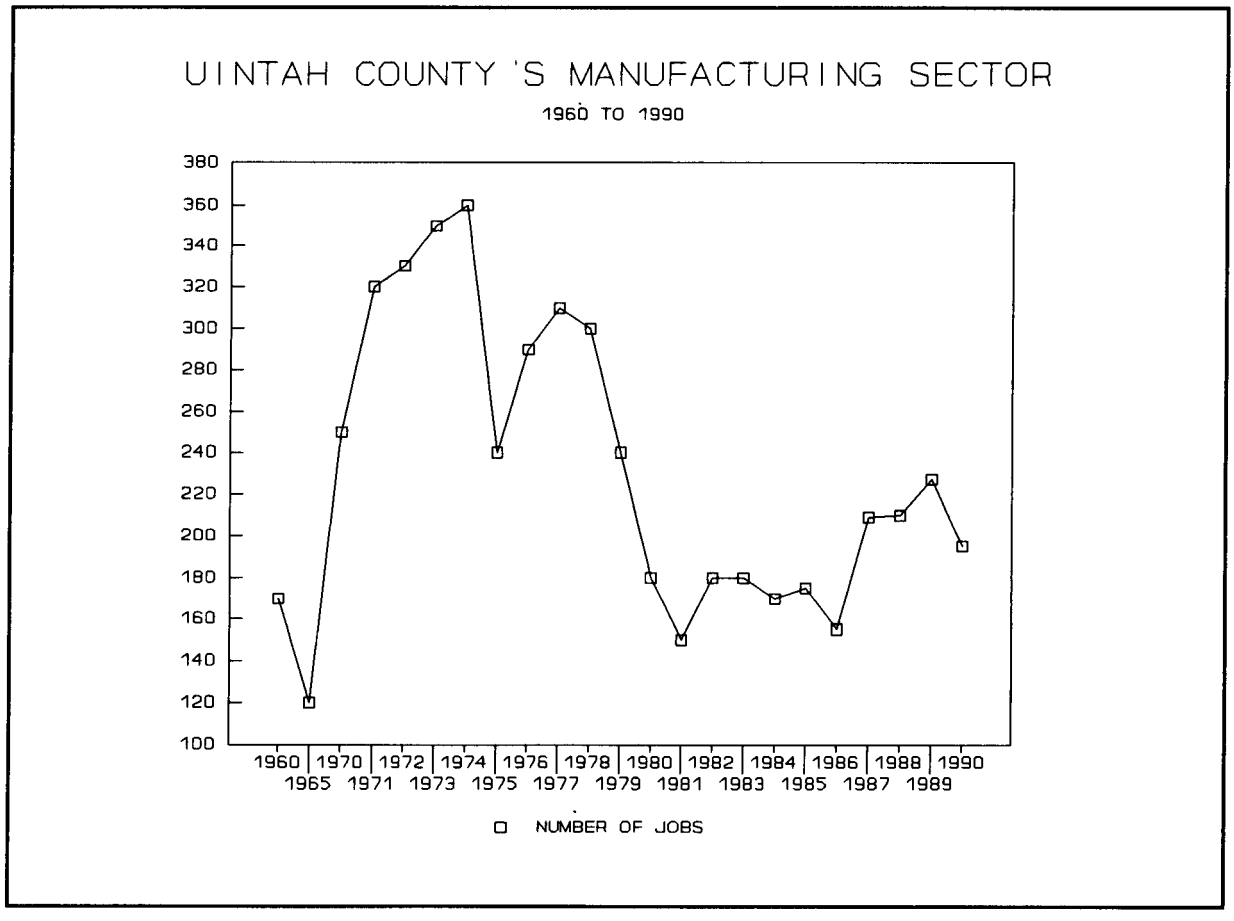
Again, Daggett County displays sporadic changes in its manufacturing sector due mostly to its small population. These dramatic variations may also be due to Utah's Office of Planning and Budget "top down" disaggregation technique; by deriving the total employed in this sector for the whole state and then parcelling the contributions of each county.

Graph A10-7b - Job Sector, Manufacturing - Duchesne County



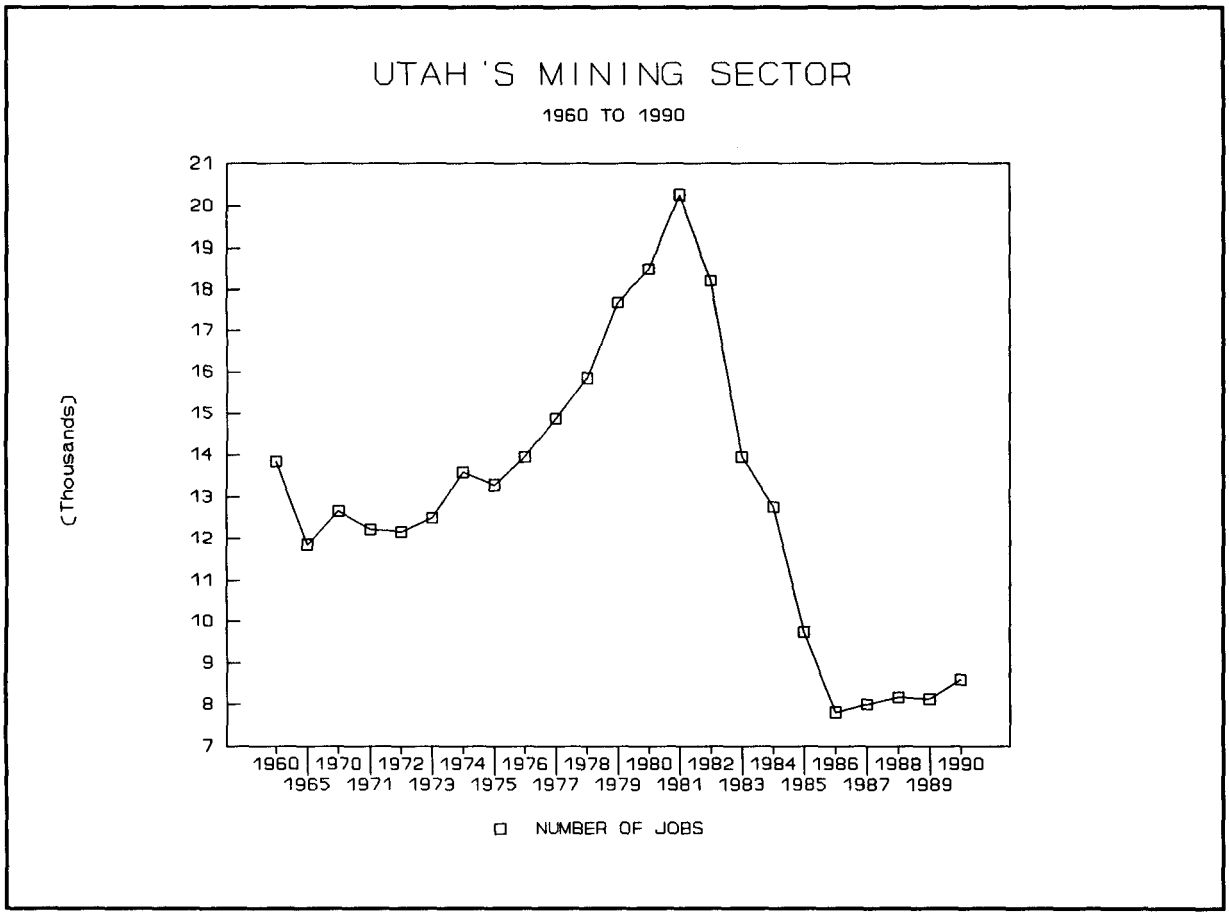
Until the mid 1970's, Duchesne County's manufacturing sector was stable, however, in the late 70's and into the 80's a burst of growth occurred. This industry doubled in the number of jobs between 1977 and 1981, but by 1988 the manufacturing industry had almost returned to it's 1977 level. Since that time there has been a notable resurgence. It may be difficult for planners to place much confidence in forecasting another expansion equal to the magnitude of the early 1980's.

Graph A10-7c - Job Sector, Manufacturing - Uintah County



In Uintah County, manufacturing went from a comparatively high number of workers in the 1970's to about half as many in the 1980's. There seems to be a gentle upward trend from 1980. This type of pattern can prove challenging for forecasters and cause uncertainty among planners.

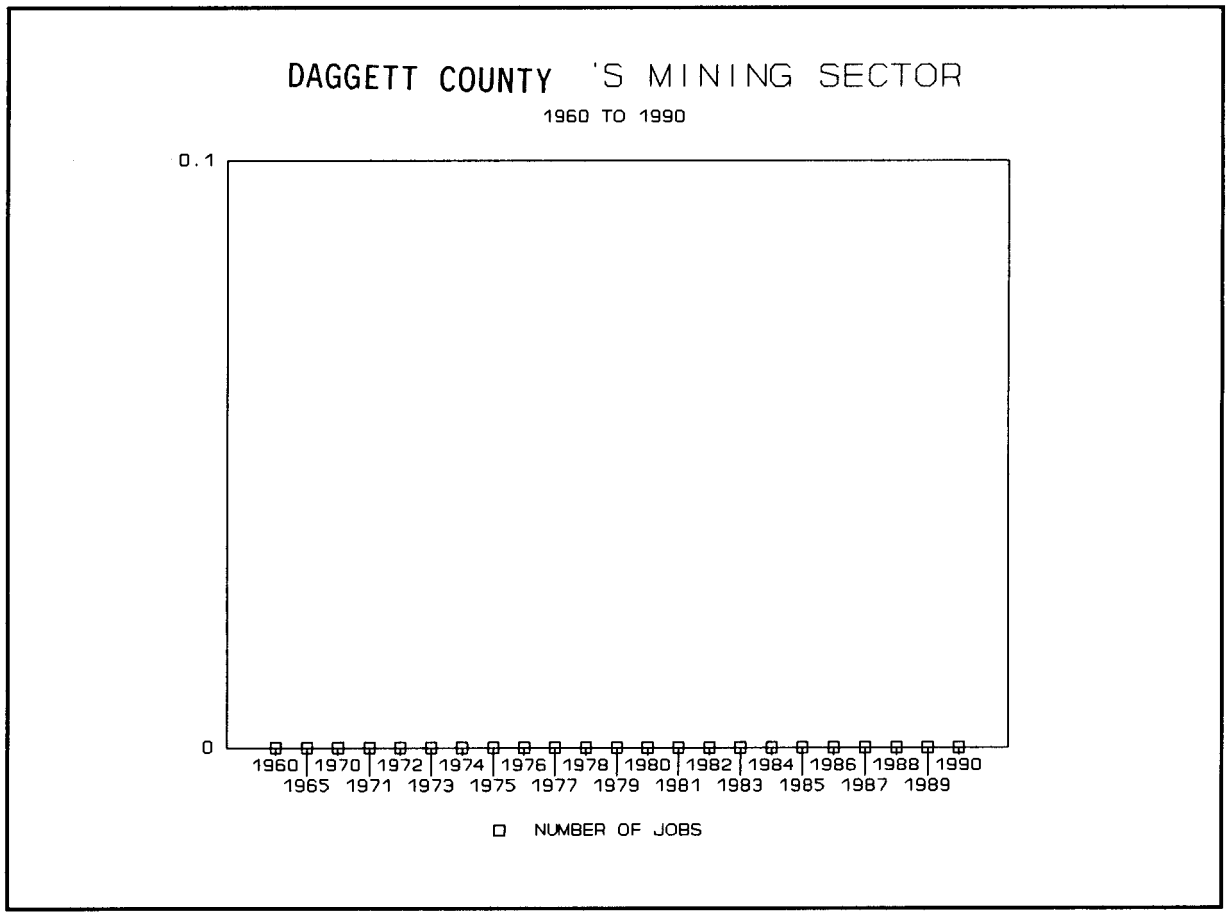
Graph A10-8 - Job Sector, Mining - State of Utah



Mining in Utah has experienced a dramatic "boom and bust" trend in the last twenty years. In the 1970's, the number employed in this industry escalated from 12,500 to approximately 20,000 by 1980. However, within six years the number of workers in this sector plummeted to about 8,000. This oscillation makes forecasting and thus planning exceptionally challenging. Mining is made up of metal and nonmetallic minerals, as well as coal mining and oil and gas extraction.

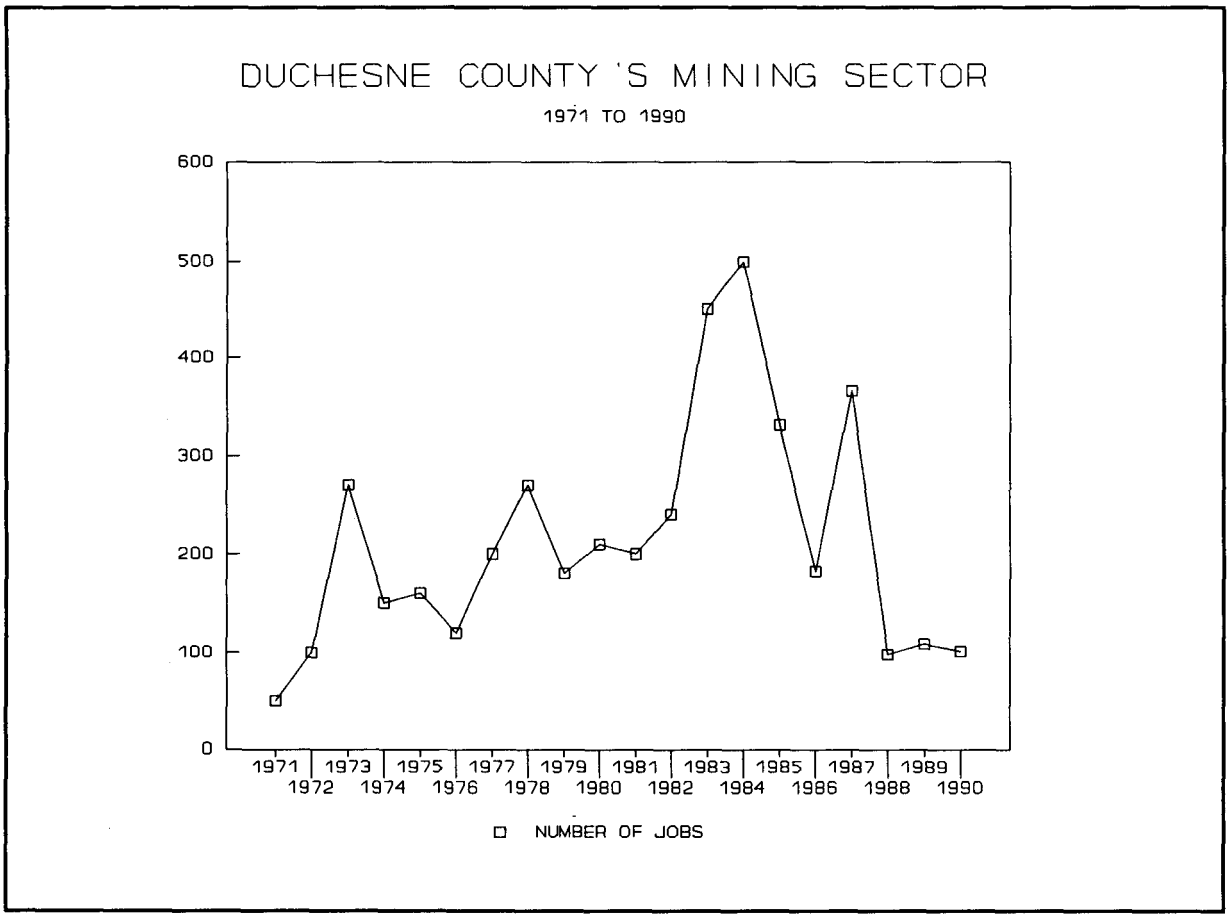
BLM policy and management of minerals will have a direct impact on this sector. Increasing restrictions, as required by competing interests will increase the costs of extraction and reduce the probability of mining and perhaps lead to increased costs minerals.

Graph A10-8a - Job Sector, Mining - Daggett County



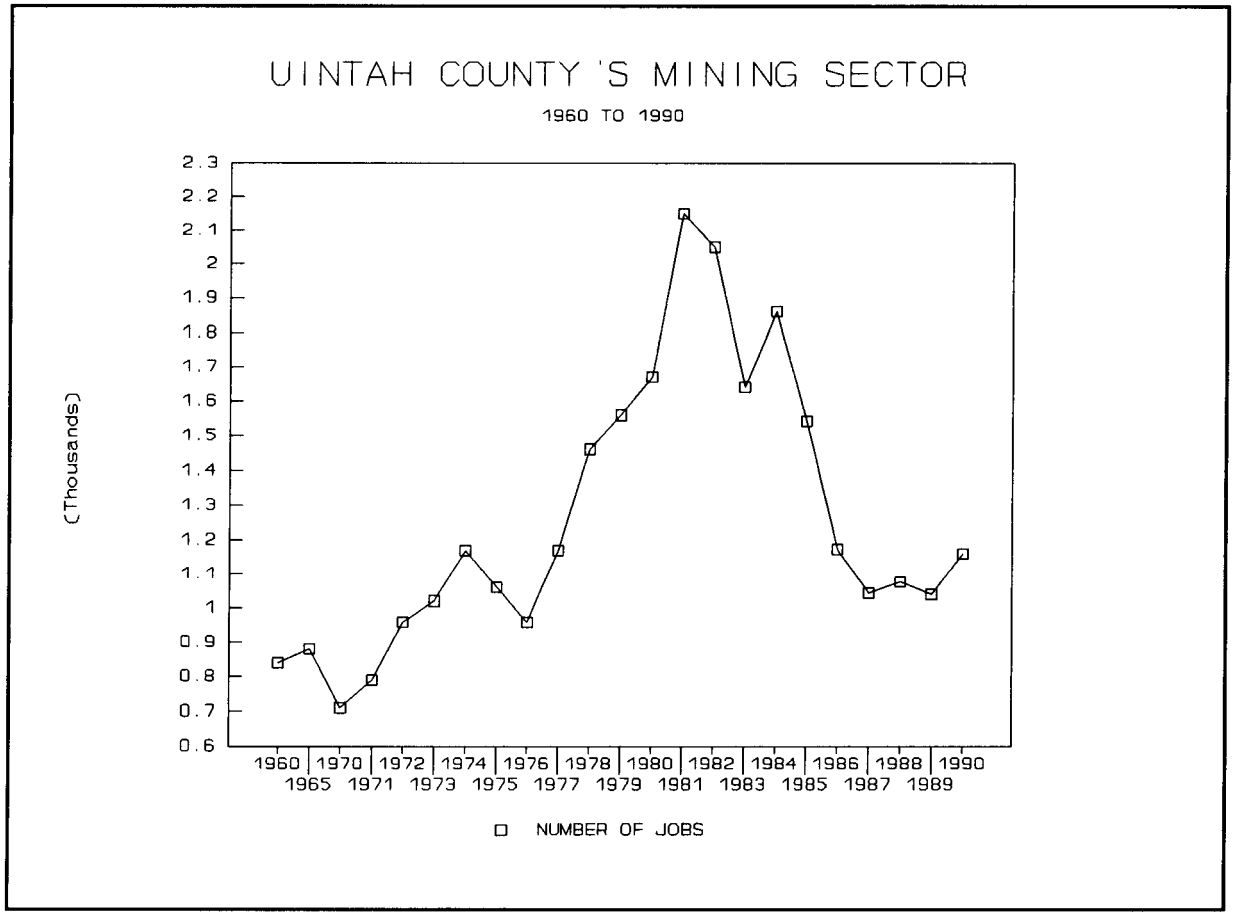
According to the Utah Office of Planning and Budget, there have been no workers employed by the mining sector in Daggett County over the last thirty years.

Graph A10-8b - Job Sector, Mining - Duchesne County



Mining has been an industry of notable importance for Duchesne County; however this sector has exhibited sporadic fluctuations with no discernable trends. This situation makes projecting future employment difficult and gives planners little confidence concerning this industry.

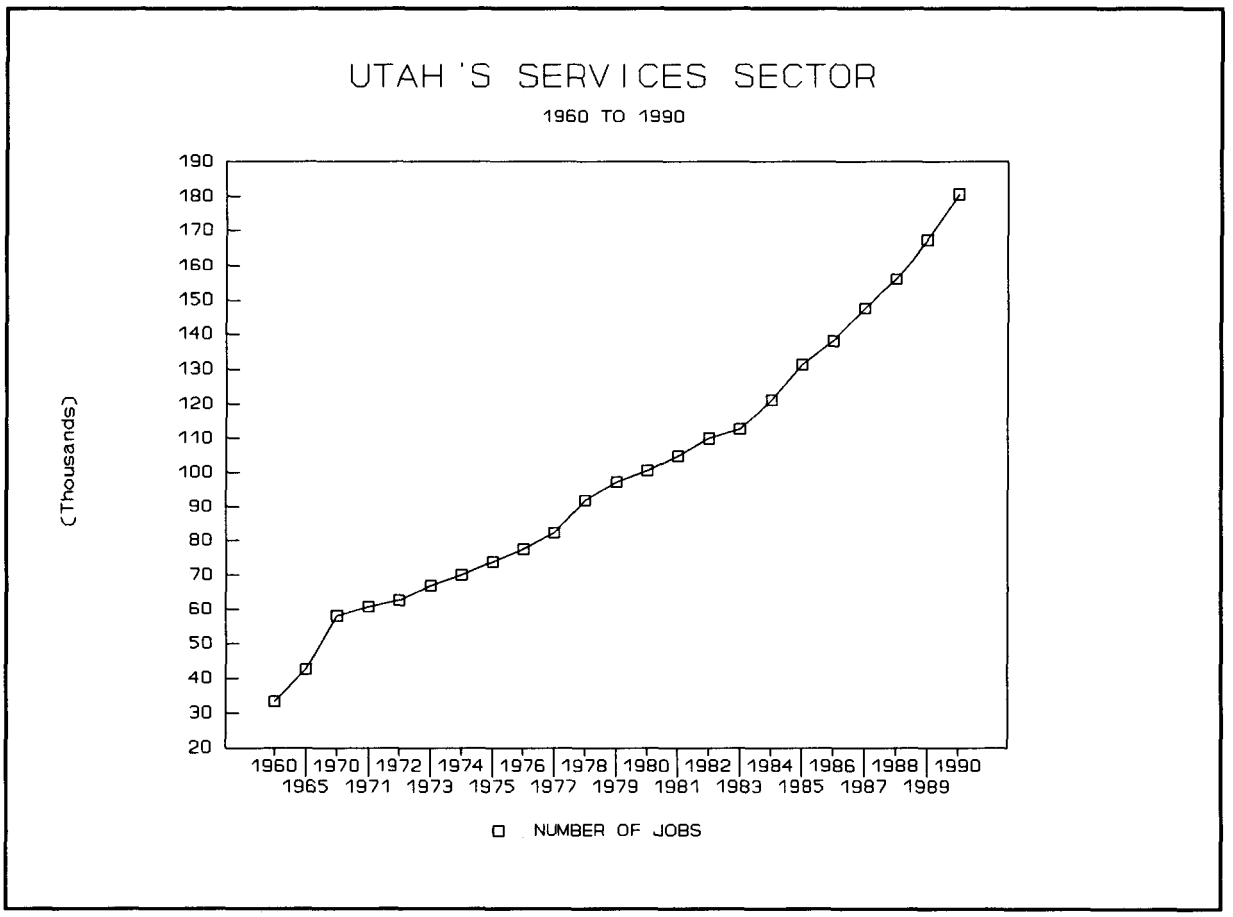
Graph A10-8c - Job Sector, Mining - Uintah County



Uintah County's mining industry has performed much like the State's mining industry. In addition, a relation between the county's mining industry and the county's labor force can be seen when an ordinary least squares (OLS) regression is run. When mining acts as the independent variable and labor force serves as the dependent variable, a R^2 of .70 can be generated. Further, a positive correlation between the two variables can be noted, in other words as the number of employees increases so does the labor force. The complete regression results are given below.

Regression output:	
Constant	2254.41
Standard error of Y Estimate	1196.99
R^2	0.70
Number of observations	23.00
Degrees of freedom	21.00
X (independent) coefficient	4.41
Standard error of coefficient	0.63

Graph A10-9 - Job Sector, Services - State of Utah

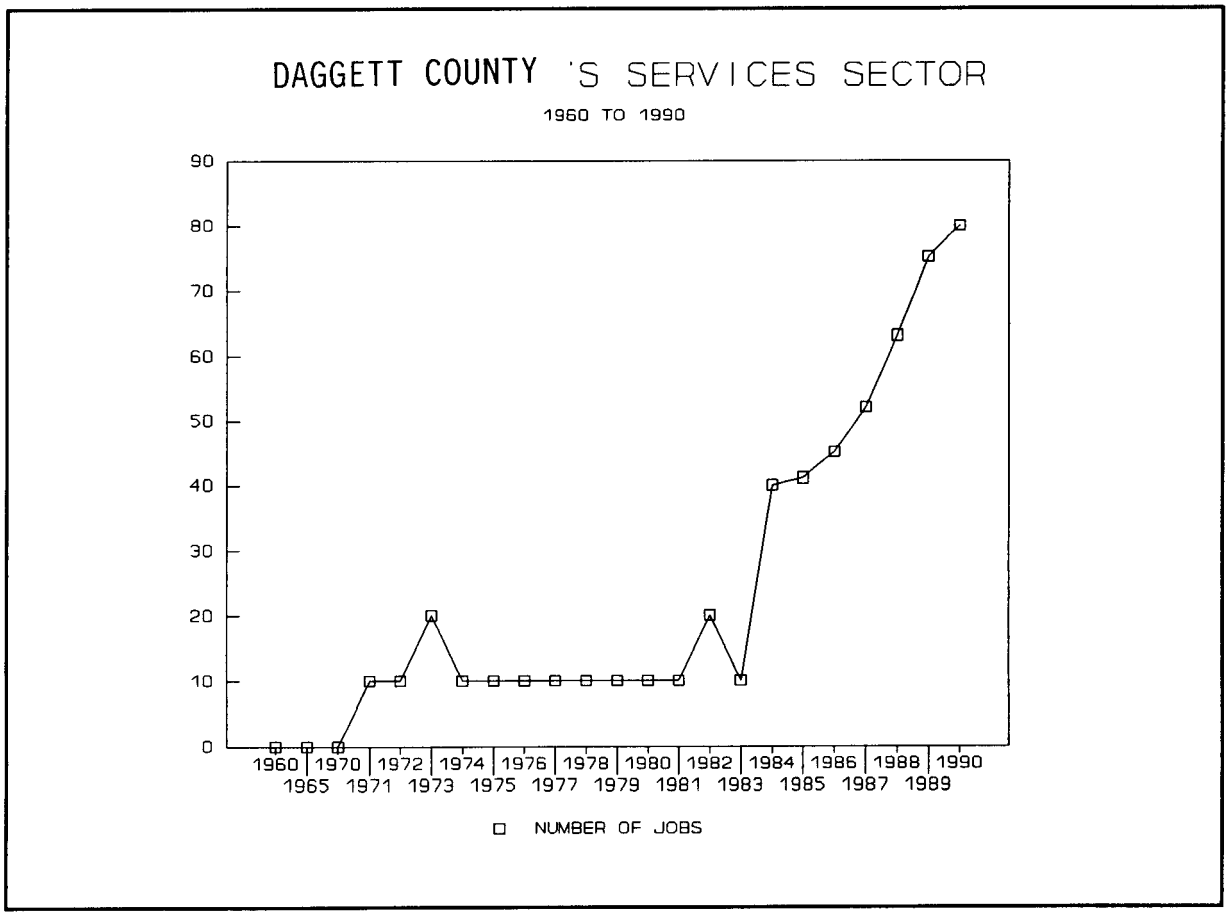


Utah's service sector has undergone two types of growth in the last thirty years. In the 1970's, a linear trend can be observed. However, in the 1980's, an almost exponential rate can be delineated.

Examples of the service sector, include: Lodging, personal and business services, repairs, and amusement and recreation, see SIC manual 1987.

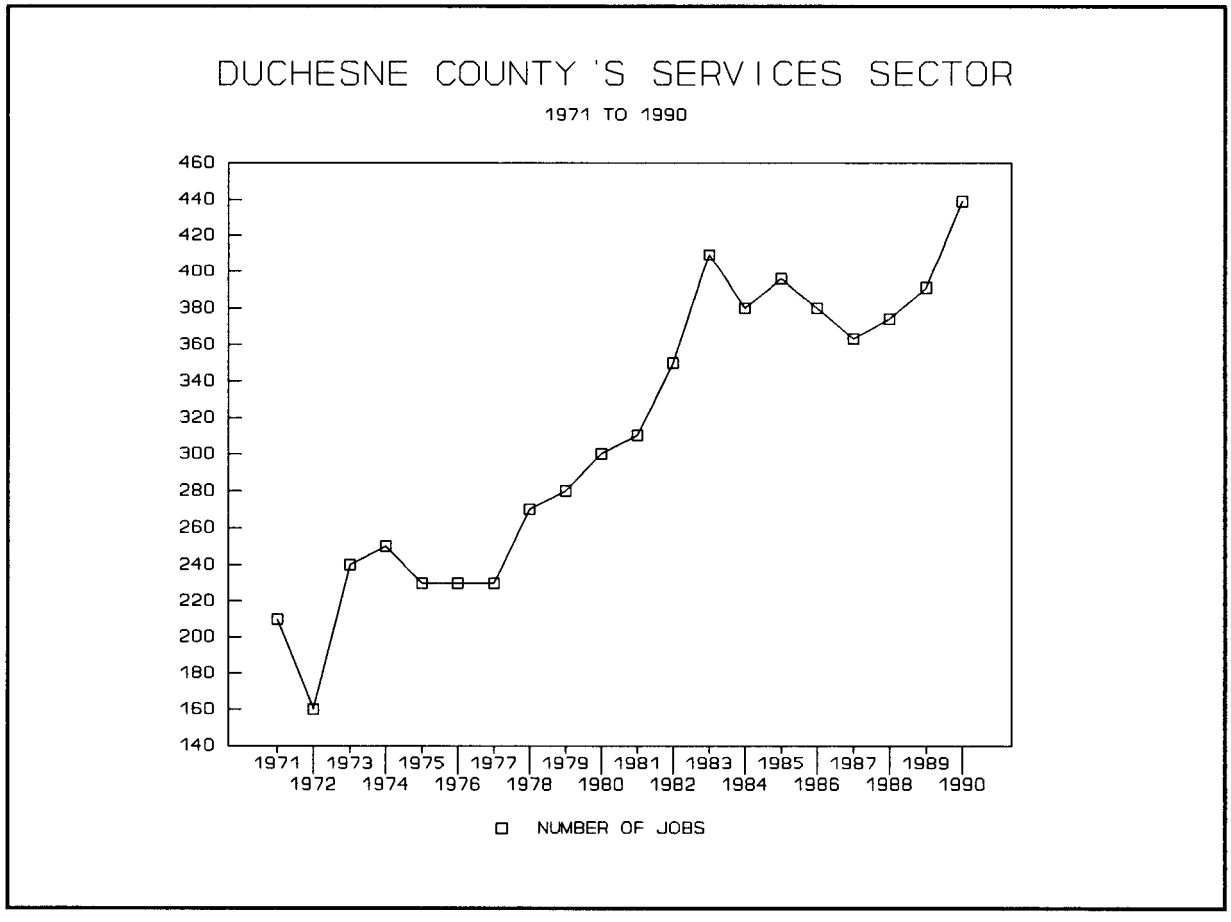
It is fairly easy to see how the BLM may affect these type of establishments. Visitation rates may increase as a result of BLM adopted management concerning recreation and fish and wildlife.

Graph A10-9a - Job Sector, Services - Daggett County



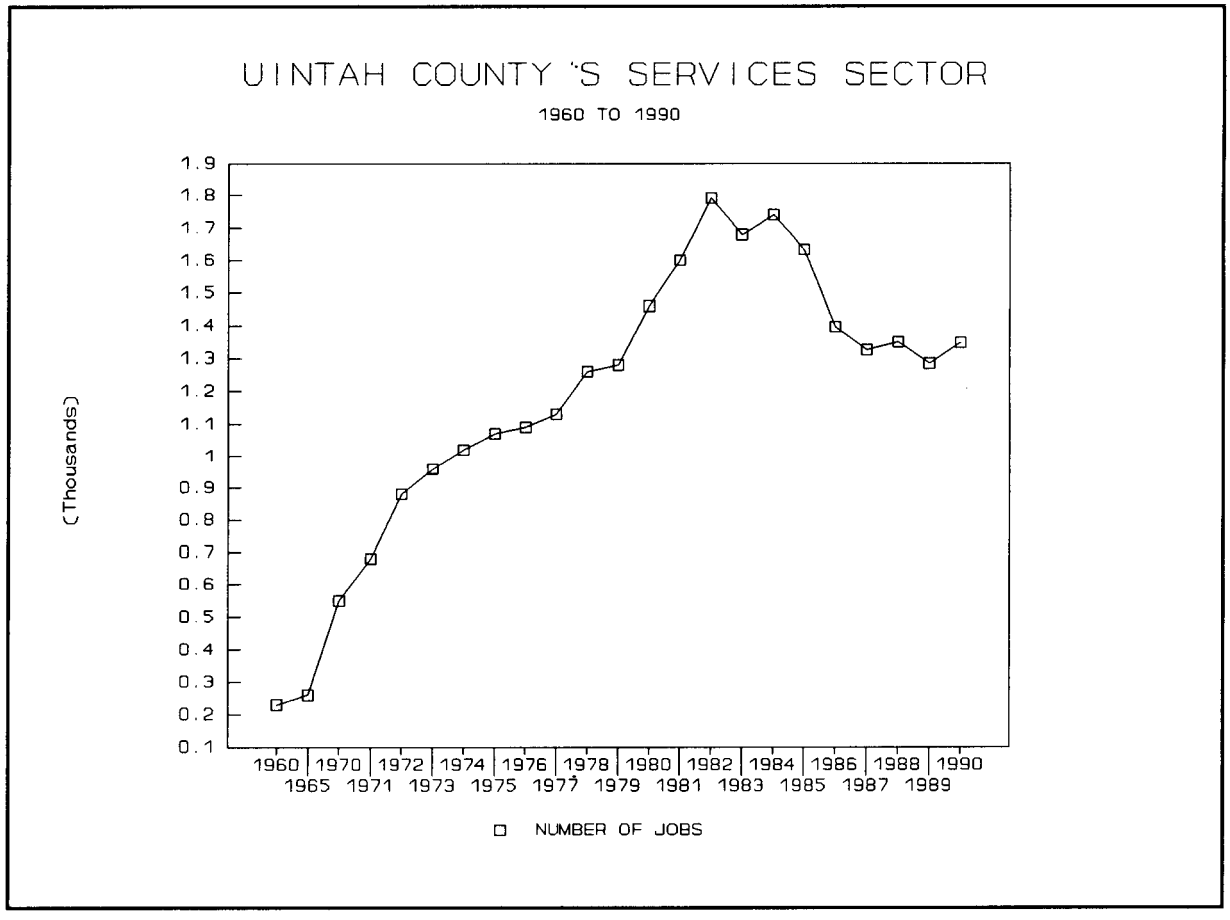
Until 1983, Daggett County's services sector didn't contribute many workers to the labor force. However, after 1983, a dramatic increase in the number employed in this industry occurred. A majority of this expansion may be due to the proximity and magnitude of Flaming Gorge.

Graph A10-9b - Job Sector, Services - Duchesne County



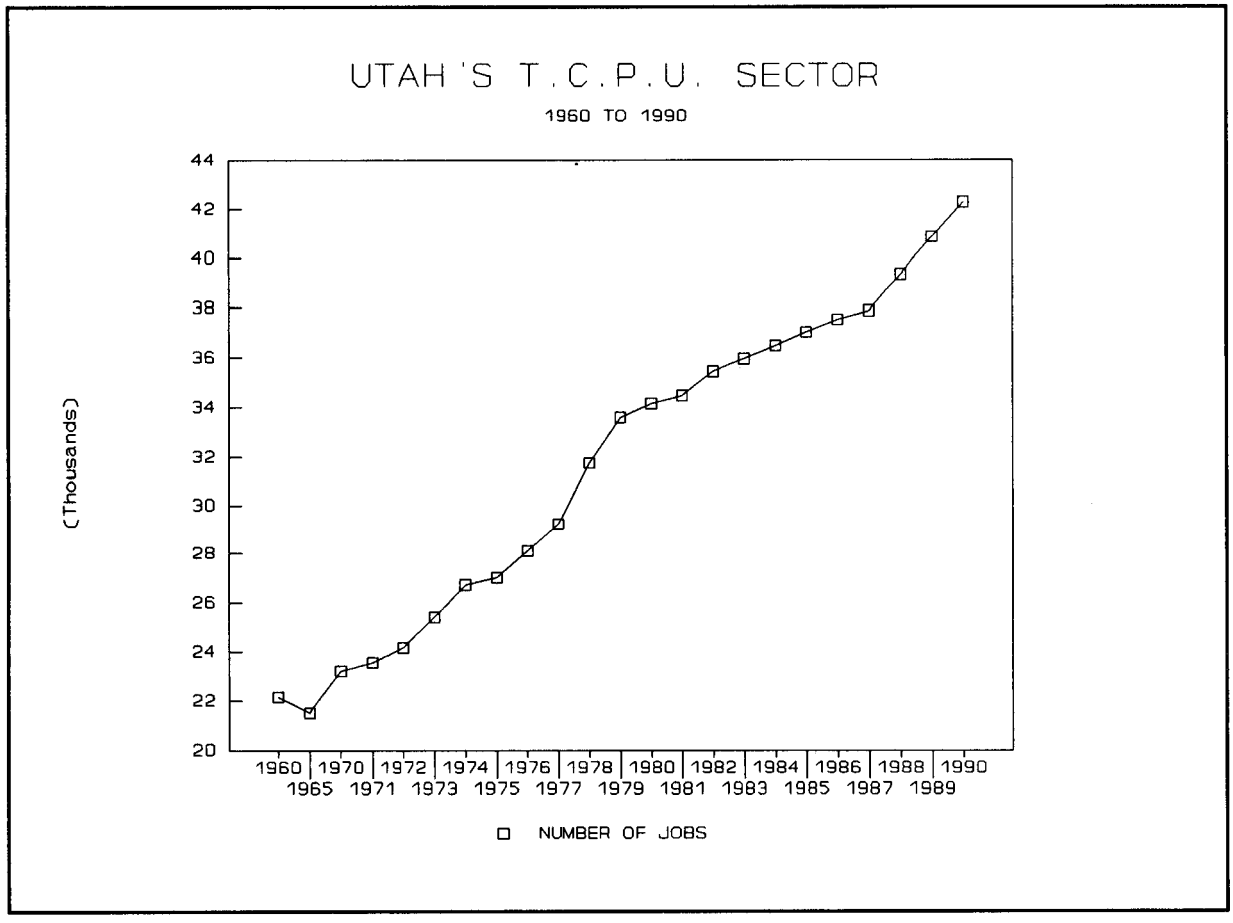
A steady increase with a few periods of growth has occurred in Duchesne County's services sector. The last four years have displayed a substantial increase in numbers employed in this industry. The BLM and other agencies may play an integral part for such growth, due to the large amount of federal and state owned land in this county.

Graph A10-9c - Job Sector, Services - Uintah County



Uintah County experienced substantial growth in the services sector, until the early 1980's. Through out the mid 1980's to the present, this industry has declined in the number employed. BLM influence should be apparent in this county due, again, to the percentage of acreage that falls under public ownership.

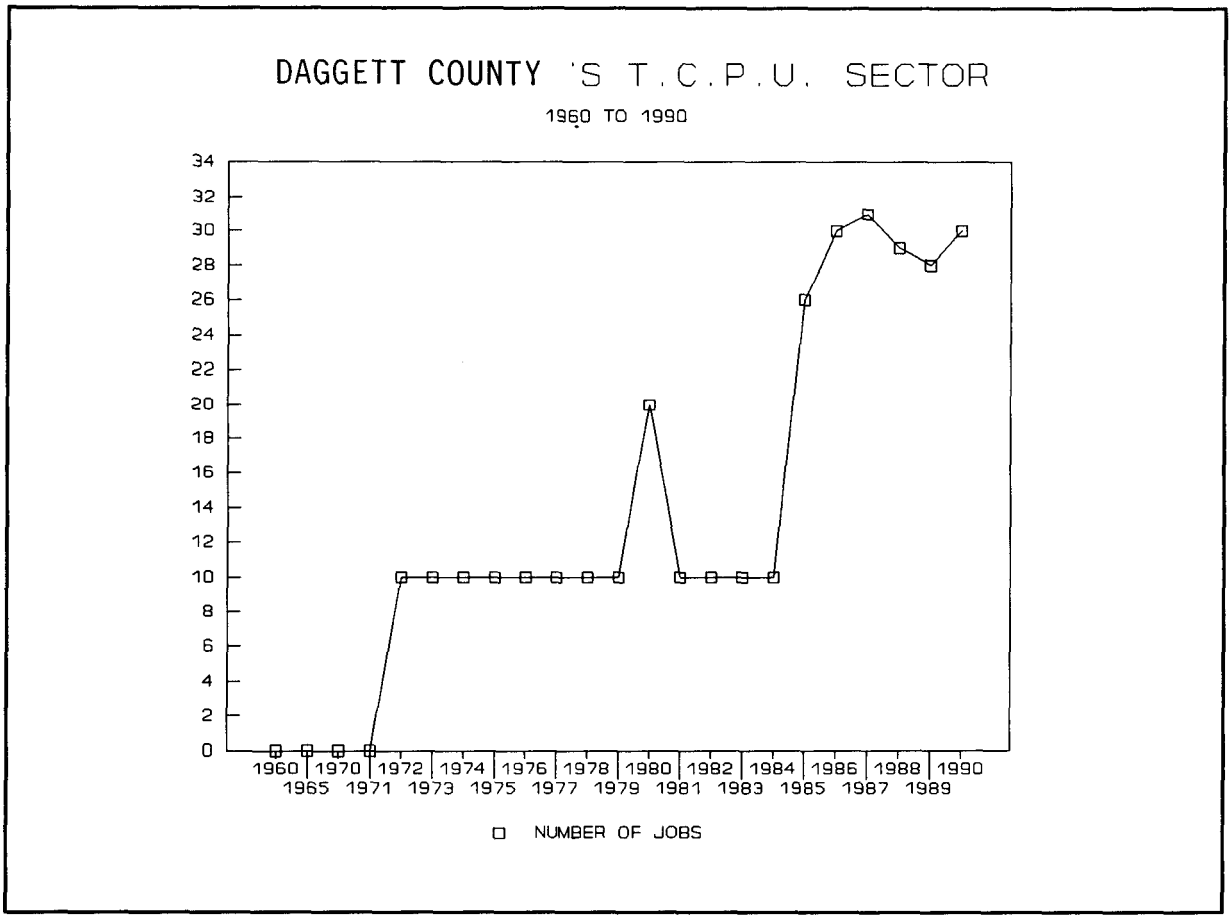
Graph A10-10 - Job Sector, T.C.P.U. - State of Utah



Utah's Transportation, Communications, and Public Utilities (TCPU) exhibits a linear type of trend for the last three decades. Again, this situation makes forecasts for this industry more reliable.

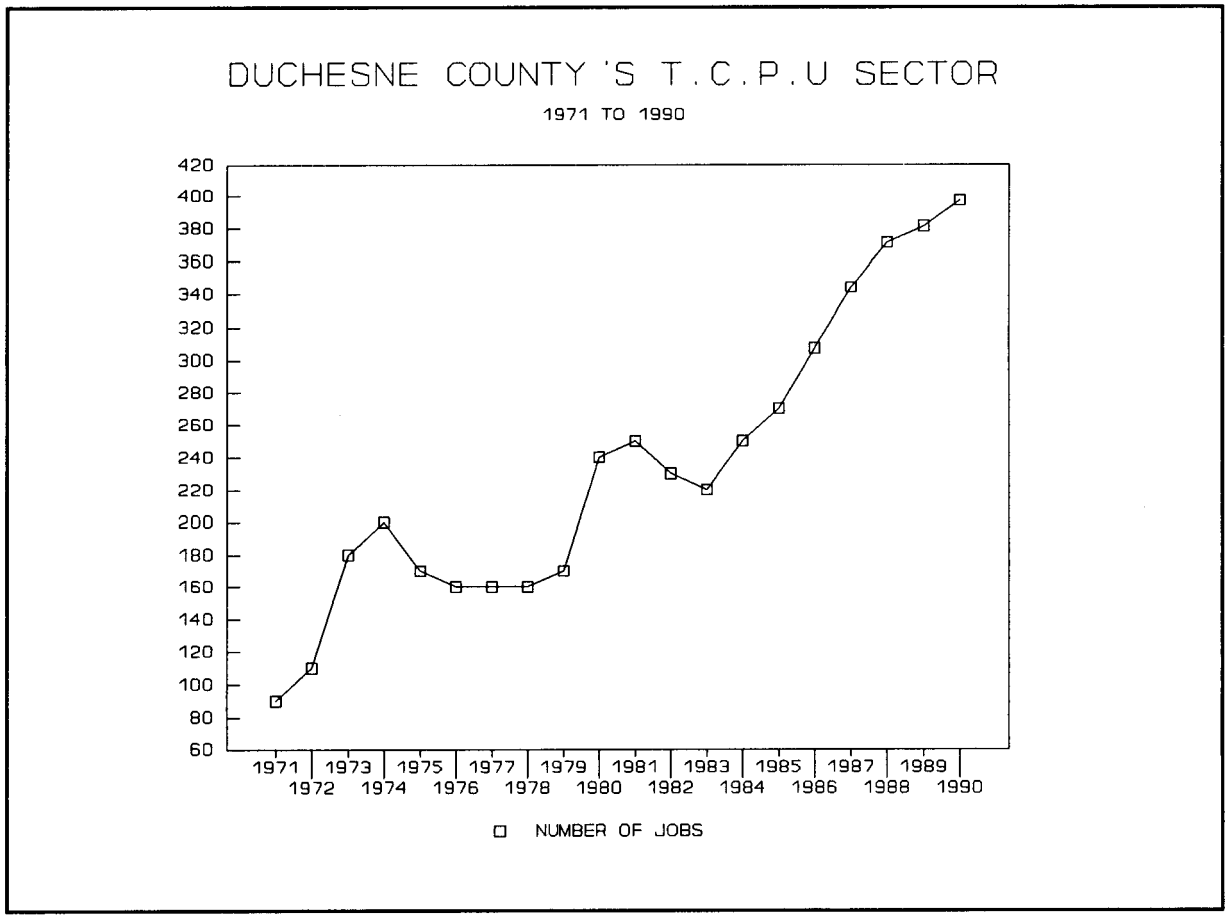
Businesses that make-up this sector include: Railroad, passenger transit, trucking, US postal service, telephone, TV and radio (as well as cable TV), see SIC manual 1987. BLM's largest effect concerning this industry could be the granting of rights-of-ways, thus allowing public utility and gas lines to be constructed.

Graph A10-10a - Job Sector, T.C.P.U. - Daggett County



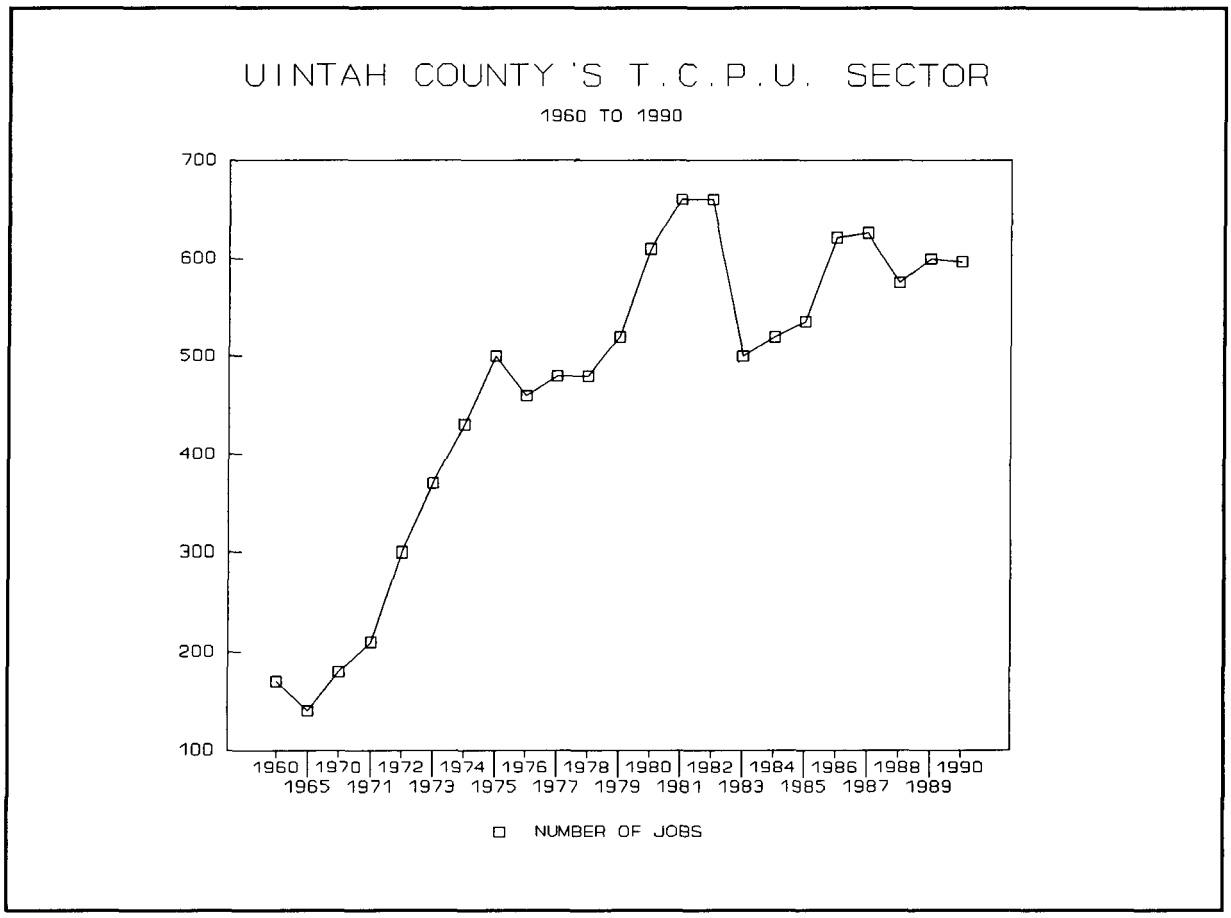
Daggett County's TCPU sector (as with many other sectors in this county) are hard to predict due to the small population. Notice in 1980, 10 people entered this industry, thus doubling the size of the TCPU industry.

Graph A10-10b - Job Sector, T.C.P.U. - Duchesne County



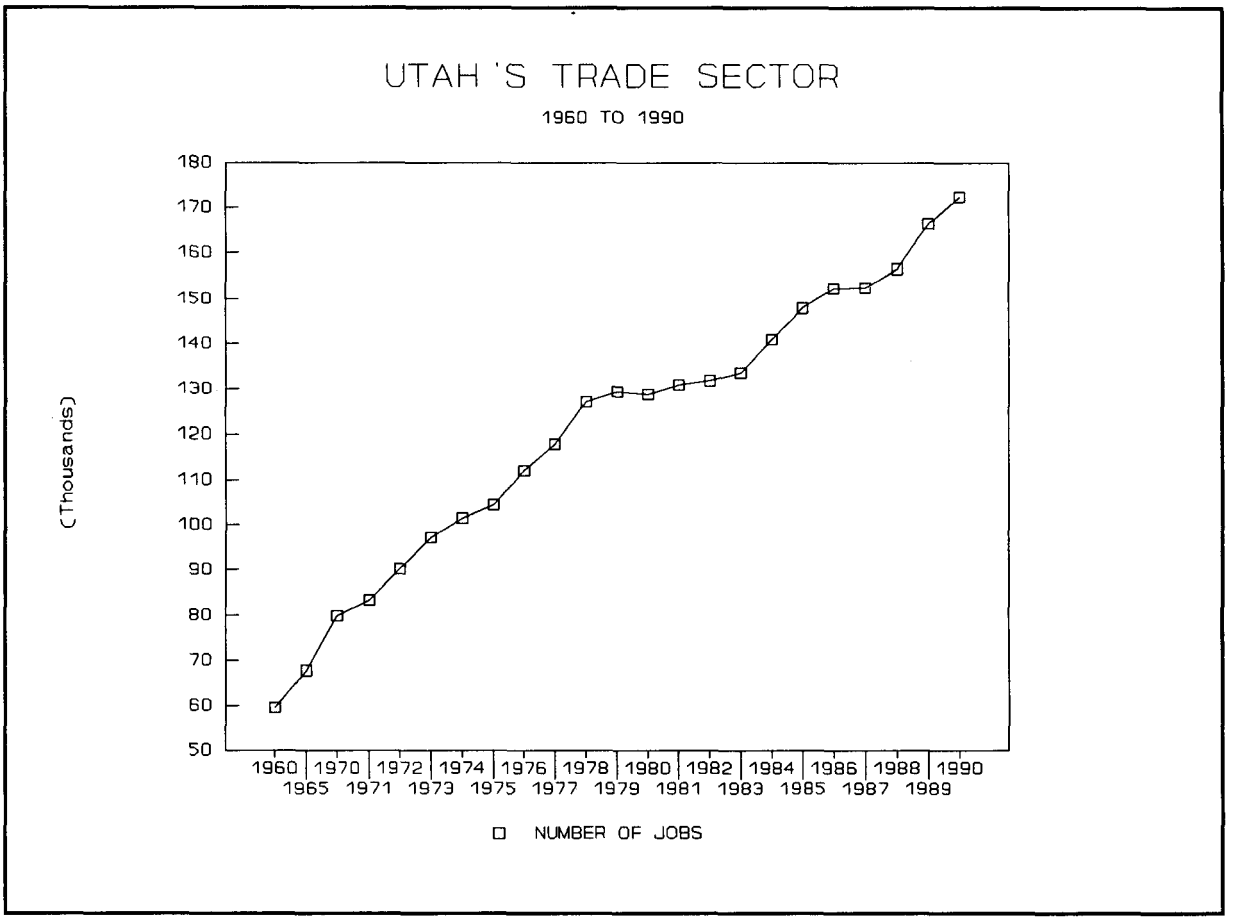
Duchesne County's TCPU has experienced two clear steps or bursts of growth followed by modest declines leading to today's upward trend. This makes forecasting reliable and gives planners confidence in their recommendations.

Graph A10-10c - Job Sector, T.C.P.U. - Uintah County



Uintah County's TCPU industry appears to be just the opposite of Duchesne's. Uintah experienced a large surge in number employed in the early 1970's, followed by periods of smaller fluctuations. These smaller vacillations led to the almost flat trend that exists today.

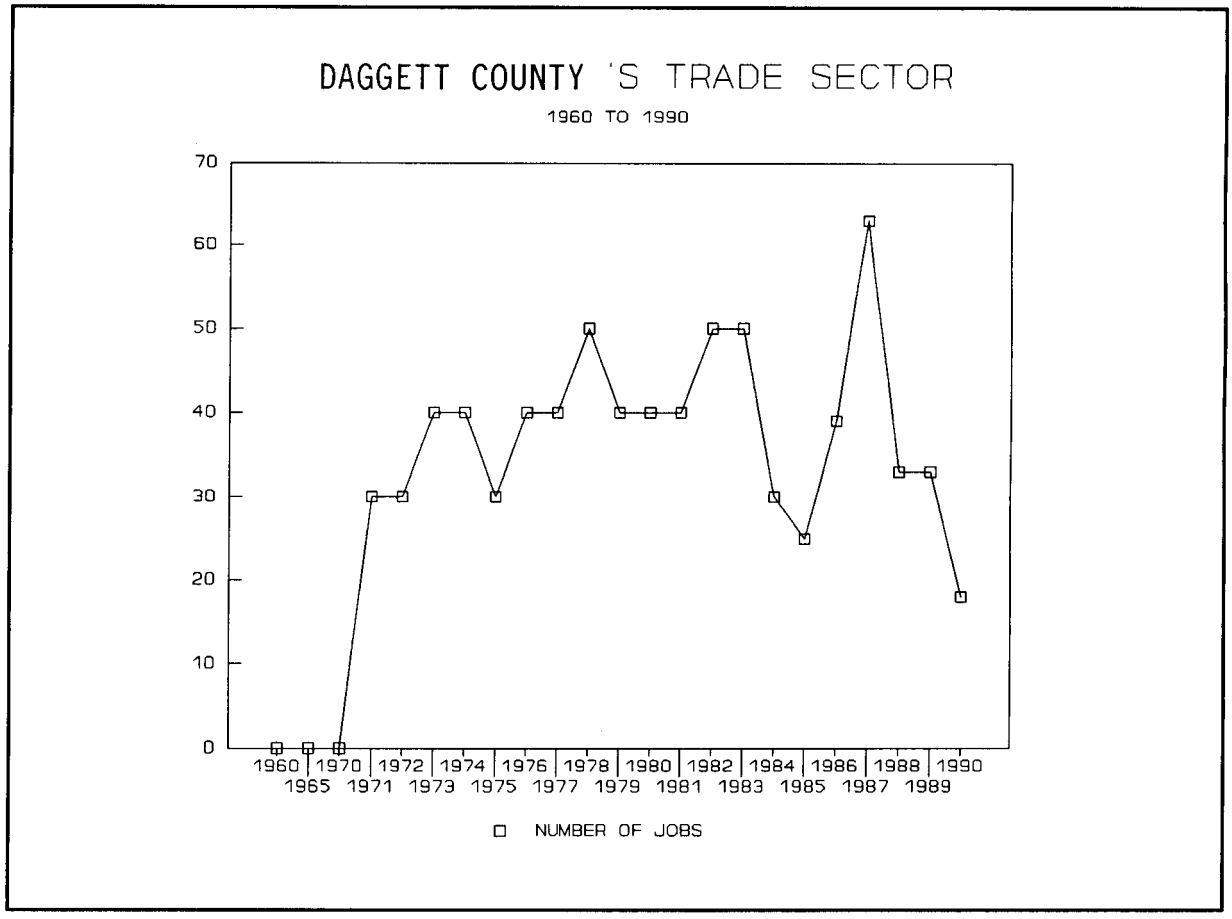
Graph A10-11 - Job Sector, Trade - State of Utah



A stable linear increasing rate has occurred in Utah for the last thirty years, this makes estimating the number of jobs in the Trade sector fairly reliable. This sector is broken into wholesale and retail trade. Wholesale is comprised of both durable and nondurable goods. Retail trade takes the wholesale goods produced for retailers and distributes them to individuals, examples include car dealerships, grocery stores, and eating and drinking places, see Standard Industrial Classification (SIC) Manual 1987. This relationship between whole and retail trade illustrates the "value added" concept.

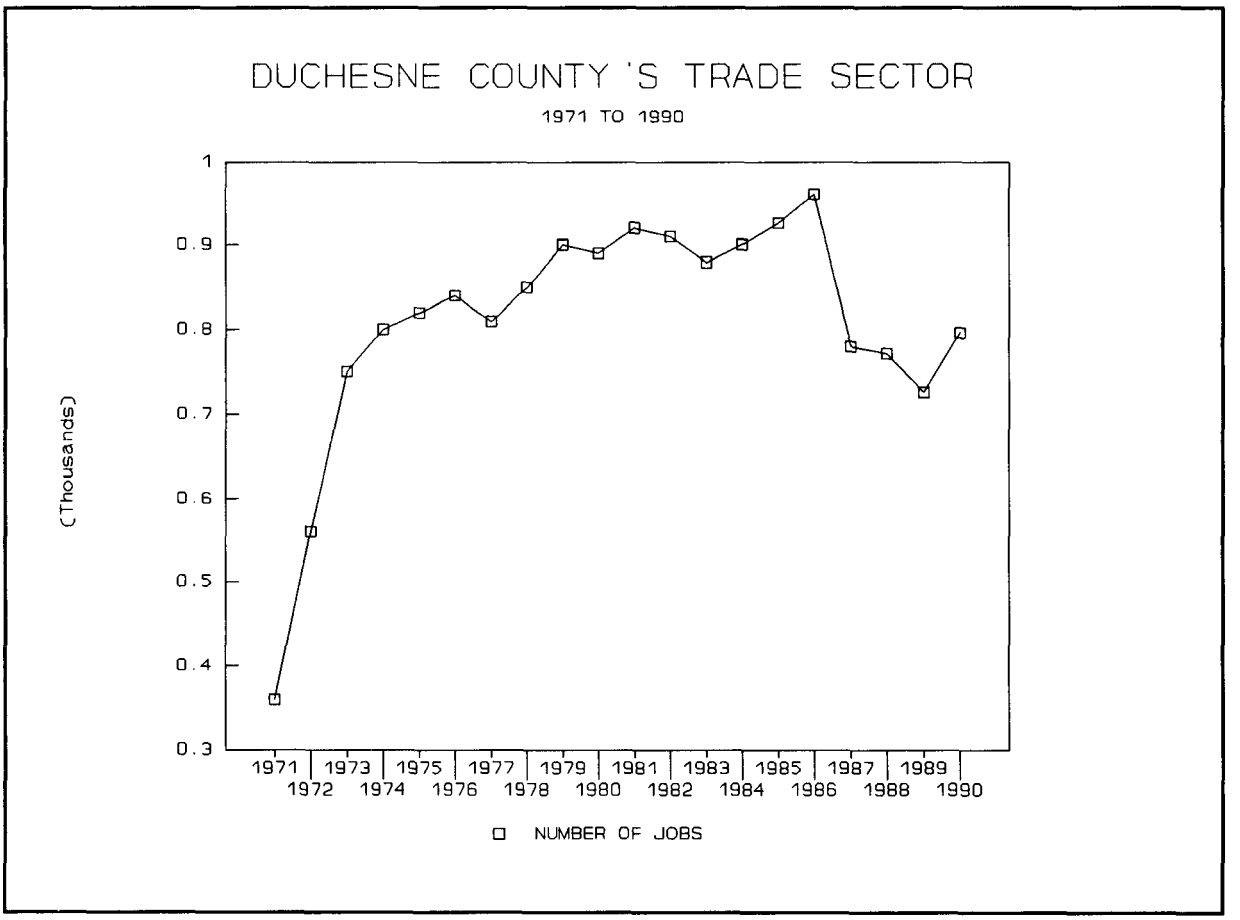
Many resources under BLM management may affect this sector, including: agriculture (livestock), recreation, and fish and wildlife. Increasing or decreasing the quantity of cattle on public land would affect the wholesale trade of livestock. Similarly, increasing or decreasing visitor participation through alteration of recreation and fish and wildlife management could affect both wholesale and retail trade of groceries, and especially the retail trade of groceries and eating and drinking places.

Graph A10-11a - Job Sector, Trade - Daggett County



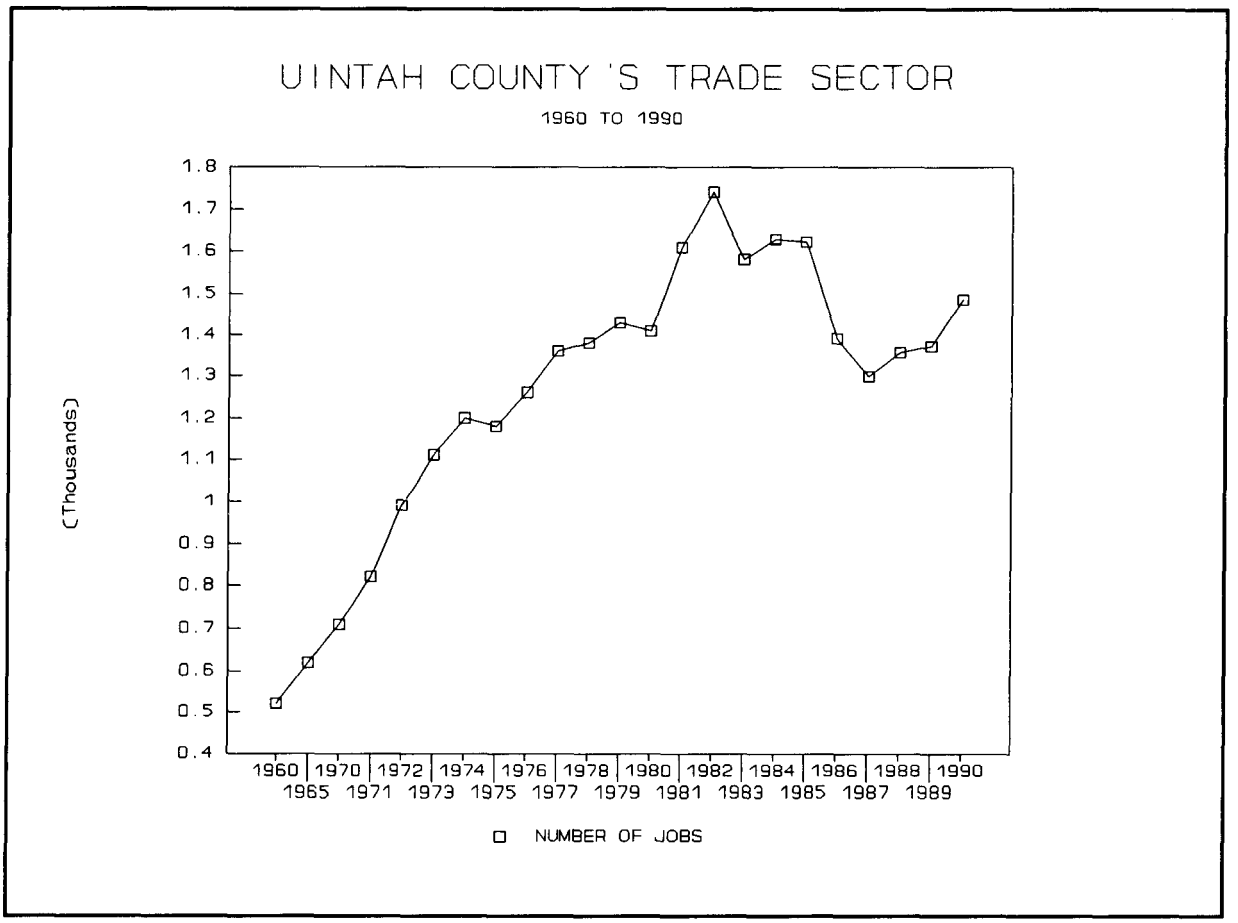
Daggett County's Trade industry has shown periods of large variation in the last twenty years, this could be in part due to the small numbers employed in this sector. Between 1985 and 1987, the number of employees in this industry was more than doubled by adding approximately 40 workers. It is interesting to notice that as Utah's trade sector has steadily increased over the last few years, Daggett County's share of this industry has become smaller and smaller. Obviously, the small population makes various industries susceptible to large vacillations and decreases confidence forecasters will have in their estimates. Ultimately, this could cause problems for planners and administrators.

Graph A10-11b - Job Sector, Trade - Duchesne County



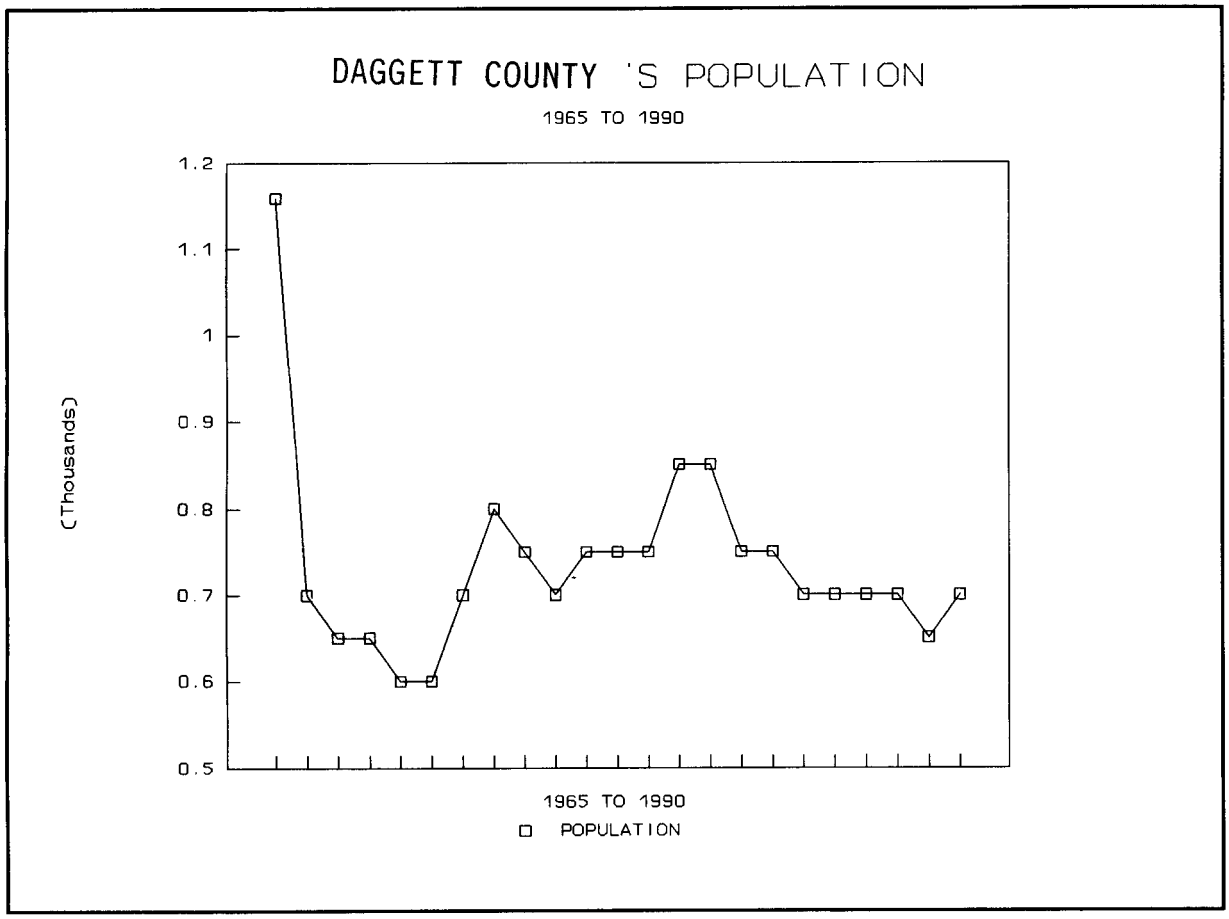
In Duchesne County, the Trade sector bloomed in 1971 and pretty much leveled off by 1974. Fluctuations have occurred, but were only of marginal importance. This makes projecting estimates more reliable.

Graph A10-11c - Job Sector, Trade - Uintah County



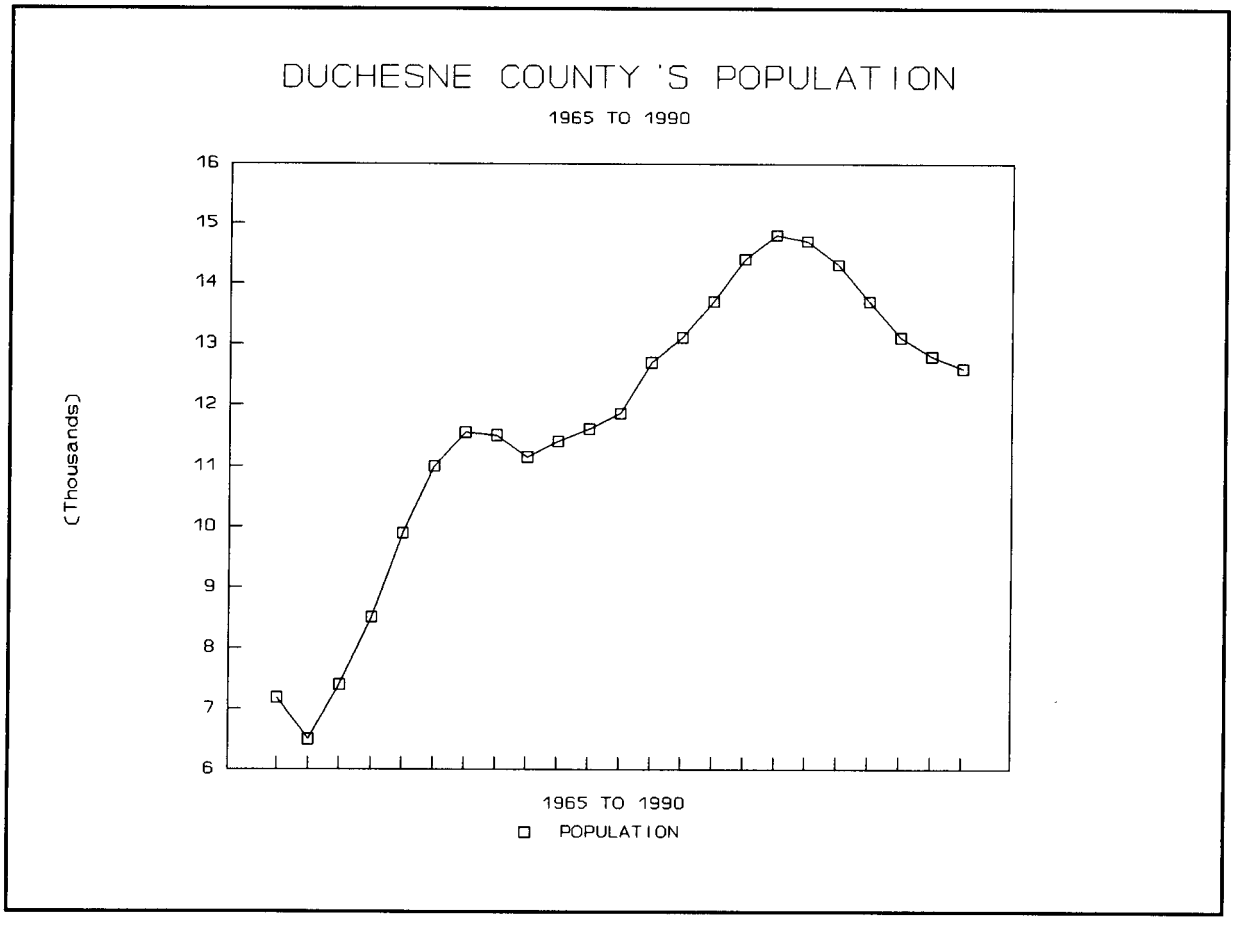
Since 1960, in Uintah County, there has been an increasing number of workers in the trade industry with a surge in the early 1980's. A subsequent fall occurred in the mid 1980's, perhaps leading to the less dramatic increase in the trade sector in the last four years. Of the three counties in the DMRA, Uintah most closely resembles the trend exhibited by the State. This could be in part due to the relatively large population of Vernal.

Graph A10-12a - Population - Daggett County



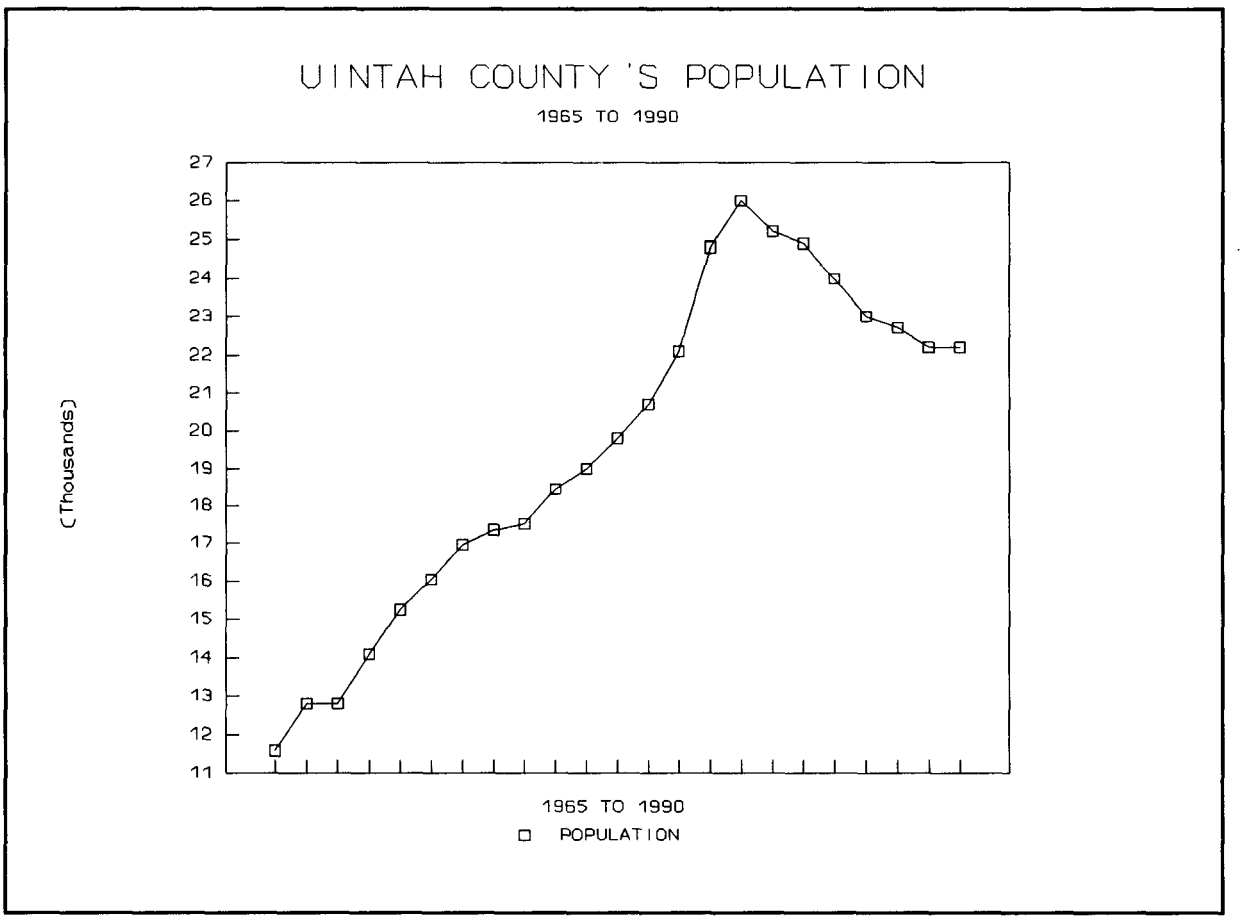
Daggett County's population has shown little deviation over the last three decades.

Graph A10-12b - Population - Duchesne County



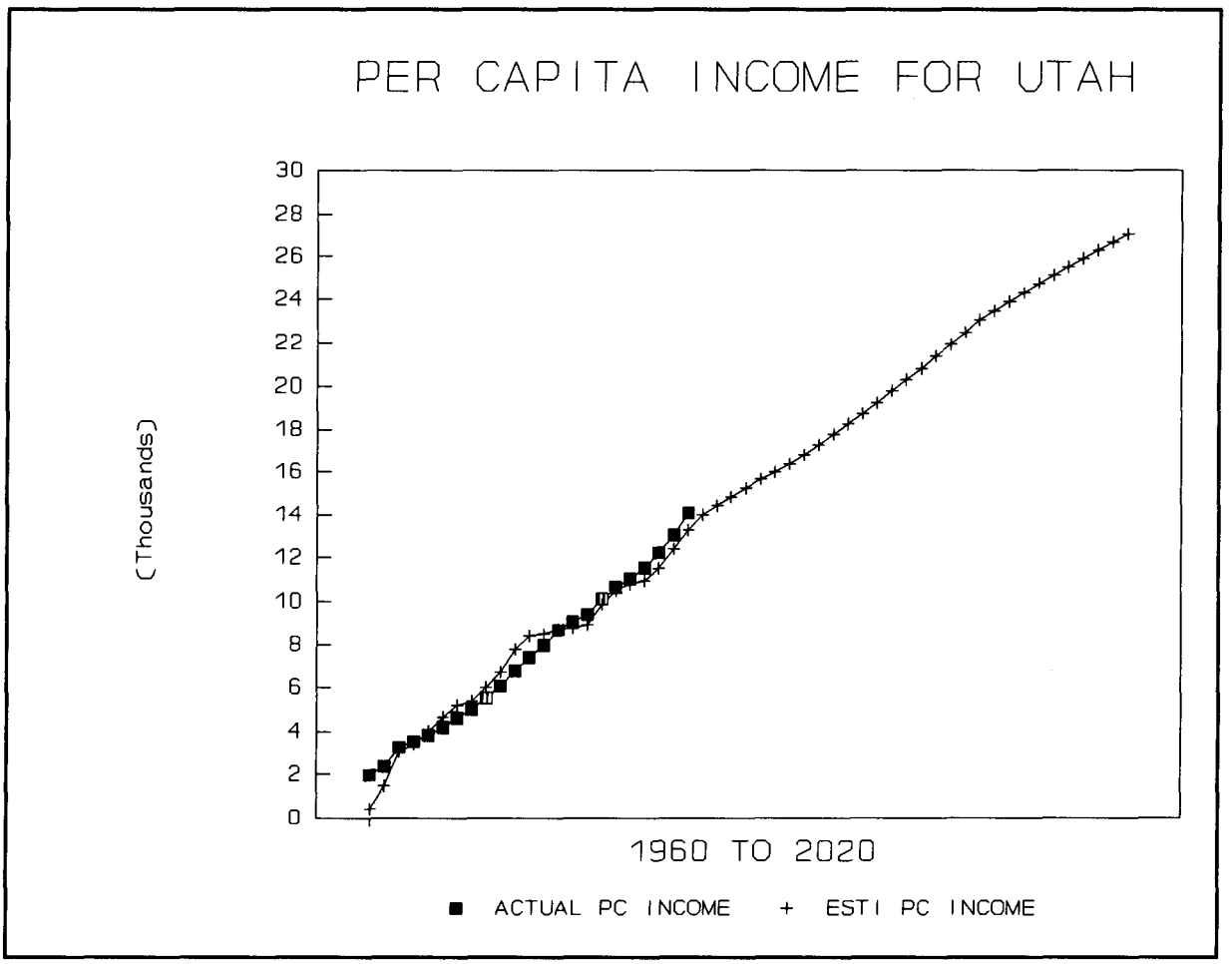
Duchesne County's population depicts a gradual upward cycle until the mid 1980's, when a subtle downward trend developed.

Graph A10-12c - Population - Uintah County



Uintah County's population exhibited a nearly linear trend until the early 1980's, when a gradual down turn in the number of residents occurred.

Graph A10-13 - Estimated Per Capita Income and Forecasts - State of Utah

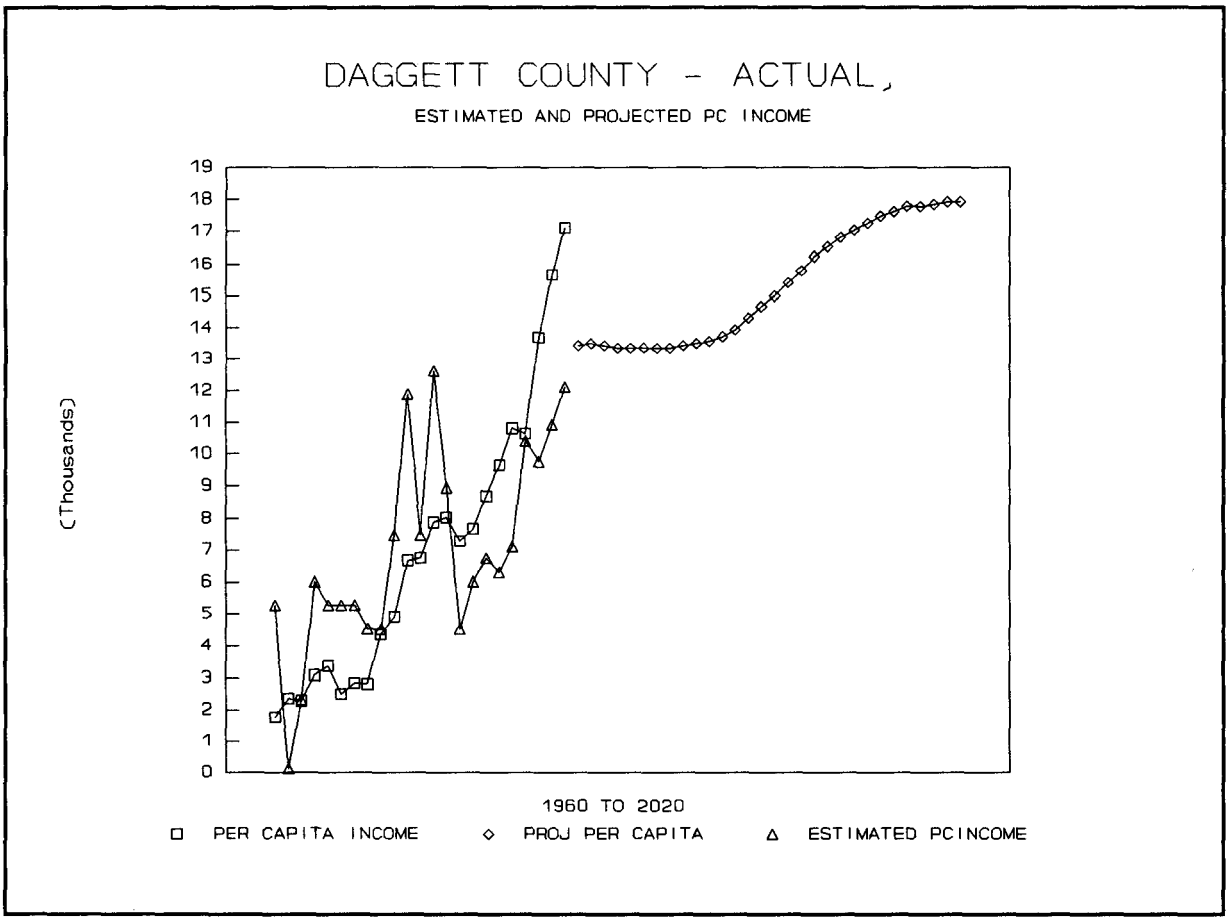


A strong correlation between per capita income and total non-agricultural jobs can be delineated and represented by the high R^2 value. Projections for per capita income shows a linear upward trend.

Regression output:

constant- 6,967.67	
Standard error of Y estimate	659.69
R^2	.96
Number of observations	23
Degrees of freedom	21
X coefficient	.03
Standard error of coefficient	.001

Graph A10-13a - Estimated Per Capita Income and Forecasts - Daggett County

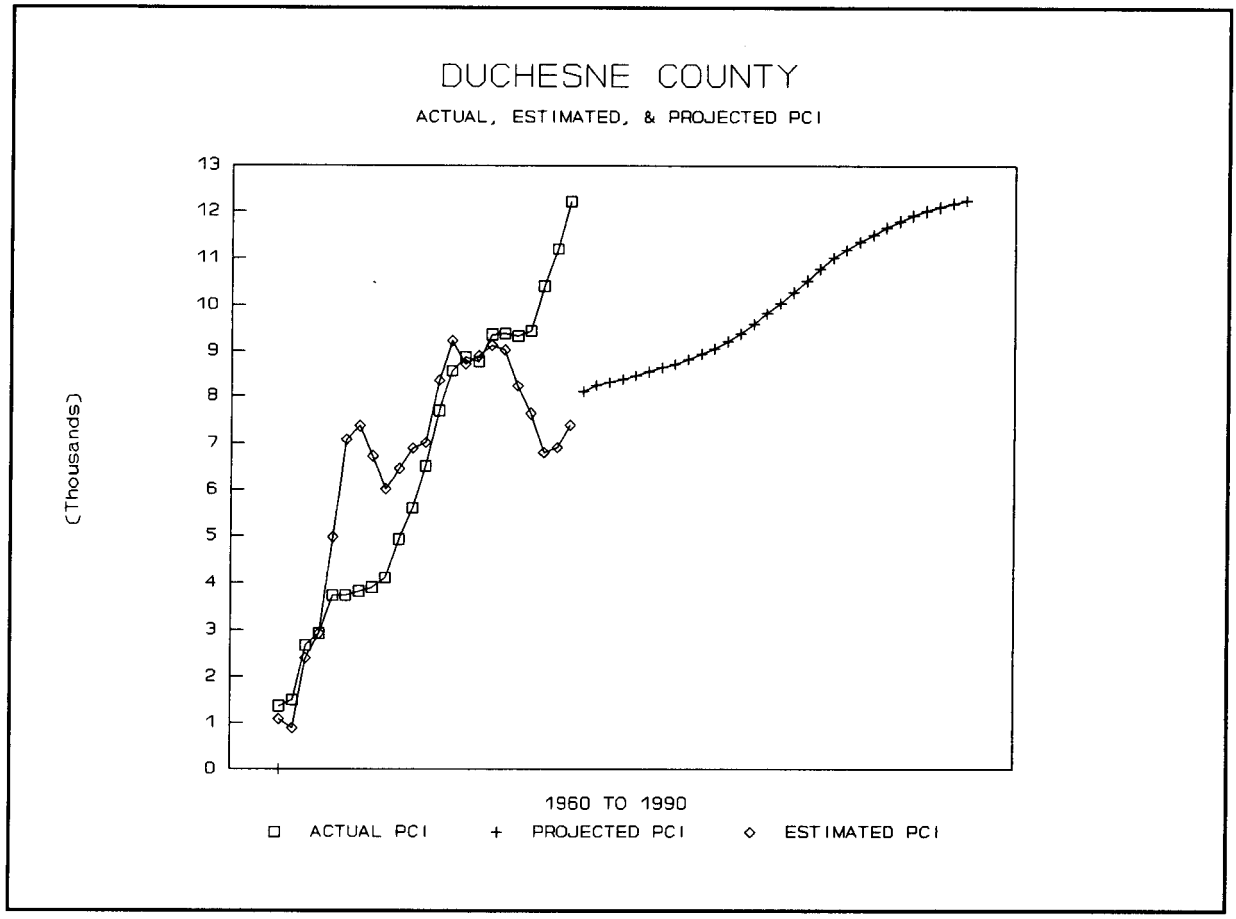


The correlation between per capita income and total non-agricultural jobs is not as strong for Daggett county.

Regression output:

constant	-12,380.7
standard error of Y estimate	3,127.9
R^2	0.52
Number of observations	23
Degrees of freedom	21
X coefficient	73.51
Standard error of coefficient	15.42

Graph A10-13b - Estimated Per Capita Income and Forecasts - Duchesne County

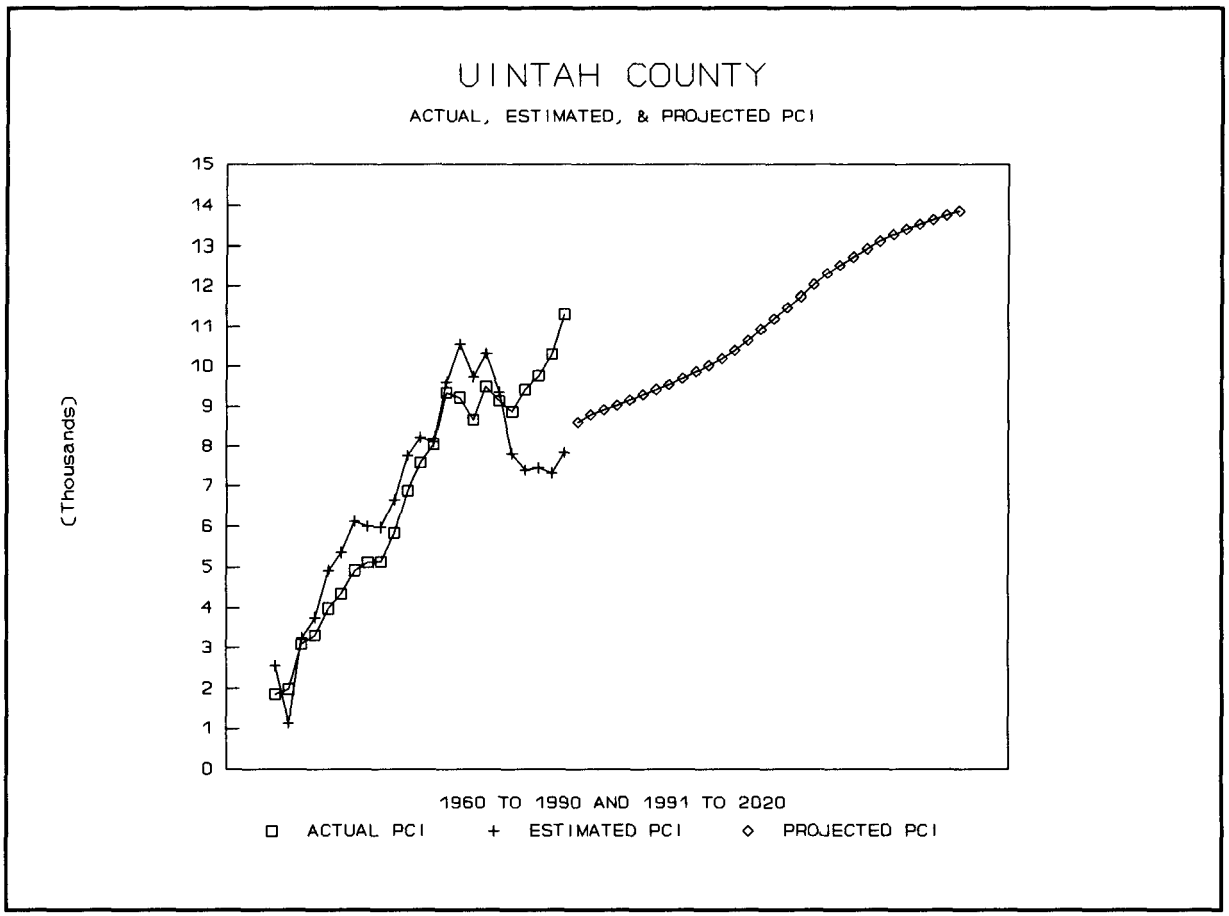


Duchesne County's correlation between per capita income and total non-agricultural jobs is equally as weak as Daggett's.

Regression output:

constant	- 1,518.15
Standard error of Y estimate	2,204.68
R^2	.57
Number of Observations	23
Degrees of freedom	21
X coefficient	2.43
Standard error of coefficient	0.46

Graph A10-13c - Estimated Per Capita Income and Forecasts - Uintah County

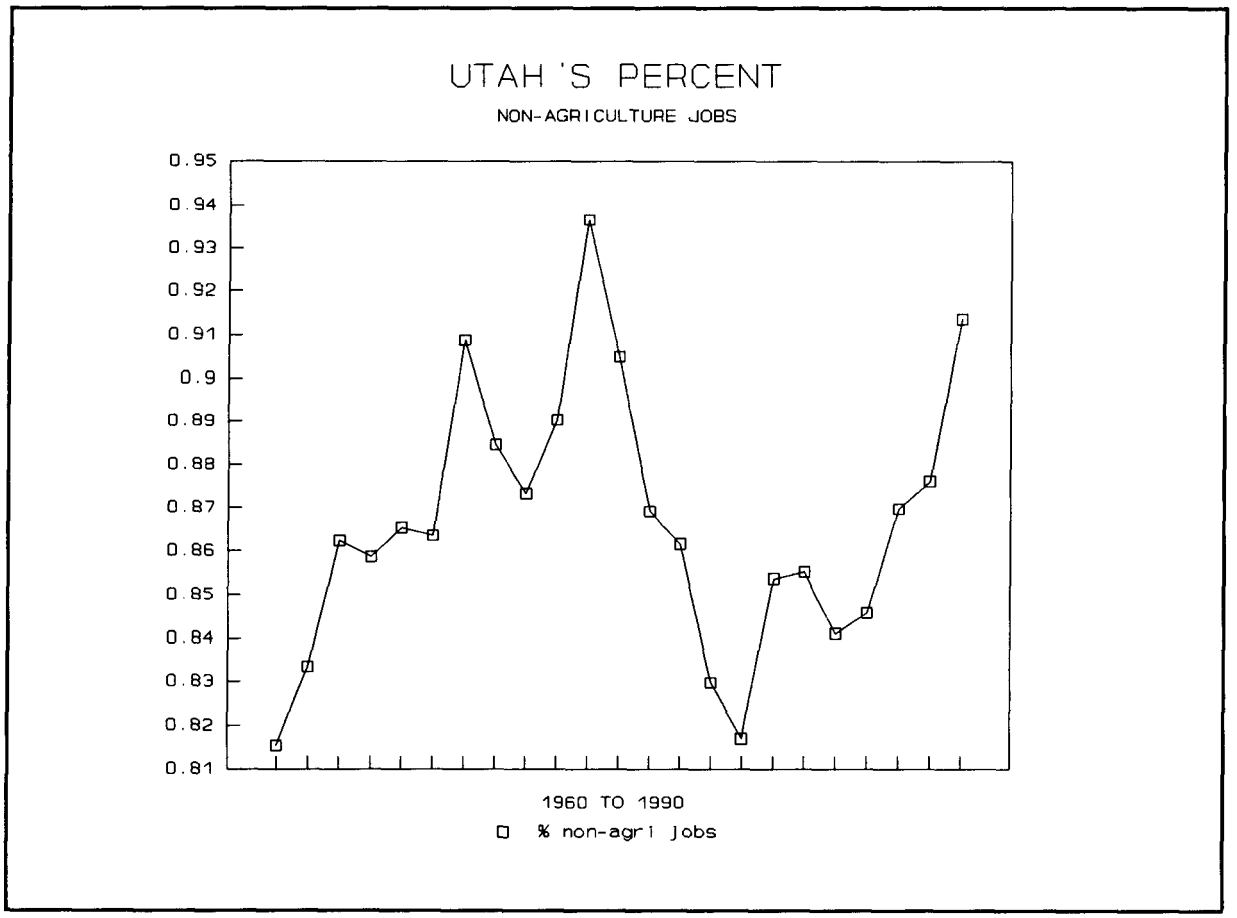


Of the three counties analyzed here, Uintah has the strongest correlation between per capita income and total non-agricultural jobs.

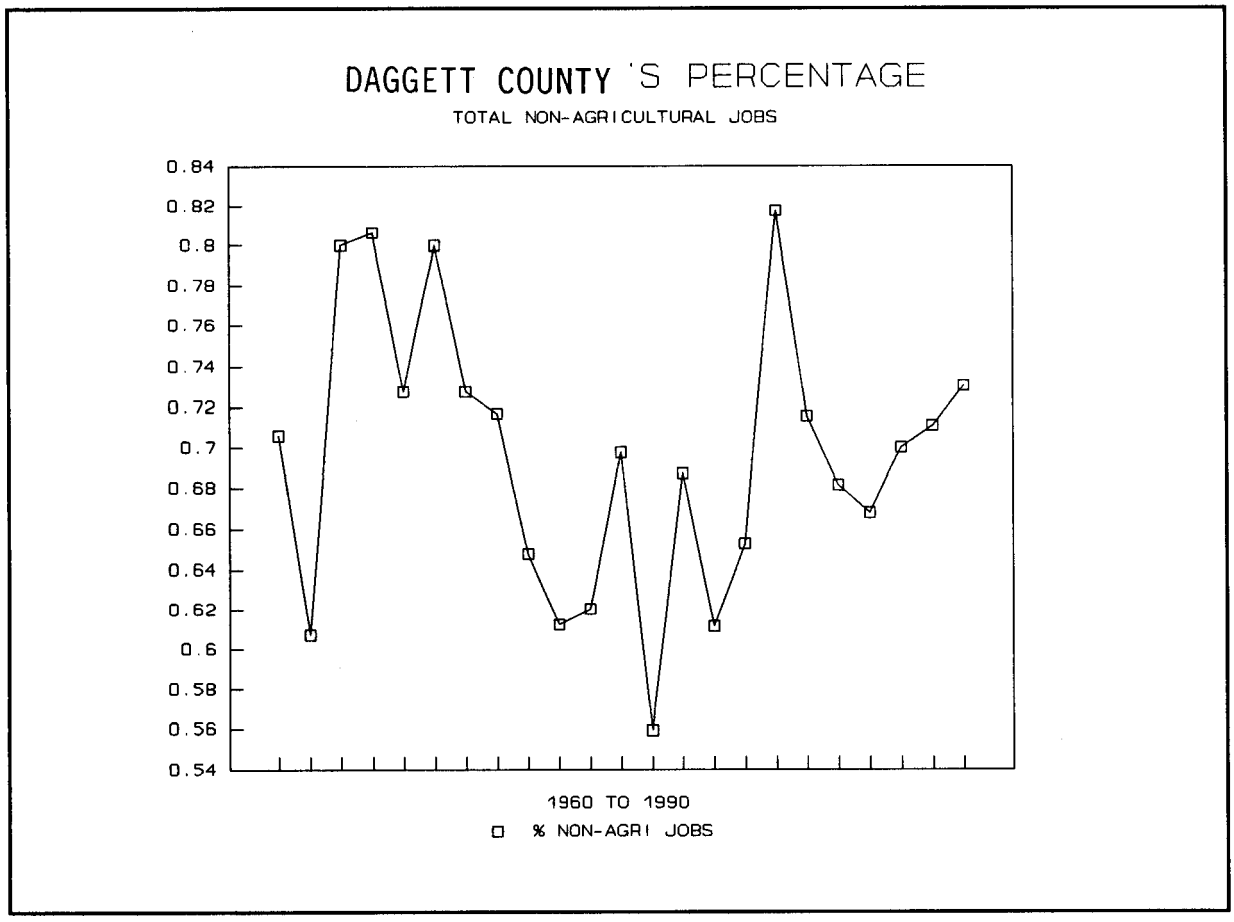
Regression output:

constant	- 1,767.18
Standard error of Y estimate	1,437.39
R^2	.76
Number of observations	23
Degrees of freedom	21
X coefficient	1.43
Standard error of coefficient	.18

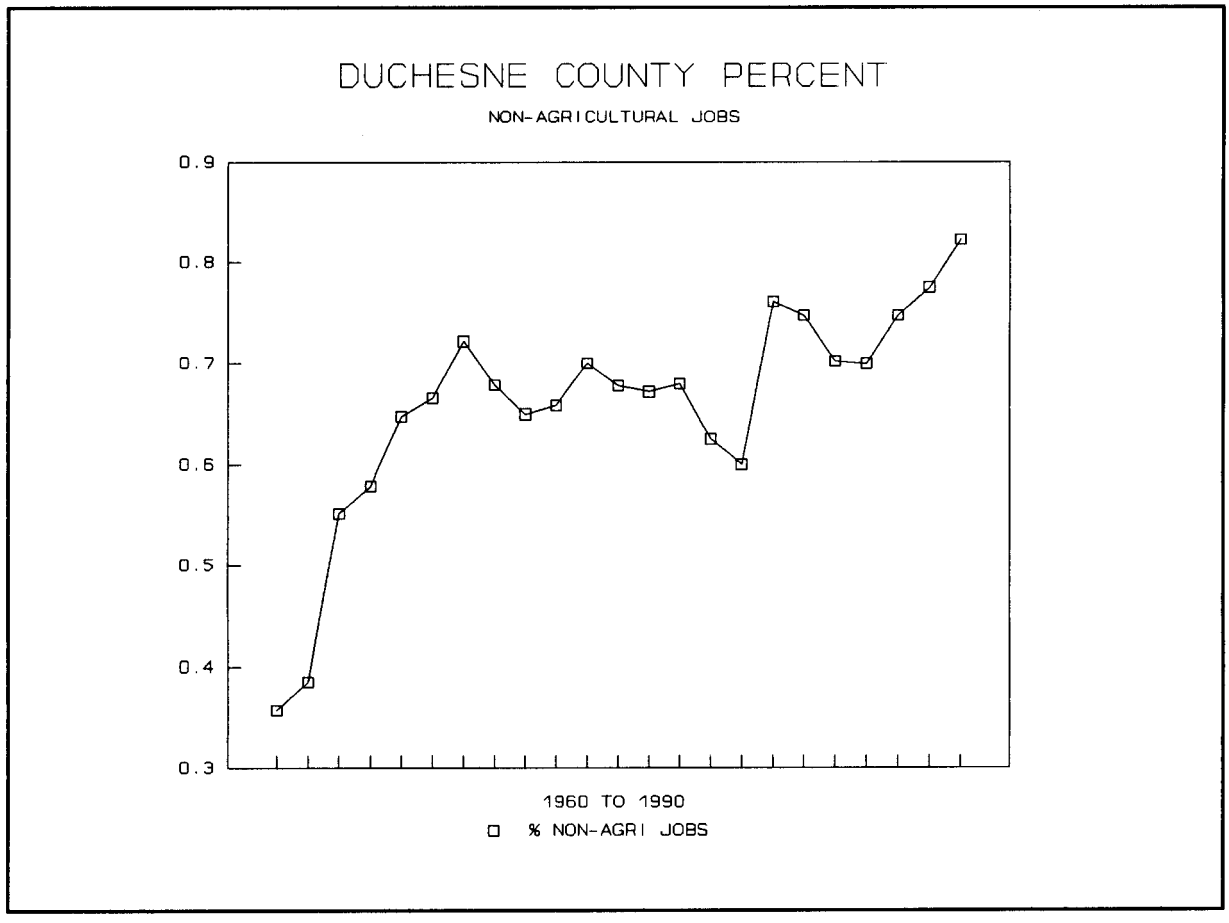
Graph A10-14 - Percentage of Total Non-Agricultural Jobs - State of Utah



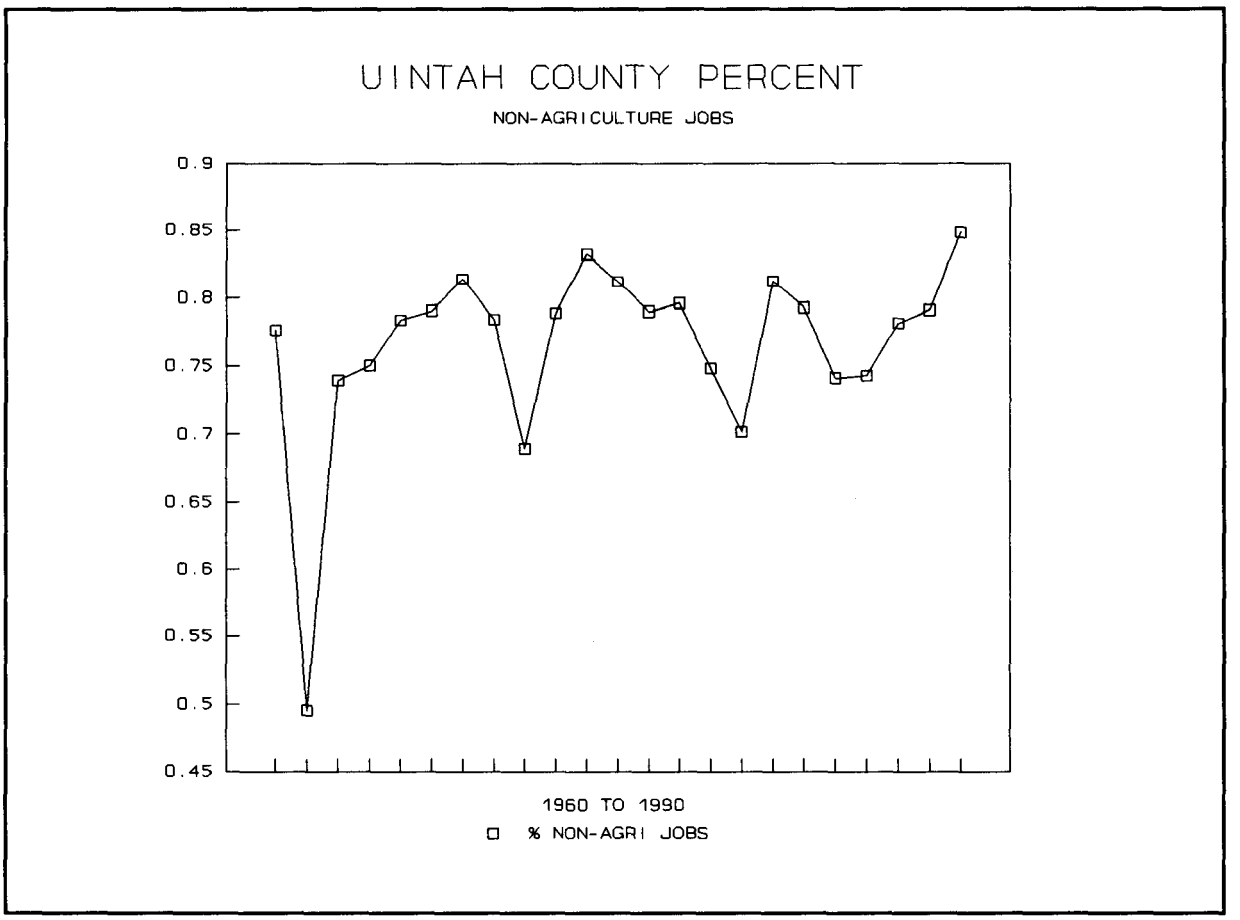
Graph A10-14a - Percentage of Total Non-Agricultural Jobs - Daggett County



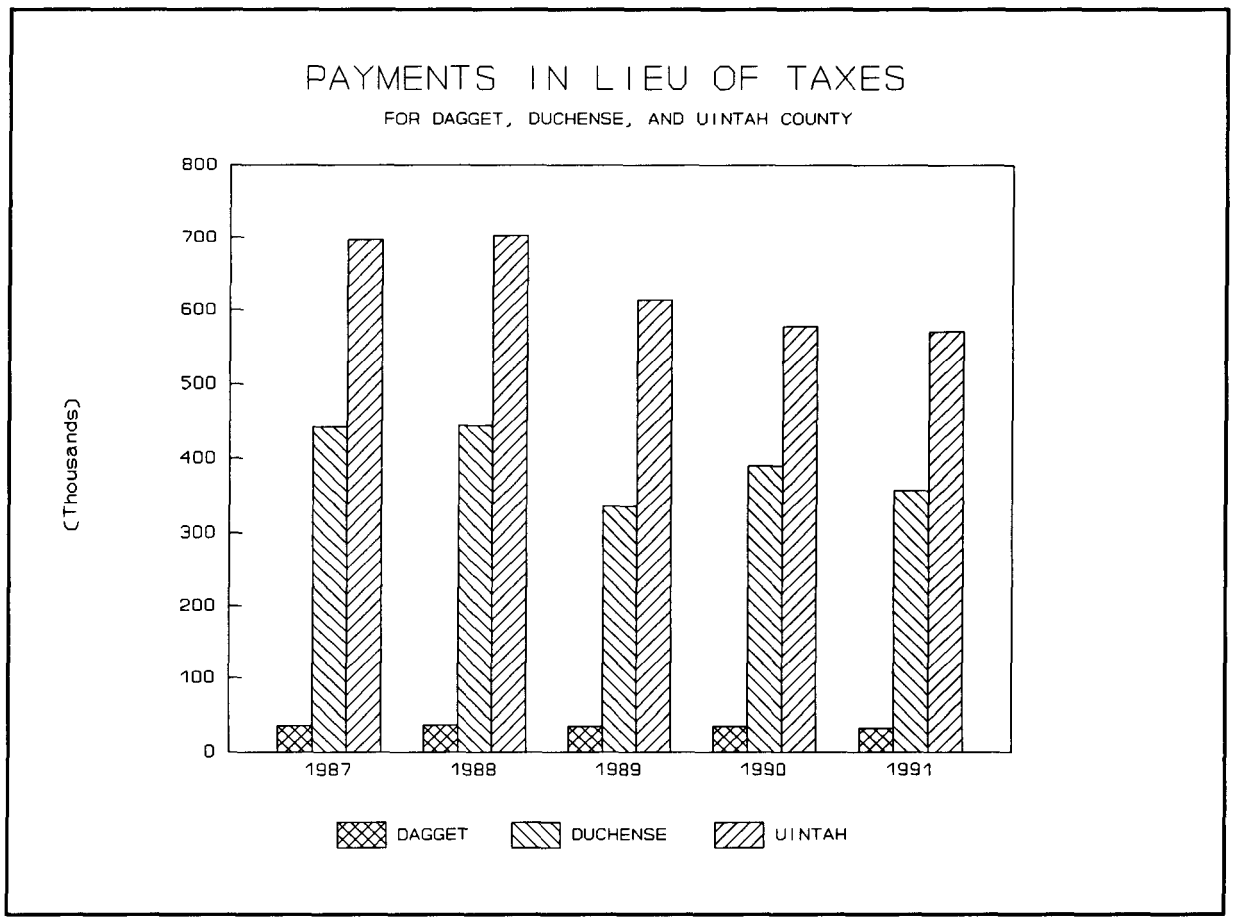
Graph A10-14b - Percentage of Total Non-Agricultural Jobs - Duchesne County



Graph A10-14c - Percentage of Total Non-Agricultural Jobs - Uintah County



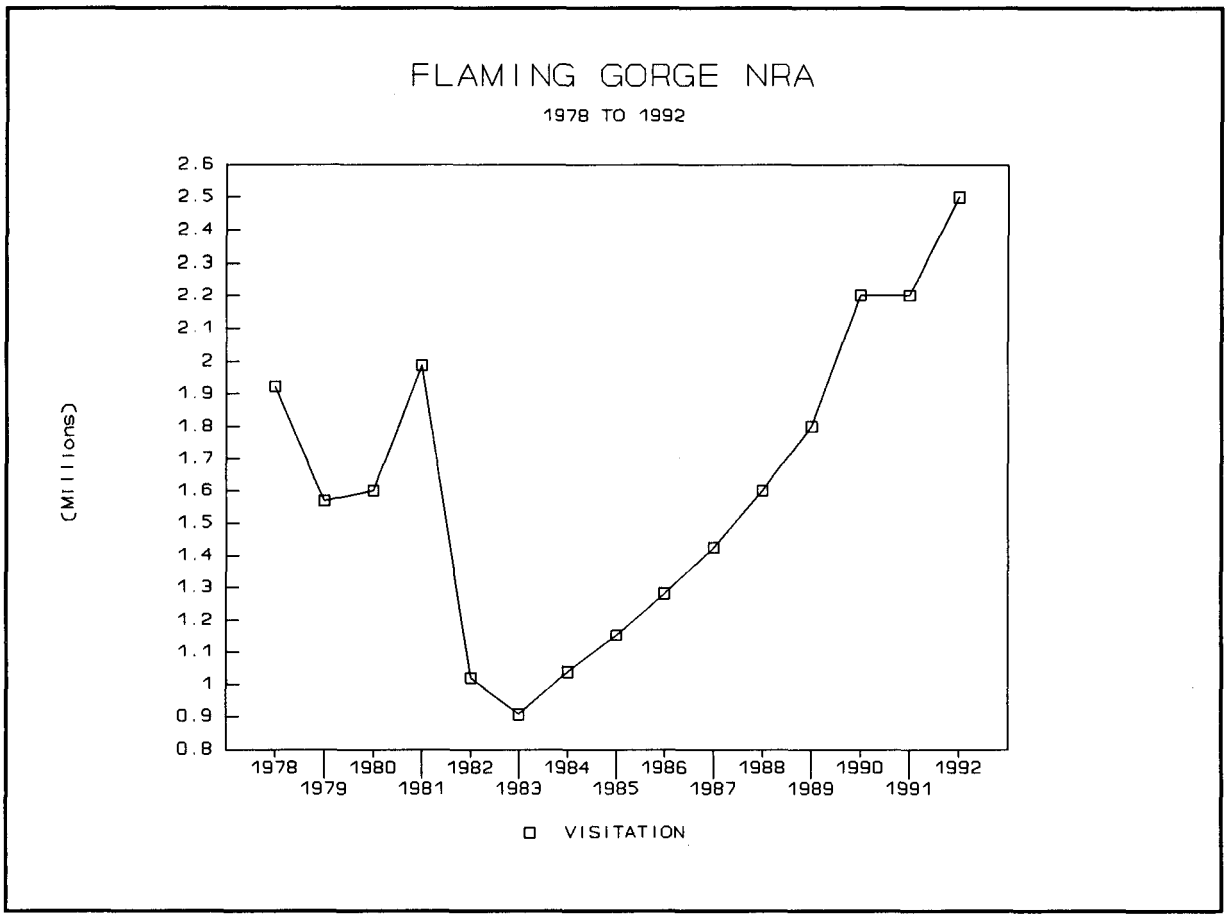
Graph A10-15 - Payments in Lieu of Taxes (PILTs) - Daggett, Duchesne, and Uintah Counties



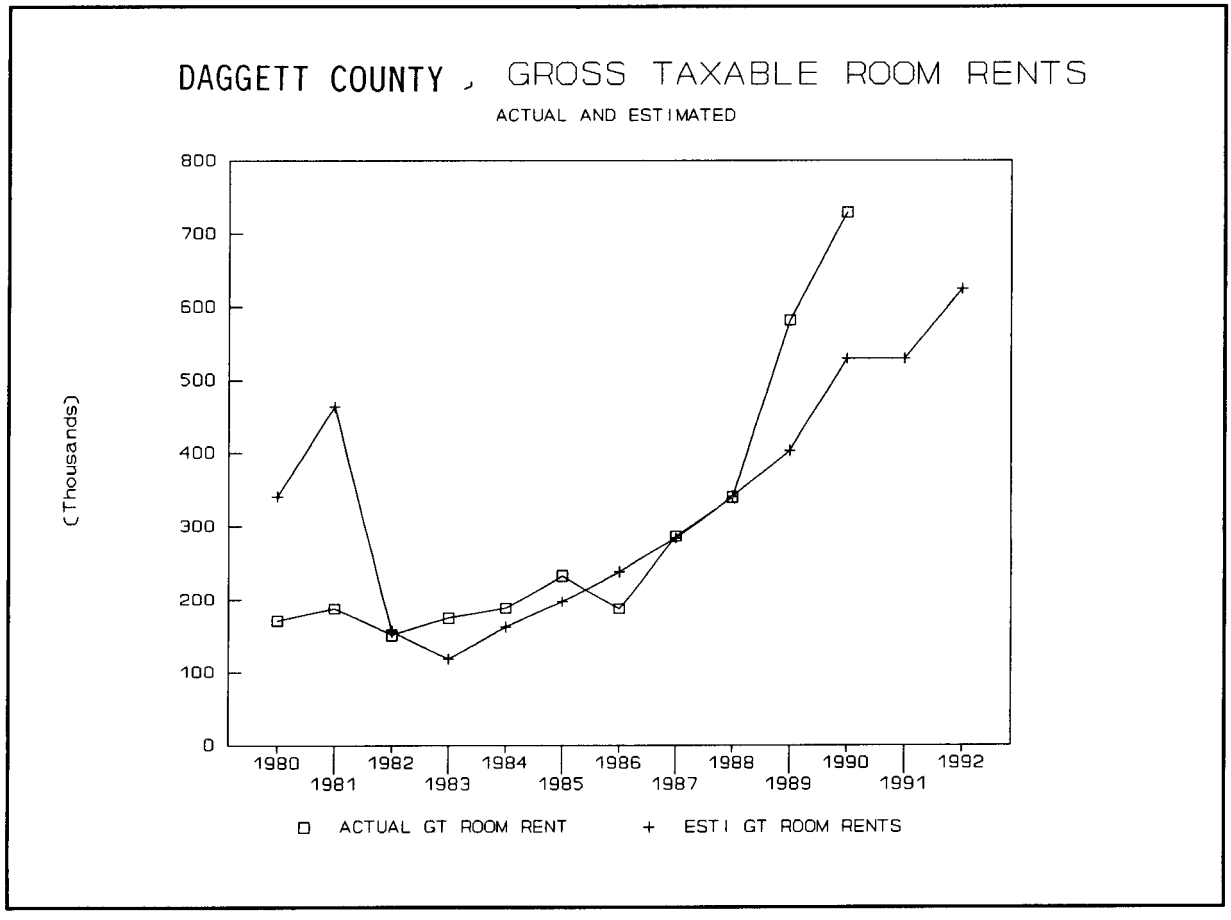
From BLM Facts and Figures for Utah

The above graph displays the fairly stable nature of PILTs as a source of revenue of the counties.

Graph A10-16a - Recreation, Flaming Gorge NRA - Daggett County



Graph A10-16b - Recreation, Gross Taxable Room Rents - Daggett County

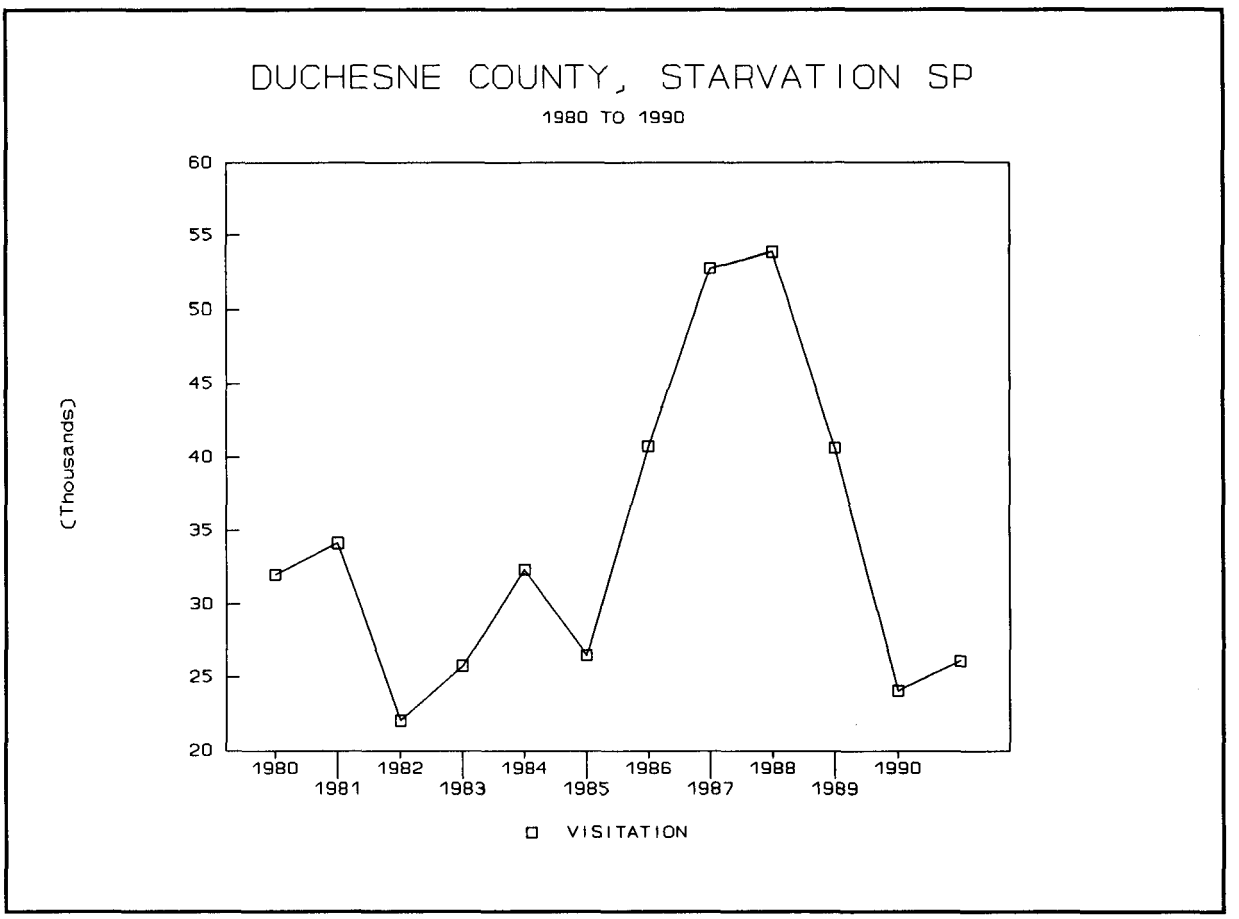


Regression Output: For gross taxable room rents using Flaming Gorge visitation

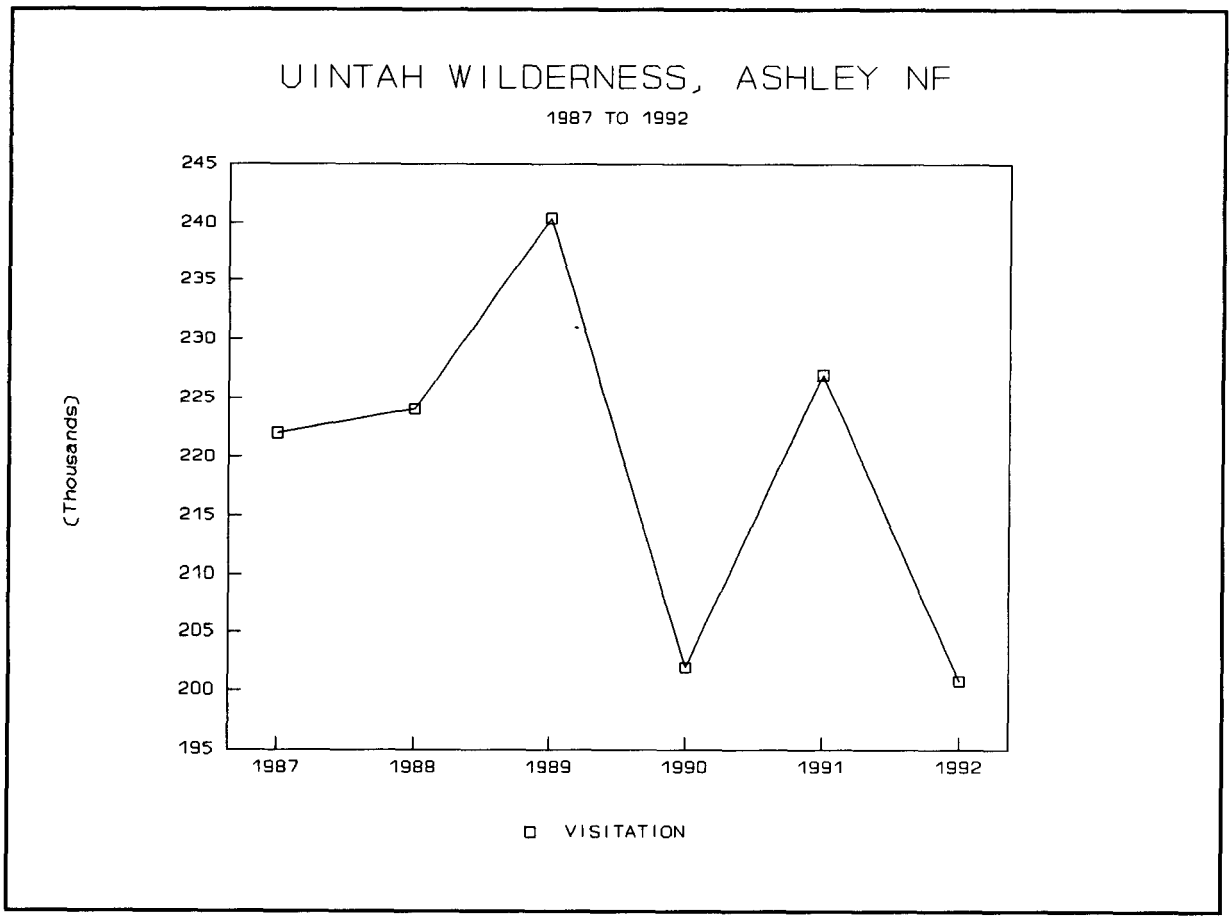
Constant	-167,841.
Standard error of Y estimate	143,000.5
R^2	.49
Number of observations	11
Degrees of Freedom	9
X (independent variable) coefficient	0.316891
Standard error of coefficient	0.107051

The above X coefficient represents Flaming Gorge visitation, which in this case has a positive relationship with actual gross taxable room rents. In other words, when visitation to Flaming Gorge increases so does gross taxable room rents for Daggett County. An R^2 of .49 depicts a relative loose goodness of fit and is illustrated in the above graph comparing actual and estimated gross taxable room rents.

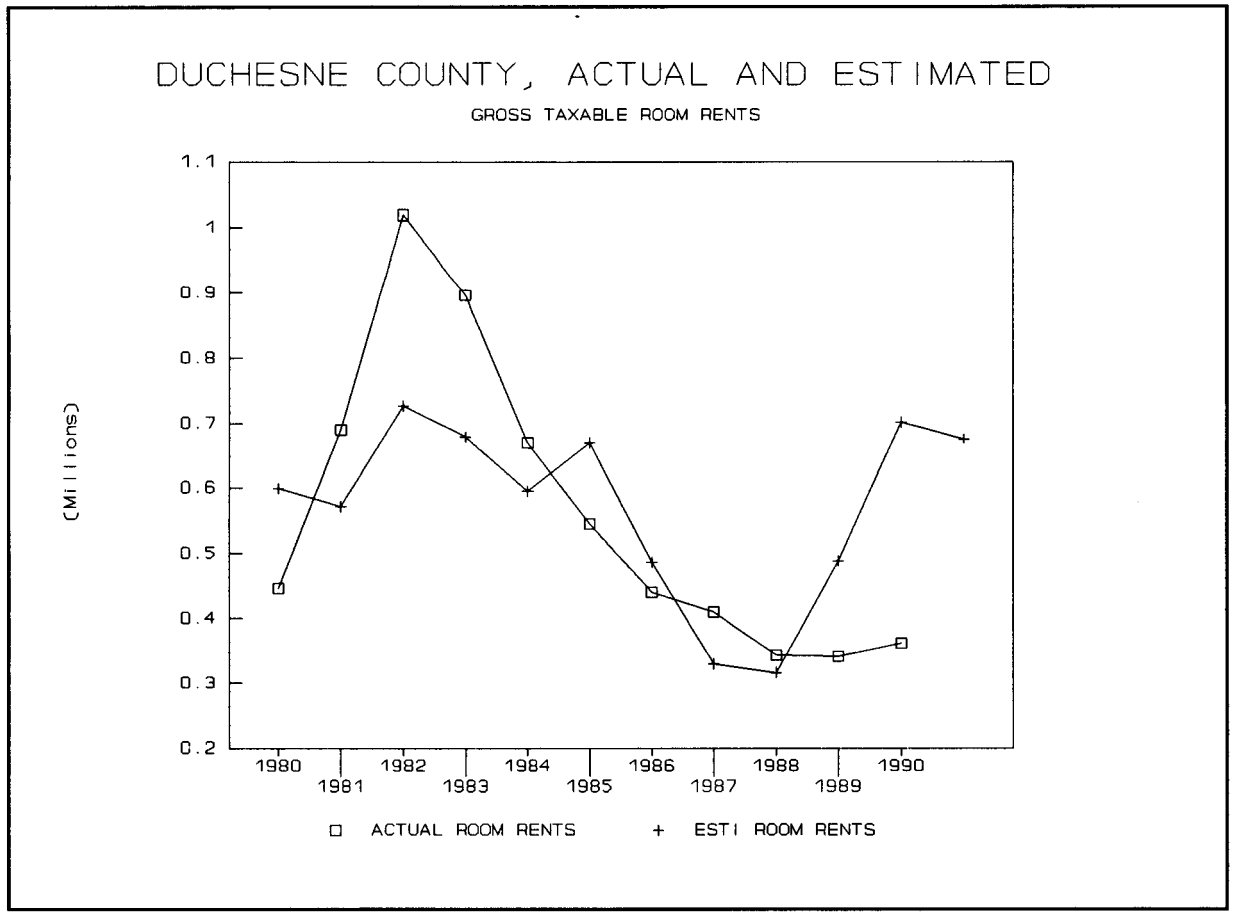
Graph A10-16c - Recreation, Starvation SP - Duchesne County



Graph A10-16d - Recreation, Ashley NF - Uintah County



Graph A10-16e - Recreation, Gross Taxable Room Rents - Duchesne County

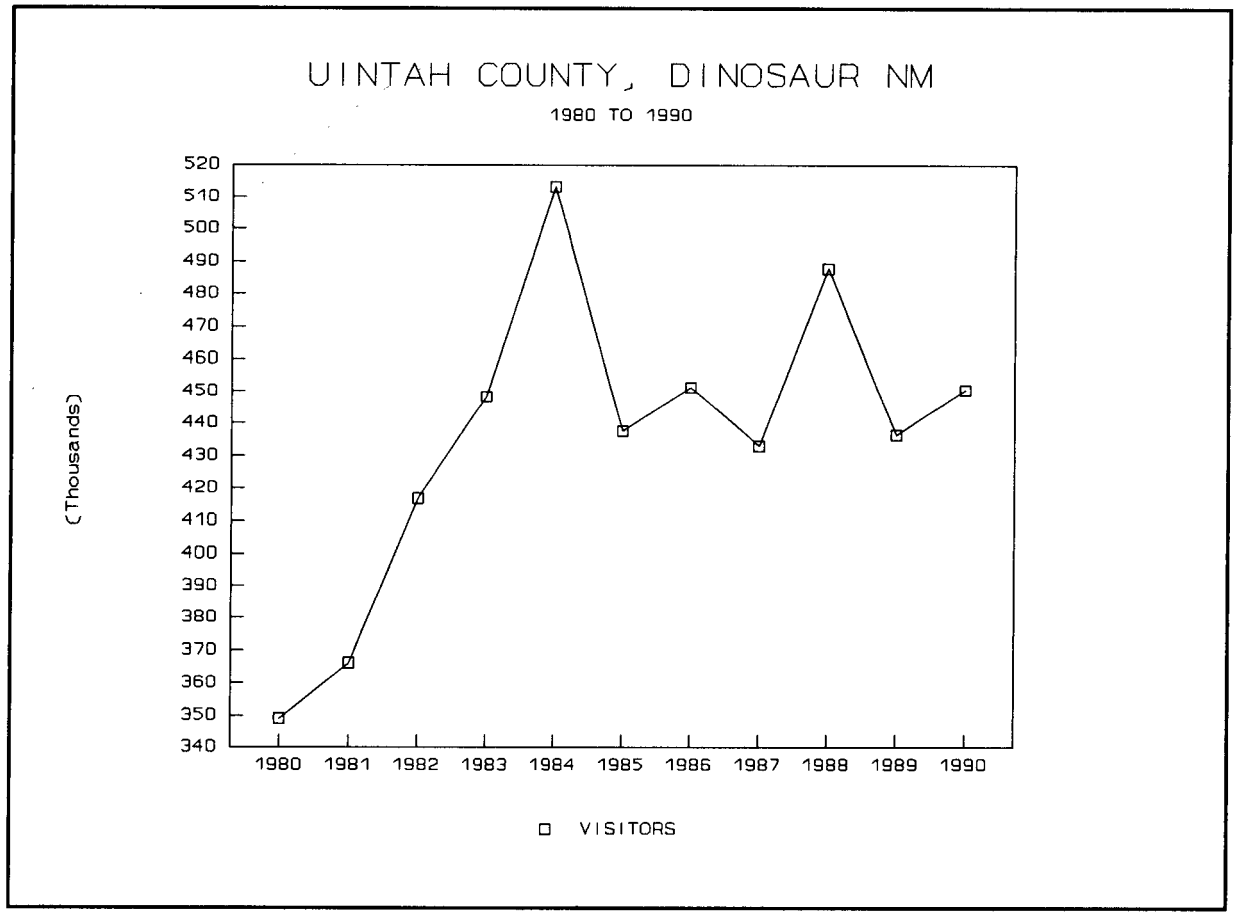


Regression Output: For gross taxable room rents from Starvation SP visitor rates

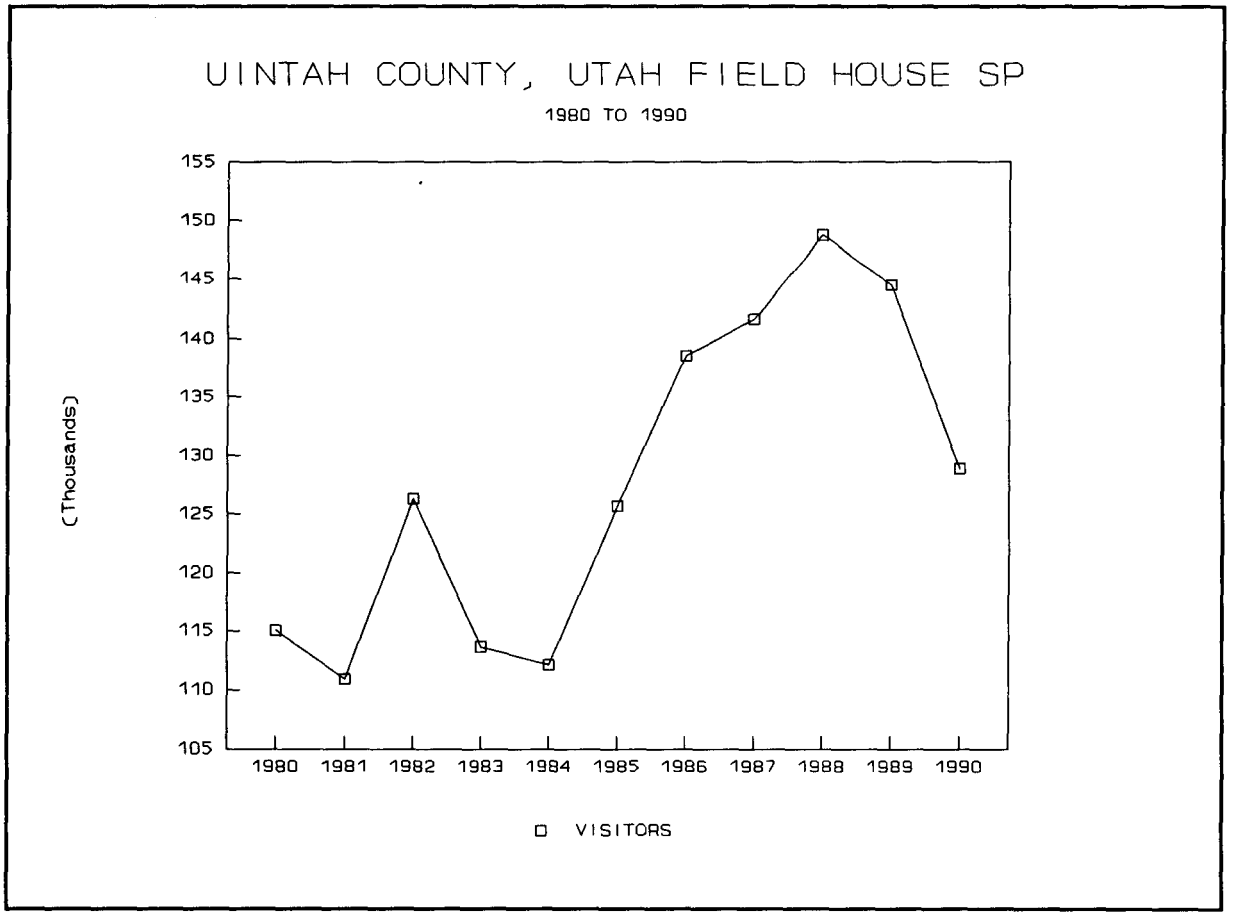
Constant	1,012,408.
Standard Error of Y estimate	193,527.5
R^2	.37
Number of Observations	11
Degrees of Freedom	9
X (independent variable) coefficient	-12.9186
Standard Error of Coefficient	5.588475

Here, unlike Flaming Gorge, Starvation SP visitation has a negative coefficient. Which means as the number of visitors to Starvation SP increases the gross taxable room rents decrease, however the low R^2 illustrates the lack of correlation between the two variables in question. This point is further illustrated in the above graph comparing the actual and estimated gross taxable room rents.

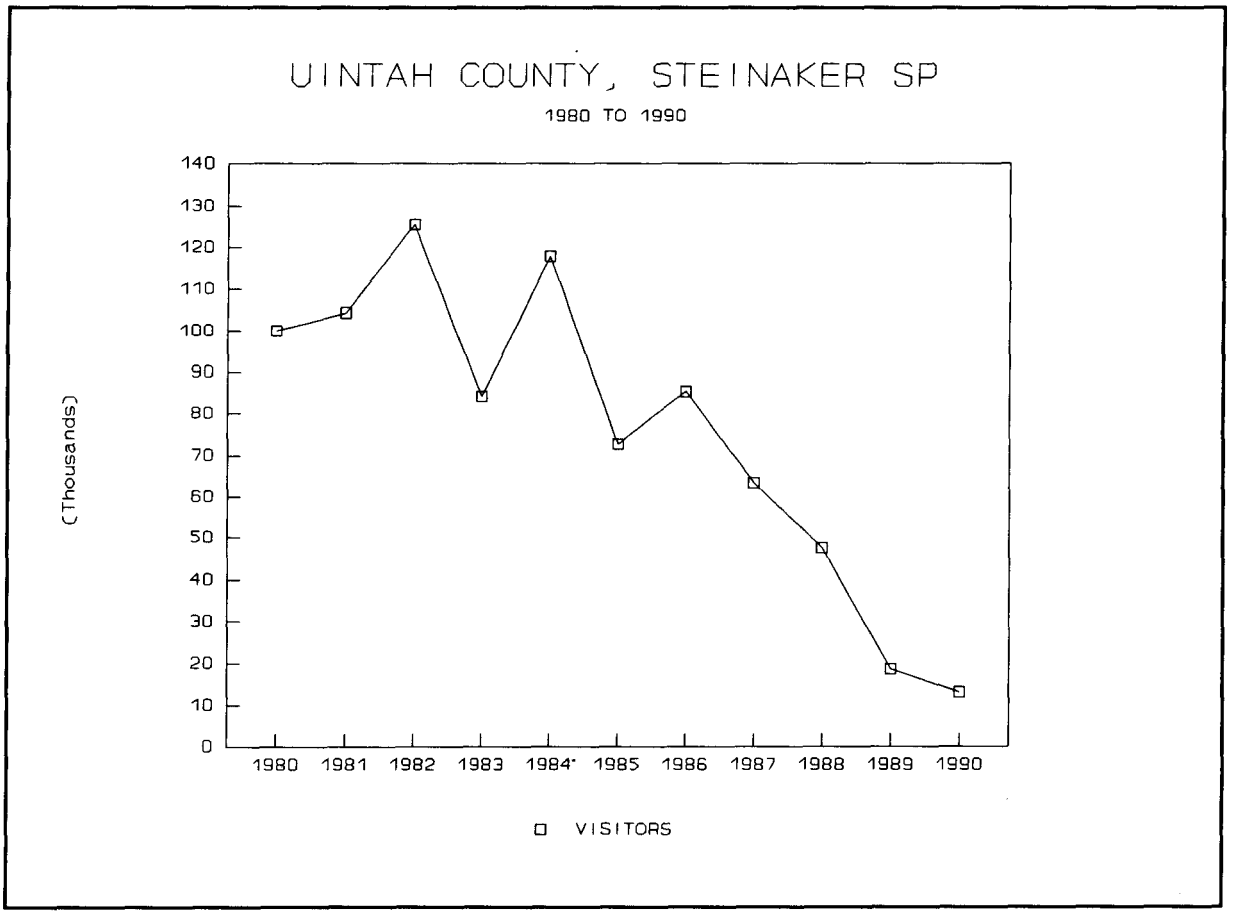
Graph A10-16f - Recreation, Dinosaur NM - Uintah County



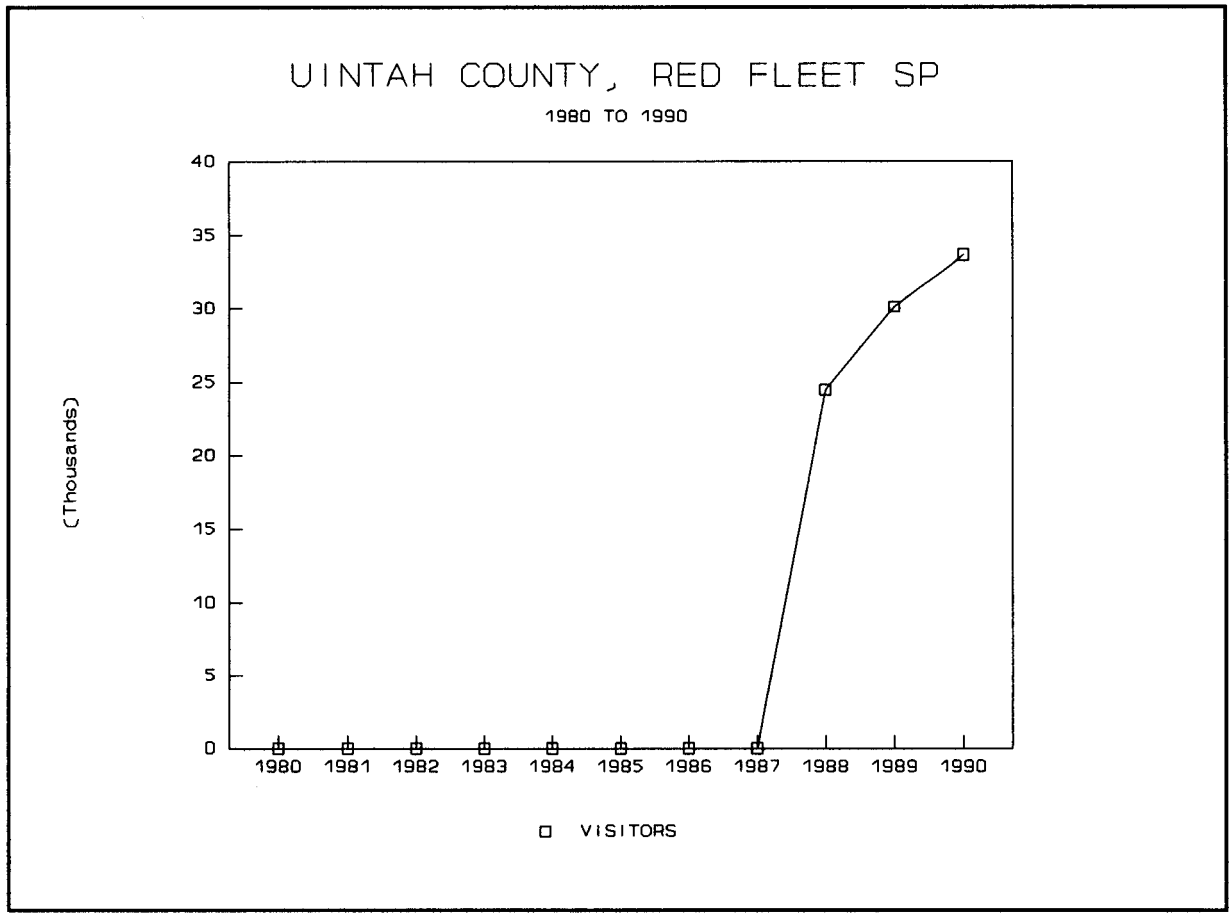
Graph A10-16g - Recreation, Utah Field House SP - Uintah County



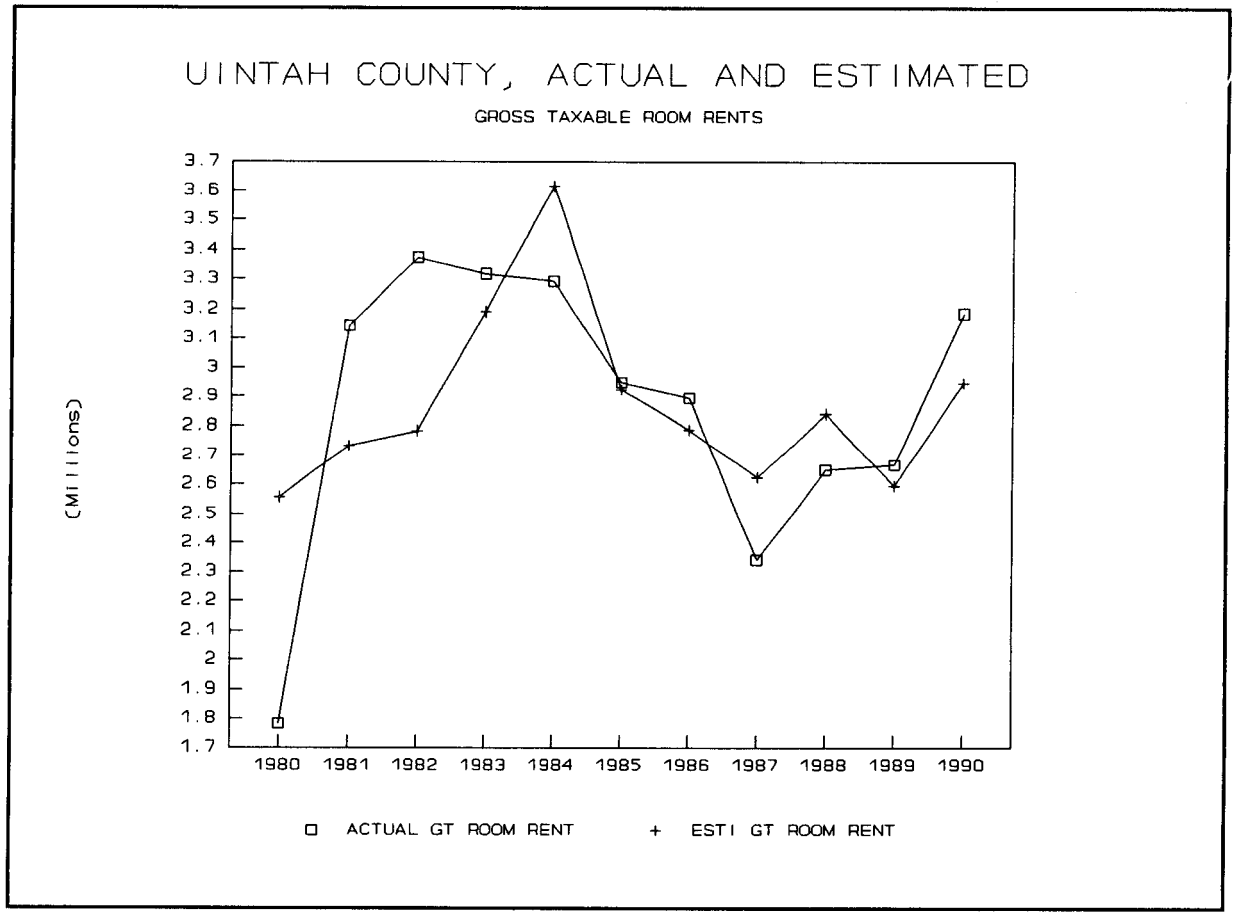
Graph A10-16h - Recreation, Steinaker SP - Uintah County



Graph A10-16i - Recreation, Red Fleet SP - Uintah County



Graph A10-16j - Recreation, Gross Taxable Room Rents - Uintah County



Regression Output: For Uintah County's gross taxable room rents using Dinosaur and Utah Field House

Constant	2,359,743
Standard Error of Y estimate	422,502.3
R^2	.40
Number of Observations	11
Degrees of Freedom	8

X (independent variable) coefficient for Utah Natural History House -16.9663

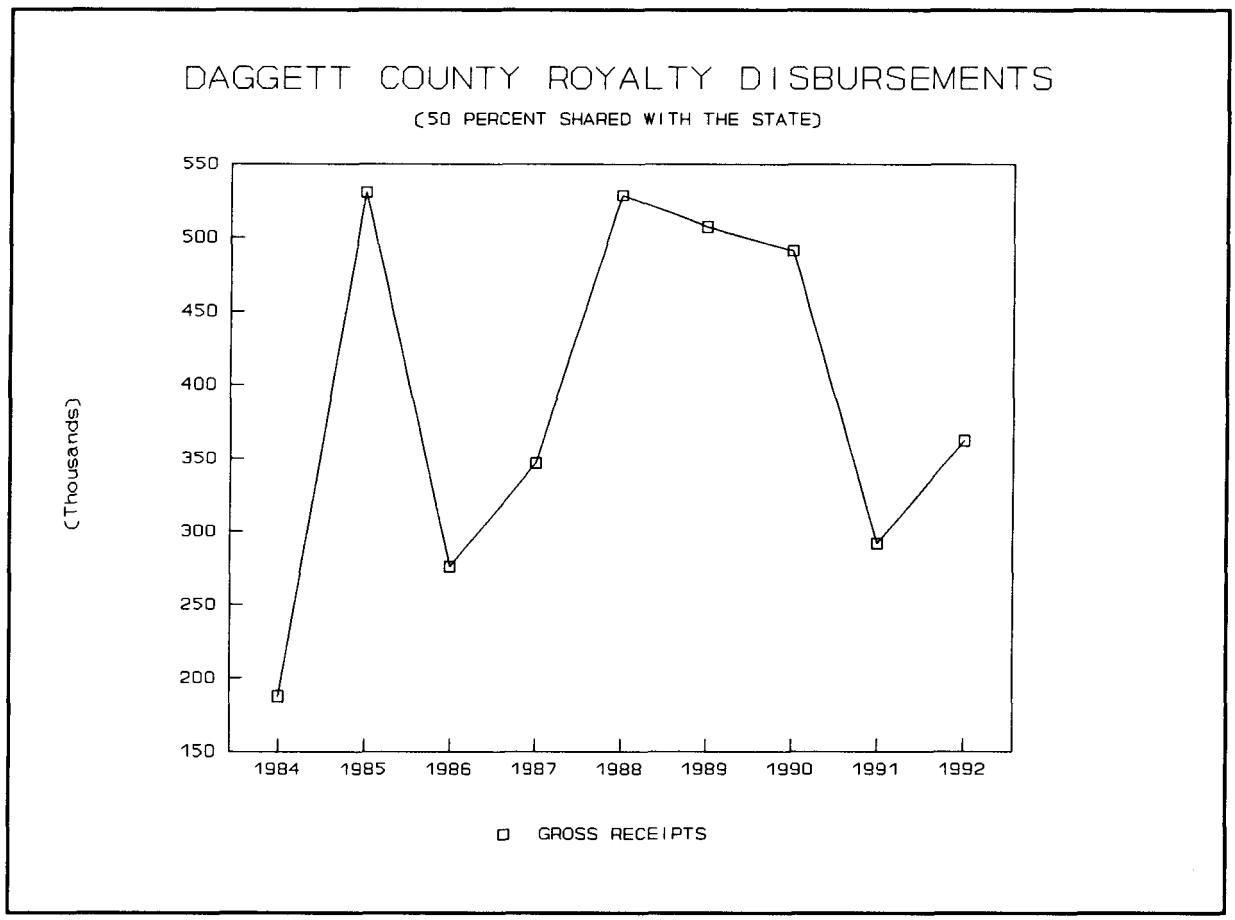
Standard Error of Coefficient 10.19468

X (independent variable) for Dinosaur National Monument 6.154797

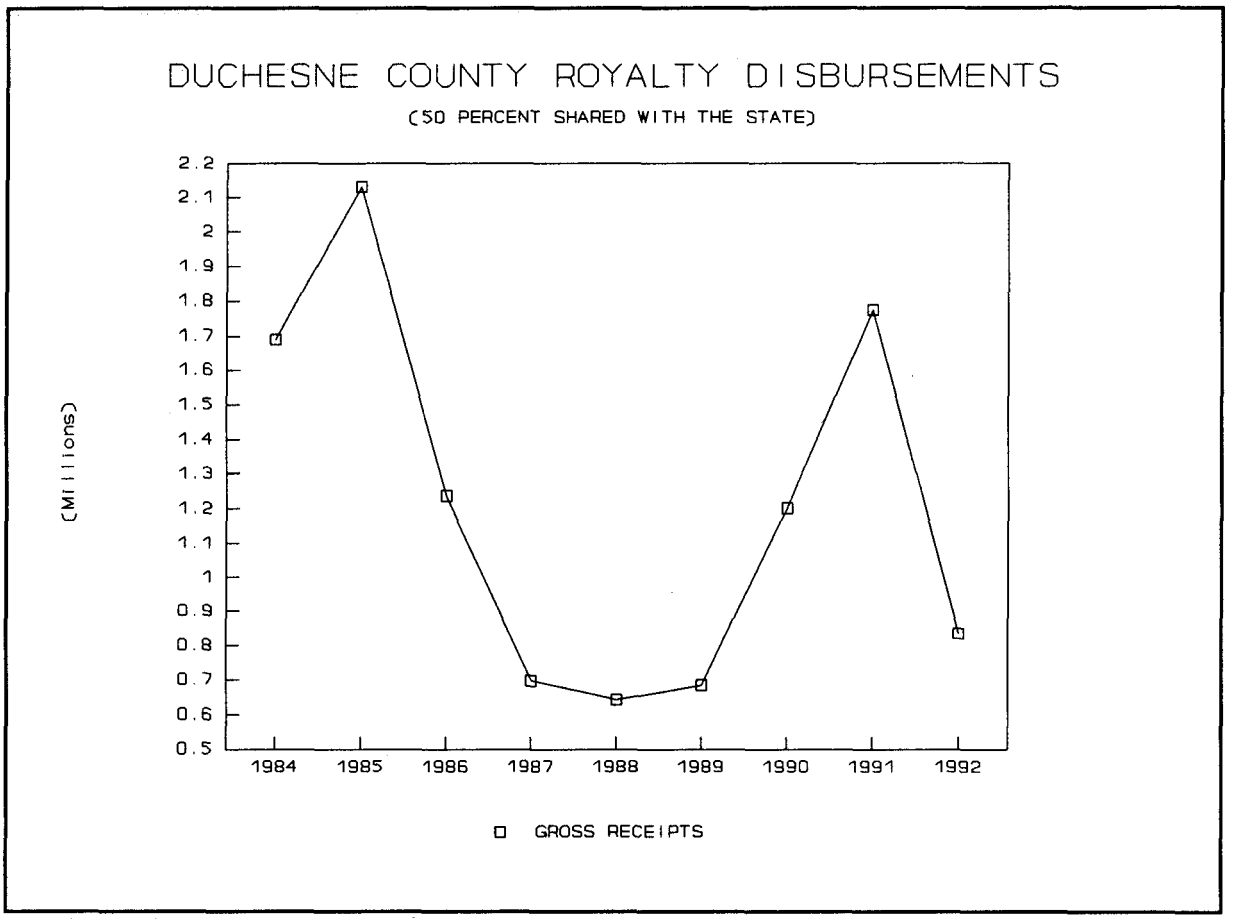
Standard Error of Coefficient 3.014700

Choosing the Utah Natural History House and Dinosaur National Monument as independent variables, the above coefficients show that the Utah Natural History House has a negative and the Dinosaur National Monument has a positive relationship with gross taxable room rents for Uintah County. The R^2 value of .40 shows a rather loose goodness of fit, as illustrated in the above graph with actual and estimated gross taxable room rents.

Graph A10-17a, Royalty Disbursements - Daggett County



Graph A10-17b, Royalty Disbursements - Duchesne County



Graph A10-17c, Royalty Disbursements - Uintah County

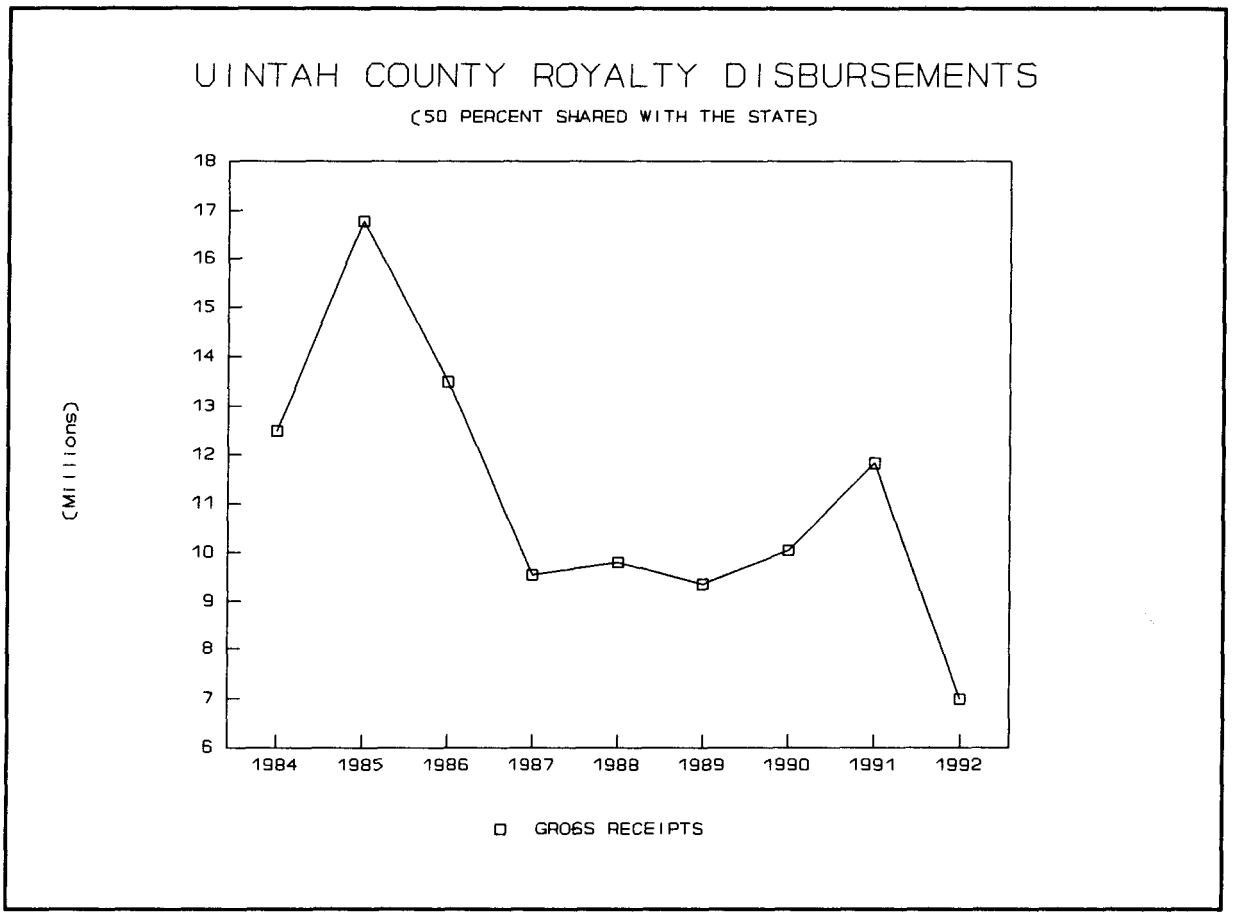


TABLE A10-1:
BLM UTAH LIST OF ECONOMIC VALUES USED
IN ANALYSIS OF PROPOSED PROJECTS - 1990

1990 ECONOMIC VALUES		
ACTIVITY	**UNITS**	**VALUE/UNIT**
Livestock Average	AUM	$9.91
Livestock Seasonal	AUM	$9.91
Deer Hunting	HD	$40.52
Elk Hunting	HD	$40.52
Antelope Hunting	HD	$40.52
Other Big Game Hunting	HD	$40.52
Waterfowl Hunting	HD	$24.84
Upland & Small Game	HD	$24.84
Warm Water Angling	AD	$14.38
Cold Water Angling	AD	$14.38
Developed Site Recreation	AD	$6.54
Dispersed Site Recreation	AD	$11.76
Non Game Wildlife Viewing	AD	$23.53
Permittee Labor Cost	Day	$51.05
BLM Labor Cost	Day	$148.84
Other:		
Sedimentation (Colorado River)	Ton	$0.07
Sedimentation (Structures)	Ton	$3.92
Salinity	Ton	$65.36

Source: BLM Information Bulletin UT 92-15

References:

Federal Reserve 91. Federal Reserve Bank of St. Louis, National Economic Trends: Implicit Price Deflator for the Gross National Product; June 1991; St. Louis, MO.

Sorg & Loomis. Sorg, Cindy F. and John B. Loomis; Empirical Estimates of Amenity Forest Values: A Comparative Review; U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station; Technical Report RM-107 Ft. Collins, CO; March 1984.

U.S.D.I. 1980. Colorado River Salinity Economic Impacts on Agricultural, Municipal, and Industrial Users. U.S. Department of the Interior, Bureau of Reclamation. Denver CO.

USDA 90. U.S. Department of Agriculture, National Agricultural Statistics Service; 1990 June Livestock Enumerative Survey.

USDA 86. U.S. Department of Agriculture, U.S. Forest Service; Final Environmental Impact Statement 1985-2030 Resources Planning Act Program; October 1986, Washington DC.

UTAH 91. Utah Department of Agriculture; Utah Agricultural Statistics 1990, Salt Lake City, UT.

TABLE A10-2:
ESTIMATED RANGELAND IMPROVEMENT COSTS, INCLUDING LABOR

RANGELAND IMPROVEMENT	ESTIMATED COST PER UNIT*
Fence	$ 4,000/mile
Pipeline	$ 4,500/mile
Guzzler, fenced	$12,000/each
Guzzler, antelope	$ 4,000/each
Reservoirs, 2 acre-foot capacity	$ 1,500/each
Spring Development	$ 3,000/each
3-Way Exclosure	$ 9,000/each
Vegetation Treatment:	
Chaining, with seeding	$ 75/acre
Burning, with seeding	$ 30/acre
Burning, without seeding	$ 3/acre
Chemical treatment	$ 15/acre
Contour furrow with seeding	$ 35/acre
*1992 dollar values	

Source: Vernal District Files

GLOSSARY

The following abbreviations are used in this RMP. Those abbreviations representing terms are defined in this glossary.

ACEC	Area of critical environmental concern
ADC	Animal damage control
AIRFA	American Indian Religious Freedom Act, 1978
AMP	Allotment management plan
APD	Application for permit to drill
ARPA	Archeological Resources Protection Act, 1979
AUM	Animal unit month
BLM	Bureau of Land Management
BMP	Best management practices
BOP	Barrels of oil per day
BWPD	Barrels of water per day
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act, 1980
CFR	Code of Federal Regulations
CHL	Combined hydrocarbon lease
CRMP	Coordinated resource management plan
DMRA	Diamond Mountain Resource Area
EA	Environmental assessment
EIS	Environmental impact statement
EO	Executive Order
EPA	Environmental Protection Agency
ERMA	Extensive recreation management area
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FR	Federal Register
GIS	Geographic information system
HMP	Habitat management plan
IMP	Interim management policy
KPLA	Known phosphate leasing area
MCFPD	Thousand cubic feet per day
MFP	Management framework plan
MIS	Management indicator species
MSA	Management situation analysis
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act, 1966
NFDRS	National fire danger rating system
NRHP	National Register of Historic Places
NSO	No surface occupancy
OHV	Off-highway vehicle
PRIA	Public Rangeland Improvement Act
R&PP	Recreation and Public Purposes Act
RCRA	Resource Conservation & Recovery Act, 1976
RMP	Resource management plan
ROD	Record of Decision
ROS	Recreation opportunity spectrum
SHPO	State Historic Preservation Officer
SRMA	Special recreation management area
SCS	Soil Conservation Service
STSA	Special tar sands area
UARC	Utah Air Conservation Regulations
UBEDC	Uinta Basin Economic Development Council
UDWR	Utah Division of Wildlife Resources
USDI	United States Department of the Interior
USF&WS	United States Fish and Wildlife Service
VRM	Visual resource management
WA	Wilderness Areas
W&SR	Wild & Scenic Rivers
WSA	Wilderness study area

ACCELERATED SOIL EROSION: Erosion which is more rapid than normal, natural or geologic erosion resulting from the destruction of vegetation cover by human activities and sometimes natural catastrophes such as wildfire.

ACQUIRED LANDS: Lands in federal ownership which were obtained by the government through purchase, condemnation, gift, or exchange.

ACRE-FOOT: The volume of material or water that will cover an area of one (1) acre to a depth of one (1) foot (43,560 cubic feet or 325,851 gallons).

ACTIVITY PLAN: A detailed, site-specific plan generally for management of a single resource program or

plan element undertaken as necessary to implement the more general RMP decisions.

ALLOTMENT MANAGEMENT PLAN (AMP): A livestock grazing activity plan for a specific allotment based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the rangelands and in relation to renewable resources (i.e., watershed, vegetation and wildlife). An AMP establishes the seasons of use, number of livestock to be permitted on the allotment and the rangeland developments needed.

ALLUVIAL: Relating to or formed by water carrying and depositing rocks, soils, and other materials.

ALTERNATIVE: Different ways of addressing the planning issues and management activities considered in this RMP. These serve to provide the decision maker and the public a clear basis for choices among the options.

ANIMAL DAMAGE CONTROL (ADC): An interagency program mandated to protect human health and safety as well as agricultural and other resources from damage caused by wildlife. The primary focus of animal damage control in DMRA centers on the predation of domestic livestock, particularly sheep. However, other areas of concern deal with the occasional population flareups of rodents that may pose a risk to human health or physical damage to agricultural crops.

ANIMAL UNIT MONTH (AUM): The amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month. Applied to both livestock and wildlife species.

APPRAISED VALUE OR APPRAISED PRICE: Synonymous with fair market value. The amount of money specified as the minimum acceptable bid in the public notice ordering lands into the market. The determination of appraised value or appraised price is made by experienced, trained appraisers within the BLM staffs, or by contract using standard appraisal practices.

AQUIFER: An underground body of rock or similar material capable of storing water and transmitting it to wells or springs.

ARCHEOLOGICAL DENSITY AREAS: Areas where the probability of encountering significant cultural resource sites is high, moderate, or low. Such distinctions were based on extrapolation from existing resource area data.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC): An area within the public lands where special management attention is required to protect important historic, cultural, or scenic values; fish and wildlife, or natural systems or processes; or, to protect life and safety from natural hazards.

AVOIDANCE AREA: An environmentally sensitive area where rights-of-way would be granted only in cases where there is a prevailing need and no practical alternative location exists, and then only with appropriate provisions to protect the sensitive environmental components.

BACK-COUNTRY BYWAYS: Back country roads and vehicle trails BLM has designated and promotes for their high scenic and public interest values. As part of the National Scenic Byway System, back-country byways vary from single-track bike trails to narrow, low speed, paved roads, often requiring the use of a 4-wheel drive vehicle.

BEST MANAGEMENT PRACTICES (BMP): A practice, or combination of practices, determined by a state government or a designated planning agency to be the most effective, practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

BIODIVERSITY: A general term referring to an extremely complex ecological issue, relating to the fundamental ecological concepts popularly stated as "everything is connected to everything else." Emerging concern about biodiversity reflects an empirically-based recognition of the fundamental interconnections within and among various levels of ecological organizations. Ecological organization, and therefore biodiversity, is a hierarchically arranged continuum; a reduction of diversity at any level will have effects on the other levels.

BIOLOGICAL CONTROL: The use of natural enemies or agents, including but not limited to certain livestock species (e.g. goats), to attack a target plant, retard growth, prevent regrowth, or prevent seed formation.

BLACK-FOOTED FERRET REINTRODUCTION AREA: Area currently occupied by black-footed ferrets that have met USF&WS minimum suitability standards of size (1000+ acres) and a low incidence of disease (canine distemper and sylvatic plague).

CANDIDATE SPECIES: An animal or plant that may be designated threatened or endangered in the near

future. This status offers no legal protection under the Endangered Species Act of 1973. However, current Bureau policy does direct management consistent with multiple use for conservation of candidate species and their habitats, ensuring that Bureau-approved actions do not contribute to the need to list these species.

Category 1: Plant or animal species for which the USF&WS currently has on file substantial information to support a proposal to list as threatened or endangered.

Category 2: Plant or animal species for which current information indicates that a proposal to list as threatened or endangered is possibly appropriate, but for which more information is needed to support a listing proposal.

Category 3: Plant or animal species that have proven to be more abundant or widespread than previously believed and/or those that are not subject to any identifiable threat.

PT: Plant or animal species already proposed to be listed as threatened.

CARRYING CAPACITY (RECREATION): The maximum number of people at one time that an area or facility can accommodate without impairing the natural, cultural, or developed resource.

CARRYING CAPACITY (VEGETATION): The maximum number of animals possible without inducing damage to vegetation or related resources such as watershed. Normally expressed in terms of acres per AUMs, or sometimes referred to as the total AUMs available in any given area, such as a grazing allotment or herd unit.

CASUAL USE: Activities ordinarily resulting in no appreciable disturbance of public lands, resources, or improvements; for example, activities that do not involve the use of mechanized earth-moving equipment or explosives, or in areas designated as closed to OHVs, do not involve the use of motorized vehicles.

CATEGORICAL EXCLUSION: A category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by BLM in implementation of the regulations and for which, therefore, neither an EA nor EIS is required.

CLASSIFICATION OF LANDS: The process of determining whether the lands are more valuable or suitable for transfer or use under particular or various public land laws than for retention in federal ownership for management purposes.

CLIMAX VEGETATION: The final natural vegetation community that emerges after a series of successive vegetation stages. Such a community can perpetuate itself indefinitely, unless disturbed by outside forces or influences.

CLOSURES TO LEASING:

Discretionary: Lands where BLM has determined that energy and/or mineral leasing, entry, or disposal would not be in the public interest.

Nondiscretionary: Lands specifically closed to energy and/or mineral leasing, entry, or disposal by law, regulation, a Secretary of Interior decision, or Executive Order.

COAL BED METHANE GAS: Gas produced from fractured coal seams which are buried at depth. The coal seams act not only as the source of the gas generated, but also act as the reservoir which stores the gas.

COLOR: A visual element considered in determining a visual resource management class that determines how the character of a landscape is perceived, specifically the reflected light of different wave lengths that enables the eye to differentiate otherwise identical objects. Refer also to form, line and texture.

COMBINED HYDROCARBON LEASE (CHL): A lease issued in a Special Tar Sands Area (STSA) for the removal of all conventional and nonconventional hydrocarbon substances other than coal, oil shale, or "Gilsonite".

COMMUNICATION SITE: An area of public land granted to an applicant under authority contained in FLPMA and its regulations, to be used for a communication structure or facility.

COMMUNITIZATION AGREEMENT: An agreement formed between more than one operator based upon an approved unit (spacing or drilling) which encompasses more than one lease.

COMMUNITY: A groups of plants and animals living together in a common area and having close interactions.

CONDITION OF APPROVAL (COA): Conditions or provisions (requirements) under which an Application for a Permit to Drill or Sundry Notice is approved.

CONTROLLED SURFACE USE: Use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for the NSO or Timing stipulations.

COORDINATED RESOURCE MANAGEMENT PLAN (CRMP): A plan for management of one or more grazing allotments that involve all the affected resources, e.g., range, wildlife, watershed, minerals, recreation.

CORD (OF WOOD): A unit of measure of wood volume. A cord is the amount of cut logs or wood in a stack measuring 4 by 4 by 8 feet.

CORRIDOR: A strip of public land forming a passageway between two points in which transportation and/or utility systems exist or may be located. A designated corridor is the preferred location for existing and future right-of-way grants that has been identified by law, by Secretarial Order, through land use planning, or by other management decision.

CRITERIA (PLANNING): The standards or rules and other factors developed by the manager and interdisciplinary team for their use in forming judgments about decision making, analysis, and data collection during planning.

CRITICAL SOILS: Soils that contain very high saline soils and/or are highly susceptible to water erosion.

CRITICAL HABITAT: Any air, land, or water area, including elements thereof, which have been determined (and published in the Federal Register) to be essential to the survival of wild populations of an endangered or threatened species or to be necessary for their recovery to a point at which the measures provided pursuant to the ESA are no longer necessary.

CRUCIAL HABITAT: Rangeland on which a wildlife or plant species not federally listed as threatened or endangered depends for survival. No alternative suitable habitat is available because of some site limiting factor(s).

CULTURAL RESOURCE: The fragile and nonrenewable remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in human events. These resources consist of physical remains, areas where significant human events occurred even though evidence of the event no longer remains, and the environment immediately surrounding the resource. Synonymous with archeological resources.

CUMULATIVE IMPACTS: Additional and interactive combinations of activities that are not necessarily individually qualitatively different, but together require different management techniques and applications. Cumulative impacts occur when there are multiple infringements on the same values.

DESIGNATED ROAD: Those roads designated for OHV travel which are approved in the RMP.

DESIGNATION: The official identification and naming of a general area or site on public land. Lands may be designated when they are either (1) withdrawn, (2) given special status by act of Congress, or (3) established by an approved land use plan.

DIRECTIONAL DRILLING: Drilling at an angle from the vertical to reach subsurface areas not directly under the wellbore. Such drilling is used to reach a subsurface area beneath a No Surface Occupancy lease.

DISCRETIONARY: Any action which the BLM has authority to either approve or deny.

DISPOSAL WELL: A well used for the disposal of salt water. The water is pumped into a subsurface geologic formation sealed off from other formations by an impervious layer of rock. The quality of water pumped into the subsurface formation is of equal or better quality than the water occurring naturally in the formation.

ECOLOGICAL CONDITION: The present state of vegetation of an ecological site in relation to the potential natural plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants presently in a plant community resemble that of the potential natural community. The terms "early", "mid', "late",

and "climax" are used to describe the present vegetation community relative to its natural potential.

ECOSYSTEM: A complex self-sustaining natural system which includes living and nonliving components of the environment and the circulation of matter and energy between organisms and their environment.

EFFECTS: Synonymous with impacts.

ENDANGERED SPECIES: An animal or plant species whose prospects of survival and reproduction are in immediate jeopardy and in danger of extinction throughout all or a significant portion of its range, as defined by the USF&WS under the authority of the Endangered Species Act of 1973, as amended.

ENVIRONMENTAL ASSESSMENT (EA): The procedure for analyzing the impacts of some proposed action on a given environment and the documentation of that analysis. An EA is similar to an environmental impact statement (EIS) but is generally smaller in scope. An EA may be preliminary to an EIS.

ENVIRONMENTAL IMPACT STATEMENT (EIS): The procedure for analyzing the impacts (both beneficial and adverse) of a proposed action on a given environment, and the documentation of that analysis.

EPHEMERAL STREAM: A stream that flows only briefly after a storm or during snowmelt.

ERODIBLE SOIL: The accelerated wearing away of the soil and surface by running water, wind, ice or other geological agents on slopes greater than 40 percent and lacking in sufficient vegetation cover to retard natural erosion processes.

EXCEPTION: Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria applies.

EXCHANGE: A trading of public lands (surface and/or subsurface estates) that usually do not have high public value, for lands in other ownerships which do have value for public use, management and enjoyment. The exchange may be for the benefit of other federal agencies as well as BLM.

EXCLUSION AREA: An environmentally sensitive area where rights-of-way would be granted only in cases where there is a legal requirement to provide such access.

EXISTING ROAD: Those roads open to OHV travel identified as such approved in the RMP. Roads not recognized by the RMP or subsequent to the RMP would not be considered an "existing road".

EXPERIMENTAL, NON-ESSENTIAL POPULATION: A 1982 amendment to the Endangered Species Act, this designation allows management flexibility assuring reintroduced populations of federally listed endangered species will not significantly impact existing or future land uses. Such a designation would result in: 1) lowering the species' status from endangered to threatened, 2) implementing activity plans for the involved area, and 3) conferring informally with USF&WS on actions likely to jeopardize the species' continued existence (Luce & Oakleaf, 1991).

EXPLORATORY WELL: Any well drilled beyond the known producing limits of a pool of hydrocarbons.

EXTENSIVE RECREATION MANAGEMENT AREAS (ERMA): Areas where recreation is unstructured and dispersed and where minimal recreation-related investments are required. ERMAs provide recreation visitors the freedom of choice with minimal regulatory constraint.

FAULT: A geologic fracture or a zone of fractures along which there has been movement of one side relative to the other.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA): Public Law 94-579, gives the BLM legal authority to establish public land policy; to establish guidelines for administering such policy; and to provide for the management, protection, development, and enhancement of the public land.

FEE TITLE: The title or ownership of land; short for "owned in fee." The owner of the fee holds title to the land.

FIELD: A single pool or multiple pools of hydrocarbons grouped on, or related to, a single geologic, structural, or stratigraphic feature.

FIRE MANAGEMENT: The integration of fire protection, prescribed burning, and fire ecology knowledge into multiple use planning, decision making, and land management activities. Fire management is a program, not of letting fires burn, but rather of placing fire in perspective with overall land management objectives to fulfill the needs of the public.

FLOODPLAIN: The nearly level alluvial plain bordering a stream subject to inundation (flooding) during high water.

FOLD: A curve or bend of rock layers and is usually a product of compression.

FORAGE: Vegetation of all forms available for animal consumption.

FORM: A visual element considered in determining a visual resource management class that determines how the character of a landscape is perceived, specifically the shapes of objects such as landforms or patterns in the landscape. Refer also to line, color and texture.

FREE USE PERMIT: A permit allowing the removal of woodland products, mineral materials, and other resources from the public lands free of charge.

GAS (NATURAL): Hydrocarbons that exist as a gas or vapor at ordinary pressures and temperatures. Methane is the most important, but ethane, propane, and others may be present. Natural gas may occur alone or be associated with oil.

GEOGRAPHIC INFORMATION SYSTEM (GIS): Through the use of computer technology, GIS allows the input, storage, analysis, and display of a great volume and variety of physically locatable data (i.e., data which is known to exist at some specific place or area on the ground).

GEOPHYSICAL EXPLORATION (OIL AND GAS): Exploration for oil and gas bearing rock in geologic, stratigraphic, or structural hydrocarbon traps. Geophysical methods used in locating such oil and gas bearing prospects include: seismic, gravity, magnetic, and electromagnetic technologies.

"GILSONITE": A solid hydrocarbon with the general appearance of coal; uintaite, a black, lustrous form of asphalt that, when treated and refined, yields gasoline, fuel oil, and coke.

GOAL: The desired state or condition that a plan alternative, or management policy is designed to achieve. A goal is usually not quantifiable and may not have a specific date by which it is to be completed. Goals are the foundations from which objectives and management prescriptions are developed.

GRANT: A gift of public lands either in quantity or in place. Also, the document or the action which conveys land or an interest in land.

GRAZING ALLOTMENT: An area of land assigned to one or more livestock operators for grazing livestock. Allotments generally consist of public land but may also include state-owned and private land. Livestock numbers and seasons of use are specified for each allotment. An allotment may be subdivided into pastures to improve rangeland values through livestock management.

GRAZING STRATEGY: A livestock grazing use plan, not necessarily detailed in an AMP, outlining annual livestock numbers, periods of use, use rotation schedules, etc.

GROUNDWATER: Water filling the unblocked pores of underlying geologic material below the water table.

HABITAT: A specific set of physical conditions that surround the single species, a group of species, or a large community and to which the species are dependent. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

HABITAT MANAGEMENT PLAN (HMP): An activity plan for a specific geographic area which identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives and outlines procedures for evaluating accomplishments.

HAZARDOUS MATERIAL: Any substance posing a threat to the health or safety of persons or the environment. These include any material that is toxic, ignitable, corrosive or radioactive.

HIGH PRIORITY WILDLIFE HABITAT: Wildlife habitat used intensively by one or more wildlife species. Current or potential habitat composition and biological production exists to support wildlife use during the spring, summer, or fall seasons (crucial habitat is generally applied to winter use areas).

HYDROCARBONS: Organic chemical compounds of hydrogen and carbon atoms. There are a vast number of these compounds forming the basis of all petroleum products. They may exist as gases, liquids, or solids. An example of each is methane, hexane, and asphalt.

IMPACT: Synonymous with effects. Impacts include ecological (such as the impacts on natural resources and on the components, structures, and functioning

of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Impacts may also include those resulting from actions which may have both beneficial and detrimental (adverse) effects, even if on balance BLM believes the effect will be beneficial. Impacts may be considered as direct, indirect, or cumulative:

Direct: Impacts caused by an action and occurring at the same time and place.

Indirect: Impacts caused by the proposed action and occurring later in time or farther removed in distance, but are still reasonably foreseeable.

Cumulative: Those which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.

INJECTION WELL: A well used for the disposal of produced water or for enhanced recovery operations.

INTERIM MANAGEMENT POLICY (IMP): This policy provides direction in managing Wilderness Study Areas until such time as the areas are designated by Congress or dropped from consideration. Direction is couched in a set of nonimpairment criteria designed to govern surface disturbing activities on WSA, requiring lands be managed so as to not impair their suitability for designation as wilderness. Any authorized activities must be temporary in nature and not degrade the area's wilderness values. Disturbed areas must be capable of being reclaimed so they are substantially unnoticeable by the time the Secretary of the Interior makes his/her recommendation on wilderness areas to the President.

INTERMITTENT STREAM: Streams that do not contain water year-round or for the entire length of its course.

INTRUSION (VISUAL): A land, vegetation, or structural feature that is generally considered out of context with the characteristic landscape.

ISSUE (PLANNING): Significant or important items of concern relating to a proposed action gained through the scoping process to be addressed in the analysis. Issues may be couched in terms of an unrealized opportunity, an unresolved conflict or problem, or a value being lost. For the purposes of this planning document, a planning issue will be related to resource management and will be resolved through the RMP.

KARST DEVELOPMENT: A type of topography underlain by carbonate rocks where significant solution of the rock has occurred due to flowing groundwater (Fetter, 1988).

KEY PLANT SPECIES: A species which is relatively or potentially abundant, can endure moderately close grazing, and serves as an indicator of changes in a vegetation community. More than one key species may be selected on an area; one species may be important for watershed protection, and a different species may be important for livestock or wildlife forage or other values.

KNOWN PHOSPHATE LEASING AREA (KPLA): An area classified by the U.S. Geological Survey as having known phosphate values determined by grade and distribution. The purpose is administrative, requiring competitive leasing within the KPLA.

LEASABLE MINERAL: Minerals such as coal, oil shale, oil and gas, phosphate, "Gilsonite", tar sands, potash, sodium, geothermal resources, and all other minerals that may be developed under the Mineral Leasing Act of 1920, as amended.

LEASE: An authorization to possess and use public land for a fixed period of time (usually long-term). Any contract, profit-share arrangement, joint venture, or other agreement issued or approved by the United States Government under a mineral leasing law that authorizes exploration for, extraction of, or removal of oil and gas resources.

LEASE NOTICE: Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A Lease Notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions. Lease Notices attached to leases should not be confused with NTLs--Notices to Lessees (see 43 CFR 3160.0-5).

LEGAL DESCRIPTION: The description of a particular parcel of land according to the official plat of its cadastral survey, including Township, Range and section numbers in reference to its meridian. For

example: Township 10 South, Range 19 East, section 25, Salt Lake Base and Meridian.

LEKS: Synonymous with strutting ground.

LIMITED WILDLIFE HABITAT: Areas only marginally suitable as habitat for a wildlife species.

LINE: A visual element considered in determining a visual resource management class that determines how the character of a landscape is perceived, specifically perceivable linear changes in contrast resulting from abrupt differences in form, color, and texture. Refer also to color, form, and texture.

LISTED SPECIES: A plant or animal species federally listed as either endangered or threatened under the Endangered Species Act.

LOCATABLE MINERALS: Any valuable mineral that is not saleable or leasable, including gold, silver, copper, uranium, etc., that may be developed under the General Mining Law of 1872.

LONG-TERM: As used in this document, more than five years.

MANAGEMENT CONCERN: Concerns which do not meet the criteria for a planning issue but cannot be resolved administratively. Management concerns result from professional judgment and familiarity with conditions in a resource area and may be further defined by inventory and analysis. Examples might include a fragile watershed or a need to establish special designation.

MANAGEMENT FRAMEWORK PLAN (MFP): A planning decision document prepared before the effective date of the regulations implementing the land use planning provisions of FLPMA.

MANAGEMENT INDICATOR SPECIES (MIS): A BLM-selected wildlife species affected, or potentially affected, by a change resulting from one or several management actions. Such a species is monitored to indicate the general health of the habitat type(s) the MIS inhabits.

MANAGEMENT PRESCRIPTIONS: Synonymous with objectives. The planned actions taken within a stated time period that are measurable to achieve the desired results specified by a goal. Management prescriptions are subordinate to goals.

MANAGEMENT PRIORITY AREA: A geographical area which due to its combination of existing and potential resources and existing or potential resource uses is placed into one of four active groupings (or levels) so that compatible and excluded uses are designed to reduce or eliminate conflicts.

MANAGEMENT SITUATION ANALYSIS (MSA): A step in the BLM planning process identifying existing management, physical resources and opportunities to meet the needs, concerns and issues identified through resource management planning. The MSA results in a reference document, which is kept current in the resource area office. This document is open for public inspection, but is not distributed to the public.

MASTER TITLE PLAT: The modern land title record keeping which shows land status by diagrams.

MATERIAL SITE RIGHT-OF-WAY: An area of public lands from which sand and gravel may be taken (with the proper permit and authorization) for construction or maintenance of state or federal-aid highways.

MINERAL ENTRY: The location of mining claims by an individual to protect his/her right to a valuable mineral as well as the location of tunnel and mill sites.

MINERAL MATERIAL: Includes common varieties of sand, stone, gravel, pumice, pumicite, cinders, clay and petrified wood which are sold or otherwise disposed of under permit.

MINERAL POTENTIAL:

High: High mineral potential lands are defined as those lands currently producing oil or gas or having high current industry interest.

Moderate: Moderate potential lands are defined as those lands which have had oil and gas shows in favorable geologic environments.

Low: Low potential areas are those lands where either the geologic environment appears to be unfavorable for the accumulation of oil and gas, or where little or no information is available to evaluate the oil and gas potential.

MINERAL WITHDRAWAL: A withdrawal of public lands which are potentially valuable for leasable minerals. This precludes the disposal of the lands except with a mineral reservation, or unless the lands are found not to be valuable for minerals.

MINING PLAN OF OPERATIONS: A plan for mining exploration and development that an operator must submit to BLM for approval when more than 5 acres a year will be disturbed or when an operator plans to work in an area of critical environmental concern, wild and scenic river, wilderness study area, or wilderness. An MPO must document, in detail, all actions the operator plans to take from exploration through reclamation and present all information needed for preparing a National Environmental Policy Act document.

MITIGATING MEASURES: Constraints, requirements, or conditions imposed (often included as stipulations or special conditions attached to a lease or permit) to reduce the significance of or eliminate an anticipated adverse impact to environmental, socioeconomic or other resource value from a proposed land use. Committed mitigating measures are those measures BLM is committed to enforce, i.e., all applicable laws and their implementing regulations.

MODERN URBAN: One of the six classes of ROS. In modern urban areas, opportunities to experience recreation in affiliation with individuals and groups are prevalent, as is the convenience of recreation sites and opportunities. Opportunities for wildland challenges, risk taking, and testing of outdoor skills are unimportant. Opportunities for competitive spectator sports are common, as are opportunities to use parks and open spaces highly influenced by people.

MODIFICATION: Fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may, therefore, include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

MONITORING: The orderly collection and analysis of data to evaluate progress in meeting resource management objectives. Monitoring may also include: the collection of data to evaluate progress in complying with laws, regulations, policies, executive orders, and management decisions; and, the collection of data to assist in resource protection. Sampling of data and observation of progress toward plan objectives, the accuracy of impact analysis, and the effectiveness of mitigation measures are also of particular interest in terms of RMP monitoring activities.

MOUNTAIN BICYCLE: A nonmotorized, foot-pedal driven bicycle used on paved and unpaved roads and trails.

MULTIPLE-USE MANAGEMENT: Management of public lands and their various resource values so they are used in the combination best meeting the present and future needs of the American people. Such a concept allows for the most judicious use of some or all of the resources over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions. Relative resource values are considered, not necessarily the combination of uses that would give the greatest potential economic return or the greatest unit output.

MULTIPLIER: In macroeconomics, the proportionate increase in national income (in the form of consumption of final goods and services) that occurs from each unit increase in new spending from some "autonomous" source such as private investment, the government, or the outside world (through exports). The sum total of all additional consumption induced by the initial spending generally exceeds the amount of the initial spending itself. The quantitative measure of this additional consumption relative to the initial increase in investment spending is the multiplier. Many variants of the basic multiplier can be calculated. Not generally used in project analysis because of the difficulty of avoiding double counting of benefits. Shadow prices that include carefully traced indirect changes in value added include the multiplier effects while minimizing the danger of double counting. (Gittinger, 1982.)

NATIONAL FIRE DANGER RATING SYSTEM: A uniform national system of rating fire danger and fire behavior to aid in developing current and predicted fire danger conditions.

NATIONAL WILD AND SCENIC RIVERS SYSTEM: Established by the Wild and Scenic Rivers Act of 1958 to protect rivers and their immediate environments that have outstanding scenic, recreation, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in free-flowing conditions. This system provides for the designation of three types of rivers:

Recreation: Rivers or sections of rivers readily accessible by road or railroad that may have some development along their shorelines and may have undergone some impoundment or diversion in the past.

Scenic: Rivers or sections of rivers free of impoundments, with shorelines or watersheds still largely undeveloped, but accessible in places by roads.

Wild: Rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with essentially primitive watersheds or shorelines and unpolluted waters.

NATURAL HISTORY RESOURCES: Fossil remains and knowledge acquired about plants and animals from past geologic periods. Also known as paleontological resources.

NAVIGABLE WATER: A river in its natural and ordinary condition is used or susceptible of being used as a channel for commerce over which trade and travel is conducted or may be conducted in customary modes on water. Navigability does not depend upon mode or modes by which trade and travel is conducted upon a stream, but upon whether the stream in its natural condition is one which affords channel for useful commerce. Navigability is not destroyed merely because of water course interruptions, caused by occasional natural obstruction or portages, and it is not essential that the stream be open to navigation at all seasons of year or at all stages of water. (This definition is taken from the 1962 Tenth Circuit Court of Appeals ruling [Cite as 304 F.2d 23 (1962)] regarding ownership of river beds in Utah).

NONDISCRETIONARY: Any action which the BLM does not have the authority to approve or deny.

NONPOINT POLLUTION SOURCE: Pollution from scattered sources, as opposed to pollution from one location, e.g., a manufacturing plant.

NO SURFACE OCCUPANCY (NSO): Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values. The NSO stipulation includes stipulations which may have been worded as "No Surface Use/Occupancy," "No Surface Disturbance," "Conditional NSO," and "Surface Disturbance or Surface Occupancy Restriction (by location)."

NOTICE TO LESSEES: The NTL is a written notice issued by the authorized officer. NTLs implement regulations and operating orders, and serve as instructions on specific item(s) of importance within a State, District, or Area.

OBJECTIVES: See management prescriptions.

OFF-HIGHWAY VEHICLE (OHV): Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, snow, or other natural terrain.

OFF-HIGHWAY VEHICLE DESIGNATIONS:

Open: Designated areas and trails where OHVs may be operated.

Limited: Designated areas and trails where the use of an OHV is subject to restrictions, such as limiting the number of types of vehicles, allowed, dates and times of use (seasonal restrictions); limiting use to designated roads and trails. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year.

Closed: Designated areas, roads, and trails where the use of an OHV is permanently or temporarily prohibited. Emergency use of vehicles is allowed.

OIL (CRUDE): Unrefined liquid petroleum.

OIL AND GAS RESOURCE:

Conventional: Resources include crude oil, natural gas, and natural gas liquids existing in conventional reservoirs or in a fluid state amenable to extraction techniques employed in traditional development practices.

Nonconventional: Oil occurring within extremely viscous and intractable heavy oil deposits, tar deposits, or oil shales; or gas from low-permeability "tight" sandstone and fractured shale reservoirs having low permeabilities, and coal bed methane, which are not amenable to extraction techniques employed in traditional development practices.

OIL SHALE: A common term for kerogen-shale containing material neither petroleum nor coal, but an intermediate bitumen material with some of the properties of both. Small amounts of petroleum are usually associated with oil shales, but the bulk of the oil is derived from heating the shale.

OUTSTANDING NATURAL AREA: A BLM designation applied to an outstanding natural area containing unusual natural characteristics and is managed primarily for educational and recreational purposes. This type management designation has been replaced by ACEC designation.

PATENT: As it relates to public land laws, a patent is the instrument (or deed) by which the government conveys title to the public lands.

PAYMENT IN LIEU OF TAXES (PILT): Payments to local or state governments based on ownership of federal land and not directly dependent on production of outputs or receipt sharing.

PERENNIAL STREAM: A stream that flows through the year.

PERMEABILITY: A measure of the ease with which fluids can flow through a porous rock, sediment, or soil.

PERMIT: A short-term (generally under 3 years), revocable authorization to use public lands for specific purposes.

PETROLEUM: A substance occurring naturally in the earth and composed mainly of mixtures of chemical compounds of carbon and hydrogen, with or without other nonmetallic elements such as sulfur, oxygen, and nitrogen. The compounds that compose it may be in the gaseous, liquid, or solid state, depending on their nature and on the existent conditions of temperature and pressure.

PHOSPHATE: A natural rock containing one or more phosphate minerals, usually calcium phosphate, of sufficient purity and quantity to permit it use, either directly or after recovery in the manufacture of commercial products.

PLAN AMENDMENT: A change in a RMP initiated by the need to consider monitoring and evaluation findings, new data, new or revised policy, a change in circumstances or a proposed action that may result in a change in the scope of resource uses or a change in terms, conditions and decisions of the approved plan. An amendment shall be made through an EA of the proposed change or an EIS, if necessary. If an EIS is prepared, a 90-day public review period is required.

PLAN OF DEVELOPMENT: The general outline of how a definitely proposed or authorized project is to be implemented.

PLAY: A play is a group of geologically related known oil and/or gas fields or undiscovered fields and/or prospects having similar reservoirs, traps, source rocks, and geologic histories.

POROSITY: The percentage of the volume of rock containing opening or spaces, either connected or unconnected. Pores or open spaces in rocks are usually small and often filled with some fluid (water, oil, gas, or any combination).

POTENTIAL BLACK-FOOTED FERRET HABITAT: Areas supporting white-tailed prairie dogs that are a minimum of 200 acres in size and not known to have black-footed ferret occupancy. Inventories to determine the density of prairie dogs or the presence of disease have not been completed.

POWERSITE RESERVE: A reservation of public lands which have potential value for water power development.

PRAIRIE DOG COLONY: A group of prairie dog burrows who's density exceeds eight burrows/acre. Burrows need not be active but should be recognizable and intact (not caved in or filled with debris).

PRESCRIBED FIRE OR BURN: The skillful application of fire to natural fuels under conditions of weather, fuel moisture, soil moisture, etc., that would allow confinement of the fire to a predetermined area and at the same time produce the intensity of heat and rate of spread required to accomplish certain planned benefits to one or more objectives of wildlife management, livestock management, hazard reduction, etc. Its objective is to employ fire scientifically to realize maximum benefits at minimum damage and acceptable cost.

PRIMITIVE: One of the six classes of ROS. Primitive areas offer recreation opportunities for isolation from the sights and sounds of human activities, where a visitor can feel a part of the natural environment, experience a high degree of challenge and risk, and use outdoor skills.

PRIORITY: As used in this document, priority means a given resource or use receives management emphasis, and that certain uses are restricted in order to reduce conflicts.

PRODUCED WATER: Salt water produced with the hydrocarbons from a well. When hydrocarbons and water are mixed in the production stream, they go into a separator; the water goes to an evaporation pit, the hydrocarbons goes to the stock tanks. When large quantities of salt water are produced on an oil and gas lease, the salt water is pumped into a deep disposal (injection) well or a produced water disposal pit.

PRODUCTION: The phase of the petroleum industry that deals with bringing the well fluids to the surface and

separating them with storing, gauging, and otherwise preparing the product for the pipeline.

PROPOSED-FOR-LISTING SPECIES: A plant or animal species formally proposed for listing as threatened or endangered by the USF&WS and published in the *Federal Register* as such. At the time a species is proposed for listing it is afforded the full protection of the Endangered Species Act. Proposed for listing designation lasts up to one calendar year from the published date in the *Federal Register*, at which time, the species is formally listed.

PROSPECT: A geologic feature having the potential for trapping and accumulating hydrocarbons.

PUBLIC LANDS: Any lands or interest in lands owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management.

PUBLIC WATER RESERVES: Pursuant to, and under the authority of, Sec. 10 of the Act of December 29, 1916, and in aid of pending legislation, issued the Executive Order of April 17, 1926. This reserved for public use every vacant, unappropriated, and unreserved smallest legal subdivision which contains a spring or waterhole. If the lands are unsurveyed, the reservation covers all lands within 1/4 mile of the spring or waterhole.

RANGELANDS: Uncultivated lands that are highly diversified and include meadows, grasslands, brushlands, woodlands, and deserts. Rangelands may be treeless or consist of understory plants beneath open forests.

RANGELAND IMPROVEMENTS: An authorized on-the-ground project relating to rangelands which is designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; and provide habitat for livestock and wildlife using structures and/or land treatment projects to accomplish the desired results.

RANGELAND MANAGEMENT PRACTICES: An authorized activity or program action relating to rangelands which is designed to improve the rangeland resources by implementing administrative practices such as limiting class and numbers of livestock, periods of use, development of AMPs, etc., to accomplish the desired results.

RAPTOR: A group of carnivorous birds, consisting of the hawks, eagles, vultures, and owls; a bird of prey.

RECLAMATION WITHDRAWAL: A water development and irrigation project of the Bureau of Reclamation.

RECORD OF DECISION (ROD): A required document that concisely reports the decision reached on an action examined through the National Environmental Policy Act process in an environmental assessment or environmental impact statement.

RECREATION AND PUBLIC PURPOSES ACT (R&PP): The Act of June 14, 1926, as amended (43 U.S.C. 869, 869-4). Allows the disposal of public lands to any state, local, federal, or political instrumentality or nonprofit organization for any recreational or public purpose, at the discretion of the authorized officer.

RECREATION OPPORTUNITY SPECTRUM (ROS): A continuum used to characterize recreation opportunities in terms of setting, activity, and experience opportunities. Six classes are included: primitive, semi-primitive nonmotorized, semi-primitive motorized, roaded natural, rural, and modern urban. Refer to the individual definitions in this glossary and Appendix 5.

REHABILITATION: Restoration of damaged or lost environment as nearly as possible to its original state.

RELICT VEGETATION: A vegetation community or area within a vegetation community relatively undisturbed by human activities to allow the community to progress towards its natural climax composition. These areas are important as they may serve as comparison areas, allowing management prescriptions in similar communities to be measured as to their overall effectiveness.

RESERVATION: A withdrawal of a permanent nature, dedicated to a specific public purpose.

RESERVOIR (OIL AND GAS): A volume of rock in the subsurface having properties (such as porosity and permeability) which allow for the accumulation of crude oil or natural gas.

RESERVOIR ROCK: Any porous and permeable rock that yields oil and gas. Sandstone, limestone, and dolomite are the most common reservoir rocks.

RESOURCE AREA: The smallest administrative subdivision of a BLM district.

RESOURCE MANAGEMENT PLAN (RMP): A written land use plan that outlines BLM's decisions and strategies for management of the resources in a

particular area. The RMP replaces the MFP in the Bureau's planning system.

REVOCATION: The action which cancels a withdrawal. It need not necessarily "open" the lands to application/entry. A restoration would open the lands to operation of the public land laws.

RIGHT-OF-WAY: The legal right for use, occupancy, or access across land or water areas for a specified purpose or purposes. Also, the lands covered by such a right. A right-of-way is usually linear, but may include a site such as for communications.

RIPARIAN HABITAT: A highly valued wetland vegetation community found along or around streams, lakes, ponds, and other open water (both perennial and intermittent). This unique habitat is crucial to the continued existence of many fish and wildlife species known to occur in the area; riparian vegetation aids in maintaining high water tables; stabilize pond and streambanks; create quality fish and wildlife habitat; and maintains water quality.

RIVER: In reference to the National Wild and Scenic Rivers Act, a river is a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, rills, kills, and small lakes.

ROADED NATURAL: This is one of the six classes of ROS. This area is characterized by predominantly natural appearing environments with moderate evidences of the sight and sound of humans. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.

RURAL: One of the six classes of the ROS. In rural areas, opportunities to experience recreation in affiliation with individuals and groups are prevalent, as is the convenience of recreation sites. These factors generally are more important than the natural setting. Opportunities for wildland challenges, risk taking, and testing of outdoor skills are unimportant except in activities involving challenge and risk.

SALINE SOILS: A soil containing soluble salts in an amount that impairs the growth of plants.

SCOPING PROCESS: An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. Scoping may involve public meetings, field interviews with representatives of agencies and interest groups, discussions with resource specialists and managers, written comments in response to news releases, direct mailings and articles about the proposed action, and scoping meetings.

SEGREGATION: Any action such as a withdrawal or allowed application (eg., exchange), which suspends the operation of the general public land laws. To separate or set apart; to remove lands from the operation of part or all the public land mineral laws.

SEMI-PRIMITIVE MOTORIZED: This is one of the six classes of ROS. The area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.

SEMI-PRIMITIVE NONMOTORIZED: This is one of the six classes of ROS. The area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is not permitted.

SENSITIVE SPECIES (PLANT AND ANIMALS):
a. Synonymous for federally listed or category 1 and 2 species. b. As defined by the State of Utah - any species which, although still occurring in numbers adequate for survival, has been greatly depleted or occurring in limited areas/numbers due to a restricted or specialized habitat.

SHORT-TERM IMPACTS: As used in this document, impacts lasting less than five (5) years.

SOURCE ROCKS: Sedimentary rocks (such as shales, limestones, or dolomites) containing organic material which has been transformed (by heat and pressure) to oil and gas over time.

SPECIAL EMPHASIS AREAS: An area containing one or a combination of unique resources or values that

receive more intensive management (e.g., ACECs, WSAs, WAs, SRMAs, W&SRs, etc.).

SPECIAL RECREATION MANAGEMENT AREA (SRMA): Areas requiring explicit recreation management to achieve BLM's recreation objectives and to provide specific recreation opportunities. SRMAs are listed in this plan which also define SRMA management objectives. BLM's recreation investments are concentrated in these areas.

SPECIAL STATUS SPECIES: Wildlife and plant species either federally listed or proposed for listing as endangered or threatened, state-listed or BLM-determined priority species.

SPECIAL TAR SANDS AREAS (STSA): An area designated by the Secretarial Orders dated November 20, 1980, and January 21, 1981, and referred to in those orders as Designated Tar Sand Areas, as containing substantial deposits of tar and sand. The Combined Hydrocarbon Leasing Act of 1981 provided for the conversion of existing federal oil and gas leases in STSAs to Combined Hydrocarbon Leases (CHLs). This act also required competitive leasing for currently unleased lands within STSAs.

SPLIT ESTATE: The surface estate and the mineral estate of a parcel of land belong to different owners.

STATE HISTORIC PRESERVATION OFFICER (SHPO): A position within state governments responsible for coordinating state participation in the implementation of the National Historic Preservation Act. This officer serves as an assistant and consultant when identifying cultural properties, assessing effects to them, and considering alternatives to avoid or reduce those effects.

STATE SELECTION: Lands the state receives as a term of the statehood act. An indemnity selection or in-lieu selection is land owed to the state to replace land that the state would have received as a term of statehood but did not because the land was already appropriated under the public land laws.

STATUS (LAND): The information concerning a specific piece of land. The information would include such things as: ownership, claims, or applications outstanding; known minerals (if any); withdrawals; or in general, any information that might affect land ownership.

STIPULATION: A requirement, usually dealing with protection of the environment, that is made a part of a lease, grant, or other authorizing document. In the case of oil and gas leases, a provision that modifies standard lease rights and is attached to and made a part of the lease. The following represent the major stipulations on BLM lands:

No surface occupancy stipulation (NSO): Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values. The NSO stipulation includes stipulations which may have been worded as "No Surface Use/Occupancy," "No Surface Disturbance," "Conditional NSO," and "Surface Disturbance or Surface Occupancy Restriction (by location)."

Seasonal restriction stipulation: A stipulation which prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project specific mitigation measures would be insufficient.

Controlled surface use stipulation: A stipulation in which use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights.

Special administration stipulation: A stipulation in which a special condition is designed to meet the pre-existing agreements and needs of several agencies.

STRATIGRAPHIC TRAPS: Traps for oil and gas that are a result of lateral changes in porosity and permeability in reservoir rocks.

STRUCTURAL TRAPS: Hydrocarbon traps that are formed by folding, faulting, or other structural changes of rock layers.

STRUTTING GROUNDS: A site used by grouse for courtship display. Also called "leks" or "dancing ground". The strutting ground is the focal point of the annual reproduction cycle.

SUBSTANTIAL WILDLIFE HABITAT: Habitat area used moderately by a wildlife species.

SUSTAINED YIELD: Achieving and maintaining a permanently high level of annual or regular-period production of renewable land resources without impairing the productivity of the land and its environmental values. As used in woodlands management: a practice in which the volume of wood cut is equal to growth over the long run.

TAR SANDS: Native asphalt, soil, and semisolid bitumen, including oil-impregnated rock or sands from which oil is recoverable by special treatment. Processes have been developed for extracting the oil, referred to as synthetic oil.

TEXTURE: A visual element considered in determining a visual resource management class that determines how the character of a landscape is perceived, specifically the visual result of variation in the surface of an object. Refer also to color, form and line.

TIGHT GAS RESERVOIRS: Defined by the Federal Energy Regulatory Commission as those gas-bearing rocks that have low permeabilities (See permeability). These reservoirs are unconventional reservoirs and normally require artificial stimulation for production.

TRAPS (OIL AND GAS): Any barrier to the movement of oil or gas allowing either or both to accumulate. The elements of a trap include a reservoir rock and overlying or impermeable roof rock. There are three basic types of hydrocarbon traps: structural traps, stratigraphic traps, and combination traps.

TRESPASS: Any occupancy or use of the public lands or resources of the United States without authority.

UNDERGROUND INJECTION CONTROL PROGRAM: A program administered by the Environmental Protection Agency (EPA) or the State of Utah under Part C of the Safe Drinking Water Act for the disposal or injection of produced water into a subsurface geologic formation. The quality of the water contained by the subsurface must be equal to, or of lesser quality than the produced water being injected.

UNIT (SPACING/DRILLING): Established geographic subdivision defining the number of acres to be allotted to each well drilled in a common reservoir. The spacing of oil or gas wells is determined by the State of Utah.

USEABLE WATER (oil and gas): Those subsurface waters which contain less than 10,000 parts per million (ppm) total dissolved solids.

USE AUTHORIZATION: Approval of a proposed use for land or resources on the prescribed form or document designated for such use; a document showing permission to use land or the resources thereon; a formalized grant pursuant to a request to use land or resources.

VALID EXISTING RIGHTS: For the purposes of this RMP, a valid existing right is any valid lease, permit, patent, right-of-way, or other land use right or authorization existing on the date of approval of this RMP (FLPMA sec. 701).

VEGETATION TREATMENT: Alteration of the soil and/or vegetation of an area by mechanical, biological, or chemical means, or by burning. Land treatments are implemented to reduce erosion or improve vegetation for forage.

VISITOR DAY: A unit to quantify recreation use on public lands. Twelve (12) visitor hours which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

VISUAL RESOURCE MANAGEMENT (VRM) CLASSES: Classification containing specific objectives for maintaining or enhancing visual resources, including the amount of acceptable change to the existing landscape to meet established visual goals.

Class I: Provides for natural, ecological changes only. This class includes wilderness areas, some natural areas, some wild and scenic rivers and other similar sites where landscape modification should be restricted. (DMRA does not contain any VRM Class I areas.)

Class II: Includes areas where changes in any of the basic elements (form, line, color or texture), caused by management activities, should not be evident in the characteristic landscape.

Class III: Includes areas where changes in the basic elements caused by management activities may be evident in the characteristic landscape. The changes, however, should remain subordinate to the existing landscape character.

Class IV: Includes areas where changes may subordinate the original composition and character. They should, however, reflect what could be a natural occurrence in the characteristic landscape.

WAIVER: Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

WATERPOWER WITHDRAWAL: Waterpower withdrawals are scientific classifications of federal lands that protect future water and power resource values. The authority to make waterpower withdrawals is established by Federal Statute and are known as powersite reserves and/or classifications. They may have been established to protect hydropower generation capabilities, reservoir pump storage, or diversion conduit sites.

WATERSHED: All land and water within the confines of a drainage divide.

WETLANDS: Lands where at least periodic inundation or saturation with water (either from the surface or subsurface) is the dominant factor determining the nature of the soil development and the types of plant and animal communities living there. These include the entire zones associated with streams, lakes, ponds, springs, canals, seeps, wet meadows, and some aspen stands. Wetlands support all the fish and higher densities and more species of wildlife than any other habitat type in the resource area.

WILD AND SCENIC RIVERS (W&SR): See "National Wild and Scenic River System".

WILDERNESS AREA (WA): An area officially designated as wilderness by Congress. Wilderness areas will be managed to preserve wilderness characteristics and shall be devoted to the public purposes of conservation and recreational, scenic, scientific, educational and historical uses.

WILDERNESS STUDY AREA (WSA): A roadless area which has been found to have wilderness characteristics.

WITHDRAWAL: An action which restricts the use or disposal of public lands, segregating the land from the operation of some or all of the public land and/or mineral laws and holding it for specific public purposes. Withdrawals may also be used to transfer jurisdiction of management to other federal agencies.

WOODLANDS: Lands producing tree species that are not typically utilized as sawtimber products and sold in units other than board feet (e.g., pinyon and juniper). Woodlands are not included in the commercial forest land allowable cut base.

REFERENCES

Armentrout and Bingham

1988 Habitat Suitability Rating System for Desert Bighorn Sheep in the Basin and Range Province. U.S. Dept. Interior, Bureau of Land Management. Tech. Note 384. 18pp.

Autenrieth, R.E.

1973 Personal communication reference within the "Guidelines for Habitat Protection in Sage Grouse Range", revised 1974. Prepared by the *Western States Sage Grouse Committee*, distributed by the Utah Division of Wildlife Resources, Salt Lake City, Utah.

Barber, Harry A.

1991 Strutting Behavior, Distribution and Habitat Selection of Sage Grouse in Utah. A thesis presented to the Dept. of Botany and Range Science, Brigham Young University in partial fulfillment of the requirements for the Degree Master of Science. December 1991.

Behnke, R.J. and M. Zarn

1976 "Biology and Management of Threatened and Endangered Western Trout". USDA, Forest Service. Gen. Tech. Report RM-28; Ogden, Utah.

Belrose, Frank C.

1976 *Ducks, Geese, and Swans of North America,* Stackpole Books, Harrisburg, PA.

Braun, Clait E.; Britt, Tim; and, Wallestad, Richard O.

1977 "Guidelines for Maintenance of Sage Grouse Habitats", IN *The Wildlife Society Bulletin*, fall issue, volume 5(3):99-106.

Brody, A.J., et al.

1989 "Effects of Roads on Black Bear Movements in Western North Carolina", IN *Wildlife Society Bulletin*, volume 17, pp. 5-10.

Brown, R.L.

1987 "Effects of Timber Management Practices on Elk, A Problem Analysis Report". Federal Aid in Wildlife Restoration Project W-78-R. Arizona Game and Fish Department, Phoenix, Arizona.

Burton, R.J.

1971 *The Pictographs and Petroglyphs of the Dinosaur National Monument.* Unpublished Master of Science Thesis. Department of Anthropology, University of Colorado, Boulder.

Callan, R.J. et. al

1990 Induced pneumonia in a Mexican desert bighorn ram by exposure to a mixed flock of exotic Eurasian wild and domestic sheep. A clinical study. Utah Agricultural Experiment Station journal paper 3803. Utah State University, Logan, Utah 84322.

Campbell, Jock A.

1975 "Oil-Impregnated Sandstone Deposits of Utah", IN *Mining Engineering*, May issue, volume 27(5).

Castleton, K.B.

1978 *Petroglyphs and Pictographs of Utah: The East and Northeast*, volume 1. Utah Museum of Natural History, Salt Lake City, Utah.

Castleton, K.B. and Madsen D.B.

1982 *The Distribution of Rockart Elements and Styles in Utah.* Master of Science Thesis, University of Utah on file at the Office of the Utah State Archeologist. Salt Lake City, Utah.

Connaly, G.E.

1978 "Predator Control and Coyote Populations: A Review of Simulation Models", IN *Coyotes: Biology, Behavior, and Management.* M. Bekoff, editor. Academic Press, New York, New York.

Craig, Lawrence C.

1982 National Uranium Resource Evaluation, Vernal Quadrangle, Colorado and Utah, U.S. Geological Survey, Golden, CO. Prepared for the Department of Energy, Grand Junction, CO, under Contract No. DE-A113-78G01685.

Cronquist, Authur; Holmgren, A.H.; Holmgren, N.H.; and, Reveal, J.L.

1972 *Intermountain Flora--Vascular Plants of the Intermountain West, United States*, volume 1. A. Hafner Publishing Company, Inc., New York, New York.

Desert Bighorn Council Technical Staff

1990 Guidelines for Management of Domestic Sheep in the Vicinity of Desert Bighorn Habitat.

Drabenstott, Mark; and, Duncan, Marvin

1982 "The Cattle Industry in Transition", IN *Economic Review*, July-August issue.

Federal Reserve

1991 Federal Reserve Bank of St. Louis, "National Economic Trend: Implicit Price Deflator for the Gross National Product." St. Louis, MO.

Foreyt, W.J. and D.A. Jessup

1982 Fatal Pneumonia of Bighorn Sheep following association with domestic sheep. J. Wildlife diseases 18:163-168.

Forrest, S.C.; Clark, T.W.; Richardson, L.; and, Campbell, T.M. III

1985 "Black-footed Ferret Habitat: Some Management and Reproduction Considerations". Wyoming BLM, Wildlife Technical Bulletin No. 2.

Freddy, D.J., W.M. Bronaugh, and McFowler

1986 "Minimizing the Dangers of Nesting Studies to Raptors and Other Sensitive Species." Can Wildlife Services Occa. Pap. 23.

Fyfe, R.W. and R.R. Olendorff

1976 Minimizing the dangers of nesting studies to raptors and other sensitive species. Can. Wildl. Ser. Occas. Pap. No. 23.

Geist, J.

1971 "A Behavioral Approach to the Management of Wild Ungulates", IN *The Scientific Management of Animal and Plant Communities for Conservation*. E. Duffey and A.S. Watt, eds., Blackwell Academic Publishing, Oxford, England.

1975 "Harassment of Large Mammals and Birds". Report to the Berger Commission, University of Calgary, Alberta, Canada.

Godfrey, A. E.

1985 "Karst Hydrology of the South Slope of the Uinta Mountains, Utah", IN *Geology and Energy Resources, Uinta Basin of Utah*. M.D. Picard, editor, Utah Geological Association, Salt Lake City, Utah.

Godfrey, E. Bruce

1991 "The Beef Industry in Utah's Economy." A draft manuscript available from the author. Department of Economics, Utah State University, Logan.

Goodson, N.J.

1982 Effects of Domestic Sheep Grazing on Bighorn Sheep Populations: A review. in Biannual Symposium and Goat Council, 3:287-313.

Graul, W.D. and L.E. Webster

1976 Breeding status of the mountain plover Condor 78:265-267

Green, R.A. and G.A. Bear

1990 "Seasonal Cycles and Daily Activity Patterns of Rocky Mountain Elk". *J. Wildlife Management* 54(2) 272-279.

Hellman, C.N., and T.W. Clark

1980 *Mustela Nigripes.* The American Society of Mammalogists, Mammalian Species No. 126, pp 1-3.

Holmes, W.F.

1985 "Water Budget and Ground-water Occurrence in the Uinta Basin of Utah," IN *Geology and Energy Resources, Uinta Basin of Utah.* Utah Geological Association, Salt Lake City, Utah.

Hood, J.W.

1976 "Characteristics of Aquifers in the Northern Uinta Basin Area, Utah and Colorado." State of Utah, Department of Natural Resources Tech. Bul. No. 53.

Hood, J.W.; and Fields, F.K.

1978 "Water Resources of the Northern Uinta Basin Area, Utah and Colorado, With Special Emphasis on Ground-water Supply". State of Utah, Department of Natural Resources Tech. Bull. No. 62. Salt Lake City, Utah.

Jessup, D.A.

1985 Diseases of Domestic Livestock Which Threaten Bighorn Sheep Populations, transactions of the Desert Bighorn Council. 29:29-33.

Jones & McKay

1980 Class I Cultural Resource Inventory for the Vernal District of the Bureau of Land Management. Vernal, Utah.

Karp, C.

1990 U.S. Fish and Wildlife Service, Vernal, Utah. Personal communication with R. Sutton, ENSR Consulting and Engineering. July 18, 1990.

King, M.M.

1985 *Behavioral Response of Desert Bighorn Sheep to Human Harassment: A Comparison of Disturbed and Undisturbed Populations.* Doctoral Dissertation, Utah State University, Logan.

Knowlton, F.F.

1972 "Preliminary Interpretation of Coyote Population Management with Some Management Implications", IN *J. Wildlife Management*, volume 36(2):369-382.

Kung, Peter

1991 "Threatened and Endangered Plant Inventory and Ferruginous Hawk Study Status Report". Biological Consulting & Survey, Logan, Utah.

Kuuskraa, V.A.; Hammershaimb, E.C.; and Paque, M.

1987 "Major Tar Sand and Heavy-oil Deposits of the United States", IN Exploration for Heavy Crude Oil and Natural Bitumen. R.F. Myers, editor. American Association of Petroleum Geologists, Studies in Geology #25.

Law, B.E.

1988 "Geologic Framework and Hydrocarbon Plays in the Southwestern Wyoming Basins Province". United States Geological Survey Open File Report 88-450-F.

Law, B.E.; Pollastro, R.M.; and, Keighin, C.W.

1986 "Geologic Characterization of Low-permeability Gas Reservoirs in Selected Wells, Greater Green River Basin, Wyoming, Colorado, and Utah", IN *Geology of Tight Gas Reservoirs.* American Association of Petroleum Geologists Studies in Geology No. 24.

Leopold, Aldo

1969 A Sand County Almanac and Sketches Here and There. Oxford University Press. New York, New York.

Linder, R.L., R.B. Dahlgren, and C.N. Hillman

1972 Black-footed ferret/prairie dog interrelationships. Pp 22-37 in Proceedings of the Symposium on Rare and Endangered Wildlife of the Southwest U.S., September 22-23, 1972. New Mexico Department Game and Fish, Santa Fe 167pp.

MacArthur, R.A., V. Geist, and R.H. Johnston

1982 "Cardiac and Behavioral Responses of Mountain Sheep to Human Disturbance. J. Wildlife Management 46: 351-358.

Mast, R.F.; Dolton, G.L.; Crovelli, R.A.; Root, D.H.; Attanasi, E.D.; Martin, P.E.; Cooke, L.w.; Carpenter, G.B.; Pecora, W.C.; and, Rose, M.B.

1989 "Estimates of Undiscovered Recoverable Conventional Resources of Oil and Gas in the United States--A Part of the Nation's Energy Endowment", Joint U.S. Geological Survey and Mineral Management Service publication.

Mautz, W.W.

1978 "Nutrition and Carrying Capacity". Stackpole Books.

Maxwell, J.D.; Bridges, B.L.; Barker, D.A.; and Moore, L.G.

1971 "Hydrogeology of the Eastern Portion of the South Slopes of the Uinta Mountains." State of Utah, Department of Natural Resources Info Bul. No. 21.

Mayor, M.

1990 "Breaking into the Coalbed Cache", IN *Western Oil*, April issue, pp. 33-37.

McFarland, D.J.

1977 "Decision Making in Animals". *Nature* 269:15-21.0

McKibben, K., J. Gessamen, and J.W. Sigler

1989 *Ferruginous Hawk (Buteo regalis)*: Section XXXX, U.S. Army Corps of Engineers, Wildlife Resources Management Manual, Draft Technical Report EL-XX-XX. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Moir, W.H.

1989 "History of Development of Site and Condition Criteria for Range Condition within the U.S. Forest Service", IN Secondary Succession and the Evaluation of Rangeland Condition. Lauenroth, W.K. and Kaycock, W.A., editors. Westview Press. Boulder, Colorado.

National Cattlemen's Association

1982 "The Future of Beef". NCA's Special Advisory Committee Report. Englewood, Colorado.

Nussbaum, R.A., E.D. Brodie, Jr., and R.M. Storm

1983 Amphibians and Reptiles of the Pacific Northwest. University Press of Idaho. 332pp.

Orderka, D.K. and W.D. Wishart

1988 Experimental Contact Transmission of Pasteurella Haemolytica From Clinically Normal Domestic Sheep Causing Pneumonia in Rocky Mountain Bighorn Sheep. Journal of Wildlife Diseases, Vol. 24, No. 4. Oct. 1988.

Parker, K.L., C.T. Robbins, and T.A. Hanley

1984 "Energy Expenditures for Locomotion by Mule Deer and Elk". *J. Wildlife Management* 48:474-488.

Parrish, T.L.

1988 Mountain Plover habitat selection in the Powder River Basin, Wyoming. Masters Thesis, University of Wyoming, Laramie. 60pp.

Patterson, R.L.

1952 *The Sage Grouse in Wyoming*. Sage Books, Inc., Denver, Colorado.

Pratt, Jeremy; Nielsen, Joyce; and, Nordstrom, Anne

1991 "Recreation Use Capacity of the Green River Corridor Below Flaming Gorge Dam, Final Report". Prepared by Institute for Human Ecology under contract to the Ashley National Forest, Vernal, Utah.

Price, D.; and, Miller, L.L.

1975 "Hydrologic Reconnaissance of the Southern Uinta Basin, Utah and Colorado." State of Utah, Department of Natural Resources, Tech. Bull. No. 49. Salt Lake City, Utah.

Raup, D.M., et al.

1987 "Paleontological Collecting: Committee Guidelines for Paleontological Collecting." National Academy of Sciences, National Academic Press. Washington, DC.

Rouse, C.H.

1954 "Antelope and Sheep Fences, Preliminary Report of Study", USDI, BLM, Washington D.C. pp. 20.

Sanborn, A.F.

1971 "Possible Future Petroleum of the Uinta And Piceance Basins and Vicinity, Northeast Utah and Northwest Colorado", IN *Future Petroleum Provinces of the United States--Their Geology and Potential,* I.H. Cram, Ed. American Association of petroleum Geologists Memoir 15, v. 1.

Sandoval, A.V.

1988 Bighorn Sheep Die-off following Association with Domestic Sheep: Case history. Desert Bighorn Council Trans. 32:36-38.

Schaafsma, Polly

1971 "The Rock Art of Utah: Papers of the Peabody Museum of Archaeology and Ethnology". Harvard University, Paper No. 65. Cambridge, Massachusetts.

Severson, Keith E.; and, Rinne, John N.

1988 "Increasing Habitat Diversity in Southwestern Forests and Woodlands via Prescribed Fire", IN *Effects of Fire Management of Southwestern Natural Resources, Proceedings of the Symposium*, November 15-17, 1989 at Tucson, AZ. Published 1990 by U.S. Forest Service, Fort Collins, CO.

Smith, T.S., D.S. Winn

1991 "A Habitat Evaluation Procedure for Rocky Mountain Bighorn Sheep in the Intermountain West. *Great Basin Naturalist 51:1-23.*

Sorg, Cindy F. and John B. Loomis

1984 Empirical Estimates of Amenity Forest Values: A Comparative Review.

Spencer, C.W.

1989 "Review of Characteristics of Low-permeability Gas Reservoirs in Western United States', IN *American Association of Petroleum Geologists*, volume 73(5).

Spencer, C.W.; and Law, B.E.

1988 "Unconventional Resources--Western Tight Gas Reservoirs", IN *National Assessment of Undiscovered Conventional Oil and Gas Resources*. U.S. Geological Survey Open File Report No. 88-373.

Spencer, C.W.; and Law, B.E.

1990 "Western Tight Gas Reservoirs", paper presented at the Federal Land Assessment Workshop. Sponsored by U.S. Geological Survey, Bureau of Land Management and National Park Service.

Spencer, C.W.; and, Wilson, J.W.

1988 "Petroleum Geology and Principal Exploration Plays in the Uinta-Piceance-Eagle Basins Province, Utah and Colorado", U.S. Geological Survey Open File Report 88-450-G.

Stern, Konrad

1960 "Native Bitumens, Pyrobitumens, and Asphaltic Type Petroleum Bitumens", IN *Industrial Minerals and Rocks, Nonmetallics Other than Fuels*. The American Institute of Mining, Metallurgical and Petroleum Engineers.

Spraker, T.R.

1977 Fibrinous pneumonia of bighorn sheep. Transactions of the Desert Bighorn Council, 21:17-18.

Swift, J.E., Ellis, and N.T. Hobbs

1980 "Nitrogen and Energy Requirements of N. American Cervids in Winter - A Simulation Study" IN *Proceedings of Second International Reindeer/Caribou Symposium* 2:244-251.

United States Department of Agriculture, U.S. Forest Service

1986 *Ashley National Forest Land and Resource Management Plan*. Ogden, Utah.

United States Department of Commerce

1990 "Census Findings of 1990". Washington, D.C.

United States Department of the Interior, Bureau of Land Management

1978 Colorado Cutthroat Distribution, Wildlife Section, Unit Resource Analysis, Browns Park, DMRA, Vernal BLM District, pp 26-27.

1979 "Desolation and Gray Canyons of the Green River, River Management Plan". Moab, Utah.

1980 "Unit Resource Analysis for the Duchesne Planning Unit for the Management Framework Plan". In house document. Vernal, Utah.

1981 *Browns Park Management Framework Plan*, Diamond Mountain Resource Area. Vernal, Utah.

1984a *Ashley-Duchesne Management Framework Plan*, Diamond Mountain Resource Area. Vernal, Utah.

1984 "Utah Combined Hydrocarbon Regional Environmental Impact Statement". Richfield, Utah.

1987a "Rocky Mountain Bighorn Sheep Guidance Plan for the Vernal BLM District". Vernal, Utah.

1987b "Off-Road Vehicle Designation Implementation Plan for the Vernal District, Final Environmental Assessment and Record of Decision". Vernal, Utah.

1988a "Vernal District, Utah, Weed Control Plan". Vernal, Utah.

1988b Cody Resource Management Plan/Final Environmental Impact Statement. Worland, Wyoming.

1989a *Little Snake Resource Management Plan and Record of Decision*. Craig, Colorado.

1989b "Unlimited Outdoor Adventure, Utah, Recreation 2000: A Revitalized Approach", volume 1. Salt Lake City, Utah.

1990 "Fish and Wildlife Plan: 2000". Washington, D.C.

1990 Class I Cultural Resource Inventory for the Vernal District of the Bureau of Land Management. Prepared by H. Blaine Phillips, II, District Archeologist. Vernal, Utah.

1990 "Final Draft Riparian Plan for Utah. Salt Lake City, Utah.

1991 Vernal District, Animal Damage Control Plan and Environmental Assessment, Utah.

1991 Draft Judith Valley Phillips Resource Management Plan, EIS, Lewiston, Montana.

1991 Animal Damage Control Plan and Environmental Assessment. Vernal, Utah.

1991c In Lieu of Tax Payments to Local Units Govt. 1988 to 1991.

1992 Draft Klamath Falls Resource Area Resource Management Plan and EIS, Volume 1, Lakeview, Oregon.

1992 Draft Guidelines for Domestic Sheep Management in Bighorn Sheep Habitats. Inst. Memo 92-239.

United States Department of the Interior, Minerals Management Service, Royalty Management Program

1992 Schedule of Royalty Disbursements on Public Lands in Selected counties for the State of Utah for the Period FY 1983 through May 1992. Source: ADR020R, ADF600R1

United States Department of the Interior, U.S. Bureau of Reclamation

1980 Colorado River Salinity: Economic Impacts on Agricultural, Municipal, and Industrial Users.

United States Department of the Interior, U.S. Fish and Wildlife Service

1981 Potential Present Range of the Black-Footed Ferret as of January 1, 1981, by W.G. Jobman and M.E. Anderson. U.S. Fish and Wildlife Service Report. Grand Island, NE.

1982 Colorado River Fishery Project: Final Report, by W. H. Miller, J.J. Valentine, D.L. Archer, H.M. Tyus, R.A. Valdez, and L. Kaeding. U.S.W.F.S. and Bureau of Reclamation, Salt Lake City, Utah, pp 1-731.

1985a Update for report entitled "Potential Present of the Black-Footed Ferret as of January 1, 1981, by W.G. Jobman and M.E. Anderson. U.S. Fish and Wildlife Service Report. Grand Island, NE.

1986a Update for report entitled "Potential Range Present of the Black-Footed Ferret as of January 1, 1981, by W.G. Jobman and M.E. Anderson. U.S. Fish and Wildlife Service Report. Grand Island, NE.

1986b Colorado River Fishes Monitoring Project; Final Report, by D. L. Archer, et al., 134 Union Blvd. Lakewood, Colorado.

1987a Update for report entitled "Potential Present Range of the Black-Footed Ferret as of January 1, 1981, by W.G. Jobman and M.E. Anderson. U.S. Fish and Wildlife Service Report. Grand Island, NE.

1987b Distribution, Reproduction, and Habitat Use of the Razorback Sucker in the Green River, Utah, 1979-1986. Transactions of American Fisheries Society, 116:111-116.

1988 "Work Plan for Detailed Study and Assessment of Irrigation Drainage in the Middle Green River Basin, Utah". Prepared in cooperation with U.S. Geological Survey and Bureau of Reclamation.

1989 Habitat Use and Streamflow Needs of Rare and Endangered Fishes, Yampa River, Colorado. Biological Report 89(14).

1990a Update for Report entitled "Potential Present Range of the Black-Footed Ferret as of January 1, 1981, and January 1, 1981 to January 1, 1989. Nebraska-Kansas Field Office, May 7, 1990.

1990b Status of the Mountain Plover, A Literature Review, Golden, Colorado.

1990c Final Recovery Plan for *Sclerocactus Glaucus*. Salt Lake City, Utah.

1990d "Guidelines for Oil and Gas Activities in Prairie Dog Ecosystems Managed for Black-Footed Ferret Recovery - Draft", Denver, CO.

United States Department of the Interior, National Park Service

1980 *Final Wild and Scenic River Study and Final Environmental Statement--Green and Yampa Wild and Scenic Rivers*. Completed in cooperation with Colorado's and Utah's Departments of Natural Resources. Denver, Colorado.

United States Office of the President, Council on Environmental Quality

1993 "Incorporating Biodiversity Considerations into Environmental Impact Analysis Under the National Environmental Policy Act." Washington, DC.

Utah State, Department of Natural Resources, Division of Oil, Gas and Mining

1989 "Annual Oil and Gas Production Reports." Salt Lake City, Utah.

Utah State, Department of Natural Resources, Division of Wildlife Resources

1987 "Native Utah Wildlife Species of Special Concern." Salt Lake City, Utah.

1989a Personal communication with Chad Crosby, NE Regional Office, Vernal, Utah.

1989b *Utah Upland Game Annual Report.* Publication No. 90-5. Salt Lake City, Utah.

1990 Draft Bighorn Sheep Reintroduction in Utah, Utah Division of Wildlife Resources, Salt Lake City, Utah.

Utah State

1992 Economic Report to the Governor.

Utah State, Office of State Planning and Budget

1991 Utah Economic and Demographic Profiles.

1991 Utah Demographic Report.

1992 Economic and Demographic Projections, May, 1992.

Utah State, Department of Community and Economic Development

1991 Daggett, Duchesne, and Uintah County Economic Facts.

Wagner, P.W.

1980 "Raptor Habitat Relationships". Utah Division of Wildlife Resources, Salt Lake City, Utah.

West, Nell E.

1989 "Vegetation Types of Utah", IN *Rangeland Resources of Utah.* K.L. Johnson, editor. Utah State University, Logan.

White, C.M., T.L. Thurow, and J.F. Sullivan

1979 Effects of Controlled Disturbance on Ferruginous Hawks as may Occur During Geothermal Energy Development. In Expanding the Geothermal Frontier, Transactions. Vol. 3. Geothermal Resources Council, Davis, CA. pp 777-780.

Wright, Henry A.; Neuenschwander, Leon F.; and Britton, Carlton M.

1979 "The Role and Use of Fire in Sagebrush-Grass and Pinyon-Juniper Plant Communities: A State-of-the-Art Review." General Technical Report INT-58. U.S. Forest Service, Ogden, Utah.

Wyoming Game and Fish

1992 The Drumming Post - A quarterly non-game newsletter. Summer 1992, Vol. 5, No. 3.

INDEX

Unless specified as being in Volume 2, these entries are understood to be in Volume 1.

Access (see also Lands and Realty Programs)
- Map 2.49

ACECs
- Analysis of nominations A7.1-5
- Criteria, planning 1.11
- Considered for designation
  - Alternative A 2.26, 2.71
  - Alternative B 2.29, 2.71
  - Alternative C 2.33, 2.71
  - Alternative D 2.36, 2.71
  - Proposed Plan 2.20, 2.71
- Management prescriptions
  - Alternative A 2.97-108
  - Alternative B 2.109-126
  - Alternative C 2.129-136
  - Alternative D 2.139-140
  - Proposed Plan 2.71-94
- Maps:
  - Alternative A 2.96
  - Alternative B 2.108
  - Alternative C 2.128
  - Alternative D 2.138
  - Proposed Plan 2.70

Acquisitions, Land
- Analysis assumptions 4.2
- Criteria, planning 1.6
- Management guidance common to all 2.9-2.10

Air Resources
- Analysis assumptions 4.2
- Criteria, planning 1.11
- Description 3.1
- Management guidance common to all 2.2

Allotments, Grazing
- AMP priorities A8.36
- Categorization A8.37-42
- Forage assignments for livestock A8.2-11
- Forage assignments for wildlife A2.3-7
- Information table, comprehensive A8.2-11
- Problems, conflicts and opportunities A8.18-20
- Rangeland improvements A8.21-35, A8.43-46
- Riparian information A8.12-16

Alternatives ..... iii-v, 2.20-149
- Descriptions:
  - Brief, ... iii-v
  - Summaries 2.18-39
- Management prescriptions:
  - Areawide 2.41-67
  - Special emphasis areas 2.71-140

Alternative A
- Management prescriptions 2.41-67
- Management priority areas 2.26
- Map ..... map packet #3
- Special emphasis area prescriptions 2.97-106
- Summary 2.27-29
- Support needs for implementation 2.28-29

Alternative B
- Management prescriptions 2.29-67
- Management priority areas 2.29-30
- Map ..... map packet #4
- Special emphasis area prescriptions 2.109-126
- Summary 2.32-33
- Support needs for implementation 2.32-33

Alternative C
- Management prescriptions 2.33-67
- Management priority areas 2.33
- Map ..... map packet #5
- Special emphasis area prescriptions 2.129-136
- Summary 2.33-36

Support needs for implementation 2.35-36

Alternative D
Management prescriptions 2.36-67
Management priority areas 2.36
Map ..... map packet #6
Special emphasis area prescriptions 2.139-140
Summary 2.36-38
Support needs for implementation 2.38

Antelope, Pronghorn, Habitat
Description 3.16
Map 3.17

Archeological Resources
see Cultural and Paleontological Resources

Areas of Critical Environmental Concern
see ACEC

Backcountry Byways
Criteria, planning 1.10
Description 3.43
Management decisions 2.61

Big Game Habitat
Description 3.12-16, 3.21-23
Maps 3.13, 3.15, 3.17

Bighorn Sheep, Rocky Mountain, Habitat
Description 3.21, 3.23
Map of potential habitat 3.21

Black-footed ferret habitat
Description 3.8-9
Map of potential habitat 3.10
Reintroduction guidelines A2.9-11

Blow Sand (see also Minerals--Mineral Materials) 4.9

Browns Park Complex
Management prescriptions for Alternative B . 2.109-124
Management prescriptions for Proposed Plan . 2.71-93

Building Stone (*see also* Minerals--Mineral Materials)
Description 3.39

Castle Cove Relict Vegetation Community
Description A7.5
Management prescriptions for Alternative B, *see Red Mountain-Dry Fork Complex*
Management prescriptions for Alternative C . 2.129-135
Management prescriptions for Proposed Plan, *see Red Mountain-Dry Fork Complex*

Classifications, Land
see Withdrawals

Climate 3.1

Coal 1.10

Comments, Public on Draft RMP **V.2**, 5.23-5.364

Corridors, Utility
Analysis assumptions 4.2-3
Criteria, planning 1.9
Description 3.24
Proposed corridors:
Alternative A ..... map packet #3
Alternative B ..... map packet #4
Alternative C ..... map packet #5
Alternative D ..... map packet #6
Proposed Plan ..... map packet #7
Routes overlaying other resources A3.2-10

Criteria, Planning (also see individual resources/ programs)
General 1.7-8
Overall 1.6-7
Specific 1.8-14

Crouse Canyon
Description 3.67
Management prescriptions for Alternative A .. 2.97-106

Cultural and Paleontological Resources
Analysis assumptions 4.2
Category allocation of sites A1.1-2
Criteria, planning 1.8
Description 3.1
Guidelines for paleontological resource mitigation A1.2
Impacts:
Alternative A 4.32-33
Alternative B 4.45-46
Alternative C 4.63-64
Alternative D 4.75-76
Proposed Plan 4.13-14
Inventory A1.2
Management guidance common to all 2.4-5
Management prescriptions, areawide 2.42
Management prescription for special emphasis areas:
Alternative A 2.97-98
Alternative B 2.109-110
Alternative C 2.129-130
Alternative D 2.139
Proposed Plan 2.71-72
Maps:
Archeological high density zones 3.2
Historic trails 3.4
Paleontological high sensitivity zones 3.6

Deer, Mule, Habitat
Description 3.12-16
Map 3.15

Demographics and Employment 3.52-53

Diamond Mountain Resource Area
Description 1.2
Resource management plan . . . . . i-ii, 1.1-

Disposals, Land
see Title Adjustments

Economic Activity 3.52-53

Elk, Rocky Mountain, Habitat
Description 3.12
Map 3.13

Environmental Policy 2.2

Evaluation, RMP 2.3

Exchanges
Criteria, planning 1.9
Management guidance common to all 2.9-10

Fire Management
Description 3.67
Management guidance common to all 2.5-6
Management prescriptions, special emphasis areas:
Alternative A 2.97-98
Alternative B 2.109-110
Alternative C 2.129-130
Alternative D 2.139
Proposed Plan 2.73-74

Fish and Wildlife Habitat Management
Analysis assumptions 4.2
Criteria, planning 1.9
Description 3.7-26
Ferret reintroduction guidelines A2.9-11
Forage allocations A2.4-7
Impacts:
Alternative A 4.32-35, 4.43-45
Alternative B 4.46-48, 4.60-63
Alternative C 4.63-64
Alternative D 4.73-75
Proposed Plan 4.14-17, 4.28-32
Management guidance common to all 2.6-8
Management prescriptions, areawide 2.41-50
Management prescriptions for special emphasis areas:
Alternative A 2.97-98
Alternative B 2.109-110
Alternative C 2.129-130
Alternative D 2.139
Proposed Plan 2.75-77
Maps:
Bighorn sheep potential habitat 3.22
Black-footed ferret potential habitat 3.10
Mule deer habitat 3.15
Pronghorn antelope habitat 3.17
Rocky mountain elk habitat 3.13
Sage grouse habitat 3.19
Monitoring studies A2.2
Standard operating procedures A2.1
Vegetation manipulation for sage grouse habitat A2.1-2

Forage Assignments for Livestock and Wildlife . . . 2.54-56

"Gilsonite" (*see also* Minerals--Solid Leasable)
Analysis assumptions 4.5-6
Description 3.36
Map 3.37

Green River, Lower Segment
Description 3.8, 3.63
Management prescriptions for Alternative B . 2.109-125
Management prescriptions for Proposed Plan . 2.71-93

Green River, Middle Segment
Description 3.8, 3.63
Management prescriptions for Alternative B . 2.109-125

Green River, Upper Segment
see Green River Scenic Corridor
see Browns Park Complex

Green River Scenic Corridor ACEC
Description 3.63
Management prescriptions for Alternative A . . 2.97-106
Management prescriptions for Alternative B, *see Browns Park Complex*
Management prescriptions for Alternative C . 2.129-136
Management prescriptions for Alternative D 2.139
Management prescriptions for Proposed Plan, *see Browns Park Complex*

Hazardous Materials
Analysis assumptions 4.2
Management guidance common to all 3.24

Impacts
Cumulative:
Alternative A 4.43-45
Alternative B 4.60-63
Alternative C 4.73-75
Alternative D 4.84-86
Proposed Plan 4.28-32

Direct and indirect:
Alternative A 4.32-43
Alternative B 4.45-60
Alternative C 4.63-73
Alternative D 4.75-84
Proposed Plan 4.13-28
Summary 2.140-148

Implementation, RMP 2.3

Issues
Uses affecting natural resources 1.2-6
Special management areas 1.5
Resource availability and accessibility 1.5-6

Lands and Realty Programs
Analysis assumptions 4.2-3
Corridors, utility 3.24
Criteria, planning 1.9-10
Description 3.24
Impacts:
Alternative A 4.35-36
Alternative B 4.48-49
Alternative C 4.66
Alternative D 4.78
Proposed Plan 4.17
Management guidance common to all 2.9-12
Management prescriptions, areawide 2.51-54
Management prescriptions, special emphasis areas:
Alternative A 2.99-100
Alternative B 2.113-114
Alternative C 2.131-132
Alternative D 2.139
Proposed Plan 2.77-78

Land Use Authorizations
see Rights-of-Way

Lears Canyon Relict Vegetation Community
Description A7.4
Management prescriptions for Alternative B . 2.109-126
Management prescriptions for Alternative C . 2.129-136
Management prescriptions for Proposed Plan . 2.71-93

Livestock Programs (*see also* Allotments, grazing)
AMP priorities A8.36
Analysis assumptions 4.2-3
Categorization of allotments A8.37-42
Criteria, planning 1.10
Description 3.24-26
Economic importance 4.3
Forage assignments A8.2-11
Impacts:
Alternative A 4.36
Alternative B 4.49
Alternative C 4.67
Alternative D 4.79
Proposed Plan 4.17-18
Information table, by allotment A8.2-11
Management guidance common to all 2.12-13
Management prescriptions, areawide 2.54-56
Management prescriptions, special emphasis areas:
Alternative A 2.99-100
Alternative B 2.113-114
Alternative C 2.131-132
Alternative D 2.139
Proposed Plan 2.79-80
Map of grazing allotments . . . . . *map packet #2*
Problems, conflicts, and opportunities A8.18-20
Rangeland improvements A8.21-35, A8.43-45

Management Indicator Species 3.7

Management Priority Area Concept . . . . . i-ii, 1.1

Mapping Process . . . . . i-ii, 1.1, 1.15-16

Minerals Programs
Geologic Setting:
Correlation diagram 3.27
Description 3.26
Map of surface geology 3.28

Locatable Minerals:
Analysis assumptions 4.8-9
Criteria, planning 1.10
Description 3.37
Management guidance common to all 2.13-14
Management prescriptions, areawide 2.58
Management prescriptions, special emphasis areas:
Alternative A 2.101-102
Alternative B 2.117-118
Alternative C 2.132-133
Alternative D 2.139
Proposed Plan 2.81-82
Maps:
Locatable mineral development potential 3.38
Lode claim distribution 3.39
Placer claim distribution 3.40

Mineral Materials:
Analysis assumptions 4.9-10
Criteria, planning 1.10
Description 3.41
Impacts from Alternative B 4.53
Management guidance common to all 2.14
Management prescriptions, areawide 2.58

Management prescriptions, special emphasis areas:
Alternative A ... 2.110-101
Alternative B ... 2.116-117
Alternative C ... 2.130-131
Alternative D ... 2.139
Proposed Plan ... 2.79-80
Map of mineral material development potential ... 3.41

Oil and Gas:
Analysis assumptions ... 4.3-5
Criteria, planning ... 1.10
Description ... 3.26-31
Economic description ... 3.53
Impacts:
Alternative A ... 4.36-37, 4.43-44
Alternative B ... 4.50-52, 4.60-62
Alternative C ... 4.67, 4.62-74
Alternative D ... 4.78-79, 4.84-86
Proposed Plan ... 4.18-20, 4.28-30
Leasing, competitive ... A4.1
Management guidance common to all ... 2.13-14
Management prescriptions, areawide ... 2.56-57
Management prescriptions, special emphasis areas:
Alternative A ... 2.100-101
Alternative B ... 2.114-115
Alternative C ... 2.130-131
Alternative D ... 2.139
Proposed Plan ... 2.79-80

Maps:
Oil and gas development potential ... 3.30
Oil and gas plays ... A4.10
Oil and gas production regions ... 3.32
Occurrence of oil and gas resources ... A4.9-13
Operations A4.1-9
Reasonable foreseeable development ... A4.13-28
Stipulations:
Current guidance ... A4.33
Existing stipulations ... A4.29-33

Solid Leasable Minerals:
Analysis assumptions ... 4.5-8
Criteria, planning ... 1.10
Description ... 3.33-34
Impacts:
Alternative A ... 4.37
Alternative B ... 4.53
Alternative D ... 4.79
Proposed Plan ... 4.20
Management guidance common to all ... 2.13
Management prescriptions, areawide ... 2.57-58
Management prescriptions, special emphasis areas
Alternative A ... 2.100-101
Alternative B ... 2.114-115
Alternative C ... 2.130-131
Alternative D ... 2.139
Proposed Plan ... 2.79-80
Maps:
Ashley-Brush Creek known phosphate leasing area ... 3.35
"Gilsonite" development potential ... 3.36

Monitoring, RMP ... 2.3

Need for this RMP ... 1.1-2

Nine Mile Canyon
Description ... 3.65
Management prescriptions for Alternative A ... 2.96-104
Management prescriptions for Alternative B ... 2.108-124
Management prescriptions for Proposed Plan ... 2.71-94

Off-Highway Vehicle Designations
Criteria, planning ... 1.10
Description ... 3.46-48
Management prescriptions, areawide ... 2.59
Management prescriptions, special emphasis areas
Alternative A ... 2.100-101
Alternative B ... 2.116-117
Alternative C ... 2.132-133
Alternative D ... 2.139
Proposed Plan ... 2.83-86

Oil Shale ... 1.10, 4.6

Paleontological Resources
see Cultural and Paleontological Resources

Pariette Wetlands
Description ... 3.65
Management prescriptions for Alternative A ... 2.97-105
Management prescriptions for Alternative B ... 2.109-125
Management prescriptions for Proposed Plan ... 2.71-94

Phosphate (*see also* Minerals--Solid Leasable)
Analysis assumptions ... 4.6-7
Description ... 3.33-34
Impacts to:
Alternative A ... 4.37
Alternative B ... 4.53
Alternative D ... 4.79
Proposed Plan ... 4.20
Map ... 3.35

Planning Process ... 1.14-15

Preparers, List of ... **V2**, 5.5-5.7

Proposed Plan
Management prescriptions ... 2.39-67
Management priority areas ... 2.20-22
Map ... *map packet #7*

Special emphasis area prescriptions 2.70-93
Summary 2.22-26
Support needs for implementation 2.25-26

Public Comments on Draft RMP *V2, 5.23-5.364*

Purpose of this RMP 1.1-2

Rangeland Improvements
Standard operating procedures *A8.43-46*
Management prescriptions *2.64, A8.21-35*

Recreation Opportunity Spectrum *3.41, A5.1*

Recreation Programs
Analysis assumptions *4.11*
Criteria, planning *1.10-1.11*
Description *3.41-48*
Economic description *3.53*
Impacts:
Alternative A *4.37-38, 4.43-44*
Alternative B *4.53-55, 4.60*
Alternative C *4.67-69, 4.73-74*
Alternative D *4.79-80, 4.84-85*
Proposed Plan *4.20-22, 4.30-32*
Management guidance common to all *2.130*
Management prescriptions, areawide *2.59-62*
Management prescriptions, special emphasis areas:
Alternative A *2.100-103*
Alternative B *2.116-118*
Alternative C *2.132-133*
Alternative D *2.139*
Proposed Plan *2.83-86*
Maps:
Developed recreation sites *3.45*
OHV designations *3.47*
Recreation opportunity spectrum classification . *3.43*
Special recreation management areas *3.45*

Recreations Sites
Developed *3.44, 3.46*
Potential *3.44, 3.46*

Red Creek Watershed ACEC
Description *3.65*
Management prescriptions for Alternative A . . *2.97-105*
Management prescriptions for Alternative B . *2.109-125*
Management prescriptions for Alternative C . *2.129-135*
Management prescriptions for Proposed Plan . *2.80-94*

Red Mountain
Description *3.65*
Management prescriptions for Alternative A . . *2.97-105*
Management prescriptions for Alternative C . 2.129-135

Red Mountain-Dry Fork Complex
Management prescriptions for Alternative B . *2.109-125*
Management prescriptions for Proposed Plan . *2.80-94*

Red Mountain relict vegetation community
Description *A7.5*
Management prescriptions for Alternative B, *see Red Mountain-Dry Fork*
Management prescriptions for Alternative C . *2.129-135*
Management prescriptions for Proposed Plan, *see Red Mountain-Dry Fork*

Rights-of-Way (*see also* Lands and Realty)
Analysis assumptions 4.2-3
Criteria, planning *1.9*
Description *3.24*

Riparian Habitat Management
Criteria, planning *1.11*
Description *3.48-51*
Impacts:
Alternative A *4.39*
Alternative B *4.55*
Alternative C *4.69*
Alternative D *4.80*
Proposed Plan *4.22-26*
Management guidance common to all *2.14-15*
Management prescriptions, areawide *2.62*
Management prescriptions, special emphasis areas
Alternative A *2.102-103*
Alternative B *2.118-119*
Alternative C *2.132-133*
Alternative D *2.139*
Proposed Plan *2.87-88*
Map *3.50*
Policy *A6.1-2*

Sage Grouse Habitat
Description *3.16, 3.18*
Map *3.19*

Sales, Land
see Title Adjustments

Sand and Gravel
see Minerals--Mineral Materials

Scenic Byways
see Back-country Byways

Scenic Resources
see Visual resources

Socioeconomics
Analysis assumptions *4.11-12*
Community setting *3.51*

Description 3.51-54
Impacts:
Alternative A 4.39-41
Alternative B 4.55-58
Alternative C 4.69-71
Alternative D 4.80-82
Proposed Plan 4.22-26

Soil and Water Resources
Analysis assumptions 4.12
Criteria, planning 1.11
Description 3.54-63
Impacts:
Alternative A 4.41-44
Alternative B 4.58-59, 4.61
Alternative C 4.71-72, 4.73-74
Alternative D 4.82-84
Proposed Plan 4.26-27, 4.30
Management guidance common to all 2.15-16
Management prescriptions, areawide 2.62-64
Management prescriptions, special emphasis areas
Alternative A 2.102-103
Alternative B 2.120-121
Alternative C 2.133
Proposed Plan 2.87-88
Maps:
Critical watersheds 3.58
Highly erodible soils 3.56
Municipal watersheds 3.61
100-year floodplains 3.59
Saline soils 3.57
Sediment yields 3.62

Special Emphasis Areas
Criteria, planning 1.11-12
Impacts:
Alternative A 4.44-45
Alternative B 4.62-63
Alternative C 4.74-75
Alternative D 4.86
Proposed Plan 4.30-31
Management prescriptions:
Alternative A 2.102
Alternative B 2.120-121
Alternative C 2.132-133
Alternative D 2.139
Proposed Plan 2.89
Maps:
ACECs, existing 3.66
ACECs considered for Alternative A 2.95
ACECs considered for Alternative B 2.107
ACECs considered for Alternative C 2.127
ACECs considered for Alternative D 2.137
ACECs considered for Proposed Plan 2.69
Other special emphasis areas 3.66
Wild and scenic eligible river segments 3.64
Wilderness study areas 1.13, 3.64

Special Status Animals
Description 3.8-12
Management guidance common to all 2.7-8

Special Status Plants
Description 3.69-70
Management guidance common to all 2.18

Tar Sands (*see also* Minerals--Solid Leasable)
Analysis assumptions 4.7-8
Description 3.33
Impacts:
Alternative B 4.53
Proposed Plan 4.20

Threatened and Endangered Plants and Animals
see Special Status plants and/or animals

Title Adjustments (*see also* Lands and Realty Programs)
Analysis assumptions 4.2-3
Community expansion tracts A3.15
Criteria, planning 1.9-10
Isolated tracts A3.14
Lands identified for possible disposal
Proposed Plan A3.14-15
Management guidance common to all 2.9-10
Management prescriptions 2.51-52

Transportation, Criteria, Planning 1.9
Map . . . . . *map packet #2*

Trespass
Criteria, planning 1.10
Management guidance common to all 2.12
Management prescriptions 2.51

Using this RMP Document
Management priority concept . . . . . i-ii
Organization of the RMP iii

Vegetation Resources Management
Analysis assumptions 4.12-13
Criteria, planning 1.12-14
Description 3.65-70
Ecological condition 3.69-70
Fire in vegetation management 3.65-67
Impacts:
Alternative A 4.41-42
Alternative B 4.59
Alternative C 4.72
Alternative D 4.83
Proposed Plan 4.27-28
Management guidance common to all 2.18
Management prescriptions, areawide 2.64-66

Management prescriptions, special emphasis areas:
Alternative A 2.104-105
Alternative B 2.122-123
Alternative C 2.134-135
Alternative D 2.139
Proposed Plan 2.91-92
Map of vegetation zones 3.68
Special status plants 3.69
Undesired plants 3.69
Vegetation inventory A8.1

Visual Resources Management
Analysis assumptions 4.13
Criteria, planning 1.11
Description 3.70-72
Impacts:
Alternative A 4.42
Alternative B 4.59
Alternative C 4.72
Alternative D 4.83-84
Proposed Plan 4.28
Management guidance common to all 2.18
Management prescriptions, areawide 2.68
Management prescriptions, special emphasis areas:
Alternative A 2.104-105
Alternative B 2.122-123
Alternative C 2.134-135
Alternative D 2.139
Proposed Plan 2.93-94
Map of VRM Classes 3.71

Water
see Soil and Water Resources

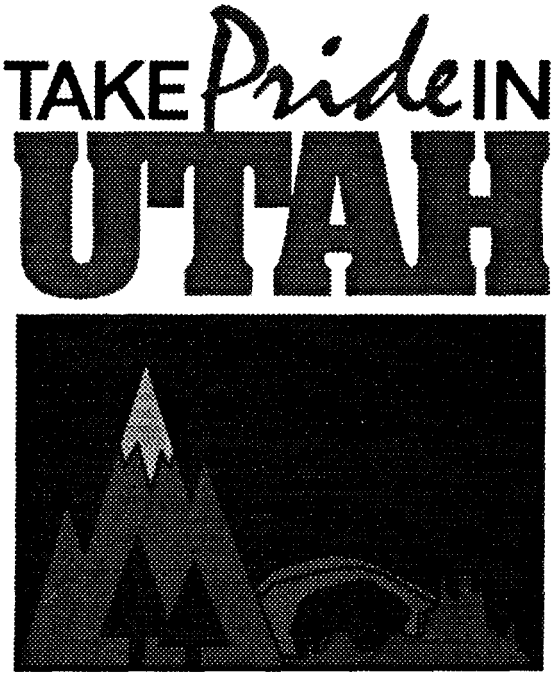
Wild and Scenic Rivers
Analysis of river segments for eligibility A7.6-20
Analysis of eligible segments for suitability . . . A7.21-28
Criteria, planning 1.12
Description of eligible river segments A7.8
Map of eligible river segments 3.64

Wilderness Study Areas
Criteria, planning 1.12
Description 3.63, 3.65
Map 1.13, 3.64

Withdrawals and Classifications (*see also* Lands and Realty Programs)
Criteria, planning 1.9
Description 3.24-25
Map, land status . . . . . *map packet #1*

Woodlands Programs
Analysis assumptions 4.13
Criteria, planning 1.14
Description 3.72-74
Economic description 4.13
Impacts:
Alternative A 4.42-43
Alternative B 4.59-60
Alternative C 4.72-73
Alternative D 4.84
Proposed Plan 4.28
Management guidance common to all 2.18
Management prescriptions, areawide 2.68
Management prescriptions, special emphasis areas
Alternative A 2.104-105
Alternative B 2.124-125
Alternative C 2.134-135
Alternative D 2.139
Proposed Plan 2.93-94
Map of productive woodlands 3.73

☆U.S. GOVERNMENT PRINTING OFFICE: 1993-774-072/86000



Bureau of Land Management

PUBLIC LANDS ☆USA☆

USE ☆ SHARE ☆ APPRECIATE

TAKE PRIDE IN AMERICA

SM

This document is printed on recycled paper.

Utah NEPA Registry Number UT-080-1991-52

United States Department of the Interior
Bureau of Land Management

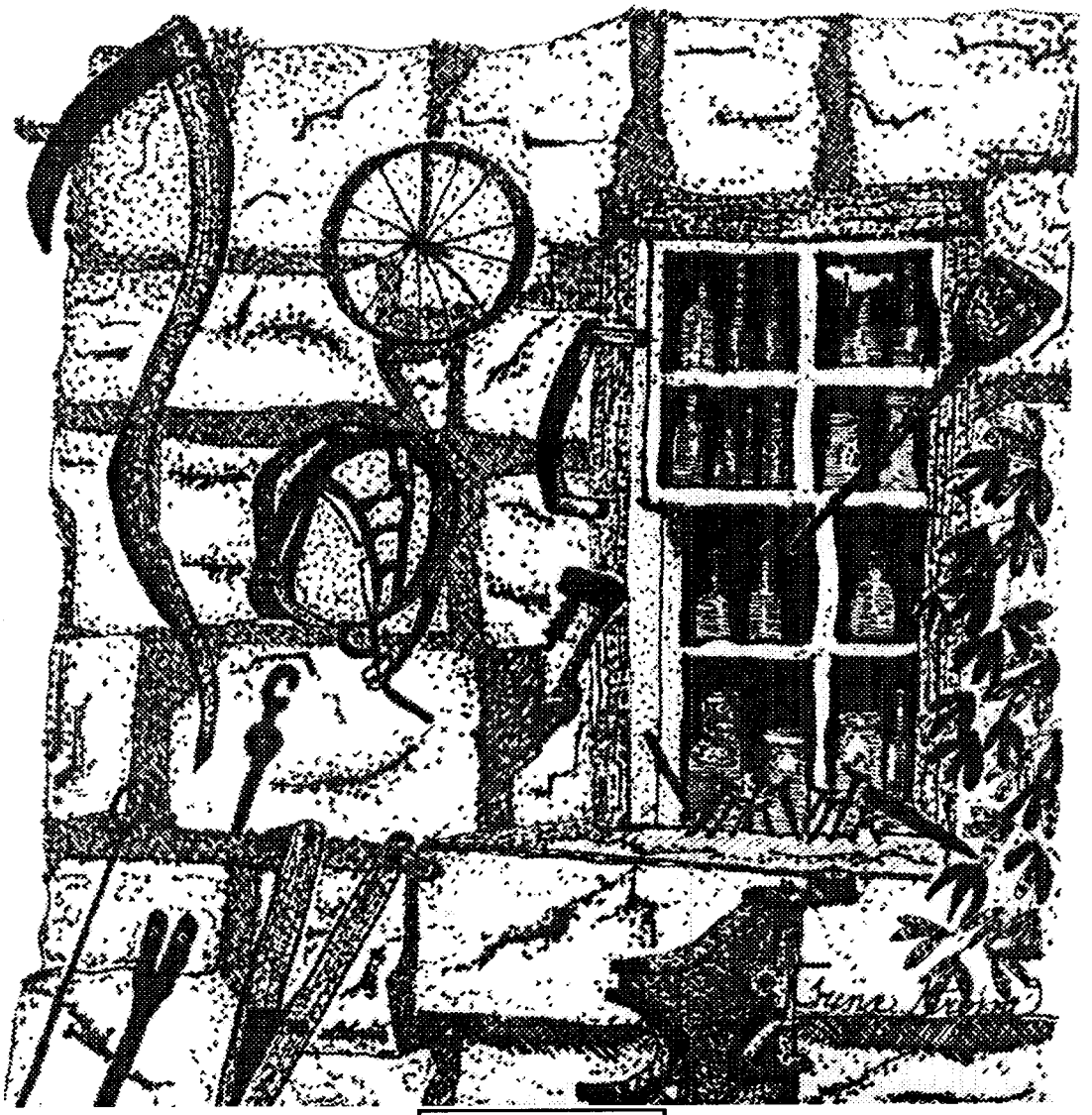
FINAL

Vernal District Office

Spring 1993

Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Volume II



STONE HOUSE
JARVIE RANCH

The Bureau of Land Management is responsible for the stewardship of our public lands. It is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people for all times. Management is based on the principles of multiple use and sustained yield of our nation's resources within a framework of environmental and scientific technology. These resources include recreation; rangelands; timber; minerals; watershed; fish and wildlife; wilderness; air; and scenic, scientific, and cultural values.

Index Number BLM/UT/PT-93/018+1610

DIAMOND MOUNTAIN RESOURCE AREA

PROPOSED
RESOURCE MANAGEMENT PLAN AND
FINAL ENVIRONMENTAL IMPACT STATEMENT

VOLUME II:

Consultation and Coordination

Prepared by

Department of the Interior
Bureau of Land Management
Vernal District
Spring 1993

David E. Little
District Manager
Vernal District

June 14, 1993
Date

James M. Parker
State Director
Utah State Office

June 17, 1993
Date

CONSULTATION AND COORDINATION 5

Resource specialists in the Diamond Mountain Resource Area and Vernal District prepared the Diamond Mountain Resource Management Plan/Environmental Impact Statement (RMP/EIS). The Vernal District Office and Utah State Office management teams and resource program leaders provided technical and policy reviews and suggestions.

Consultation, coordination, and public involvement have occurred throughout the process through public meetings, informal meetings, individual contacts, news releases, and *Federal Register* notices.

Initial steps in the process began in 1988 with the development of a preparation plan. Other early efforts included research, inventory, analysis, and interagency coordination.

PUBLIC PARTICIPATION

A public participation plan was prepared to ensure that the public would have numerous opportunities to be actively involved in the planning and environmental process. Both formal and informal input have been encouraged and used.

A notice published in the *Federal Register* in January 1989, indicated the intention of the BLM to prepare a resource management plan and requested information on resources and proposed future uses within the Diamond Mountain Resource Area. Nominations for ACEC consideration were also requested. Letters and a news release requesting information on the potential for occurrence of minerals were mailed in spring 1989.

A news release was issued in September 1989, and notices were mailed to solicit comments on a set of proposed planning criteria.

A news release was issued in January 1991, and a brochure was mailed providing information on the results of the ACEC nomination process and subsequent analysis as well as a brief summary of the alternatives. Invitations to review the Management Situation Analysis and provide nominations for Wild and Scenic River designation were also extended.

The draft Diamond Mountain RMP/EIS was filed with the Environmental Protection Agency (EPA) in December 1991. The EPA's notice of availability, published in the *Federal Register* of January 3, 1992, (page 287) established the 90-day public comment period expiring April 1, 1992. BLM published a notice of availability and an announcement of the public meeting schedule in the *Federal Register* dated December 30, 1991 (pages 67326-67327).

To facilitate review of the draft RMP/EIS, public meetings were held in Vernal, Salt Lake City, Duchesne and Manila during the period January 22 through 30, 1992. A total of about 80 people attended these meetings.

The Vernal District Advisory Council has been kept apprised of the RMP progress, and comments and recommendations of the members have been solicited.

Formal and informal meetings have been held with many members of the ranching and minerals industries and with other interest groups and with Uintah Basin governmental agencies and entities. A summary of comments generated from these meetings is on file in the Vernal District.

CONSISTENCY

Coordination with other agencies and consistency with other plans were accomplished through frequent communications and cooperative efforts between the BLM

and involved federal, state, and local agencies organizations, and the Ute Indian Tribe.

The Utah Governor's Resource Development Coordinating Committee (RDCC) has been heavily involved in the development of this RMP/EIS. Numerous meetings and a field tour were conducted to assure consistency with the state's ongoing plans. The RMP team reviewed the land use plans for Daggett, Duchesne, and Uintah Counties to ensure consistency. BLM personnel have met with the respective county planners and commissioners to promote greater understanding of goals, objectives, and resources of both the counties and the BLM. Additional opportunities to participate were extended to the Ute Indian Tribe and the County Commissioners of the three counties involved.

DISTRIBUTION OF THE RMP/EIS

Approximately 650 copies of the draft RMP/EIS were distributed to federal, state, and local governmental agencies, Ute Indian tribal organizations, congressional and legislative offices, private interest groups and organizations, business institutions, and individuals. Distribution was by volume mailing; however, many copies were also distributed at public meetings and in response to requests for the document. Copies of the document were also available for public review and distribution in the BLM Diamond Mountain Resource Area Office, Vernal District Office, and Utah State Office.

The planning process includes an opportunity for individuals to protest any part of the proposed RMP believed to be in error. Only those persons or organizations who participated in our planning process may protest. A protesting party may raise only those issues which were submitted for the record during the planning process. Protest criteria and procedures are described in the State Director's letter at the beginning of this document.

This proposed RMP/final EIS is being distributed to approximately 700 addresses garnered during the development of the draft and in response to the draft RMP document. The following list is representative of the agencies, organizations, and individuals indicating an interest and participating in the development of the Diamond Mountain RMP. This list is not inclusive. A complete list is on file at the Vernal District Office.

U.S. SENATORS

Senator Jake Garn
Senator Orrin Hatch

CONGRESSIONAL REPRESENTATIVES

Representative Bill Orton District 3

STATE OFFICIALS

Norman Bangerter, Governor

STATE SENATORS

Myrin Alarik, District 26

STATE CONGRESSIONAL REPRESENTATIVES

Beverly Ann Evans, District 55
Dan Price, District 56

FEDERAL AGENCIES

National Park Service
Dinosaur, CO; Jensen, UT;
Washington, DC

National Park Service RMRO
Branch of Compliance
Denver, CO

National Wildlife Federation
Washington, DC

U.S. Air Force Environmental Office-Central
Dallas, TX

U.S. Bureau of Indian Affairs
Phoenix, AZ

U.S. Bureau of Indian Affairs
Uintah and Ouray Agency
Fort Duchesne, UT

U.S. Bureau of Land Management
Green River Resource Area
Rock Springs, WY

U.S. Bureau of Land Management
Price River Resource Area
Price, UT

U.S. Bureau of Land Management
White River Resource Area
Meeker, CO

U.S. Bureau of Land Management
Little Snake Resource Area
Craig, CO

U.S. Bureau of Land Management
Planning Coordinator
Craig, CO; Moab and Salt Lake City, UT

U.S. Bureau of Mines
Denver, CO; Tucson, AZ; Washington, DC

U.S. Bureau of Reclamation
Division Environmental Affairs
Washington, DC

U.S. Bureau of Reclamation
Denver, CO; Salt Lake City, UT

U.S. Department of Energy
Laramie, WY

U.S. Department of Housing and Urban Development
Denver, CO

U.S. Environmental Protection Agency
Denver, CO

USDA, Farmers Home Administration
Roosevelt and Vernal, UT

U.S. Federal Energy Regulatory Commission
Washington, DC

U.S. Fish and Wildlife Service
Colorado River Fisheries
Vernal, UT

U.S. Fish and Wildlife Service
Denver, CO; Vernal, and Salt Lake City, UT;
Washington, DC

U.S. Forest Service
District Ranger
Roosevelt, UT

U.S. Forest Service
Forest Supervisor
Vernal, UT

U.S. Forest Service
Regional Forester
Ogden, UT

U.S. Geological Survey
National Center (423)
Reston, VA

U.S. Health and Human Services
Environmental Health
Disease Control Centers
Atlanta, GA

U.S. Mineral Management
Denver, CO

U.S. Soil Conservation Service
Vernal, UT

STATE AGENCIES

Utah Department of Health
Salt Lake City, UT

Utah Department of Natural Resources
Salt Lake City, UT

Utah Division of Lands and Forestry
Salt Lake City, UT

Utah Division of Oil, Gas, and Mining
Salt Lake City, UT

Utah Division of Transportation
Salt Lake City, UT

Utah Division of Water Resources
Salt Lake City, UT

Utah Division of Water Rights
Salt Lake City, UT

Utah Division of Wildlife Resources
Salt Lake City, Price, and Vernal, UT

Utah Field House of Natural History
Vernal, UT

Utah Geological Survey
Salt Lake City, UT

Utah State Preservation Office
Salt Lake City, UT

Utah State University

Utah Water Research Laboratory
Logan, UT

COUNTY AND LOCAL OFFICIALS

Daggett County Commission
Manila, UT

Duchesne County Commission
Duchesne, UT

Uintah County Commission
Vernal, UT

COUNTY AND LOCAL AGENCIES

Chamber of Commerce
Vernal, UT

Duchesne County Agents
Duchesne, UT

Uintah County Library
Vernal, UT

Uintah County Planner
Uintah Courthouse
Vernal, UT

Uintah County Transportation
Vernal, UT

Vernal City Corporation
Vernal, UT

Vernal District Advisory Council
Vernal, UT

Vernal District Grazing Advisory Board
Vernal, UT

INDIAN ORGANIZATIONS

Ute Indian Tribe
Business Committee
Fort Duchesne, UT

Ute Indian Tribe
Resource Department
Fort Duchesne, UT

Ute Research Laboratories
Fort Duchesne, UT

MEDIA

Cortez Newspapers Inc.
Cortez, CO

Daily Northwest Colorado Press
Craig, CO

Daily Rocket Miner
Rock Springs, WY

Deseret News
Vernal, UT

High Country News
Paonia, CO

KVEL/KUIN News
Vernal, UT

Public Lands Newsletter
Ucon, ID

Vernal Express
Vernal, UT

PUBLIC COMMENT ON THE DRAFT RMP/EIS

During the comment period January 3 through April 1, 1992, 286 letters were received on the Draft Diamond Mountain Resource Management Plan and Environmental Impact Statement. However, several letters were received after the comment period closed and too late to be individually responded to in this document. The concerns and issues raised in these letters have been expressed in other comment letters which have been responded to and which are reprinted here.

In general, the comments were divided on the issue of amount and degree of needed restrictions: 101 letters expressed the draft RMP was not restrictive enough, 90 letters expressed the document was too restrictive. Nineteen letters expressed satisfaction with the present level of management. The majority (52 percent) of those letters received did not state support for any of the alternatives presented. Of the letters expressing an opinion, 69 stated support for Alternative A; 35 for Alternative E; 10 each for Alternatives B and C; and 3 for Alternative D.

Both support and opposition were expressed regarding OHV use designations, wildlife reintroductions and habitat protection, and public access to areas on Diamond

Mountain Plateau. There were five letters strongly opposed to the reintroduction of black-footed ferrets. Approximately 11 letters expressed strong opposition to increased restrictions due to raptor protection/ enhancement prescriptions. Twenty letters were opposed to increases in big game forage assignments at the expense of livestock. Thirteen letters addressed concerns about water rights and restrictions to future impoundments and objected to any wild and scenic river designations. A large number of the comments supported the ACEC designations; however, most believed inadequate protection is provided for these areas; e.g., OHV, mining, and grazing are considered inappropriate uses within an ACEC. Three letters believed inadequate public input was sought during development of the draft. Six comments expressed strong opposition to bear baiting on public lands. Five letters believed the economic analysis was weak and unrealistic.

Input on the RMP/EIS is appreciated, and each comment was considered in the preparation of this proposed plan and final EIS.

Of the 286 letters received, 146 are reprinted here. Each letter was assigned a reference number when it was received for use in responding to comments. Table 5-1 provides an index of all the letters received and references our response. Those letters not reprinted are noted "NR". Specific comments within each letter are referenced by a two-number code (for example 113-3). The first number refers to the letter; the second number refers to a specific comment within the letter. Our responses are referenced by the same code.

Letters not reprinted are represented by identical or very similar letters. For example, Comment Letter 13 is identical or very similar to 32 letters expressing concern about OHV use. Also, many letters included attachments (maps, or other references) which are not reproduced due to space limitations and printing costs. All letters and complete attachments are on file in the area office.

LIST OF PREPARERS

The following lists in alphabetical order the principal players in the preparation of this plan. Numerous other individuals from the resource area, district, and state offices as well as other federal, state, county representatives and public individuals provided valuable assistance in the formulation of this plan. For brevity only, just those district and state office individuals providing major support and assistance are listed. The contributions of those not listed are also deeply appreciated.

Tom Dabbs, DMRA Wildlife Biologist. B.S. Wildlife Management, Humboldt State University, Arcata, California. Member of the core team since its inception covering wildlife, special status animal species, and fire matters. He has worked for 13 years with BLM.

Steve Hartmann, DMRA Supervisory Range Conservationist. B.S. Range Management, University of Montana, Missoula. Member of the core team from its inception covering livestock, soils and water, and vegetation (including special status plant species). He has worked for 14 years with BLM, the last 3 in Vernal.

Tim Ingwell, Vernal District Geologist. B.S. Geology, University of New Mexico, Albuquerque, M.S. Geology, University of California at Los Angeles. Member of the core team from the writing of the RMP/EIS, covering fluid minerals and groundwater concerns. Tim comes from the private sector, with 4 years of experience with BLM.

Dave Moore, DMRA Outdoor Recreation Planner. B.S. Forestry, Utah State University, Logan. Member of the core team from its inception covering recreation (including Wild and Scenic River evaluation) and woodland concerns. Dave also wrote the Cultural Resources and Hazardous Materials sections from information prepared by others. Dave has 27 years experience with BLM.

Jean Nitschke-Sinclear, DMRA Range Conservationist. B.S. Range Management, Utah State University, Logan. Served as Technical Coordinator during development of the draft RMP. Assumed duties of Team Leader following transfer of Penny Smalley. She has worked for 19 years with BLM.

Phyllis Phillips, Vernal District Word Processor Operator. Phyllis performed the monumental task of completing the word processing of the RMP/EIS and all the unseen written documentation behind the document. Phyllis has 7 years experience with BLM.

Dave Plume, DMRA Geologist. B.S. Geology, Metropolitan State College, Denver. Dave assumed the Vernal District GIS Coordinator's responsibilities during the preparation of the proposed plan/final EIS document. As such he had responsibilities for the preparation, analysis format, and depiction of GIS data. He has worked for 5 years with BLM.

Earle Smith, Vernal District GIS Coordinator. B.S. Forestry, Utah State University, Logan; M.S. Forestry, Oregon State University, Corvallis. Earle was GIS Coordinator and member of the core team from its inception through the preparation of the draft RMP/EIS.

Penny Smalley, Vernal District Planning Chief. B.S. Business, University of Colorado, Boulder. Member of the core team from its inception through publication of the draft document serving as Team Leader and management coordinator. Penny has worked for 14 years with BLM.

Kathy Stubbs, Vernal District Realty Specialist. Member of the core team from its inception through the comment period on the draft document, covering lands and realty. She also wrote the air, climate and socioeconomic sections from information prepared by others. Kathy has worked 15 years with BLM. Kathy was instrumental in entering the resource area's myriad land status data into a complicated yet efficient GIS database.

Ron Trogstad, DMRA Area Manager. B.S. Biological Science, University of Utah, Salt Lake City. Member of the core team from its inception, providing coordination and management assistance. Ron has worked 25 years with BLM.

SPECIAL ASSISTANCE

Vernal District Office

Tanya Bullock, GIS Coordinator. Tanya assumed the duties of GIS Coordinator following the transfer of Earle Smith during the preparation of the draft document.

Keith Chapman, Soils Scientist. Keith formulated the soils and surface water information in the Management Situation Analysis and oversaw the input of soils and watershed information into the GIS database.

Gerald Kenzcka, Petroleum Engineer. Jerry formulated the fluid minerals section of the Management Situation Analysis and oversaw the input of the fluid minerals data into GIS.

Dwain Nelson, Range Conservationist. Dwain assisted in the mapping of soils inventory and ecological condition information in the Diamond Mountain and Three Corners areas of the resource area.

Blaine Phillips, Archeologist. Blaine formulated the cultural and paleontological section of the Management Situation Analysis and oversaw the input of such information into GIS.

Kyle Smith, Cartographic Technician. Kyle inputted spatial inventory information into the GIS database for use by the team.

Jo Ann Stroh, Computer Specialist. Jo Ann prepared the graphics and photographics for presentation. She also developed the interactive computer system for use during review.

Ray Tate, Public Affairs Officer. Ray lent his editorial assistance and wrote news releases during the planning process.

Joy Wehking, Vernal District Supervisory Realty Specialist. Joy provided technical and editorial assistance in the presentation of the lands and realty sections of the proposed plan.

Karl Wright, Hydrologist. Karl assisted in the inputting of riparian, floodplain, and watershed data into the GIS database. He also aided in the formulation of the Soil and Water section of the Management Situation Analysis.

Utah State Office

Carla Garrison, Cartographer. Carla provided technical oversight for the digitizing of the original information into the GIS database.

Don Gray, Supervisory Cartographer. Don coordinated the mapping effort at the State Office level.

Steve Howard, Planning Coordinator. Steve provide technical oversight on the various facets of the planning effort and coordinated state office input and support.

Lynn Roth, Cartographer. Lynn provided technical coordination and oversight for preparation of the maps in the proposed plan/final EIS.

Jack Sheffey, GIS Coordinator. Jack provided training, support, and guidance in the use of GIS as an analysis tool.

Kezia Snyder, Writer Editor. Kezia provided technical editing to the proposed plan/final EIS document.

Bill Wagner, Physical Scientist. Bill prepared the air and climate sections of the Management Situation Analysis. Bill also provided assistance with Hazardous Materials information.

Jeff Williams, Economist. Jeff provided the socio economic data and analysis on the proposed plan/final RMP.

Others

The Bureau's Phoenix Training Center provided us with many of the graphics and drawings used in this document.

Patti Britton designed the chapter headings from an original 1870 survey photo of Swallow Canyon by USGS surveyor W.H. Jackson (333a).

Mary Read lent her expertise in impact analysis during the final phase of the draft document's preparation.

Trina Strong provided the artwork for the cover.

Debbie Wheeler and Corinne Jacobsen drew the vegetation artwork used in the document.

OTHER ASSISTANCE

Vernal District

David E. Little, District Manager
Bruce Aldridge, Cartographer
Howard Cleavinger, Assistant District Manager Minerals
Duane DePaepe, Environmental Coordinator
Dean Evans, Assistant District Manager Lands and Renewable Resources
Elizabeth Goode, Assistant District Manager, Administration
Gary Hunter, Assistant District Manager Operations
Ed Wehking, Fire Management Officer

Utah State Office

Mike Barnes, Land Law Examiner
George Diwachak, Environmental Scientist
Jim Fouts, Geologist
Terry Graham, Writer-Editor
Maggie Kelsey, Environmental Specialist
Howard Lemm, Deputy State Director Mineral Resources
Bob Lopez, Land Law Examiner
Dick Page, Natural Resource Specialist
Gary Peterson, Cartographic Technician
Shelley Smith, Archeologist
Ted Stephenson, Chief, Branch of Operations
Randy Weatherly, Computer Programmer
Jeff Williams, Economist

TABLE 5-1:
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
1	U.S. Dept. of Housing & Urban Development (Kutzer)	1-1
2	U.S. Air Force (Bruntmyer)	2-1
3	Permits West, Inc. (Wood)	3-1 - 3-46
4	J.C. Brewer	4-1
5	U.S.D.I. Bureau of Mines (Grabowski)	5-1
6	Utah Nature Study Society (Hovingh)	6-1 - 6-16
7	Eagle Outdoor Sports (Mumford)	7-1 - 7-4
8	Utah Division of Wildlife Resources (Moretti)	8-1 - 8-20
9	Frank W. Myers	9-1
10	Paul Shaffer *This letter is very similar to 1 other on OHV use*	10-1
11	Allen Crane	11-1
12	Marilyn Beesley	12-1
13	Larry Holm *This letter is identical to 33 other letters on OHV use*	13-1
14	Dale Larsen (NR)	13-1
15	Cameron Adams (NR)	13-1
16	John Ormond (NR)	13-1
17	John Harlan (NR)	13-1
18	Mark and Vicki Whiting (NR)	13-1
19	LeGrande Bunker (NR)	13-1
20	S. Gleason (NR)	13-1
21	Donald Burgener (NR)	13-1
22	Michael E. Foster (NR)	13-1
23	Paul K. Jensen (NR)	13-1
24	Guy Green (NR)	13-1
25	Dennis Moyes (NR)	13-1
26	G. R. Jones (NR)	13-1
27	Dan Thomas (NR)	13-1
28	Ed Oldroyd (NR)	13-1

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
29	Larry W. Kreider (NR)	13-1
30	Rodell F. Eggett	30-1 - 30-3
31	Jim Paugh *This letter is identical to 1 other letter on access*	31-1
32	Brock Roberts (NR)	13-1
33	Steve Hancock (NR)	13-1
34	William Johnson (NR)	13-1
35	R. M. Stokes (NR)	13-1
36	Daggett County Commission	36-1 - 36-4
37	Cindie and Dan Wynn (NR)	13-1
38	P. J. Edmunds (NR)	13-1
39	E. Sherman Barrus (NR)	13-1
40	George H. Silkworth (NR)	13-1
41	Alan D. Calderwood (NR)	13-1
42	Charles S. Paugh (NR)	31-1
43	Ken Sharp (NR)	13-1
44	Kent and Patti Booker (NR)	13-1
45	U.S. Forest Service, R-4 (Reynolds)	45-1
46	G. Howard Abplanalp	46-1 - 46-6
47	C. Lawrence and Rhoda T. DeVed	47-1 - 47-2
48	James N. Evans (NR)	13-1
49	Marilyn K. Scott	49-1
50	Jim Toering (NR)	13-1
51	Richard Guy (NR)	13-1
52	U.S.D.A., Soil Conservation Service (Holt)	52-1 - 52-4
53	Eleanore Hacking Scott	53-1 - 53-3

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
54	Forest Industries (Kornfeld)	54-1
55	Wendy May *This postcard is identical or very similar to 32 others on OHV use.*	55-1
56	Becky Bridger (NR)	55-1
57	James C. Fisher (NR)	55-1
58	Kenneth L. Evans (NR)	55-1
59	Meg Hatch (NR)	55-1
60	Joseph R. Brown (NR)	55-1
61	Mindy Jochems	61-1 - 61-5
62	Alvin Kay	62-1
63	Lawrence C. Kay	63-1 - 63-2
64	Cliff Mindrump (NR)	13-1
65	W. Chuck (NR)	55-1
66	LaDell and Gladys Slaugh (NR)	55-1
67	Gregory E. Jochems	67-1 - 67-3
68	Grant L. Hacking	68-1 - 68-4
69	Mildred B. Hacking	69-1 - 69-2
70	Clint McKnight	70-1 - 70-3
71	W. Slaugh (NR)	55-1
72	Bryce Chappell (NR)	13-1
73	William John Kremin, III	73-1
74	Utah Chapter, Sierra Club (Osborne)	74-1 - 74-6
75	Sandra H. Ely	75-1 - 75-5
76	Tim Hadlock	76-1
77	Brenda Durant	77-1 - 77-6
78	Claudia Cox	78-1

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
79	Lorin Squires	79-1 - 79-5
80	Clifford & Lenora Smith	80-1 - 80-12
81	Jex Terry (NR)	55-1
82	National Park Service (Snyder)	82-1 - 82-22
83	Carl & Myrna Cobbs	83-1
84	Dustin Henline	84-1
85	Karl J. Baese	85-1
86	Tracy Henline	86-1
87	Nolan Massey	87-1
88	Allan Holmes	88-1
89	Mac W. Holmes	89-1
90	Moon Lake Electric Association (Winder)	90-1
91	Nicki Wake	91-1 - 91-2
92	Wilderness Society, Central Rockies Region (Leeson)	92-1 - 92-9
93	Mark Berry (NR)	55-1
94	Gary Simper (NR)	55-1
95	Ellan B. Reynolds (NR)	55-1
96	Uintah Special Service District (Wardell)	96-1 - 96-2
97	Delilah & David Badger	97-1
98	Larry & Tamara Twitchell (NR)	55-1
99	Adrian K. Reynolds (NR)	55-1
100	Debbie & Scott Storie	100-1
101	David & Stacy Ely	101-1
102	Steve Kreek	102-1
103	Uintah Mountain Club (Borton)	103-1 - 103-4

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
104	Allan E. Smith	104-1 - 104-11
105	Daniel J. Ely	105-1
106	A. Rex Gardner	106-1
107	Alex Radosevich	107-1 - 107-11
108	Ruth L. Wake	108-1
109	U.S. Diversified Group (Saxauer)	109-1 - 109-7
110	Uintah County Commissioners	110-1 - 110-12
111	Questar Pipeline Company (Blackham)	111-1 - 111-6
112	Michael Goddard *This letter is identical or very similar to 75 others on management of the Red Mtn-Dry Fork area*	112-1
113	Michael Goddard, #2 (NR)	112-1
114	State of Utah, RDCC	114-1 - 114-41
115	Lauri Keller (NR)	112-1
116	Vernal District Advisory Council (Beers)	116-1 - 116-12
117	Scott Williams	117-1 - 117-5
118	Bonnie Bernard	118-1 - 118-7
119	Berdie Vernon (NR)	112-1
120	Lance Slaugh (NR)	112-1
121	Dusty Slaugh (NR)	112-1
122	Kori Johnson (NR)	112-1
123	Jim Johnson (NR)	112-1
124	Terry Stout (NR)	112-1
125	Morgan Hall (NR)	112-1
126	Timothy O. Jones (NR)	112-1
127	Virginia D. Hall (NR)	112-1
128	Susan Boren (NR)	112-1

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor		Refer to Response Number(s)
129	Jean McKenzie	(NR)	112-1
130	Martin Pennington	(NR)	112-1
131	Mary Ann Raymond	(NR)	112-1
132	Mark Raymond	(NR)	112-1
133	Ronald G.Walker	(NR)	112-1
134	Don Hullinger	(NR)	112-1
135	Don Johnson	(NR)	112-1
136	Michael S. Burris	(NR)	112-1
137	A.J. Pease	(NR)	112-1
138	Susan Pease	(NR)	112-1
139	Ranee Feltch	(NR)	112-1
140	Mark Feltch	(NR)	112-1
141	Vern F. Moore	(NR)	112-1
142	Juanita Moore	(NR)	112-1
143	Roger T. Guy	(NR)	112-1
144	R. Wall	(NR)	112-1
145	John M. Silva	(NR)	112-1
146	Iliff E. Gardner	(NR)	112-1
147	Fern Gardner	(NR)	112-1
148	Madelene Stout	(NR)	112-1
149	Greg McKenzie	(NR)	112-1
150	Rita Keddy	(NR)	112-1
151	David F. Keddy	(NR)	112-1
152	Harold Shelley	(NR)	112-1
153	Beth J. Murphy	(NR)	112-1

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
154	Kim McKenzie (NR)	112-1
155	Jineal Shelley (NR)	112-1
156	Doug Murphy (NR)	112-1
157	Nancy Jaussi (NR)	112-1
158	Feza Hullinger (NR)	112-1
159	Faye Phillips (NR)	112-1
160	Jesse D. Phillips (NR)	112-1
161	Curt Jaussi (NR)	112-1
162	W. Lester Hullinger (NR)	112-1
163	Becky De Col (NR)	112-1
164	Robin De Col (NR)	112-1
165	Rebecca Larsen (NR)	112-1
166	Marvin Larson (NR)	112-1
167	Paul Wake	167-1 - 167-7
168	Dinaland Snowmobile Club (Hatch) *with a petition on OHV use.*	168-1 - 168-5
169	Utah 4-Wheel Drive Association (Davidson)	169-1 - 169-4
170	Lynn Burton	170-1 - 170-3
171	Berkley Jesse Hall	171-1
172	Linda West	172-1
173	Dick Winters (NR)	112-1
174	Barbara H. Hall	174-1 - 174-4
175	Vernal Chamber of Commerce (Perry)	175-1 - 175-7
176	Hunting & McCarrell	176-1 - 176-14
177	Brent Hansen	177-1 - 177-12
178	Lamont Moon	178-1 - 178-13

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
179	Daggett Soil Conservation District (Ruble), *This letter is identical to comment letter 226*	179-1 - 179-52
180	Utah Trail Machines Association (Huck)	180-1 - 180-2
181	Roy Krubsack	181-1 - 181-3
182	Carol McClellan (NR)	112-1
183	Brad McClellan (NR)	112-1
184	Glen McConkie (NR)	112-1
185	Glen J. Mecham (NR)	112-1
186	Diane Mecham (NR)	112-1
187	Johnnie Dickens (NR)	112-1
188	J.A. Dickens (NR)	112-1
189	Day DeLaHunt	189-1 - 189-4
190	Vernal Chamber of Commerce (Foley)	190-1
191	Tom Elder	191-1 - 191-6
192	Norman Pease	192-1
193	Clif & Pam Whitmire	193-1 - 193-3
194	David P. Olson	194-1 - 194-6
195	State of Utah, Division of Parks and Recreation (Bilbey & Hamblin)	195-1 - 195-5
196	Ron Raunikar	196-1
197	James Thompson	197-1 - 197-7
198	Allen Crane #2	198-1
199	Joel R. Holifield (NR)	55-1
200	William McKee (NR)	55-1
201	Bruce Boney (NR)	55-1
202	Brian McNamara (NR)	55-1
203	Don R. Scott (NR)	55-1

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
204	David Beers	204-1
205	Russ Perry *This letter is identical to 3 letters dealing with the Red Mountain-Dry Fork area*	205-1 - 205-6
206	Sara Perry (NR)	205-1 - 205-6
207	Sally and Ronald K. Wackowski	207-1 - 207-3
208	Jennifer Hall	208-1 - 208-2
209	Marcia Borton	209-1 - 209-3
210	Amelia M. Hall	210-1 - 210-2
211	A. Allen Bennion	211-1
212	EXXON Company, USA (Goddard)	212-1 - 212-4
213	Rita Wetenkamp (NR)	205-1 - 205-6
214	James Garcia	214-1 - 214-10
215	Heather Campbell	215-1 - 215-5
216	Dwayne W. Holmes	216-1 - 216-7
217	Ralph Siddoway	217-1 - 217-4
218	Scott Chew	218-1 - 218-6
219	Lyle Taylor	219-1 - 219-3
220	Ernest J. & Linda E. Holmes	220-1
221	Darlene Johnson	221-1 - 221-5
222	George & Maxine Miller	222-1
223	Department of Energy, WAPA (Tomsic)	223-1 - 223-2
224	Chevron USA, Inc. (Newville)	224-1 - 224-3
225	McCoy Sheep Company (McCoy & McCoy)	225-1 - 225-8
226	Diamond Mountain Permittees *This letter was signed by approximately 200 permittees and private landowners on Diamond Mountain. These signatures are available for public review at the Vernal District Office.* (NR)	179-1 - 179-52
227	Lynn Siddoway	227-1 - 227-8
228	Uintah Mountain Club, Natural Resources Committee (Durant)	228-1 - 228-21

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor		Refer to Response Number(s)
229	Lynn Silcox	(NR)	55-1
230	N.S. Cook	(NR)	55-1
231	Kyle Smuin	(NR)	55-1
232	Janet Moon	(NR)	55-1
233	W. Donate	(NR)	55-1
234	Garth Horrocks	(NR)	55-1
235	C. C. Lewis	(NR)	55-1
236	Kathy Maxson	(NR)	55-1
237	Matt Fellows	(NR)	55-1
238	James Gate	(NR)	55-1
239	Ted Freestone	(NR)	55-1
240	James W. Lytle	(NR)	55-1
241	Hacking & Mugleston		241-1
242	R. Drink	(NR)	12-1
243	Robert Fallon		243-1 - 243-4
244	Brent Hacking		244-1 - 244-4
245	Douglas Hacking		245-1
246	Janet T. Millikan		246-1 - 246-6
247	James Kay		247-1 - 247-2
248	Duchesne County Commission		248-1 - 248-2
249	Ronald J. Younger		249-1 - 249-3
250	Michael A. Martin		250-1 - 250-2
251	Environmental Protection Agency (Dodson)		251-1
252	Uintah Basin Archeology Club (Mantle)		252-1 - 252-5
253	Celsius (Jepperson)		253-1 - 253-2

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor	Refer to Response Number(s)
254	Timothy J. Sweeney (NR)	112-1
255	Texaco, USA (Burritt)	255-1 - 255-5
256	Margaret Pettis	256-1 - 256-2
257	Don Hatch	257-1
258	Blue Ribbon Coalition (Cook)	258-1 - 258-9
259	Rocky Mountain Oil & Gas Association (Moseley)	259-1 - 259-7
260	American Rivers (Cassidy & Wood)	260-1 - 260-10
261	George & Gloria Fasselin	261-1
262	Jeri Helco (NR)	112-1
263	Ronald & Marjorie Reynolds (NR)	112-1
264	Richard J. MacDonald (NR)	112-1
265	Curtis, Arlene, & Lillyan May (NR)	112-1
266	Joseph M. Gondek (NR)	112-1
267	Wayne and Shirley Ann Bullock (NR)	112-1
268	Greta and David Speir (NR)	112-1
269	Judy and Ross Gipson (NR)	112-1
270	Rod H. and Denise P. Edwards (NR)	112-1
271	Douglas Rosendahl (NR)	112-1
272	Raymond and Illa Bascom (NR)	112-1
273	Vicki B. Garcia (NR)	112-1
274	Kaye and Gerald Stewart (NR)	112-1
275	George and Ruby McBride (NR)	112-1
276	Ronald and Sherry Hatch (NR)	112-1
277	David and Julie Jensen (NR)	112-1
278	Utah Wilderness Association (Macfarlane)	278-1 - 278-16

TABLE 5-1: (Continued)
LIST OF REPRINTED COMMENT LETTERS ON THE DIAMOND MOUNTAIN DRAFT RMP/EIS

Letter Number	Commentor		Refer to Response Number(s)
279	Ellen Davis	LATE (NR)	
280	Magic Valley Trail Machine Association, Inc. (Mai)	LATE (NR)	
281	Jim Gardner	LATE (NR)	
282	Jan Ellen Burton - LATE	LATE (NR)	
283	Allan J. Peterson	LATE (NR)	
284	Jocelyn Spendlove	LATE (NR)	
285	Leslie Brunell	LATE (NR)	
286	Ute Indian Tribe of the Uintah & Ouray Reservation (Thompson)	LATE (NR)	

Comment Letters on the Diamond Mountain Draft RMP

U.S. Department of Housing and Urban Development
Denver Regional Office, Region VIII
Executive Tower
1405 Curtis Street
Denver, Colorado 80202-2349

January 3, 1992

Ms.Penelope Smalley
Team Leader, Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

Dear Ms. Smalley:

This is in response to you request for comments on the Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the Diamond Mountain Resource Area in Daggett, Duchesne, and Uintah Counties, Utah.

1-1 Your Draft RMP/EIS has been reviewed with consideration of the areas of responsibility assigned to the Department of Housing and Urban Development. This review considered the impact of the Preferred Alternative E on housing and community development in this three county area. Within these parameters, we find this Draft RMP/EIS adequate for our purposes.

If we may be of further assistance, please contact me, or Mr. Myron Eckberg, Environmental Protection Specialist, at FTS 564-3102.

Sincerely yours,

Howard S. Kutzer
Regional Environmental Officer
Office of Operational Support

RESPONSE TO COMMENT LETTER 1 (HUD, Kutzer)

1-1 Thank you for your comment.

DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE (AFCEE)
REGIONAL COMPLIANCE OFFICE, CENTRAL REGION
[illegible] GRIFFIN STREET, BOX 110
DALLAS, TEXAS [illegible]

07 JAN 1992

Mr. James M. Parker, State Director
Utah State Office Bureau of Land Management
P.O. Box 45155
Salt Lake City, UT 84145-0155

Dear Mr. Parker:

Thank you for providing us the opportunity to review and comment on your draft Resource Management Plan and Environmental Impact Statement for the Diamond Mountain Resource Area, Utah.

2-1 Our review indicates that no Air Force military training routes presently exist directly within the study area mentioned above. Therefore, no potential conflicts are known to exist between the missions of our respective agencies. We have no specific comments to offer except to express concern for the affect your land management decisions might have upon the continued military use of this special use airspace, the established routes, and establishment of future routes.

Training routes and airspace requirements of the military do occasionally change, although it is not anticipated that significant changes to these routes will occur in the immediate future. Mission requirements, fuel costs, and environmental constraints all contribute to decisions made in locating a military training activity. Because of general aviation and population pressures, low altitude, high speed flights are relegated to those areas least accessible and sparsely inhabited. Therefore, we would appreciate your full consideration on how the planning and management decisions of your agency might adversely affect the use of low altitude airspace by the Air Force.

As the Air Force's regional point of contact for such matters, we are available to assist in establishing liaison between your office and the appropriate Air Force activities should a conflict ever arise. We hope this information is useful in your planning process. Thank you for the opportunity to review the document provided. I look forward to the continued communication with your office. If additional information is needed, please contact me at (214) 767-4668 or FTS 729-4668.

Sincerely,

Raymond L. Bruntmyer
Regional Compliance Officer

Cy to: HQ USAF/CEVP
Refuge Manager

RESPONSE TO COMMENT LETTER 2 (U.S. AIR FORCE, Bruntmyer)

2-1 No restrictions of military overflights are outlined in the proposed plan.

PERMITS WEST, INC.
PROVIDING PERMITS for the ENERGY INDUSTRY
37 Verano Loop, Santa Fe, New Mexico 87505 (505) 984-8120

January 31, 1992

Jean Nitschke-Sinclear, Team Leader
Bureau of Land Management
170 South 500 East
Vernal, Utah 84078

Dear Ms. Nitschke-Sinclear:

I prefer Alternative D in the Diamond Mountain RA RMP. My comments, by page, follow.

3-1 T.1: Third paragraph says rights will not be challenged. This is too kind a light. The RMP will impact rights. The value of an oil lease is based on its utility. Reducing its utility (e.g., season of use) reduces its value. To what extent will the RMP reduce the value of existing leases?

3-2 1.1: Paragraph 3 says BLM will not dictate split estate land uses unrelated to federal minerals. This implies BLM will dictate land uses related to federal minerals. However, page 2.10 says BLM will impose stipulations only with landowner's approval. How do you reconcile the two statements?

3-3 T.6: Why doesn't the second paragraph discuss the impacts of too little availability.

3-4 T.8: To what extent will valid existing rights be changed but not precluded (4th paragraph)?

3-5 T.11: Who will determine at what point "additional restrictions" (paragraph 8) preclude valid existing rights? What will be the lessees recourse?

3-6 2.4: Who are the members of BLM's "paleontological advisory group" (paragrpeh 1)? What is their decision making deadline?

3-7 2.10: What happens to the stipulations if the surface owner sells the land (pergraph 2)? What happens if there is more than one owner and they cannot agree?

3-8 2.19 et al: How many acres per month are subject to the seasonal restrictions in Tables 2-4, 6, 8, 10, and 12? (The last table is misnumbered on page vii.)

3-9 2.26: Level 3 says "half-mile or line-of-sight". Who determines which restriction applies? Is it whichever is more, or whichever is less? How does this affect the acreage totals?

3-10 2.27: Why is such a small proportion of the RA in Category 1 in Table 2-9?

3-11 2.37: What makes rafter noise more acceptable to raptors than other noise? What are the population goals for raptors? When are there enough raptors to lift restrictions? Are restrictions perpetual?

3-12 2.38: Why require a mile buffer? It is excessive and unnecessary if there are topographic barriers or intervening disturbances (e.g., road). Will restrictions apply if the peregrine is de-listed?

3-13 2.48: Why aren't surface shots allowed in Level 1 and 2 lands?

3-14 2.54: Who determines what is a practical alternative to disturbance in a riparian zone? What role will economics play in a determining practicality?

RESPONSE TO COMMENT LETTER 3 (PERMITS WEST, INC., Wood)

3-1 The RMP would affect new oil and gas leases through the use of oil and gas lease stipulations and notices attached to the lease, and existing oil and gas leases through the use of conditions of approval on new actions. Such stipulations, notices, or conditions of approval will not reduce the value of the existing oil or gas resource, but may in some instances increase the costs to extract the resource.

3-2 The statement you refer to has been changed to read: "It will usually be necessary to apply the same standards for environmental protection of split estate lands as would be used for federal surface. BLM will consider carefully the views of the surface owner and the effect on the owner's use of the surface from implementation of possible mitigation measures, as well as, the effect such measures would have on attaining other program goals."

3-3 The preceding paragraph states that the value or usability of some resources is diminished if the lands are not accessible either legally or physically.

3-4 Please refer to our response 3-1, above.

3-5 The District or Area Manager establishes the site specific conditions under which exploration, development, and abandonment will be permitted on specific leases, and determines if stipulation waivers, exceptions or modifications are warranted. All site specific determinations must conform with the RMP and are established in the process of approving notices of intent, applications for permit to drill, field development plans, utilization plans and permits, sundry notices, and reclamation plans. Activity planning related to other resource programs addressees the impacts, if any, of the fluid minerals program on that resource or activity and the impacts of any conditions or restrictions on the fluid minerals program.

3-6 The statement you refer to has been removed from the document. However, for clarification, the "paleontological advisory group" referred to is headed by the State of Utah's Paleontologist with members consisting of recognized experts in the area of paleontological resources. Deadlines for recommendation from this group are established on a case-by-case basis.

3-7 The stipulations on an oil and gas lease will remain in effect on the federal mineral estate unless the federal mineral estate is disposed of from federal ownership, the sensitive resource values protected by stipulations no longer exist, or an RMP plan amendment or new RMP is approved.

3-15 2.112: Why can't similar ecosystems in Dinosaur National Monument serve as a control in lieu of Lears Canyon? Why must BLM have its own?

3-16 2.114: Why is spring hosting allowed in Alternative E, but barred in Alternative D (page 2.108)? Why can't line of sight be used in lieu of the up to 2 mile distances cited for bird protection zones? What method was used to calculate why a sage grouse needs 1,000' but a peregrine needs 1 mile?

3-17 2.116: Since no surface occupancy (NSO) is the most restrictive management, how can NSO lands fall into Level 2? What type of seismic work will be allowed on Level 1 and 2 land in Browns Park? Why not add a row listing the number of acres and per centages of land in each level for each area?

3-18 2.119: Why isn't NSO used in lieu of no leasing on Level 1 land in the Red Mountain-Dry Fork?

3-19 3.7: If there are all these negative impacts to wildlife, why are elk increasing (Page 3.11)?

3-20 3.9: How many acres are in the "best potential" areas for ferret reintroduction?

3-21 3.11: Why is only the Kung study footnoted in the first paragraph but mutiple studies are cited? What type of controls (time, place, type of disturbance) were used in the study(ies)? Is the Kung study anecdotal or a true scientific experiment? On what basis can it be applied to other raptors?

3-22 3.15: Why is it implied in the fourth paragraph that steep or vertical banks preclude fish? I suspect the numbers are right, but the text is tortured.

3-23 3.51: How significant (i.e, what % of county income) are the PILT monies? I suspect counties would prefer BLM land to be privately owned and fully taxable.

3-24 3.52: Why isn't a table provided showing the % of wages due to each economic sector?

3-25 3.53: A table shows the economic value of recreation. Why isn't there a table showing the economic value of oil and gas?

3-26 4.3: Why doesn't the second paragraph acknowledge that cattle too can be herded away from water?

3-27 4.5: Why is no mention made of secondary recovery for oil wells?

3-28 4.7: Why limit gilsonite exploration to warm weather?

3-29 4.14: Will BLM change its preferred alternative, which has a net loss of 152 jobs, in view of the President's State of the Union speech?

3-30 4.47: Why increase protection for elk when they're increasing anyway (page 3.11)?

3-31 4.47: How much of the historical impacts to sage grouse are due to BLM chaining sagebrush?

3-32 4.47: How many acres, jobs, wells, etc. will be impacted by raptor protection zones?

3-33 4.50: How does BLM know that the ferruginous hawk nest abandonment is due to gas wells?

PERMITS WEST, INC.
PROVIDING PERMITS for the ENERGY INDUSTRY

3-8 Please refer to Table 2-15 for specific seasonal dates and acreages by alternative.

3-9 The restriction you refer to should read "line-of-sight of the river up to one half mile, whichever is less". The acreage totals used in the analysis were calculated this way.

3-10 Of all the alternatives besides Alternative A, Alternative D offers the most lands open to oil and gas leasing under standard terms and conditions. The amount of lands which would fall into Category 1 is a function of the amount of restrictions to oil and gas activities. Alternative D has the least number of restrictions to oil and gas activities and therefore the greatest amount of lands open to oil and gas exploration/development.

3-11 Rafting was analyzed as a short term disturbance (<1/2 hr) that was kept within a raft on the water. This short term disturbance was judged not to cause raptors to be displaced from nesting sites. Only raptors which are federally listed as endangered, threatened, or candidate species are included in the RMP. The population goals for these species are to re-establish self-sustaining populations throughout their ranges. The Bald Eagle Recovery Plan, for example, calls for the initial goal of 1,200 occupied breeding areas distributed over a minimum of 16 states by the year 2000, with an average annual productivity of at least 1.0 young per nest occupied. It is believed when these population goals are achieved, such needed restrictions will be re-evaluated and if appropriate, removed.

3-12 The American Peregrine Falcon Recovery Plan, adopted by USF&WS, BLM, USFS, and other federal and state agencies, recommends restricting human activities and disturbance between February 1 and August 31, which occur within 1 mile of nesting area. We do not anticipate the peregrine to be delisted during the life of this RMP. Please refer to Table 2-15 for the modified restriction for peregrine falcons in the proposed plan.

3-13 In the proposed plan, significant surface disturbance will not be allowed on level 1 and 2 lands. Refer to Chapter 2 for a listing of resource values protected under level 1 and 2 lands in the proposed plan.

3-14 BLM has the responsibility of determining what is or is not a practicable alternative. Economics would be considered, but would not be the sole determining factor.

3-15 The designation of the 1,400-acre Lears Canyon relict vegetation site as an Area of Critical Environmental Concern is consistent with the directive of The

3-34 4.50: Why impose the burden of sage grouse protection on minerals when the bulk of the impact has been by BLM? A thousand acres of sagebrush removed by cheining has no where near the economic benefits of a thousand acres removed for mineral development.

3-35 4.53 Why does mineral development increases archaeological vandalism, but providing access to 77,800 acres of landlocked public land (page 4.57) decreases the rate?

3-36 4.55: How often does BLM seed following firewood gathering?

3-37 4.55: How many oil and gas field acres will be impacted by raptor protection zones?

3-38 4.56: On what basis did BLM calculate only an additional 25% cost? If a ferret colony is in the middle of a proposed half mile long pipeline, the minimum extra length required to avoid the colony would be 40%. Is surface disturbance allowed within a quarter mile of ferrets if it occurs outside the given time period? How may wells would not be drilled, how many people not employed, and how many royalties and taxes foregone if ferrets are introduced with the proposed restrictions? What are the quantified negative socioeconomic impacts of introducing ferrets on BLM instead of NPS land?

3-39 4.58: What is the background rate of soil erosion? Without the background rate, how are we to judge whether saving 20,250 tons is worth the cost of more restrictions?

3-40 4.61: Why aren't there totals for the rows and columns in the tables?

3-41 4.62: Why are the numbers of increased recreation jobs mentioned, but the number of lost oil and gas jobs not mentioned?

3-42 A2.9: Ferrets stand a far better chance of success if restrictions focus on significant impacts, i.e., dogs and prairie dog eradication. If BLM's approach had been used on bald eagles, they'd all be dead from DDT. I see no discussion of feral dog control. Rather than restrict people, allow them to shoot any dogs and prevent dog problems. Turn foes into friends. Why trap ferrets that wander from the reintroduction area? Maybe they know something you don't. Why should industry bear the burden of all surveys? There is no incentive for BLM to be prudent in their decision to require surveys. Why not industry pays if any are found, and BLM pays if none are found? The last known wild colony was found in an oil field. Don't require more than is needed.

3-43 A3.2-10: Why not use a map to show restrictions? The list forces you to go through 8 pages.

3-44 A8.44: What chemical, besides napalm, is used that would affect markers?

3-45 A8.45: Will gates allow others besides "recreators" to pass?

3-46 The RMP favors pristine style recreation at the expense of mineral development. There are already ample recreation opportunities in the Uintah Basin. BLM need not provide a full spectrum of recreation when others have already done so. A less myopic approach is needed.

Brian Wood

PERMITS WEST, INC.
PROVIDING PERMITS for the ENERGY INDUSTRY

Federal Land Policy and Management Act of 1976. This act provides that designation of ACECs be given priority in the development of land use plans. The management prescriptions outlined in the proposed plan could be significantly different than prescriptions proposed by the National Park Service, thus providing significantly different and invaluable information to the scientific community.

3-16 Alternative D has been changed to allow for spring boating. The 2-mile protection zone around sage grouse strutting grounds is used to protect the 60-80% of all nests which are located within that 2-mile zone. This 2-mile buffer and the 1,000 foot buffer around strutting grounds are adopted as guidelines for sage grouse protection by the Western States Sage Grouse Committee of which BLM is a partner. We also recognize UDWR as the authority on wildlife population management in Utah. Please refer to Table 2-15 for the wording of wildlife imposed restrictions of the proposed plan.

3-17 The most restrictive management to oil and gas exploration/development would be closure of the lands to oil and gas leasing and not NSO (no surface occupancy). Lands which would carry NSO stipulations are classified as Category 3 lands and generally fall into level 2 (careful management). Geophysical surveys which do not involve significant surface disturbing methods would be considered in level 1 and 2 areas.

3-18 In the proposed plan the lands in the Red Mountain-Dry Fork area are classified as category 3 (open to leasing subject to no surface occupancy and similar major constraints) and Category 2 (open to leasing subject to seasonal or other minor constraints).

3-19 The sentence has been changed to read: "...have documented sensitive wildlife, such as mountain lion, ferruginous hawk, and black bear responses to increased human activity."

3-20 33,500 acres are in the "Best Potential" areas for ferret reintroductions. In the proposed plan, Eight Mile Flat, containing 16,600 acres, would be the only site managed for black-footed ferret reintroduction unless one of the other sites proves more acceptable. See Table 2-15 for a more detailed discussion.

3-21 This sentence has been corrected by adding additional references used in the RMP. The Kung study documented the presence of a pair of ferruginous hawks during courtship and nest selection at the beginning of an oil and gas field development process. This study documented the abandonment of the area by this pair with no further use documented since 1989. The Kung study can only be

applied to ferruginous hawks, but the additional studies listed refer to the other raptors of concern.

3-22 The sentence in reference to streams and watercourses that reads "The remainder has steep cliffs or bluffs meeting the stream or course edge, precluding any riparian vegetation", has been deleted.

3-23 PILT monies have provided the counties with additional revenues. Please refer to Chapter 3, socioeconomics section, and Appendix 10 for a clarified discussion of the importance of PILT monies.

3-24 Please refer to the expanded socioeconomics sections in Chapters 3 and 4 and Appendix 10. We believe these new sections provide a much clearer picture and analysis of the socioeconomics affected by the proposed plan and alternatives.

3-25 Please refer to our response 3-24 above.

3-26 Sheep normally have a herder with them continually while out on the range, where as cattle usually do not. However, herding cattle is a management option for protection of riparian areas.

3-27 Enhanced or secondary recovery of oil is discussed in Chapter 4 and Appendix 4.

3-28 The assumptions section does not describe limitations which would be prescribed by the proposed plan. Instead, it describes a scenario we believe would be most likely. In this case we meant that typical exploration activities could be successfully completed in a single season.

3-29 Again please refer to 3-24 above.

3-30 Under Alternative D, habitat protection for deer and elk would be reduced, not increased, in time from present management. Current seasonal restrictions apply from December 1 to June 15 under Alternative A. Under Alternative D, they are reduced to December 1 to April 30. Also restrictions would not apply if animals are not present or impacts could be mitigated through other management actions (refer to Chapter 2).

3-31 The sage grouse habitat (1,300 acres) referred to on the Myton Bench, is in semi-desert habitat which BLM does not plan to chain. BLM historically has probably contributed to loss of habitat for sage grouse, but we have no documented acreage figures on this.

3-32 In the high potential oil and gas lands in DMRA, there are currently only two special status raptor species present which receive protection. No surface occupancy stipulations to protect golden eagle nest sites would impact approximately 2,200 acres of high potential oil and gas lands in the Myton Bench-Nine Mile Canyon Region and would preclude 1 well. NSO stipulations to protect ferruginous hawk nest sites would impact approximately 170 acres of high potential oil and gas lands in the Horseshoe Bench-Ashley Valley Region and would not preclude any wells.

3-33 The statement in Chapter 4 refers to the Duchesne Oil & Gas Field. Peter Kung (Biological Consulting and Survey) completed a ground raptor survey for Coors Energy in 1989 in the Duchesne Oil & Gas field. His survey documented an abandoned nesting attempt by Ferruginous hawks as oil and gas drilling activities were increasing. Ferruginous hawks have not used the area during the past 3 nesting seasons (1990-92). This information indicates that a threshold level of disturbance has been reached where in the ferruginous hawks will no longer tolerate the encroachment of increased oil and gas development activities within their territory.

3-34 We feel the bulk of the impact to sage grouse has come from sage brush removal on private lands on Diamond Mountain (refer to the discussion of sage grouse in Chapter 3). Sage grouse habitat protection and management will need the cooperation of all public land users, including BLM, to be effective, not just minerals.

3-35 The statement you refer to on mineral development and vandalism has been removed from the document. Providing limited access to landlocked blocks of public land would in all likelihood be an insignificant impact on cultural resources. Our analysis now supports this explanation.

3-36 Commercial firewood sale areas are reseeded in the fall each year following completion of a sale. Areas where personal use firewood is collected are not generally reseeded because there is normally very little surface disturbance and excellent natural recovery of the understory vegetation.

3-37 Please refer to our response to 3-32 above.

3-38 The proposed decision involving BFF has changed from the draft. Please refer to Table 2-15 for the proposed decision. Also please refer to the socioeconomic section of Chapter 4 for further information.

3-39 The current annual sediment yield in the Myton desert and semi-desert area averages approximately 1 ton of soil per acre per year. This figure was used to measure soil erosion impacts and was added to Chapter 3 as an average annual sediment yield loss.

3-40 These tables now reflect total for each row and column. The emphasis of the these tables was to point out the cumulative impact in each defined oil and gas producing region.

3-41 This particular statistic has been dropped. Please refer to the clarified socioeconomics sections in this document.

3-42 We agree with your comment on feral dogs and refer you to Appendix 2, last row, which says no other free roaming dogs would be allowed within established reintroduction areas except livestock herding dogs. Black-footed ferrets that wander from protected reintroduction areas may be left on their own if approved by the USF&WS and other management agencies involved. No protection would be afforded them in these areas though. When our timeframes for surveys are not quick enough to meet user needs, they have the option to privately complete the survey work.

3-43 In the approved RMP and Record of Decision document, a map will be provided that will outline the oil and gas categories in detail. We believe the list provided in the appendix to be sufficient for the draft document. The resource maps in Chapter 3 may be used to provide a generalized location of where restrictions would be imposed.

3-44 Chemical application should not affect legal markers. This statement has been deleted.

3-45 The word "recreators" has been changed to "the public" in the paragraph on Fencing in Appendix 8.

3-46 Lands administered by BLM offer recreational opportunities not available on National Forest Service or National Park Service lands in the tri-county area. There is a wide variation in recreation opportunities between alternatives. A summary of impacts to mineral development for the proposed plan and each alternative can be found in Chapter 4.

February 6, 1992

Gentlemen,

After discussions with BLM employees, land owners, public land users, fellow sportsman and others, and after several days of studying the draft proposals, the Book Cliff Sportsman Group would like to make the following recommendations concerning the Diamond Mountain Resource Management plan.

We are generally satisified with the present management system and therefore recommend adoption of Alternative "A".

Alternatives "B, C, & D" all favor one specific group at the expense of others and are not acceptable to us. Alternative "E" would be beneficial to wildlife but would be more expensive to implment and would also cause an additional burden on natural resources. We feel that most of the benifits of Alternative "E" can still be achieved under the present multipal use management plan.

4-1

For Book Cliff Sportsmen Group

J. C. Brewer

J. C. Brewer

RESPONSE TO COMMENT LETTER 4 (Brewer)

4-1 The proposed plan would provide 5,000 more AUMs for wildlife, more seasonal protection for special status species and sage grouse, increase acres available for black-footed ferret reintroductions and allow moose reintroductions. The proposed plan would also allow antelope releases on Diamond Mountain, and increase the areas available for bighorn sheep reintroductions. These are significant changes from Alternative A that would not be realized if current management continued.

United States Department of the Interior
BUREAU OF MINES
INTERMOUNTAIN FIELD OPERATIONS CENTER
P.O. BOX 25086
BUILDING 20, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

February 4, 1992

Memorandum

To: Penelope Smalley, Team Leader, Bureau of Land Management
Vernal District, 170 South 500 East, Vernal, UT 84078

From: Acting Chief, Intermountain Field Operations Center

Subject: Review of Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the Diamond Mountain Resource Area, Duchesne and Uintah Counties, Utah

As requested by your agency, personnel of the Bureau of Mines, Intermountain Field Operations Center, reviewed the subject document. With a management plan such as this, this Bureau is primarily concerned that impacts on mineral resources and related production facilities are adequately addressed.

5-1 Mineral resources, past production, anticipated development activity, and expected impacts on mineral resources and future development are addressed for each of the alternatives presented. Accordingly, all concerns of the Bureau of Mines have been addressed. The preferred alternative (E) will have significant negative impacts on the availability of mineral resources in both high and moderate potential areas and development of tar sands would be precluded. The impacts of Alternative E on mineral resources appear significantly more severe than the existing situation (Alternative A) in the resource area. We believe these additional restrictions should be reconsidered in light of the economic impacts they would have in the region.

Richard B. Grabowski

ekp/rr

RESPONSE TO COMMENT LETTER 5 (BUREAU OF MINES, Grabowski)

5-1 We agree that there are higher levels of impacts to mineral resources under the proposed plan than under the existing management. Some of the proposed decisions have been modified or clarified from the draft, based on public comment, allowing for greater management flexibility. These added modifications should alleviate some of the concerns regarding the restrictions, while maintaining or properly mitigating for the identified important resource values occurring in the area.

721 Second Avenue
Salt Lake City
Utah 84103

February 6, 1992

Penelope Smalley, Team Leader
Bureau of Land Management, Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Team Leader:

Concerning the Diamond Mountain Resource Area: Resource Management Plan and Environmental Impact Statement.

I was very impressed with Chapter 4 in which management actions of each concern addressed the affect on other concerns. All too long I have witnesse a hierarcheal arrangement of management affects in which wildlife was at the bottom.

The concerns I am addressing revolves mostly around riparian/floodplains and aquatic resources.

6-1 Page 1.9: Fish and Wildlife Habitat Management. Please consider the Utah Natural Heritage Program operating out of the Utah Department of Natural Resources. This program is concerned with plants and wildlife other than those administered by the Utah Division of Wildlife Resources.

6-2 Page 2.11. Riparian Management: There is some concern here about jurisdictional management or biological management. Likewise there is concern whether floodplains or a political determination of riparian management will occur. These concerns are amplified by the definition of the protective zone elsewhere in the text of 600 feet, 700 feet, or 330 feet. This protective zone definition of not manageable with respect to livestock grazing and the protective zone should include the entire floodplai Likewise the goal (Figure 3-4, page 3.48) is applicable only to mountain streams and not to desert streams which experience flash flooding, less precipitation and hence more reliance on riparian-generated ground water, and more insolation and evaporation. An example of the difference between

6-3 the two systems is that by deforesting the desert riparian system (cutting the Fremont cottonwoods either by wood gatherers or beaver means that desert shrub (greasewood or tamarisks) will replace the forest, unlike the mountain riparian system which may be able to evolve to a climax condition,

RESPONSE TO COMMENT LETTER 6 (UTAH NATURE STUDY SOCIETY, Hovingh)

6-1 We appreciate your comment and will consider the Utah Natural Heritage Program as a source of information for fish and wildlife habitat management.

6-2 The 600', 700', and 330' buffer zones analyzed for the alternatives in the draft pertain to biological management. These zones indicate where management would be restricted to maintain or enhance riparian habitat values. Floodplains are protected by Executive Order 11988. We believe the Bureau's current riparian policy of a 300-foot buffer is adequate for the protection of the riparian values. Please refer to Chapter 2, under livestock in Management Guidance Common to the Proposed plan and Alternatives.

6-3 Yes, this figure applies to riparian areas on perennial streams with the potential to produce the vegetation illustrated.

Page 3.7. Indicator Species and their associated habitats. Although indicator species is an excellent hypothetical idea used to monitor the various habitats, it is largely non-functional in application because there is no baseline data on the species, the species are rare or endangered and thus do not indicate what is occurring in the lower food
6-4 chain, or the animals are hunted and hence managed artificial. Grant (Great Basin Naturalist 46: 469-507, 1986, Wildlife Distribution and Abundance on the Utah Oil Shale Tracts 1975-1984- a reference that should have been cited and whose first page is enclosed) shows great changes in the rodent fauna over ten years which are not reflected in other animals. The rodents would make a far better indicator species as they reflect cycles and plant productivity and are less mobile than the hunted deer and elk.

Although amphibians are not that abundant in the aquatic system of the Green River drainages, they are more abundant in these locations than in the entire Great Basin where their numbers are next to non-existence.
6-5 Two species, the Woodhouse Toad and the Leopard Frog should be monitored in the aquatic systems in order to obtain baseline data while this type of data is still available. The disappearance of amphibians in the Great Basin is indicative of entire riparian habitat destruction (largely by cattle) and other species of mollusks have likewise declined in these same regions.

Page 3.47 . Riparian Resources. Although one can "improve" riparian habitats as at Pariette Wash by "20 impoundments" for waterfowl and shorebirds and provide habitat for these groups of birds where no habitat had previous existed, such views of the improvements can be misleading if one examines mollusks, amphibians and other aquatic dependent animals.
6-6 Such improvements at Fish Springs National Wildlife Refuge in the Great Basin is thought to have lead to the extinction of an endemic snail. Although the Green River drainages are very different from the Great Basin in endemic aquatic fauna, one should be very careful before any manipulation of aquatic resources occurs in arid regions and this care should extend to a thorough biological survey.

Page 4.2: "Demands for wildlife habitat (consumptive and non-consumptive) will increase on public lands as private lands are developed and associated wildlife habitat altered". Yet some of the best management riparian habitats are found on private lands as indicated by unique species which have been extirpated from public lands (observed commonly in the Great
6-7 Basin). Likewise public lands, even with their Resource Management Plans seem to have no control over dispersed recreation and woodcutting- events that are not necessarily good for wildlife. And wildlife neither respects the boundaries of private or public lands or county and state lands and goes where the getting is good. An overall perspective of wildlife is needed.

6-8 Page 4.20. How can 3 inches of growth be maintained in riparian habitats by cattle unless cattle are herded?

6-4 We appreciate your comment and agree. When we revise our Management Indicator Species list, we will be adding a few rodents and less species which are hunted and thus artificially managed. Our emphasis with this first list was to identify species we did have data on and thus the use of deer, elk, and pronghorn antelope.

6-5 We concur with your suggestion. The Woodhouse toad and leopard frog have been be added to our MIS list for aquatic habitats.

6-6 One of the management objectives for Pariette Wetlands set out in the 1979 activity plan was to monitor animal community changes in reaction to habitat type conversions made during the course of the plan's implementation. The mammal and bird studies are complete with only amphibians and reptiles left to complete.

6-7 We agree that an overall perspective of wildlife on both public and private lands is needed. We agree that most riparian areas are in private ownership and in all manner of ecological conditions. It is important that public riparian areas be managed as an integral part of the entire riparian system. For example, we have completed cooperative agreements with UDWR, private landowners, and the SCS on sage grouse habitat management which has worked well.

6-8 The 3 inches refers to average height of herbaceous vegetation as shown by monitoring utilization. Herding or removing livestock may be required when this guideline is reached.

Appendix:
A 2.1 #3. Culverts should not be routinely used except in seasonal flow
6-9 streams. Bridges should be build that provide the continuity of the riparian habitat under the road. Why force riparian dependent animals into the arid lands at dangerous road crossings?

6-10 A 4.2. Has any oil and gas fild ever been reclaimed as deplicted in the illustration?

Appendix 6. Riparian policy of 1988. Guideline #1. Woody plants
6-11 must be reproducing. This is applicable to high-elevation riparian habitats, but for reproduction to occur in arid streams, seasonal flooding must occur. If flooding does not occur, only tamarisks will survive at the expense of cottonwoods and willows.

6-12 Guideline #5. Reduce heat loss and icing during cold winter months. Could this guideline be explained?

A 8.45. Seeps and springs. "Some water would be left at the original
6-13 source for wildlife purposes". This is an excellent management guideline providing that wildlife includes the small animals as mollusks. Likewise the original source should be fenced to prevent large animals as wild horses from impacting the spring.

6-14 Wildlife escape device is very important and these have to be monitored. Often I have seen drowned wildlife (kestrels, spadefoot toads, rodents, sheep) in watertroughs with escape devices implying unsatisfactory design.

A. 8.44. I would hope that vegetative manipulations as chainings, chemical
6-15 treatments, and burns, and firewood harvesting would not occur in riparian and floodplains zones. In fact, a buffer zone beyond these areas should be respected as there is some inter-dependence between the riparian and floodplain area and the arid lands adjacent to these areas.

Although I have most of my experience in biological surveys of amphibians,
6-16 leeches, and mollusks in the Great Basin, I have examined upper Duchesne River and I am well familiar with the White River and somewhat familiar with Desolation, and Yampa Rivers. Waters in arid regions continue to be impacted by humans. Yet riparian management is presently in fashion. Members of Utah Nature Study Society strongly support sound management of aquatic sources such that no further extirpations of aquatic dependent animals occurs. This management must reflect on biological needs and not on jurisdictional or guidelines proclamations.

Sincerely,

Peter Hovingh, Chairman
Issues Committee

Utah Nature Study Society

6-9 The intent of the reference in Appendix 2 is to keep impacts to riparian and aquatic habitats to a minimum, as stated. We do not routinely use culverts on stream crossings, preferring to use low water crossings that require less maintenance and do not disrupt the continuity of the riparian habitat. We construct very few bridges. The same minimum disturbance factors to riparian habitat would apply to bridge construction as well as stream crossings.

6-10 Yes, there are many successful site rehabilitation projects following completion of oil and gas drilling activities. The example in Appendix 4 is just one illustration of the oil and gas operation process.

6-11 These are general guidelines and do not apply to ephemeral streams or washes that do not have the potential or capability to meet riparian objectives.

6-12 The more vegetation biomass on a stream, the more heat is retained during the winter months. Heat retention will reduce ice buildup which may cause scouring damage to vegetation and stream banks and insure open water for a longer period of time, benefiting terrestrial and aquatic wildlife.

6-13 Original sources of springs where riparian vegetation occurs would be maintained or improved, complying with the Utah State Riparian Policy as shown on in Appendix 6. DMRA has an on-going program of fencing riparian springs where needed and leaving some of the water on-site.

6-14 Wildlife escape devices will be installed on all new and existing water tanks or troughs (refer to the management common to the proposed plan and all alternatives in Chapter 2). We agree these escape devices must be observed and maintained periodically to insure design is correct and the devices are in proper working order. The error in the sentence under Water Pipelines has been corrected to read: "A wildlife escape device would be installed in all watering troughs capable of providing small animal escape ramps to prevent accidental drownings."

6-15 Vegetation manipulation would not occur within riparian buffer zones unless to maintain or enhance riparian values. A standard operating procedure, outlined in Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives states: "Management practices are designed to meet vegetation standards which will maintain or improve watersheds."

6-16 We agree.

Eagle Outdoor Sports
River Trips
P.O. Box 375
North Salt Lake, Utah 84054-0375
(801) 451-7238

February 3, 1992

Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078
Attn: Jean Nitschke-Sinclear (Team Leader)

Dear Jean,

It was my pleasure to meet you the other night at the open house in Salt Lake City in connection with the Diamond Mountain RMP. I appreciate the time you and the other team members spent with me in reference to my questions as well as making me more aware of the vast amount of work that has gone into this study.

Let me first state that I support the preferred alternate "E" management plan. From my study of the Draft plan and from the discussions at the open house, I believe that alternate "E" is the best overall plan. There are a couple of areas on the alternate "E" plan that I question pertaining to their level of management. I believe that these areas in question may have been small analysis errors or simply overlooked.

Area # 1 (as noted on the map and circled in blue ink)

7-1 This area seems to have be a small acreage of land that perhaps was overlooked but has been listed as level 4 - open management status. This small tract of land is located directly adjacent to a larger area that has been given level 2 - careful management status. All around this tract of land is level 3 - active management status with the exception of the more closely monitored level 2 - careful management status.

Opinion: It is inconsistent with surrounding area to have a small tract of land, such as this, to be listed as open management. I believe that it should have been at least given the level 3 - active management status.

Area #2 (as noted on the map and circled in blue ink)

7-2 This area also seems to have been another small acreage of land that perhaps was overlooked and given the level 4 - open management status. This small tract of land is located directly adjacent to National Forest Land and is surrounded by lands with a level 3 - active management status. From looking at the maps, this area may be partly on a hill but is still very close to critical deer wintering range. From talking to Tom Dabbs, he could not recall any reason why, from a wildlife viewpoint, the land would not have been given the same management status as those surrounding lands.

RESPONSE TO COMMENT LETTER 7 (EAGLE OUTDOOR SPORTS, Mumford)

7-1 The RMP team independently delineated the resource values and management levels they felt necessary and this data was then merged. In some instances, this exercise created management "slivers" as you describe. The small tracts of open management you refer to bordering careful and active management levels are the result of that independent analysis. Specifically, the area identified as Area 1 in your letter (for the general reader, this area is located on the northeast slope of Home Mountain in Clay Basin, Daggett County) has been assigned a management level of 4, or open. The area lies between the semi-primitive nonmotorized area on top of Home Mountain, designated level 2, and crucial deer and elk winter range in Clay Basin, designated level 3. We feel current management prescriptions adequately protect the resources present. Increased protection can be placed on these area if conflicts arise. Currently data does not present a justification for more restrictive management .

7-2 The small tract of land identified as Area 2 in your letter (located between Red Creek and Ashley National Forest in Browns Park) has been reclassified level 3.

7-2 Cont.

Opinion: Again, it is inconsistent with surrounding area to have a small tract of land, such as this, to be listed as open management. Due to the critical wintering grounds for mule deer, I believe that it should have been at least given the level 3 - active management status.

Area #3 (as noted on the map)

This area of land is the largest of those in question amounting to several hundred acres. It boarders Dinosaur National Monument and is the only land bordering DNM that has level 4 - open management. The management classification on this tract of land appears to be inconsistent with the rest of the alternative "E" findings. I would like to point out specifically why this is, in my opinion, misclassified.

1.- This is the only land adjacent to the Dinosaur National Monument that has level 4 - open management status.

2.- The current and present existing management plan have this specific area of land classified at the highest level within the existing plan, that of a level 2 - careful management. There are other lands near this land that have level 4 - open management under the current management plan. Why in the alternate "E" plan have all the surrounding lands been proposed to have at least the same management or more restrictive management except this one tract of land which goes from a level 2 - careful management to a level 4 open management?

7-3

3.- The map 3-3 within the draft plan shows that this area of land is a high sensitivity zone for paleontological findings. All other areas within the study that have a paleontological high sensitivity zone are classified with at least a level 3 - active management rating.

4.- The map 3-5 within the draft plan shows that this area of land is a high priority area of land pertaining to elk habitat.

5.- The map 3-6 within the draft plan shows that this area of land is a high priority area of land pertaining to mule deer habitat.

6.- The map 3-7 within the draft plan shows that this area of land is a high priority area of land pertaining to pronghorn antelope habitat.

7.- This area is next to the critical sagegrouse strutting areas and habitat areas as noted on map 3-8.

8.- The map 3-12 within the draft plan shows that this area of land has a moderate potential for oil and gas. Open management could allow in the future, oil or gas exploration to take place within this tract of land.

7-3 The area you question adjacent to Dinosaur National Monument has been classified as level 3 in the proposed plan, identifying it for active management because of sensitive paleontological values. Proposed activities adjoining the monument would be closely coordinated with the National Park Service to avoid unduly compromising the resource values or management objectives within the monument.

Opinion: The fact is, this tract of land, as I titled it area #3, is critical to several species of wildlife, and was identified as a high sensitivity zone for paleontological findings. This coupled with the fact that this land is located next to the National Monument should also require at least a more restrictive management plan than open management. The study also revealed that this area has a moderate potential for oil or gas development. This should be further cause for alarm to at least establish this land at a level 3 - active management and perhaps more appropriately a level 2 - careful management. Where this tract of land is presently under a management plan of a level 2 - careful management, I believe that it should continue with a level 2 classification especially in light of the additional needs and values the study has revealed pertaining to this tract of land.

7-3 Cont.

Alternate "E" Buffers: Finally, I would like to question something that exist in the alternative "E" plan. There are a few areas of level 1 - restricted management that are bordered by level 4 - open management. If there are sufficient reasons to classify an area of land as level 1 - restricted management, why would lands right next to this highest level of restrictive management be classified a level 4 - open management. Does it seem logical to have one area of land that has the highest restriction and then right adjacent to it have open management?

7-4

Opinion: I believe that there should be a buffer zone of a reasonable distance between level 1 - restricted management area and level 4 - open management areas. There are not very many areas where this occurs, but where it does, I believe a buffer zone would be justified. If a buffer zone is appropriate in cases of level 1 to a level 4, would it also be logical to have a buffer between level 2 - careful management areas of land and level 4 - open management areas of land as well. These buffer zones could be simply going down to the next level of management, in terms of control, and having a protective distance similar to the sagegrouse strutting areas and habitat areas.

I appreciate the opportunity to voice my support, questions, and opinions, in regards to the draft Diamond Mountain RMP. Although I am involved in river running on the Green River, the areas of concern that I have in regards to this management plan and my opinions have nothing to do with the Green River or its' corridor. I do, however, enjoy this area very much and believe that the new management plan will help to further protect these lands for future generations.

Thank you for you interest.

Sincerely,

Rex Mumford

7-4 Please refer to our response 7-1, above. During the planning process the idea of buffer zones were discussed, but dropped in the belief that the management proposed for the levels is sufficient in themselves to protect the critical resource values, while allowing for resource use in surrounding areas.

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Timothy H. Provan
Division Director

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

Southeastern Region
455 West Railroad Avenue
Price, Utah 84501-2826
801 637-3310

February 12, 1992

Jen Sinclair
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Penelope:

The Division of Wildlife Resources Southeast Regional Office has reviewed the draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the Diamond Mountain Resource Area. We have the following comments, concerns, and recommendations. These comments are regional in perspective and should be considered in conjunction with comments from the Northeast Regional Office which will address issues specific to that region.

8-1 Within our regional boundary, only the southern most portion of the Diamond Mountain Resource Area (DMRA) is included. Although the area is small, it contains what we feel to be critical management areas within the DMRA. These areas include Argyle Ridge, Argyle Creek, Nine Mile Canyon, Nine Mile Creek, lower portions of the Green River and portions of Myton Bench. These areas are inhabited by a wide variety of wildlife species and are areas of critical wildlife habitat. The utilization of these areas for recreation, livestock, and mineral exploration present challenges in wildlife management.

The following are comments on each alternative:

Alternative A

8-2 This alternative places seasonal restrictions on activities occurring in sage grouse nesting areas and peregrine falcon nesting habitat, but the restrictions are not adequate. Restrictions on sage grouse nesting habitat should be from mid March through June and peregrine restrictions should be from February through August.

8-3 Page 2.18 (paragraph 4) states that surface-disturbing activities would be allowed within the 600-foot riparian buffer zone if there was no practical alternative. However, there is no mention of mitigation measures if such activities were to take place. Riparian habitats are critical to most wildlife species. Loss of

an equal opportunity employer

RESPONSE TO COMMENT LETTER 8 (UTAH DIVISION OF WILDLIFE RESOURCES, Moretti)

8-1 Thank you for your comment, we agree.

8-2 We recognize the existing seasonal restrictions adopted in 1979-81 are not adequate for sage grouse protection. We have made changes in the proposed plan (refer to Table 2-15) which expand the protective restrictions on sage grouse nesting habitat and peregrine falcons.

8-3 Mitigation requirements were added (refer to Table 2-15). Management common to the proposed plan and all alternatives, in Chapter 2, outline the various laws relating to soil and water management, including the Federal Pollution Control Act of 1972, as amended. We have further defined this mandated authority to include Section 404 of the Clear Water Act and the Federal Manual for Identifying and Delineating Jurisdictional Wetlands of 1989. We would coordinate with the Corps of Engineers if loss of wetlands is unavoidable. We would not manage to lose wetlands at Pariette.

Ms. Penelope Smalley

such habitat is a severe negative impact caused by surface-disturbing activities. The BLM's Riparian Area Management Policy states that long-term losses of riparian habitat must be mitigated. If this alternative is chosen, mitigation measures must be included in Environmental Assessments tiered to this RMP. We believe a statement referring to coordination between your resource area and the Army Corps of Engineers would be necessary before any decision document is signed concerning potential loss of jurisdictional wetlands.

8-3 Cont.

Alternative B

This alternative would be the alternative of choice by the Division of Wildlife Resources (DWR). It provides for active management of wildlife populations and wildlife habitat. It provides for restriction of activities which would adversely affect wildlife species. This alternative also provides the greatest protection to critical wildlife habitats and wildlife species which are threatened, endangered, or in need of special attention. From a wildlife perspective, this would be the preferred alternative.

8-4

Alternative C

While this alternative provides restrictions on sage grouse strutting grounds, no protection zone is described. This alternative also lacks adequate seasonal restriction of activities for sage grouse nesting areas and peregrine falcon nesting areas. Sage grouse restrictions should be from mid March through June and peregrine restrictions should be from February through August.

8-5

This alternative does not provide for protection of potential bighorn sheep and black-footed ferret reintroduction sites. This should be included in the DMRMP as these are animal species requiring special consideration. Existing BLM Habitat Management Plans for this area outline actions for the reintroduction of bighorn sheep and black-footed ferrets (Page 2.7) and should be considered in this RMP.

8-6

Any additional AUMs realized through range improvements would be assigned to livestock. We realize that this is the objective of this alternative, but not allocating any of the additional AUMs for wildlife makes this alternative unsatisfactory.

8-7

The riparian buffer zone is only 330-feet in this alternative. While this provides for some protection of these sensitive areas, a 600-foot or greater buffer zone would be preferred. There is no mention of mitigation for riparian habitat loss when such loss is unavoidable. Mitigation must be considered for riparian losses.

8-8

8-4 Thank you for your comment.

8-5 - 7 The following response covers comments 8-5 through 8-7. Alternative C was developed to manage ecological systems for forage production for livestock. The proposed plan would provide protection for sage grouse and the peregrine falcon. Bighorn sheep and black-footed ferrets were viewed as restricting livestock opportunities in this alternative, thus reintroductions and transplants were accordingly not proposed. The proposed plan would provide for the reintroduction of both bighorn sheep and black-footed ferrets.

8-8 Please refer to the BLM Utah State Riparian Policy in Appendix 2, guideline 2. BLM believes restricting surface disturbance within the 330-foot buffer from riparian vegetation will adequately protect this resource.

Alternative D

Concerns regarding this alternative are similar to those expressed under Alternative C. There is no protection zone outlined for sage grouse strutting grounds. Seasonal restrictions are not adequate for sage grouse and peregrine falcons. Additional AUMs acquired through range improvements are assigned to livestock with none
8-9 assigned to wildlife. The intent of this alternative is to minimize wildlife restrictions to mineral exploration and development. Impacts from these activities often have a negative effect on most wildlife species. These impacts must be considered in the RMP. Page 2.5 (paragraph 8) states that it is the BLM's responsibility to recognize opportunities to maintain, improve and expand wildlife habitat. Activities related to mineral exploration and development often conflict with this objective. Alternatives which minimize negative impacts on wildlife should be considered.

Alternative E

This alternative provides for the best implementation of multiple use of the resource area. The DWR supports the effort to protect wildlife and the environment while providing for the development of other resources. We would suggest that wildlife be considered
8-10 initially for additional AUMs developed from range improvements. Page 2.30 (paragraph 7) states that these AUMs would initially go to livestock. Experience has shown that it is difficult to assign AUMs to wildlife that were previously assigned to livestock. We would also suggest that the riparian buffer zone be expanded from 330-feet to 600-feet as in Alternative A. This would allow for greater protection of critical riparian areas.

The following comments may apply to several of the alternatives:

-- While this area is potential peregrine falcon habitat, no known eyries occur within the DMRA. Monitoring should occur to identify areas of future use by peregrines. DWR is concerned that prairie falcons and goshawks were omitted from the list of raptors occurring in the area. There are known locations of these species
8-11 in the Nine Mile Canyon area. The Northern goshawk is a USFWS category 2 species requiring special management. The prairie falcon is a raptor of special concern. Ferruginous hawks, also a USFWS category 2 species, are located within the DMRA. A 0.5 mile buffer zone around active nests and seasonal restrictions from April through July would be required for these species. DWR would also like to emphasize the presence of golden eagles in the area. DWR would like raptor surveys conducted prior to implementation of management activities.

8-9 Under Alternative D, mineral exploration and development are emphasized and those activities restricting or impeding the development of minerals are not minimized. Special status species would receive the same considerations in all alternatives, but opportunities to maintain, improve, and expand other wildlife habitat would only be allowed if it did not negatively impact the minerals programs.

8-10 If there is not a need by wildlife to use additional available forage over livestock preference in crucial wildlife habitat, these AUMs could be given to livestock, if needed, on a temporary, nonrenewable basis. This non-renewable use may be issued on an annual basis (refer to Table 2-15). We believe the Bureau's current policy of restricting surface disturbing activities within the 330-foot zones, as stated in the proposed plan, would adequately protect the riparian areas within the resource area.

8-11 We continue to monitor many raptor species including the peregrine falcon in cooperation with UDWR annually. The goshawk, golden eagle, and prairie falcon, as well as all special status animal species, are listed in Chapter 3, as management indicator species for specific habitats. Habitat objectives have been established to monitor these species and assess the affects of the current management decisions. Raptor protection zones are outlined in Table 2-15 of this document. We have adopted these zones from UDWR recommendations and have added them to Appendix 4 of this document for clarification.

8-12 -- Seasonal restrictions on critical elk and deer winter ranges would not be required if animals were not present on the site (Page 2.35). For short term activities this would be acceptable, however, for long term activities we are concerned with this statement. Although animals may not be present one year, if an area is designated as critical winter habitat, then use has occurred in the past and is likely to occur in the future. Allowing activities with long term impacts could cause elk and deer to be displaced into poor quality habitats.

8-13 -- While surface disturbing activities and OHV use are not allowed within sage grouse buffer zones, grazing is allowed (Page 2.36). Seasonal restriction of grazing within the outlined buffer zones from March 1 to June 30 should be considered. Guidelines adopted by DWR, BLM, and USFS state that a two mile buffer zone be established around sage grouse leks and protected from vegetative treatments. Sage grouse populations and habitat are declining. This species provides unique hunting and viewing opportunities and critical habitats such as leks and nesting areas need to be protected.

8-14 -- In order for adequate habitat to be maintained for possible bighorn sheep reintroduction, domestic sheep must be excluded from these areas. Disease is a major contributor to bighorn sheep population declines. BLM must make a serious effort to eliminate domestic sheep in bighorn habitat (Page 2.40). DWR should be involved in negotiations and kept informed of possible conflicts and alternatives.

8-15 -- Increased vehicular access as outlined on Page 2.41 presents some potential negative impacts on wildlife. Many studies have shown that increased use by improving access causes many wildlife species to abandon the area. Species particularly sensitive to such disturbance include black bears, cougars, raptors, and bighorn sheep. We would suggest that access improvements concentrate on horse, foot, and bicycle trails. This could reduce impacts to wildlife.

8-16 -- In addition to the road restrictions placed on OHV on Page 2.50, seasonal restrictions outlined for wildlife should be applied to OHVs in areas critical to wildlife such as leks, nesting areas, wintering areas, and fawning and calving areas.

8-17 -- DWR should be consulted during analysis of cases involving the harvest of ponderosa pine, aspen, cottonwood, and other large conifers as outlined on Page 2.62.

8-12 We would not be allowing activities that would displace big game into poor quality habitat. The sentence describes the use of mitigation, such as acquisition of private land for wildlife or vegetative treatment, to reduce impacts to big game.

8-13 We have not seen any justification for seasonal restrictions of grazing around sage grouse leks nor has UDWR presented any evidence of that need. We have adopted the 2 mile buffer within sagebrush vegetation types, as stated in the Western States Sage Grouse guidelines, to protect sage grouse nesting habitat.

8-14 As stated in Table 2-15, we would continue to convert domestic sheep permits to cattle use, as the opportunity arises, and prevent the change back to domestic sheep.

8-15 Please notice that on Table 2-15 different types of access are proposed. It is our intent to acquire access through private lands to presently inaccessible public lands as opportunities arise.

8-16 OHV use will be limited either seasonally or yearlong to protect sage grouse leks, nesting areas and wintering deer and elk areas in the proposed plan. Please refer to Table 2-15 and Map Packet #10.

8-17 The resource area wildlife biologist will be consulted during preparation of any wood sale for ponderosa pine, aspen, cottonwood, or other large conifers. Should it be necessary for the UDWR to be consulted, coordination will be made at that time.

8-18

-- Regardless of which alternative is chosen, guidelines for seasonal restrictions and buffer zones for the protection of important wildlife species should be followed. These restrictions would apply if the species is present in the area. Clarification of these guidelines follows:

Seasonal Restrictions -

Mule Deer-	12/1 - 4/15 and 5/15 - 7/5
Elk-	12/1 - 4/15 and 5/15 - 7/5
Antelope-	5/1 - 6/30
Goshawks-	4/1 - 7/20
Ferruginous Hawks-	4/10 - 6/15
Golden Eagles-	2/1 - 7/15
Peregrines-	2/1 - 8/31
Prairie Falcons-	4/1 - 7/15
Sage Grouse-	3/15 - 6/30

Buffer Zones -

Peregrines-	1 mile
Bald Eagles-	1 mile
Other Raptors-	0.5 mile
Bighorn Sheep-	0.5 mile from canyon rims and talus slopes

8-19

-- There are several statements to the effect that restrictions can be waived following site specific analysis which receive a "no effect" or "no practical alternative" result. DWR would like to be involved with and informed of such analyses in order to determine the effects on wildlife before restrictions are waived.

8-20

-- The following species are listed as sensitive by the state of Utah and potentially occur in the DMRA. Actions which could potentially have negative effects on these species must either be reconsidered, steps taken to minimize impacts, or mitigated for losses. These species include:

- Dwarf Shrew
- Red Bat
- Spotted Bat
- Purple Martin
- Utah Milk Snake

8-18 UDWR was consulted prior to and during the formulation of this document. The guidelines chosen in the proposed plan are the same or more restrictive for all but three of the important wildlife species UDWR mentioned. Mule deer and elk are seasonally protected in the winter from December 1 through April 30. Crucial summer elk and deer habitat have not been identified as we believe it is not necessary to impose a summer seasonal protection restriction at this time. The proposed buffer zone for bald eagle is 1/2 mile. We currently do not have any nests identified within DMRA and we believe the buffer is sufficient to protect any potential nesting habitat at this time.

8-19 We will continue to inform and consult with UDWR in such instances.

8-20 Thanks you. These species have been added to the discussion of special status animal species under Fish and Wildlife Habitat Management in Chapter 3.

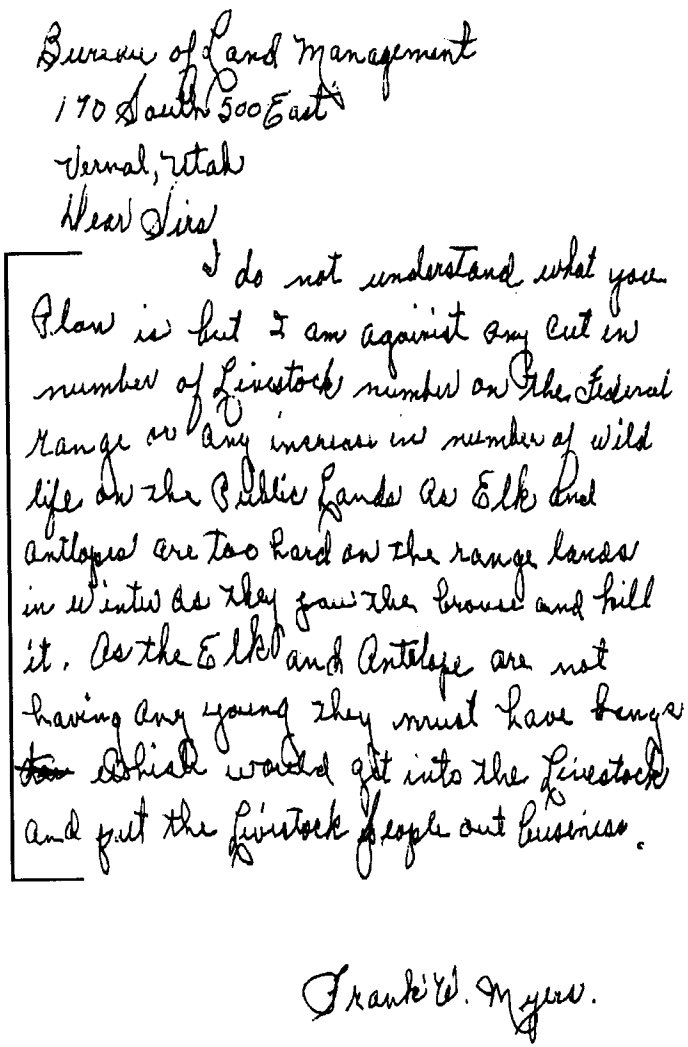
We appreciate the opportunity to comment on this document. We would like to review and comment on the final Resource Management Plan and Environmental Impact Statement. If there are any questions regarding our comments, please contact Ken Phippen, Regional Habitat Manager (637-3310).

Sincerely,

Ken Phippen
for

Miles Moretti
Regional Supervisor

SR/ksr
Copy: Catherine Quinn, DWR
Clay Perschon, DWR
Steve Madsen, BLM



Bureau of Land Management
170 South 500 East
Vernal, Utah
Dear Sirs

I do not understand what your Plan is but I am against any cut in number of Livestock number on The Federal Range or any increase in number of Wild life on the Public Lands as Elk and Antelope are too hard on the range lands in winter as they paw the brouse and kill it. As the Elk and Antelope are not having any young they must have benge ~~than~~ which would get into the Livestock and put the Livestock people out business.

Frank W. Myers.

9-1

RESPONSE TO COMMENT LETTER 9 (MYERS)

9-1 There are no proposed reductions in livestock preference in the Clay Basin grazing allotment under the proposed plan. Current and objective AUM levels noted in Appendix A2-1 were derived from UDWR herd unit estimates and broken out by grazing allotment by BLM. Objective levels would be achieved only if monitoring indicated adequate forage was available and the vegetation was not being harmed. The proposed plan and 3 of the 4 alternatives would maintain the current preference level at 50,299 AUMs. The proposed plan would allow a 14 percent increase in forage allocation to wildlife (from 35,000 to 40,000 AUMs). Alternative B would allow a 31 percent increase and Alternatives C and D would allow a 7 percent decrease in wildlife forage allocations. The proposed plan takes into account the AUMs required to meet wildlife herd objectives that were not addressed in the current management. We are not aware of BANGS in the big game herds within the resource area. Such a concern would be more properly addressed to UDWR who has the responsibility for managing wildlife populations.

Subject: LAND CLOSURE BILL

To: David Little

From: Paul Shaffer District Sales Mgr. American Honda Motor Co.

10-1

This letter is concerning the Diamond Mountain Resource plan. We are deeply concerned that you have included restrictions on the Red Mountain area in your management plan. We hope you can reconsider the restrictions on the Red Mt. resource area.

Sincerely,

Paul Shaffer

Paul Shaffer-DSM

(801)942-1783

RESPONSE TO COMMENT LETTER 10 (SHAFFER)

10-1 Based on the large number of public comments received dealing with management of the Red Mountain area, the decisions affecting this area have been reconsidered. Please refer to Chapter 2 summary of the proposed plan and Table 2-15 for the proposed plans for the Red Mountain-Dry Fork ACEC Complex. In a change from the draft RMP's preferred alternative, OHV use in the Red Mountain potential recreation area (approximately 1,240 acres on the east side of Red Mountain) would be limited to designated roads and trails yearlong. However, an area near the Taylor Mountain-Spring Creek roads (on the west side of Red Mountain) would be open to OHV use on designated roads and trails one month earlier than the surrounding area (opening March 1 instead of April 1). Also refer to Map Packet #10 for a graphic depiction of these areas and Table 2-5 for a breakdown of OHV use designation by acreage. We recognize the popularity of this area to OHV users, mountain bike users, horseback riders and hikers. As stated in the proposed plan, both a coordinated activity plan and a recreation plan would be prepared to identify in detail how the area will be managed. Some give and take will be required by all parties involved to accommodate the needs of others. Any plan must include the cooperation of, and be sensitive to, the desires of private landowners in the area.

295 Crossbow
Green River, Wy 82935
February 18,1992

Mr. David Little
District Manager
Bureau of Land Management
170 South 500 East
Vernal, Utah 84078

Dear Mr. Little:

11-1 I would like to make some comments about the Diamond Mountain Resource Area Resource Management Plan. The Browns Park area is very rich with history that needs to be preserved. John Jarvie Historical Site is a good start but much more is needed. The Indian story needs to be told. General William Ashley's 1825 visit, Fort Davy Crockett, the Rock Saloon, John Jarvie's ferry, Jenny Jayne's school, Dr. Parson's Smelters, William Manley's boat, all need to be replicated.

All of these things are important to the history of the west and should be preserved. If each site is restored at it's exact location, vandalism would soon destroy everything.(4.2) I propose we build replicas of all of this between John Jarvie Historical site and Indian Crossing Campground. This has been done at many sites in the west especially old mining towns. It would include the Jarvie ferry where it used to be, west of Jarvie the Rock Saloon, Jenny Jayne's School, Fort Davy Crockett, Fremont Indian Village, and possibly a prehistoric Indian Village. Someone is always at the BLM residence at John Jarvie and could watch over the whole area. We could have a Historical Lane-Where the Past meets the Present. The exact locations of the above sites could be shown on a map and also from a high point in Brown Park railroad ties with pipes for sighting through could point out the real sites.

Indians have lived in Browns Park for 12,500 years. The native peoples have occupied this region continuously since that time. (3.50) From page 3.3 These areas have large, complex sites which are in good condition. They contain considerable information concerning how prehistoric peoples lived and interacted with other populations in the region." In order to build a pipeline across federal land any indication of these prehistoric people along the pipeline had to be excavated at a great cost to the companies building the pipeline. This cost is eventually paid when taxpayers purchase what is in the pipeline. Usually the artifacts found are deposited in some university basement. If the government is going to make companies do this digging and taxpayers are going to pay for it in the end, let the public see the results. The recent pipeline across Browns Park found nearly forty sites and cost Questar $222,669. The artifacts should be brought back to Browns Park for everyone to see and divided into the proper ages. Eventually all eras would be represented as shown on page 3.3. (Paleo-indian (10,850-5050 BC), Archaic (6050 BC-AD 600), Formative or Fremont (300 BC-AD 1550), and Historic (1750 AD-present). Later I will give my thoughts as to where they should be exhibited. There are exceilent Fremont dioramas at the Green River, Wyoming Museum and at Fort Caspar Museum that could be replicated. The Fremont State Park on I-70 has excellent exhibits.

General William Ashley, after completing the first rendezvous a few miles north west of Browns Park, floated down the Green River in a Bull

RESPONSE TO COMMENT LETTER 11 (CRANE)

11-1 We agree Browns Park's history needs to be preserved and interpreted. It is in the proposed plan to continue development and interpretation of the Jarvie Historic Site, excavate and interpret the Old Rock Saloon and develop a self-guided tour of the important historic features and properties in the Browns Park area. In addition other properties on public lands having important historical significance will be preserved and protected.

Boat and met Etienne Provot in Browns Park near Bridgeport on May 6, 1825. Ashley spent two days camped there. Provot had a large number of horses and a lot of provisions. Provot and six of his men had been trapping beaver in Browns Park. (Did he build the Stone Saloon?) During the fur trapping era Browns Park was the biggest city in the mountains, filled with 5,000 wild men, trappers, traders, packers and Indians. At the center of this city was Fort Davy Crockett. Fort Crockett was on the Safe Southern Route to Oregon. The Indians on this route were considered much friendlier than through Fort Laramie. One group of travellers reported meeting 10 different parties on their way to Fort Crockett. We have some very good desciptions as to what Fort Davy Crockett looked like. Three buildings were in a U shape with no fence around them. We do not know it's exact location. One author gives six possible locations with one at Bridgeport and one west of Jarvie. On one of the official maps of Utah historical sites it appears to be located near Jarvie. No one else wants Fort Crockett. It is so important to the history of the area it needs to be placed somewhere and the six possible locations shown. It slept 300 people. Most forts of this era were made with logs and 24' X 48' divided in the middle with a petition and firepiaces in each end. One of these buildings could be set up the way it was in 1836 for fur trading, one building for a museum with the Indian artifacts dug up by the pipelines and a place to show videos, and the last building a modern store run by a nonprofit group with the proceeds going to the upkeep and the construcation of Brown's Park Historic Lane.

Next in history was the Texas trail herds that wintered in Browns Park on their way to the California gold fields. Texans found Brown's Park had a mild winter and deep grass to break their two year cattle drive to the '49 Gold Rush in California. By this time there were already settlers in Brown's Park. 20 to 30,000 head of Texas cattle wintered in Browns Park for about five years.

William Manley and his party floated down the Green in 1849, and had to build a new raft near Jarvie. They had been driving wagons to California, but when they got to the Green River they found an abandoned ferry. They got on the ferry and headed for California.

Powell floated down the Green in 1869 and 71. When Powell floated down the Green River there were at least 10 settlers in Browns Park at the time. On his second trip on June 8, 1871, he had his mail forwarded to Browns Park. (Possibly the Rock Saloon.)

The 'Rock House' could be the oldest or second oldest building in Utah. Minnie Rasmussen went there once on a picnic when she was a little girl. She said it had no windows, only slits under the low roof. This feature would seem to suggest a fort, perhaps of Spanish origin. Stanley Crouse reported that the unhewn logs forming its upper part had been marked as if they'd been taken from some earlier building and put up again on a cobblestone foundation. It has been described as, Stood two or three log cabins and an old rock house. There were no windows in the rock building. It had slits in the rocks about six inches wide and three feet in length, just the right size for a couple of rifle barrels to fit through. Though the folks around called it the old saloon, it had apparently once served as a military outpost. The A. D. Farron Survey of 1878 clearly shows the location of the ruins of the 'Rock House' just below (east) of Red Creek, on the left bank of the Green River. Jesse Ewing killed Charlie Roberts at the Rock Saloon and he is buried there. Pablo Herrera is reported to have spent a lot of time at the Rock Saloon.

Jenny Jaynes taught her children and the Parson kids in the first school (dugout) in Browns Park.

Dr. Parson's smelters were located near Bridgeport. He had two smelters. He must have been smeltering Jessie Ewing's ore for him. He must have had quite a business. A person would not build two smelters if he did not have a need for the second one.

The thing that made Jarvie popular was his ferry. After the Union Pacific Railroad was completed in 1869, north-south trade routes were established to bring raw products to the railroad and supplies and mail delivered to the settiers. Vernal's mail, supplies, and stage coaches came over this route for many years. Jarvie's Ferry supplied a very necessary service. Getting the supplies across a wide Green River that was often running to deep to ford. The ferry caused Jarvie's to be the Hub of Brown's Park. Regular stage and freight lines ran through Brown's Park by 1880. All north south traffic had to cross his ferry for over 25 years. The ferry needs to be restored.

BROWN PARK'S HISTORY LANE-WHERE THE PAST MEETS THE PRESENT

Brown's Park History lane would be located between the John Jarvie Historical site and the Indian Crossing Campground to the west of Jarvie. It would include (east to west) John Jarvie Historical site with Jarvie ferry replica, Rock Saloon, Fort Davy Crockett, a replica of Jenny Jaynes' dugout school, a replica of Dr. Parson's smelters, and a replica of a Fremont Indian village. In the museum at Fort Davy Crockett, could be such things as a replicas of Ashley's bull boat, Williiam Manley's raft he made when his ferry wrecked at Red Creek, and all the prehistoric artifacts found by the pipeline.

The Taylor Flat Bridge is still laying in the field at Dr. Parsons. If we took the big timbers (8" X 24") from this bridge that are about thirty feet long, we could make a nice ferry. With four or five of these timbers we could make the boat part. Have a timber on each side of the ferry and cut a bevel on front and back and use sections of a timber for the ends and one in the center of the ferry. To this boat nail a 2" floor. The railings could be either 2 X 4 or lodgepole. The ferry should be about 12 feet wide and forty feet long. A wagon is about 18 feet long and two sets of horses would be another twenty feet.

Many old photographs could be shown in the museum that have never been on display in the area. There is a fantastic collection available at the University of Utah Library, UP & L Special Collection, Photographic Section, under the supervision of Roy Webb.

There is a great interest by a group of people to restore the above features. About all that is needed from the BLM is approval to build the things, for them to OK the construction plans, and to get approval from the state of Utah.

We do not even need to "dig" anything first as none of it would be on the exact location. The cost would be minimum but labaor intensive. The floors of Fort Davy Crockett would be rammed earth, the logs could be cut locally. By 1995 all of the above could be completed. The profit from the store at Fort Davy Crockett could pay for the upkeep.

Since there is a growing interest in Mountain Bike riding, bike trails could be established to each of the real sites and other important geological and historical features.

Thank you for this opportunity to comment about the plan.

Sincerely,

Allen Crane

February 21, 1992

Jean Sinclear
Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Dear Jean,

12-1 As a member of the Grant L. Hacking Family Partnership who have ownership of Bear Hollow and Mame Hole in Jackson Draw, Diamond Mountain, I would like to comment on the Diamond Mountain Resource Area and Environmental Impact Statement which is being considered at this time. I have great interest in your plans because I have had a lifetime of experience in this beautiful area. After studying your plans for the Bear Hollow and Mame Hole area it appears to me that you are using a great deal of our property in order to gain access to your BLM land. If you follow through with this construction you will be destroying some of the best pasture land on Diamond Mt. Our cattle business will suffer because of this.

12-2 Our land is suffering from the overgrazing of wildlife. If you build the purposed road you will be eliminating much needed pasture land. Add to that unscrupulous hunters who do not care for private ownership of land and livestock who would have access to our property as well as BLM, then we are in trouble. I am extremely opposed to the changes you are considering. I feel they are not in our best interest. Don't spend the tax payers money on something that is not needed and not wanted.

I hope you will reconsider your plans for the Mame Hole-Bear Hollow property and realize that no change is the best plan.

Sincerely,

Marilyn Beesley

Marilyn Beesley

RESPONSE TO COMMENT LETTER 12 (BEESLEY)

12-1 Thank you for expressing your concerns. However for clarification, the draft RMP outlined and analyzed general areas where access to public lands is needed. In several alternatives, the specific type of access was identified. Any rights-of-way obtained by BLM would be on a willing giver or seller basis. BLM has no intention of acquiring access through condemnation proceedings, nor build any access through sensitive areas. If public lands are open to the public, we believe these lands should be available to all on an equal basis.

12-2 As stated in Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives, under Fish and Wildlife Habitat Management, the management of wildlife habitat on public lands is the responsibility of BLM. Management of fish and wildlife populations are the responsibility of UDWR. We believe your concerns regarding increasing big game numbers should be addressed to UDWR. We will continue to coordinate closely with the adjoining landowners to minimize the adverse effects of big game on their lands.

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

Dear Ms. Smalley:

I am concerned that the Draft Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement does not adequately address the needs of motorized recreation and access.

The restrictions placed on OHV use in Alternatives B and E are unfounde and unreasonable and are unresponsive to the needs of a great many of your constituents. 13-1

I am especially concerned about the virtual closure of the very popular Red Mountain area as is proposed by both of these alternatives.

I would thus ask that Alternative A be adopted together with a heightened awareness of the legitimate needs of the very large number of motorized recreationists who visit this resource area.

Thank you,

Larry Holm 2·24·92

RESPONSE TO COMMENT LETTER 13 (HOLM)

13-1 Thank you for your comment. We have no intention of closing the Red Mountain area to OHV use in the proposed plan. Much of the area will be available to OHV users; however, some limitation are proposed that would affect OHV users (refer to our response 10-1). The relict vegetation area, crucial deer and elk wintering areas; as well as conflicts between various recreation user groups, and interests of adjoining landowners are all important issues that will need to be addressed in detail. A coordinated activity plan for the ACEC and, as needed, resource-specific plans will be developed to identify these details in managing the Red Mountain-Dry Fork area. It is reasonable to expect most uses would be affected to some extent by the specific management goals and objectives set out in these plans. All these plans must include the cooperation of and be sensitive to the desires of all affected groups.

Wild & Scenic Rivers

Jean Sinclair

After reading through your study of the Dimond Mountian Resource Area
I don't feel that any of your alternatives A B C D or E are satisfactory.
with me . First of all if this or any of your alternatives are passed
30-1 this will have a impact on my Home on taylor Flats . First there will
be Know Road improvments on any road that are in site of the River
witch would take in the aproach road to the Taylor Flat bridge the road
exiting Jessy Ewing canyon paraleling the river. Your study says that
5.52 ¼ mi. or line of site , Now depending on where you are standing this
could take in my Home on taylor Flates and the Allen Ranch also
Willow Creek Ranch the State Fish & Wildlife. Therefore I am aginst
any of your alternatives and would like to protest aginst them. Another
reason I don't like any of your alternatives is because Ifeel that this
30-2 is just a foot in the door, Ifeel the goverment has enough control over
every thing we do .After seeing what happens to proptery that the state
or goverment takes over I am aginst any more encroachment on private land
The only place you can find game now is on private Ranches, In our meeta
30-3 ing in Manila you people said that there would be know land take over
but that is not what it says in the study that you put out . I am
formally protesting this Wild & Scenic Rivers Act, or any of your alternitives
The Daggett Co. Comm. & my congressmen will be hearing from me.

Rodell L Eggett
Browns Park

RESPONSE TO COMMENT LETTER 30 (EGGETT)

30-1 Management of the river corridor through Browns Park to protect potential wild and scenic river values would not affect private land. Landowners would still be able to use their property as they choose. Improvements could still be made to existing county roads.

30-2 We are not proposing to acquire private lands to protect wild and scenic river values. However, the proposed plan would allow for the acquisition of available private lands in level 1, 2 and 3 areas, including the opportunity to acquire private land along the Green River. As with acquiring public access, any private land obtained by BLM would be on a willing giver or seller basis.

30-3 Please refer to our response 30-2 above.

February 28, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley:

I have completed a review of the draft Diamond Mountain RMP and would like to offer congratulations on an excellent document. I fully support preferred alterative E. This alternative offers a good mix of present public land administration as well as a realistic look at the direction the BLM is headed in the future. As a long time user of the public lands on Diamond Mountain, I especially support the initiative to acquire legal access to public lands in the Lambson Draw, Jackson Draw, Warren Draw, and other areas where public access is not present. These public lands have been denied to the public for too long by a few private land owners that happen to own the bottom land crossed by county roads. Both the Congress and the general public are demanding more access to our public lands and the access initiatives in this plan are right on target. I sincerely hope that if this alternative is adopted, that an aggressive easement acquisition/exchange program be implemented as soon as possible.

31-1

RESPONSE TO COMMENT LETTER 31 (PAUGH)

31-1 Thank you for your comments.

DAGGETT COUNTY COMMISSION

Manila, Utah 84046

Phone: 801-784-3154

February 28, 1992

U. S. Department of the Interior
Bureau of Land Management
James M. Parker, Utah State Director
P.O. Box 45155
Salt Lake City, Utah 84145-0155

Re: Diamond Mountain Resource Area RMP/EIS Draft, Especially the Plans to Manage for or Seek Designation of Green River as a Wild and/or Scenic River

Dear Mr. Parker:

36-1 The Daggett County Commission has been approached by local residents concerning the designation of the Green River in Daggett County to "wild and/or scenic". We feel at this time there are too many "unknowns" as to the long term effect the designations may have, therefore, until further study and more answers are available, we oppose either or both designations.

36-2 There have also been concerns from residents of Daggett County supported by the County Commission which have grave reservations that the Diamond Mountain Resource Area RMP/EIS Draft does not reflect input from public meetings and/or written memorandum presented to you. We believe all agencies creating tourism and points of interest have an obligation to also address the transportation needs to accommodate these facilities, therefore, the Daggett County Commission opposes the draft as written.

36-3 The commission believes there should be a common goal for the betterment of Daggett County between all agencies. We also believe we cannot continue to attract growth and visitors to the area without considering adequate transportation needs.

RESPONSE TO COMMENT LETTER 36 (DAGGETT COUNTY COMMISSION, Steinaker)

36-1 Appendix 7 in the document has been changed to document Daggett county's opposition to designating the Green River as a wild and scenic river.

36-2 We believe every reasonable effort has been made to involve residents of Daggett County in the preparation of this plan. Concerns, suggestions, etc., received by the residents have been incorporated into the draft RMP for review and analysis. At the onset of the RMP process, several public scoping meetings were held to identify issues and discuss the then-upcoming plan. A scoping meeting was held on November 1, 1988, in Manila. Six (6) people from Daggett County were in attendance, including 3 members of the county commission. It was stressed at this meeting (and at every opportunity) that at any time the public was encouraged to contact the BLM to express their concerns and/or offer suggestions. In September, 1989, planning issues and criteria, developed after input from the public scoping meetings, were mailed. Comments on these planning issues and criteria were accepted through November 30. In September 1990, members of the Daggett County Commission were invited to attend a two-day briefing and tour for the Governor's Resource Development Conservation Committee to familiarize them with the issues and scope of the RMP. An update report was mailed to all interested individuals and organizations in January 1991. This report briefly outlined the alternatives under consideration. Again residents and county commissioners of Daggett County were provided information and the opportunity to respond. The draft document was released for public review and comment in January 1992. An open house on the draft RMP was held on January 30, 1992, in Manila to assist Daggett resident in their review of the draft document. Thirteen (13) residents signed the visitor's roster. We believe the residents of Daggett County were afforded ample opportunity to participate in the development of the draft RMP document. Their written comments to the draft are published in this document along with our responses. Concerns expressed in their comment letters were seriously considered by the team and suggestions and/or clarifications incorporated into the final document.

36-3 We are aware of the county's concern for adequate transportation as summarized in your letter to BLM State Director Parker, dated February 28. We believe your concern was adequately addressed in Mr. Parker's reply of March 23; we quote from Mr. Parker's letter:

...Our planning criteria for the RMP therefore states that 'transportation corridors will not be addressed in this Plan' (see page 1.11 of the draft RMP. These planning

36-4 Inasmuch as there appears to have been a lack of serious coordination or information exchange between BLM and the policy and decision makers of Daggett County, as reflected in the EIS draft, we hereby request an extension of time for comment on the draft EIS. Heretofore, we have not been given adequate input to the NEPA process.

We appreciate your interest and input in the growth and development of Daggett County. Therefore, Daggett County formally requests that your office closely coordinate with us any information, intended actions, etc. affecting our county.

Sincerely,

DAGGETT COUNTY COMMISSION

Elbert J. Steinaker Jr.
Chairman

Dick Bennett

James M. Briggs

cc:
Senator E. J. Jake Garn
Senator Orrin Hatch
Congressman William Orton
David E. Little
Ron Trogstad
Penelope Smalley
Daggett County Engineers/Uintah County Engr. Inc.
File

criteria were distributed in draft form for public review (including review by the three involved County Commissions) and were formally published in the Federal Register. They now provide the guidance to the planning team as they put together the RMP. To revise the criteria now would mean we would have to go back and redo much of the process which has already been completed.

Even though the Browns Park highway or transportation corridors were not addressed in the RMP, there is nothing in the draft RMP that precludes future consideration of the Browns Park highway or any other highway.

Because of the nature of the RMP, we could not address all of the site-specific issues that would need to be analyzed before we could approve any needed rights-of-way for a highway. This means there would still have to be a site-specific environmental assessment (EA) or environmental impact statement (EIS) before such approval could be granted. Therefore, I believe it would be in your best interest, as well as the Bureau's, to proceed with the RMP process now in progress. When the county is ready to proceed with the Browns Park highway by filing an application with the Bureau, we could then do one EA or EIS document tiered to the RMP that addresses all of the site-specific issues and impacts of the highway. This approach would be much less complicated and I believe that would allow us to respond to the county's needs in a quieter and more cost-effective manner....

36-4 We again quote State Director Parker's March 23 letter, which states:

...I believe that the Vernal District has made a good-faith attempt to include you in the development of the document, including several meeting held in Manila over the past several years, as well as telephone contacts. A 90-day period for review has been provided, which is the standard time allowed for review of the draft RMPs. I see no need at this time, therefore, to extend the public comment period unless there are other major concerns not associated with the highway....

United States Department of Agriculture | Forest Service | Intermountain Region | 324 25th Street Ogden, UT 84401

Reply to: 1950

Date: MAR 10 1992

Ms. Penelope Smalley
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

Dear Ms. Smalley:

Ashley National Forest Supervisor Duane Tucker, along with his Staff and Resource Specialists have reviewed your Draft Environmental Impact Statement for the Diamond Mountain Resource Management Plan.

Several of the Ashley National Forest's Resource Specialists have met or will be meeting with the Vernal District Staff to informally discuss some minor concerns regarding the need to coordinate management strategies for certain resources which overlap BLM and National Forest boundaries.

45-1 The Draft EIS appears to be thorough and well-prepared; we have no specific comments regarding the preferred alternative as it relates to the management of the Ashley National Forest.

Sincerely,

for GRAY F. REYNOLDS
Regional Forester

RESPONSE TO COMMENT LETTER 45 (US Forest Service, Reynolds)

45-1 Thank you for your comment.

March 5,1992

Bureau of Land Management
170 South 500 East
Vernal, Utah 84078

Dear BLM:

I have had the opportunity to review your Diamond Mountain Resource Study. I was impressed with the amount of work and information provided. It is an impressive work.

I have a few observations:

46-1 In your comments on the phosphate deposit - you wrote that the ore was high grade. Actually the ore is considered low grade and it requires expensive concentration by flotation to make an acceptable grade for users. As far as I know, this is the lowest grade phosphate mining operation in the west. I have worked in the Idaho phosphate field and the mined grade there averages 26%. At Vernal the grade is more around 20%. However, the thing that is unique about the Vernal deposit is its size and uniformity. There are probably 2 billion tons of phosphate rock stretching across the slope from Ashley Creek to Diamond Mountain. Vernal should be a center for phosphate mining for the next 100 years or more.

46-2 After considering the alternative proposals presented, I favor leaving the management plan like it is. I believe the multiple use concept has served the west and its people well.

46-3 Being a hunter and fisherman,I favor being able to have access to hunting and fishing areas without being restricted. I make my living by working in a mine. Its provided me the opportunity to work in a profession that's given me a good living. I'd like public lands kept

RESPONSE TO COMMENT LETTER 46 (ABPLANALP)

46-1 We qualified our assessment of phosphate grade by the use of the term "relatively", indicating that the grades in the Vernal Field were high enough to make them potentially attractive. However, you are correct in your assertion that the attractiveness of the deposit is governed more by its physical setting than by its grade alone.

46-2 The alternatives in the RMP respond to the public issues and management concerns developed during the scoping period conducted early in the planning process for this plan. All alternatives provide for multiple use of the public lands; however, different management combinations and emphasis are outlined consistent with the overall objective for that alternative. The alternatives provide an analysis of management opportunities and their different combinations in response to these issues and concerns. We believe the proposed plan is the best mix of management opportunities presented. The proposed plan provides for the public's use and development of resources while protecting or enhancing critical/important environmental values.

46-3 Mineral development can provide significant positive contributions to both individuals and the community. To the extent possible BLM will keep lands open for continued exploration and development.

46-3 Cont. available for the location and extraction of minerals. Mining has always provided some of the highest paying jobs.

46-4 I would like to see the Green River, between the Dam and Browns Park, utilized for the heavy recreational uses it provides. I would oppose the building of a road from Little Hole to Brown's Park,that has been talked about from time to time.

46-5 Your suggestion to keep Red Mountain as a primitive timber area appeals to me, but I would not want anyone who is using the area now to run cattle to loose their grazing permit.

46-6 I feel that we need to build consensus among the people living in the area before anything is done that will have a negative impact on their ability to make a living. I also have strong feelings that we, as land users, should respect the land. In the mining of the phosphate deposit we're careful to save the topsoil, re-contour the land and seed it with a variety of grasses and forbs beneficial to wildlife and cattle. I feel that with a genuine effort the land can be restored and left in better condition than it was before it was originally. Reclamation of land used needs to be a part of any land use plan.

Sincerely,
G.Howard Abplanalp
2587 N 1575 W
Vernal, Utah 84078

46-4 We intend to manage the Green River Corridor to maximize recreation use. It is expected that recreation use of the Green River will continue to increase over the life of the RMP. The proposed plan outlines recreation objectives for decisions to accommodate this increased use. Please refer to Table 2-15 under recreation, and Table 2-16 for recreation within the proposed Browns Park ACEC Complex. Regarding your concern about a Little Hole to Browns Park road, please refer to our response 36-3.

46-5 None of the grazing permittees in the Red Mountain Allotment under the proposed plan would lose their grazing permits. Adjustments in grazing can be made in the future based on rangeland monitoring conducted over time.

46-6 BLM is committed to proper management, including protection, use and restoration of public land. The RMP process allows for the public to provide input and review through the RMP development. True consensus may not be realistic; however, serious consideration of the various publics' issues and concerns is a "prime directive."

122 South Vernal Avenue
Vernal, UT 84078
March 10, 1992

David E. Little, District Manager
Bureau of Land Management
170 South 500 East
Vernal, UT 84078

Dear Mr. Little;

We appreciated receiving the draft of the Diamond Mountain Area Resource Management Plan and we were glad to be able to discuss some aspects of the plan during the open house.

47-1 We can support alternative "E" with two reservations. The first, and most urgent, is that areas with a high potential for recreational use such as Red Mountain-Dry Fork, parts of Brown's Park, and Nine Mile Canyon, to name a few with which we are acquainted, should be given an official designation recognizing them as such. This might be an "area of critical concern", a "recreation district", a "recreation easement", or even a "recreation withdrawal". The reason we feel this way is that over time personnel and policy change, and this would make a stronger statement to future managers. The second is that we would like to think that all public land was being carefully managed. We realize that the designations represent levels of administration, but the term "aggressive management" sounds like you are looking for someone to occupy the land.

Our decision is based almost entirely on the recommendations for recreational development since that is the use of public lands that most impacts us. Recreation on the public lands has not always been accorded a very high priority, the assumption being that it is not an economically beneficial use. As one of your alternative plans so plainly states, "recreation will be allowed if it does not interfere with other uses". We feel that the so called economic uses of the public lands do not concern as large a segment of the population as was the case formerly, even though we realize that those few who use the land are dependent on that use. Therefore, we feel that the users will have to make adjustments to accommodate this new reality.

47-2 This would include higher fees and costs which reflect the general increase of all costs, but also the increased value placed on the lands by the public which is, supposedly, the owners of these lands. We are concerned with the tendency of permittees to think they have a right to close roads and fence property as if they owned it. We think all users should understand that the public has the right of entry and that they, the operators, have the responsibility to protect their equipment and guard against any dangerous situations they have created.

We also believe that there are many kinds of recreational use and that some kinds are not necessarily superior to all others. We would expect that the managers make decisions as to appropriate use of different areas. Certainly not all marshes need a road, but not all motorized travel is bad - except, perhaps, to wilderness hikers. Rock climbing is fine, but must they climb every cliff? With more people, developed camp and picnic areas with sanitation facilities are needed just to protect the land from the people.

We do not believe that other uses are always detrimental to recreation either, but we would hope that in evaluating other uses the impact on recreational values would have equal consideration rather than being an afterthought.

RESPONSE TO COMMENT LETTER 47 (DEVED)

47-1 Browns Park, Nine Mile Canyon, and Red Mountain-Dry Fork have been recommended for designation as Areas of Critical Environmental Concern (ACECs) and Special Recreation Management Areas (SRMAs). These two designations would direct management attention to these areas, thus maintaining and enhancing the resource values of these areas.

47-2 It is BLM's policy to require public land users, including recreation users, to pay for the use of the land. We are continually working to improve access to public lands.

Finally, we are impressed with the size of the document and all the work that goes into preparing such a plan. How ironic, then, if all this time and money used to define and justify your actions should actually be to no avail. For, you see, no matter what you put on paper, the lands cannot be managed from the office. Everyone, miners, loggers, ranchers, hikers, campers, climbers, all with the most noble of motives, will take advantage of any situation that they perceive benefits them. Nothing will keep people on their best behavior like the knowledge that someone is checking up on them! The perception that nobody cares because no personnel are visible in the field leaves people free to waste and destroy without feeling any guilt. The only way to keep ranchers from over-grazing, loggers from over-cutting, miners from leaving a mess, jeepers and motor bikers from driving off trails, campers from dirtying the countryside is through the belief that official personnel might be there to see them do it.

All of the above is a matter of money - which no one has. "We could do it if we only had the funds". Maybe the best that can be hoped for would be a reassessment of the use of funds - more field work and less paper work?

Managed recreation is costly; the facilities must be built, then maintained, and the people managed. If this is not done the land suffers. As long as it is perceived that recreation does not generate any revenue it will probably not be taken too seriously when decisions are made. Remember, though, that congress has decided that uses of the public lands should be subsidized, no use pays the full costs. So why should recreation be regarded differently? Spokesmen for some groups suggest high user fees as a solution to over use; only the "truly dedicated", like themselves, would afford them. We feel this would be a disservice to the large majority of the people who are deserving of help to enjoy our public lands.

We thank you for this opportunity to express our thoughts on the subject.

Sincerely,

C. Lawrence DeVed

Rhoda T. DeVed

cc: Penelope Smalley

P.O. Box 100
Trinity Center, CA 96091
March 13, 1992

Jean Nitschke-Sinclear
Team Leader Diamond Mountain Resource Management Plan
Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Dear Jean:

49-1 As a member of the Grant L. Hacking Partnership Family which owns 1380 acres of land in Jackson Draw that includes Manes Hole and Bear Hollow, I am concerned after reading the BLM Diamond Mountain Resource Management Plan. The Hacking's have owned this property for almost a century using it for sheep and livestock production. Improvements such as increasing the number of water reservoirs have made more water not only available to cattle but also to the increasing numbers of elk, deer, and moose as well as birds in the area. This area provides the means for this family to earn a living but has kept intact big beautiful Quaking Aspen Groves and Pristine Timber which seems to be rapidly disappearing due to disease, increasing wildlife, and most of all increased public assess which always brings increased trash, pollution, damage due to motorized off road vehicle tracks, exhaust fumes, paths, plant crush injury, and possible fecal contamination to the limited water supply even if facilities are provided.

I am opposed to any invasion of my family,s private property by the Bureau of Land Management. Existing livestock preference and private ownership should be maintained without new or increased numbers of wild and human life added.

Sincerely,

Marilyn K Scott

Marilyn Kim Scott

RESPONSE TO COMMENT LETTER 49 (SCOTT)

49-1 We appreciate your concerns. Please refer to our response 12-1.

United States Department of Agriculture

Soil Conservation Service

P.O. Box 11350
Salt Lake City, Utah 84147

March 12, 1992

Penelope Smalley
Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley:

Thank you for the opportunity to review the draft Resource Management Plan/Environmental Impact Statement (DEIS) for the Diamond Mountain Resource Area (DMRA). It is a very well done document. The informative maps and charts make it especially useful.

There are a few areas of the document that need clarification:

52-1 1. Page 1.2 "Description of the Resource Area," mentions land ownership patterns and management by other agencies within the resource area boundary. It mentions lands owned and managed by Ashley National Forest and Uintah and Ouray Indian Reservation, but the DEIS (except in Figure 1-1) makes no mention at all about the private and state lands that constitute a major percentage (34 percent) of the land within the DMRA boundary. Much of this land is intermingled (some in the same pastures) with BLM-administered lands and cannot be managed independently. What is done, or not done, on public lands will impact what can be done on private and state lands. Unless the opportunities for Coordinated Resource Management (CRM) are addressed in this EIS, it could hinder the potential for cooperative range/watershed management for these intermingled lands.

52-2 2. Under "Cumulative Impacts of Implementing Alternative E" (page 4.60) the DEIS states, "Cumulative increased wildlife use from 27,600 AUMs to 40,000 AUMs could result in livestock reduction (9,000 AUMs) . . . ." However, in Table 4-18, "Summary of Impacts," and elsewhere in the DEIS it states, "Livestock forage assignments would be held at current levels (50,200 AUMs)." It then states, "Preliminary monitoring data indicates a 1,300-AUM reduction in current livestock preference would be necessary under this alternative." The figures for AUMs seem to be inconsistent.

The Soil Conservation Service is an agency of the Department of Agriculture

RESPONSE TO COMMENT LETTER 52 (SOIL CONSERVATION SERVICE, Holt)

52-1 Land ownership and surface administration responsibilities are displayed on Figure 1-1. Figure 1-1 illustrates private and state acres within the Diamond Mountain Resource Area. The State of Utah and private lands have been added to Chapter 1 as major components of the ownership pattern within the resource area.

52-2 As stated in Chapter 4 for the proposed plan, under Impacts to Livestock Management from Vegetation Resources, it is expected that range improvements and improved management will provide sufficient AUMs to maintain livestock preference. Also any reductions in livestock preference would have to be supported by monitoring over time.

3. Appendix 8, Title Page. Remove "for livestock" from the first heading under CONTENTS. This will make the heading read "Vegetation Inventory History and Ecological Condition." By definition, ecological condition is an ecological rating not a livestock forage rating.

52-3

4. Overlaying the Critical Watersheds Map on Page 3.58, the Sediment Yield Map on Page 3.61 and the Vegetation Zones Map on page 3.67 shows a significant extent of Pinyon-Juniper Woodland and Sagebrush Zones in critical watersheds yielding significant amounts of sediment. For these critical areas, a treatment method that alters surface hydrology by disrupting concentrated flow paths and leaving litter on the ground surface might be considered as a primary treatment method rather than burning. Such treatment methods would include cross-slope plowing with an off-set tandem disc or cross-slope chaining and leaving litter in place.

52-4

We hope that our range conservationists will have the opportunity of working with BLM personnel on Coordinated Resource Management Planning in this area.

Sincerely,

FRANCIS T. HOLT
State Conservationist

cc:
Karl Kler, Acting, District Conservationist, SCS, Roosevelt, UT
Patrick L. Shaver, Range Conservationist, SCS, SLC, UT
Mark M. Petersen, Project Planning Specialist, SCS, SLC, UT
Marilyn O'Dell, Project Planning Coordinator, SCS, SLC, UT

52-3 The statement "For livestock" was printed in error and has been omitted from the heading in Appendix 8 in this document.

52-4 Both burning and chaining in closed stands of pinyon-juniper and old age stands of sagebrush can provide long-term benefits for watershed. Burning has been chosen as the primary treatment method primarily due to project costs, and longer lasting effects. In areas where site specific environmental analysis shows an advantage, other forms of treatment will be considered.

P.O. Box 100
Trinity Center, Calif. 96091
March 10, 1992

Jean Nitschke-Sinclear
Team Leader Diamond Mt. Resource Management Plan
Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Dear Jean:

THank you very much for the copy of the Diamond Mountain Resource AreaResource Management Plan and Environmental Impact Statement sent to me by the BLM at the request of my parents Grant and Mildred Hacking.

Our Family owns 1,380 acres of land in Jackson Draw that includes Mames Hole and Bear Hollow. This area was first owned in 1907 by my Grandfather Joseph P. Hacking and then by my Father and Mother, Grant and Mildred Hacking and now by the Grant L. Hacking Partnership. Since 1907 this land has been carefully managed so it would be in top grazing quality condition to feed many sheep and cattle. The raising of sheep and cattle has been and still is the livelihood and financial support of my parents and many members of both Joseph and Grant Hacking's large Families. Children have been raised and educated from the financial profit of raising cattle on our private property. I am a member of the Grant L. Hacking Family Partnership and have a keen interest in our Family maintaining our family livestock business and the effect the BLM Resource Management Plan will have on this business.

My Father has been aware of the delicate eco-system of Jackson Draw and has made many improvements over the years that have benefitted not only his cattle but the wild mammal and bird life and the natural plant and tree life. Reservoirs have been built that have watered not only his cattle but the increasing wild life population. The beautiful pristine timber and quality quaking aspen in the top of the draws, namely Mames Hole and Bear Hollow that borders the BLM, have been well cared for and are essentially the same today as they were in 1907. Very few areas such as this exists today. This area can be viewed by the general public from the county road that already exists in the bottom of Jackson Draw. To disturb this present well balanced sensitive plant and animal eco-system would be disastrous.

53-1 The Hacking Family has worked hard to care for Jackson Draw! Please do Not develop a Bear Hollow Campsite as indicated on p. 3.45. This would not only take away some of our family's pastureland livelihood but would disturb the present prisitine fragile eco-system due to public road access. DO NOT develop a road through Mames Hole to reach the BLM Property at the top of the ridge as a big portion of our pastureland there would also be ruined and the eco-system invaded.

53-2 Public access to the BLM ground through our property would ruin groves of unblemished quaking aspen and beautiful pine trees. Trees cut for wood, initials carved in their bark, off road motorized vehicle tracks, exhaust fume pollution, trampled plants, unwanted trash, decreased remote nesting and newborn wildlife areas, and possible fecal contamination to the fragile spring water sources as people do not

RESPONSE TO COMMENT LETTER 53 (SCOTT)

53-1 The Bear Hollow potential recreation site has been dropped from further planning consideration.

53-2 Thank you for expressing your concerns. Please refer to our response 12-1.

53-2 Cont. always use the toilets provided, are only a few of the problems that would be created by the public.

Allow the Hacking Family and the future generations of that family to continue their excellent management of their own private property along with the other private property owners in the area such as The McCoys and The Siddoways, without interference from the Bureau of Land Management. It seems the private property 53-3 owner who provides thetax base by which the BLM operates is almost an endangered species. HELP PROTECT THEM! We have done a great job over the years! Existing livestock preference and private ownership should be maintained without new or increasing numbers of wildlife or human life added to this beautiful sensitive area that has been well cared for through private ownership but yet visually accessable to the public.

I agree with the management theme general statement on p. 2.23 that reads....."This alternative will maximize forage production for livestock while maintaining/enhancing critical renewable resource systems and values within the resourse area. Under this alternative the intent is to ensure existing livestock preference is maintained and wildlife numbers remain at current levels."

Sincerely,

Eleanore Hacking Scott

Eleanore Hacking Scott

53-3. We share your concerns for proper habitat management. During the analysis process, data showed that wildlife forage allocation could increase, while maintaining livestock preference. Monitoring use levels and vegetation trend, over time, would be the key factor ensuring over use does not occur.

FOREST INDUSTRIES
1445 South 500 East
Vernal, Utah 84078
(801) 789-7001

March 9, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley:

I attended your "open house" workshop on January 24, 1992. Thank you for your time to visit regarding the various proposed alternatives and the effects/results of each alternative. Also, I want to express my thanks to allow me to voice my concerns and opinions.

54-1 After review of the Diamond Mountain Resource Area RMP/EIS Draft Document, I feel you have adequately analyzed the major resource uses/users of the region.

I feel all people should be included in the participation and utilization of activities on public lands. We should strive for a controlled "balance" to protect our lands, and at the same time, be able to conservatively mine our energy resources, graze our forage producing lands, and harvest our woodlands.

Based on my analysis and past experiences with the Bureau of Land Management, I concur with your preferred alternative--- Alternative E.

Regards,

John E. Kornfeld
Owner/Manager

RESPONSE TO COMMENT LETTER 54 (Forest Industries, Kornfeld)

54-1 Thank you for your comment.

Dear Ms. Smalley:

I oppose the selected alternative for the Draft Diamond Mountain Resource Area Plan and its proposed closure of Red Mountain to off-road vehicles.

55-1 Red Mountain has had continuous use by horses, R.V.s bikes and snowmobiles, and the area still shows no adverse affects from recreational use. Such use should continue, and the management plan should be written to reflect this.

Alternative A should be adopted. The BLM must plan for the needs of off-road recreation.

Sincerely,

Wendy May
PO Box 75
Vernal, UT 84078

RESPONSE TO COMMENT LETTER 55 (MAY)

55-1 Please refer to our response 10-1.

March 13, 1997

Dear Ms. Smalley,

My family and I moved to Vernal one year ago. We are very impressed with the beautiful area but are appalled at the ongoing destruction of the land and the possibility of future destruction.

61-1 I would like to let you know that I support Alternative E of the Diamond Mountain Resource Management Plan and the proposed improvements by the Uintah Mountain Club. I would also like to see more lands in Level I and II. If there is a possibility of any phosphate mining in the Red Mountain-Ashley Creek area, please put a stop to it.

61-2 This is a magnificent area and it should be left alone. I also hope that the slickrock north of Steinaker will be protected. It is a unique area

61-3 and I feel lucky to live so close to it. I also want to mention my support for the protection of Endangered Species in this area and for the re-introduction of once-common indigenous species

61-4 seeing a mountain side full of bighorn sheep in the Sheep Creek Canyon area is something I will never forget. Finally, I want you to know that I support

61-5 Wild and Scenic Status for the Upper and Lower Green River.

Perhaps since I came from a not so scenic State I really appreciate this area. The fact that the land and wildlife are threatened sickens me.

Sincerely,

Nancy Jochems

5-68

RESPONSE TO COMMENT LETTER 61 (JOCHEMS)

61-1 Please refer to the Summary section at the beginning of this document for an explanation of the management priority area concept and how resource values were assigned to a particular management level. The RMP team, using data gleaned from the public scoping meeting held at the onset of this project, determined the management priority area levels and the resource values applicable to each level for each alternative discussed in the document. We believe the assignment of resource values within DMRA to these levels provides for the public's use and development of resources while protecting or enhancing critical/important environmental values.

61-2 In the proposed plan, the Bureau-administered mineral estate area between Ashley Creek Gorge and Dry Fork Creek in the Red Mountain-Dry Fork ACEC would be closed to phosphate mining.

61-3 It is unclear what type of protection you seek. If you're referring to OHV use, please refer to our response 10-1.

61-4 Thank you for your support.

61-5 Thank you for your support.

Mr. Alvin C. Kay
P.O. Box 23
Vernal, Utah 84078

March 02, 1992

Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

ATTN: PENELOPE SMALLEY - TEAM LEADER

RE: DIAMOND MOUNTAIN RESOURCE MANAGEMENT PLAN

Dear Ms. Smalley;

After reviewing the Diamond Mountain Environment Draft Statement, I have come to the conclusion that it is the most stupid and asinine proposal that any Government Agency has ever made.

In 1970, I sold to the Utah Wildlife Resources about 2700 acres of land in the Warren Draw and retained 1200 acres for my children and grandchildren's use and enjoyment. I have built a number of ponds, and have fish planted in four of them for our own personal use.

Udell Gardner and myself have a small herd of cattle running on our fee ground and on the B.L.M. ground on each side of the draw. We pay an annual fee to the B.L.M. for the grazing rights.

The Utah Wildlife Resources have the South part of the draw (2700 acres) and encourage the public to use the area for hunting, camping, and picnicking. Now this seems to be enough ground for their use in this draw.

62-1 There are a number of reasons why I am opposed to your intentions to trespass across my ground:

1. There are three (3) summer cabins on the property, one of which is worth $100,000.00. Now my question is - what if these cabins are vandalized, who is responsible?

RESPONSE TO COMMENT LETTER 62 (KAY)

62-1 Please refer to our response 12-1. If BLM did acquire public access across private lands and vandalism damage or trespass occurred, the violators would be responsible for their own actions in accordance with state laws and local ordinances. Cattle guards and signs could be installed or a cooperative agreement could be obtained between BLM and the private landowners which outlined agreed upon responsibilities for all parties. If public lands are open to the public, these lands should be made available to all on an equal basis.

62-1 Cont.

2. We run cattle in this draw, and the cattle like to lay in the road, for the dust keeps the flies away. What if one of the public hot rodders hits one of these cows or calves, who is responsible?

3. If any of the public gets off the designated Right-of-Way, and trespasses on my private property, who is responsible?

4. You will undoubtedly have to install a cattle guard, and if a cow or calf gets in the cattle guard and has to be destroyed, who is responsible?

5. If the public fishes in my ponds, or uses my private picnic or restroom facilities, who is responsible?

6. I have six (6) children and twenty two (22) grandchildren and most of them hunt deer. Last year there were twenty one (21) of our family hunting deer and two (2) others that my grandchildren brought in, plus five (5) hunters camped at Rex Gardner's cabin for a total of twenty eight (28) people or about one behind every bush. This is probably the most hunters in any one area on the mountain, yet you want to open it to the general public. Does this make sense?

I am completely opposed to the B.L.M. wanting to open my property in the Warren Draw to the public and attendant problems.

Sincerely,

Alvin and Virginia Kay

AK-VK/tk
cc: Senator Jake Garn
Senator Orrin Hatch
Congressman Bill Orton

Lawrence C. Kay
1940 East 2500 South
Vernal, Utah 84078

March 19, 1992

Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Attn: Penelope Smalley
Team Leader

Re: Diamond Mountain Resource
Area - Resource Management
Plan and Environmental
Impact Statement.

Dear Ms. Smalley;

After spending a huge amount of time reviewing this Diamond Mountain Resource Area Draft Statement, it appears to be very complex and not understandable.

63-1 There should be a solution to make the statement easy to read and understandable. It appears that the statement is made cumbersome and awkward by the shear volume of material and is arranged in such a matter that it is extremely hard to understand.

My concern deals with the property that I and my family own in the Warren Draw on Diamond Mountain. As I studied the plan it became really hard to comprehend what the B.L.M. is proposing.

A short history of Warren Draw. It was patented late in the 1800's and used for cattle, sheep, and horse grazing. Approximately in 1970, Rex Gardner, Glenn Cooper, and Alvin Kay purchased the property which included all of the fee owned property in Warren Draw. They also acquired the Federal Grazing Permits, allowing for private animals to graze on the B.L.M. property that lies on the tops and sides of the North - South ridges on each side of the Draw and also on the North side of the Draw, and surrounds the fee owned areas. These permits require yearly payments to the B.L.M. for these uses.

RESPONSE TO COMMENT LETTER 63 (KAY)

63-1 We are sorry you found the draft document cumbersome and its format difficult to understand. The summary section immediately preceding the Table of Contents was intended to help the reader understand the document's format and assist in its review. Please be aware that the proposed plan/final EIS format closely follows the draft document. A summary section is provided in the beginning of volume I of the proposed plan/final EIS.

Some time after the purchase the owners (Kay, Gardner, and Cooper), sold the South 2/3rd's (2700 Acres) of the Draw to the State of Utah, Department of Wildlife Resources. The State was primarily interested in retainage of Wildlife Habitat and Winter Range for Elk and Deer. The State has kept the area open to all hunters and the public for whatever they would like to do. The public still has the right for foot traffic and hiking around the Fee property.

The North portion was retained by Gardner (240 Acres) and Kay (1210 Acres) and developed as a grazing property for horses and cattle. They have constructed nine (9) ponds that retain water for dispersement to the cows and horses during the grazing season. Also the bottom of the Draw was treated to kill some of the sage brush. Corrals were built, springs repaired and upgraded, and roads were upgraded, etc. There has been a large investment of time and money to bring these facilities on line.

Alvin Kay and his wife Virginia have shared their ownership with five (5) of their children and the Kay families take great delight in using the Draw during the Summer and Winter.

1. The Kay's have planted fish in four (4) of the ponds and continue to stock them for use of the grandchildren.

2. The Kay's have built a small park including a picnic table and grass area, outhouse and fireplace by the North pond for the families use.

3. The Kay's and their spouses and family members spend large amounts of time on their property hunting, fishing, relaxing, and enjoying the out of doors.

4. The Kay's have two (2) cabins on their property and Rex Gardner has an extremely nice cabin ($100,000 cabin) on his parcel for their families enjoyment.

The Warren Draw has become an excellent grazing area for the cows and horses because of the diligence and investment in land, water, brush removal, corrals, fences, gates and other livestock appurtenances completed.

Also involved in this area is a large herd of elk who use the same facilities with the cows and horses and a small number of deer. The elk and deer also use this area as a wintering ground.

63-2

We object to the B.L.M. Diamond Mountain Resource Area RMP & EIS Report on a number of important points such as:

1. **This property is fee owned and should never have an access road or roads through it because of the disruptive noise, movement, and harassment of livestock and game animals and all related problems with vehicular traffic.**

2. **Access into private property only causes other problems such as vandalism of cabins, grader, fences, corrals, livestock, vehicles and other items. (NOTE: Trucks, 4 Wheelers, Tractor, and Road Grader are left in the Warren Draw during most of the year).**

3. **Who will restock the fish ponds, cleanup debri left by the public, outhouse cleanup, and other problems caused by the public?**

4. **De-valuation of property due to a public access through the property which then requires additional fences to protect the livestock from vehicle traffic, and other related problems.**

5. **Big Game Management requires some safe areas away from the hunters. Public access always allows more people into a given area which in turn pushes the game animals into smaller and smaller areas.**

6. **Cattle guards should not be installed because of the extreme problems of horses and cows getting into the guards and breaking legs, etc.**

63-2 Thank you for expressing your concerns. Please refer to our response 12-1.

63-2 Cont. All of our family members are completely against public access into any areas on Diamond Mountain not already available to public traffic and especially in the Warren Draw.

Sincerely,

Lawrence C. Kay

LCK/jk
cc: Senator Orrin Hatch
Senator Jake Garn
Representative Bill Orton

March 14, 1992

Ms. Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley:

I'm writing concerning the Diamond Mountain Resource Area, and the five management plan alternatives presently being considered by the BLM. I STRONGLY SUPPORT ALTERNATIVE E.

As a member of the Uintah Mountain Club, I wholeheartedly support their proposed improvements for Alternative E.

Specifically, I would

67-1 - urge the BLM to include more lands in Level 1 and Level 2 management prescriptions.

67-2 - oppose phosphate mining in the Red Mountain-Ashley Creek area. I don't see how this would give a significant boost to the economy of the Uintah Basin, but I do believe it would significantly alter the scenic value of the area.

67-3 - urge greater protection for the slickrock area north of Steinaker Reservoir. This unique area deserves it.

We have recently moved to this area from Kansas, largely because of the wondrous scenery and the recreational pursuits the Uintah basin has to offer. We've already had many memorable experiences, and look forward to many more. Please continue your good work in preserving the priceless beauty that surrounds us.

Thank you for your consideration in this matter.

Most sincerely,

Gregory E. Jochems
4095 W. 500 North
Vernal, Utah 84078

RESPONSE TO COMMENT LETTER 67 (JOCHEMS)

67-1 Please refer to our response 61-1.

67-2 Please refer to our response 61-2.

67-3 Please refer to our response 61-3

March 13, 1992

Dear Jean,

I am the son of Joseph P. Hacking who owned Mame's Hole and Bear Hollow from about 1907 until he died in 1944. The ownership then passed to me in 1947.

He never overgrazed it but left some feed in the Fall to prevent overgrazing and misuse of the land. At that time there were deer but no elk. In 1935 they wanted to put 79 head of elk on all of Diamond Mountain. The number has now multiplied to thousands. In Mame's Hole and Bear Hollow in 1991 more than 500 head of elk have been seen. Now in 1992 the plan calls to triple the number of wildlife there.

68-1 Our concern is how the elk and deer can be fed and still leave enough forage for my cattle on my patented ground. This plan to increase the wildlife is drawn out in the management plan you have sent to us.

As far as the burning plans go I want to tell you of my Dad's experience with burning in Bear Hollow. He waited 2 years for the wind to be just right to burn sagebrush. The wind changed after the fire was started and it swept uncontrolled up the hillside.

68-2 There is still evidence of this today. You have not said whether the 200 acre burn would be on BLM or my ground. If it is to burn on BLM ground you would destroy alot of beautiful forested hunting. I don't want my land to be burned off without my permission and advisement.

If you continue your plan to build a road into Mame's Hole, you will create many problems with my cattle which is my

68-3 livelihood. It will cut down on my acreage, open up my land to foolish hunters(sportsmen) who can't always recognize a cow from an elk or deer. The livestock will mix up with our neighbors cattle.

It is about one mile from the main road to the BLM ground in Mame's Hole. That will cut out approximately 40 acres of my patented grazing land. We love the beauty and privacy of Mame s Hole and we would be distressed to find it full of uncaring people who make deep ruts across the grasslands.

We have leased the hunting rights to about 15 families who care and protect it. We want it to remain as it is. They have taken very good care of the land and have had very few problems since we leased these rights out.

Plans for a campground in Bear Hollow are no good for anyone. More roads into BLM ground will have to be built and then fenced

68-4 which will take more of my acreage and open the area up to more people capable of doing damage to the environment. I fear for my cattle being killed or driven off, the fences cut down and the gates left open.

Although there were some improvements made before I owned the land, I have been involved with making a series of valuable ponds. Livestock and wildlife have benefitted from these. I built two reservoirs below the cabin and corral at the southend of my property, increased the size of the pond in Mame's Hole, built a good one near McCoy's fence, enlarged the one in Bear Hollow and plan to improve the one in Hadlock Cove this summer.

In the last 45 years, I have run cattle in Mame's Hole and

RESPONSE TO COMMENT LETTER 68 (HACKING)

68-1 During our analysis for the RMP, both livestock and wildlife forage needs were reviewed and compared to existing forage on an allotment basis for each alternative. Our analysis showed that livestock preference could be maintained while allowing wildlife forage allocations to increase. We will monitor this increased use with vegetation studies to insure overuse by wildlife does not occur. Analysis also showed range improvement work on public land could supply an additional 28 AUMs of forage in the Mame's Hole-Bear Hollow allotment, benefiting both livestock and wildlife. Also please refer to our response 12-2.

68-2 If burned, the 200 acres on BLM would be conducted under safe fire prescriptions as outlined in a site specific burn plan and environmental assessment prepared prior to any burning. Please refer to Chapter 2, Management Guidance Common to the Proposed Plan and Alternatives for details.

68-3 Thank you for expressing your concerns. Please refer to our response 12-1.

68-4 Again thank you for expressing your concerns. Please refer to our response 12-1.

Bear Hollow and have been very careful to not overgraze this excellent pasture land. Increasing the number of wildlife will take feed away from my cattle. It is a problem which no one seems to know how to control. I do not want you to blame any reduction in feed growth on my cattle when the wildlife will soon outnumber the cattle if your plans continue.

The money I receive from cattle is banked in Vernal banks, supplies are purchased from local merchants, taxes are paid in Uintah County. Money spent by local ranchers in this area far exceeds the revenue paid by sportsmen.

In all of the years that the Hacking Family have owned Jackson Draw inwhich Mame's Hole and Bear Hollow are a part of, we have tried and succeeded in not overgrazing and in improving all water resources to make it some of the finest pastureland on Diamond Mountain. BLM has not made any improvements on their portion.

Please DO NOT make any changes! Let us continue to take care of it and manage it as it is now.

Sincerely,

Grant L. Hacking

Grant L. Hacking

1745 N. 3500 W.
Vernal, Utah 84078
March 19, 1992

Jean Sinclear
Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Dear Jean,

Recently we interviewed a member of your staff regarding the plans for development of the Mame's Hole-Bear Hollow area which are included in your book entitled "Diamond Mountain Resource Area, Resource Management Plan and Environmental Impact Statement.

Some of these plans are causing us great concern, particularly the one which would open up the Mame's Hole area by building a road across our Jackson Draw grazing land up into Mame's Hole and continuing on into Lambson Draw.

69-1 Joseph P. Hacking, Grant's father, purchased all of the land in Jackson Draw so he could provide pasture for his sheep. He negotiated with the BLM for use of their property.

Since Mame's Hole and Bear Hollow became Grant's, he has faithfully paid for the lease from the BLM.

Fences have been built, reservoirs constructed, crickets poisoned, and a careful consideration of non-grazing of his land and BLM land.

There was a time when hunters traveled any place they wanted to on this land. Deep ruts from vehicles driving off the designated roads resulted. Our cattle were always endangered. In fact, we brought our livestock off the mountain before the hunting season began to avoid the cattle from being shot by hunters. We have had trouble in the past with wire fences being cut, gate posts broken off, and cattle being killed.

For the past few years we have leased our private land which gives access to Mame's Hole and Bear Hollow and BLM ground to a group of families who care for it as if it were their own. They post it to keep the roads, water, and cattle safe. Through cooperation with these people, other people have hunted on both our ground and BLM ground without causing any damage.

Opening a road into Mame's Hole would be a tremendous undertaking considering the rocky, steep area it is in. Pressure from environmental groups to pursue this should be discouraged.

In the Deseret News recently there was an article about the problems facing a rancher in Tooele County. His cattle are being killed, fences cut, gate posts shot off, even cement blocks ruined by gunfire. BLM has posted many signs in Tooele County but these last only one day because of being shot at. We fear a similar situation will occur in Jackson Draw leading to Mame's Hole and Bear Hollow.

We should like to protest anymore consideration of such a road building plan.

69-2 We have been determined during our years in the farming and livestock business to sell locally and in turn to buy locally.

RESPONSE TO COMMENT LETTER 69 (HACKING)

69-1 We appreciate your concerns. Please refer to our response 12-1.

69-2 We recognize the importance of the agriculture industry to the local economy of the basin. Please refer to Chapter 3 and 4 for a discussion of the socioeconomics factors involved with this proposed plan.

Along with others involved in the same business, we know that we have helped the local economy every year.

69-2 Cont. Some people may think that catering to hunters will increase county profits. These sportsmen do not pay land taxes. They may buy a few days of groceries and housing but the stability of the economy rests with the stockmen and land owners. It seems too bad that we have to fight for our rights to own land and care for our livestock when we contribute so much.

69-3 We are concerned with the increasing number of wild life we are feeding. The elk herd is enormous now and the prospects of more on our land is staggering and will soon consume all of our grazing land leaving nothing for our cattle.

We appreciate your help and hope this will influence your decision to leave our area without any changes.

Sincerely,

Mildred B. Hacking

Mildred B. Hacking

69-3 Please refer to our response 12-2.

Clint McKnight
150 E. 4000 S.
Vernal, UT 84078

3/20/92

Penelope Smalley
Bureau of Land Management
170 S. 500 E.
Vernal, UT 84078

Dear Ms. Smalley,

I want to congratulate the BLM for what I understand are it's intentions to better protect the Diamond Mountain Resource Area. From what I have seen of the management alternatives being proposed, I want to express my support for Alternative E.

70-1 It is inevitable that greater responsibility for the protection of our public lands will become policy and I'm pleased to see your agency responding to that public sentiment. My only complaint is that Alternative E doesn't go far enough. The damage being done in the Diamond Mtn. area by OHV operators is almost criminal. Are you aware of the extent of the vandalism and landscape destruction that is going on? It is far better to err on the side of protection in this fragile environment.

70-2 I am also greatly pleased by your efforts at restoring the original wildlife species in the DMRA. As part of this new respect for wildlife, please do all you can to abolish the

70-3 cruel practice of bear-baiting. I am astonished that this kind of thing is allowed to go on.

Sincerely,
Clint McKnight

RESPONSE TO COMMENT LETTER 70 (MCKNIGHT)

70-1 Thank you for expressing your concerns. Please refer to the narrative summary of decisions for the proposed plan affecting OHVs and Table 2-5, all in Chapter 2. We believe these proposed decisions adequately protect the important resource values while offering public lands for responsible OHV use.

70-2 Thank you for your support.

70-3 The rationale for not allowing bear baiting on public land is based on the potential public health hazard and conflicts between recreation users and bear-baiting sites which have not been cleaned up. Our responsibility is to manage and improve wildlife habitat not determine methods of hunting. The methods of hunting for each wildlife species is the responsibility of the Utah Division of Wildlife Resources.

William John Kremin, III
814 East 2970 South
Vernal, Utah 84078

March 3, 1992

Penelope Smalley
Bureau of Land Management
170 south 500 East
Vernal, Utah 84078

RE: Diamond Mountain Resource Management Plan

Ms. Smalley,

73-1

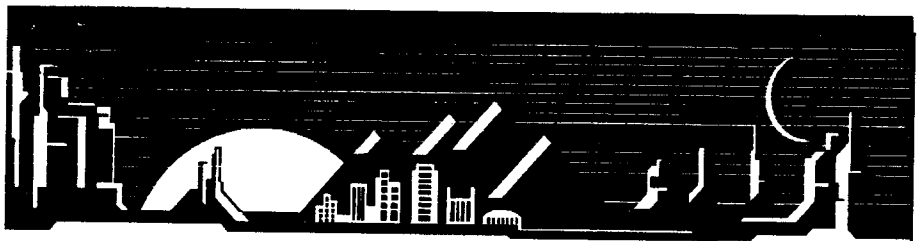
I am concerned that some of your proposals for Diamond Mountain would adversely affect the Jackson Draw area. While most of the meadowland is privately owned, I have found that the owners are most co-operative if asked about access for hiking, horse riding, and even hunting. In a time when much effort is put into preserving areas, as much as is possible, in the natural state, I find it a quandry that opening up the area is proposed. While opposed to closing areas to most people by wilderness designation, I also feel that a cautious approach must be taken when opening [illegible] up lands that are prime habitat for Elk, Deer, Moose, Bear, and many small game as well.

Land access is now available with permission. An increase in vehicular traffic would just continue to erode the now dwindling wildlife habitat, and force much of that wildlife out of the area. Thanking you for your time and consideration of my thoughts.

William John Kremin, III

RESPONSE TO COMMENT LETTER 73 (KREMIN)

73-1 We appreciate your concern. Please refer to our response 12-1.



UTAH CHAPTER SIERRA CLUB
177 EAST 900 SOUTH, SUITE #102
SALT LAKE CITY, UTAH 84111
(801) 363-9621

March 23, 1992

FOUNDED IN 1962 BY CITIZENS OF UTAH

Utah Group Chairs

Clyde F. Gillette 1962-1964
Glenn E. Casey 1965
William Vincent 1966
Fred Montmorency 1967-1968
June Viavant 1969

Utah Chapter Chairs

June Viavant 1969-1970
Paul Salisbury 1971-1972
Ruth A. Frear 1972-1974
Del Wiens 1975-1976
Jack McClellan 1977-1978
Paul Salisbury 1979
Brian B. Beard 1980-1981
Alan Miller 1982-1984
Jean Bryon 1984-1985
Gibbs M. Smith 1986-1990
Ed Blankmon 1991-

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley:

The Utah Chapter Sierra Club supports Alternative B (Ecological Systems) as the alternative with the most environmentally sound minimum management guidelines for the Diamond Mountain Resource Area.

74-1 While we understand that Alternative E was selected because it provided the best "mix" of management objectives from the numerous perspectives of interested parties, we still believe that a predominantly ecological approach is necessary at this time. For many years, development and commercial endeavors have taken precedence over preservation and protection of natural resources. We believe that the management objectives in Alternative B are a good first step towards remedying the environmental abuses of the past.

74-2 We believe that some of the guidelines in Alternative B do not go far enough. We have found little evidence to support the continued use of vegetative treatments and range improvement projects to increase AUMs or change the vegetative components of particular areas.

74-3 We believe that a greater portion of the Resource Area should be closed to OHV use. We recommend that a full

74-4 EIS on the effects of oil and gas development in the Resource Area be completed prior to lease issuance under these proposed surface use guidelines. We believe

74-5 that mineral withdrawal and NSO stipulations should be implemented throughout ACECs to more adequately protect their resources. Acquiring funds for monitoring programs to ensure compliance with all aspects of the RMP should be a high priority.

We urge you to reconsider your recommendation of Alternative E as the Preferred Alternative. We believe that Alternative B (or an even stronger ecosystem-oriented version) would provide the Resource Area with

printed on recycled paper

RESPONSE TO COMMENT LETTER 74 (UTAH CHAPTER SIERRA CLUB, Osborn)

74-1 Thank you for your comment.

74-2 Please refer to the vegetation resources section under "Management Common to the Proposed Plan and Alternatives" in Chapter 2, dealing with vegetation treatment methods. By reference we are including BLM's Vegetation Treatment EIS and Record of Decision (1991) in this document.

74-3 Lands in the resource area were designated "open", "limited", or "closed" to OHV use based on resource values needing protection. Lands were closed to OHV use only if resource specialists believed it was necessary to protect a specific resource value.

74-4 The RMP/EIS satisfies the NEPA requirements for issuing fluid mineral leases.

74-5 Approximately 40 percent of the lands within the proposed ACECs would be recommended for withdrawal or categorized as NSO; these correspond to the level 1 and 2 lands for these ACECs. The remaining lands within the ACECs would be managed in a manner so as not to adversely effect or compromise the important resource values that justified the ACEC designation.

the optimal management objectives and ensure the healthy perpetuation of its numerous natural resources.

Thank you for the opportunity to comment on the proposed RMP. We are pleased to see the inclusion of an ecosytem-intensive alternative, and again request that the BLM consider that as the Preferred Alternative. Please send me a copy of the Final RMP upon its completion.

Sincerely,

Christine Osborne
Public Lands Specialist
1536 East 3080 South
Salt Lake City, Utah 84106

116 Candlewyck Dr W
Tacoma WA 98467
March 17, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal UT 84078

Regarding: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Alternative of Choice: Alternative C Forage Production with limitations.

Dear Ms Smalley,

As part owner of the Mame's Hole-Bear Hollow area I am totally opposed to any development or burning in this area.

Having spent many hours and days in that beautiful mountain Jackson Draw I feel that the DMRA plans, especially in Alternative A and E, are not the best long term interest and use of that area of Diamond Mountain. The long term emphasis should be the production of food and forage. There will NOT be a Post-Agriculture Society. Your evaluation of the livestock men dismisses the need for the continued production of food and fiber in the coming years. The world's food supply continues to diminish.

Mame's Hole - Bear Hollow are still remote pristine area with "Old Growth" forests of conifers , Quaking Aspens and Sego Lilies. As you travel up the face of Taylor Mountain, Brush Creek Mountian the sight of the forest devastated by the damage of the Pine Bark Beetle and the cutting of wood and the roads that cut across forest and mountain meadows is a tragedy that never should have happened to our natural environment It will take centuries to restore, if that is even possible. Why add to this decimation and destruction of our natural resources?

75-1 In Alternative A and E you are suggesting the accessing of Mame's Hole - Bear Hollow with a road. Such a road would destroy the meadows in the bottom of the draw, cut through rocky mountains sides of sego lilies, quaken aspen and conifers that have been left untouched through the years. There has not been an accessible road into this high mountain area. An access road

RESPONSE TO COMMENT LETTER 75 (ELY)

75-1 Thank you for expressing your concerns. Please refer to our response 12-1.

would cause soil erosion and destroy the beauty and remoteness of Jackson Draw . These areas can be viewed from the county road that passes in the bottom of the Jackson Draw. A road into Mame's Hole - Bear Hollow would also disturb the wildlife that use those sites for home, protection and shelter. Their habitat will be drastically changed forever.

75-1 Cont. The need for access is outweighed by the preservation of the few remaining remote meadows available for wildlife and animals. These remote, yet viewable areas, are better preserved for future generations who desire to travel along a Scenic By WAy in the bottom of the draw and not see the mountain sides carved up with roads from the top of the mountains to the bottom. "Cousteau Watch" in the March 22, 1992 edition of the Morning New Tribune said, "In days ahead, natural resources may be worth more in an untouched state than when developed. They may generate more money over the long term merely by existing, like savings held in a bank, than by being exploited".

Mame's Hole - Bear Hollow and Jackson Draw SHOULD NOT be exploited by building roads into them!!!

75-2 The increased amounts of Wildlife proposed for Mame's Hole- Bear Hollow will infringe on the private land owners in Jackson Draw. I have counted larger herds of deer and elk seen there than you have listed on Table A2-1. Our private lands are closed to public deer hunters and will remain so over the coming years. Public deer and elk hunters do not make for good neighbors because of the damage they inflict on the property of the private land owners.

75-3 The building of a campsite in Bear Hollow is opposed. Unless the BLM is going patrol the area to keep the public from trespassing and desecrating the private land surrounding it. A public camp ground is available within three to five miles at the Warren Draw Reservoir (Calder's Pond).

75-4 The DMRA plan does not clearly designate those structures and properties which are privately owned and those that are public in the maps and table. An example is the grazing allotment map. A glossary of the abbreviated terms used in the charts and tables is needed. It is difficult to determine what they mean and their future use. Example A8.33 What does Res. mean? If it means Reservoirs, where are you going to build such structures? On the tops of the hills? Are those to be built on private or public lands?

75-5 BLM proposes the burning of 200 acres in Mame's Hole - Bear Hollow. We are opposed to burning of the land without knowing specifically where the burning is to take place. The last burn in that area escaped the burn area and burned the whole mountain side when the winds suddenly changed.

75-2 Please refer to our response 12-2.

75-3 Please refer to our response 53-1.

75-4 The abbreviation "Res." means reservoir, a description of the abbreviations has been added to Table A8-4 for readers' convenience. All range improvements are proposed to be built on public lands. Project work numbers are estimates. Exact locations would be designated at the activity plan level and are subject to NEPA review. Refer to Chapter 2, vegetation resources discussed in "Management Common to the Proposed Plan and Alternatives".

75-5 Please refer to our response 68-2.

It is unfortunate that the cost of the EIS and the projected tax dollars required for each Alternative is not also required with the Environmental Statements, so the tax payers would have an idea of what each project is going to cost and how they are to be funded.

Again, we are opposed to any development and increase in wildlife in the Mame's Hole - Bear Hollow, Jackson Draw areas.

Sincerely yours,

Sandra H Ely

Sandra H. Ely

227 South 500 West
March 24, 1992

Attention Jean Sinclair
Vernal BLM District
170 South 500 East
Vernal, Utah 84078

I wish to support Alternative E in regards to the Diamond Mountain Resource Management Plan. I believe there are many important ways we can and should use our public lands and resources. Document E gives us a well rounded emphasis which is beneficial to many instead of just a few, as the other Alternatives do (A, B, C & D).

76-1 I oppose any more land designated for phosphate mining in the Red Mountain - Ashley Creek area. I would rather see more Level 1 and Level 2 management prescriptions, which

76-2 would include protective zones around sensitive archaeological and paleontological sites.

I appreciate the BLM for its emphasis on once-common indigenous species, such as the bighorn sheep and black-footed ferret. I urge maximum protection for these and other endangered species on BLM lands.

I appreciate all you do.

Sincerely,

Tim Hadlock

RESPONSE TO COMMENT LETTER 76 (HADLOCK)

76-1 Please refer to our response 61-2.

76-2 Please refer to our response 61-1.

March 24, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Ut. 84078

Dear Ms. Smalley,

I am writing to comment on the Diamond Mountain Resource Management Plan. First of all I would like to express my support for alternative "E". It is the most balanced alternative. The others heavily favor one faction or another to the detriment of the whole.

77-1 While I support alternative "E" I still feel that there are some changes which would improve it. I believe that more acreage should be added to the level 1 and level 2 management plans. More non-commercial resources should be given protection. Many of the archaeological, riparian and scenic areas in this plan are priceless and irreplaceable. Sensitive zones could be established around such areas to prevent sites from being disturbed. I also think it would be a good idea if more surveys were made so we could be sure we know of all the special areas that need protection. Motorized access should be restricted where it has the potential to damage fragile resources. There must be a way to enforce restrictions as well, it does no good to say you are going to protect an area if you don't back it up with action.

77-2 I would like to see more adequate protection for the slickrock areas north of Steinaker. I have spent many afternoons hiking near Moonshine arch and it is clear that the area is not being managed effectively. The graffiti and trash are deplorable. This area should be closed to motorized vehicles. Private or State owned land could be acquired to create a buffer zone around the area.

77-3 Phosphate mining in the Red Mountain area is a terrible ideal I have spent quality time hiking and horseback riding there and it is too special and beautiful to tear up. This area is also critical elk and deer winter range. There was a huge public outcry when phosphate prospecting permits were applied for several years ago. The people of the Basin do not want a strip mine in this area. We already have one huge phosphate mine in that general vicinity. There has been enough land sacrificed to phosphate already! I was told in 1986 by Mr. Hadenham, former manager of the Chevron Phosphate operations, that they then had access to enough phosphate to keep them busy for 300 years. Enough is enough! I don't think they have done such a great

RESPONSE TO COMMENT LETTER 77 (DURRANT)

77-1 Please refer to our response 61-1.

77-2 Please refer to our response 70-1.

77-3 Please refer to our response 61-2.

77-3 Cont. job of restoration either. I would also like to see motorized vehicles restricted to the existing jeep trail on Red Mountain.

77-4 I think the reintroduction of animals once indigenous to the Diamond Mountain Resource Area is a great idea. We've spent several days observing some of the big horn sheep which have already been reintroduced to N.E. Utah. I look forward to further big horn sheep placements and to your planned reintroduction of the black-footed ferret. I support your proposal to eliminate bear baiting on BLM lands. I would also like to encourage you to give all protection possible to any animal species which are threatened or endangered in this management area. Every effort must be made to protect nesting sites and instream flows on a year round basis.

77-5 I would like to urge you to place the lands in Diamond Breaks and West Cold Springs Wilderness Study Areas in the Brown's Park Complex Area of Critical Environmental Concern in the event that they not be given Wilderness designation. This will at least afford them some protection.

77-6 Finally, I would like to express my support for Wild and Scenic status for the Upper and Lower Green River. This is a special and unique river. Thousands of people, including myself, take great pleasure from their experiences there. It is essential that this magnificent resource be protected.

Thank you for your time and for your attention to my comments.

Sincerely,

Brenda Durant

Brenda Durant
3264 West 500 South
Vernal, Ut. 84078

77-4 We appreciate your support for wildlife reintroductions. Please refer to our response 70-3 concerning bear baiting. We also appreciate your concerns and support for the special status animal species program. BLM Vernal District's water depletion plans for the endangered fish species in the Green River is currently being developed. This policy when finalized should help to maintain or improve instream flows and would apply to any resource management plan. The proposed plan, as in Alternative E, would also protect listed animal species' nesting sites as well as the special status raptor species, golden eagle and ferruginous hawk, nest sites on an annual basis.

77-5 For clarification, should the Diamond Breaks and/or West Cold Springs WSAs not be designated as wilderness areas, under the proposed plan these areas would be included in the Browns Park ACEC Complex and managed to meet the prescriptions for semi-primitive, nonmotorized areas.

77-6 Thank you for your support of the recommendation for designation of the Upper Green River as a wild and scenic river.

3-23-92

BLM
Vernal District,

To Whom it may concern:

I resent the segments that you have identified in the Green River, Nine Mile Creek and Argyle Creek as suitable for study for inclusion in the Wild and Scenic River System. 78-1

Please, get real!

Let the land and the BLM be for the people!

Claudia Cox
P.O. 373
Orangeville, Ut. 84537

RESPONSE TO COMMENT LETTER 78 (COX)

78-1 Please refer to Appendix 7 for the analysis of stream and river suitability under wild and scenic river criteria.

Lorin E. Squires
2795 West 1100 North
Vernal, Utah 84078

March 26,1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Ut 84078

Dear Ms. Smalley:

I am writing in reference to the Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement. I have a copy of the management plan which I have studied. In addition I have participated in meetings of the natural resource committee of the Uintah Mountain Club and have contributed to the analysis of the plan performed by that organization. You will receive a letter presenting our support for alternative E of the plan with certain recommendations for modification. I wish to underscore the information in the Uintah Mountain Club document. I also wish to lend my support for the preferred alternative which I consider to be a good balanced plan for management of the resource area, and I hope that there will not be an erosion of this balanced management approach.

I encourage a management approach which provides for sustained utilization of the land while preserving its ecological integrity rather than a more consumptive attitude which usually is accompanied by environmental deterioration. I feel that the recommendations presented in the Uintah Mountain Club statement support this theme. I would like to focus on a few areas of concern.

79-1 The acreage listed for level one management priority under alternative E should be expanded. Additional acreage for upgrade to level 2 management should also be considered. One area that I

79-2 would like to see have more restricted management is the sandstone formation region north of Steinaker Reservoir. Please consider a management emphasis of this area which will prevent environmental degradation and preserve aesthetic quality. I

79-3 would like to underscore the designation of the plan's Areas of Critical Concern (ACEC) including designation of portions of the Green River under the Wild and Scenic River Act. I also support careful management of riparian habitats including management for mitigation of environmental degradation and also for reclamation of previously damaged habitat.

79-4 I anticipate that the use of public land by off-highway vehicle operators will increase. This will be both a function of increased population, tourist use of our area and greater recreation activity. While many vehicle operators show wisdom and respect for other people and the land, an element in this group focuses only on the thrill of the ride regardless of the

RESPONSE TO COMMENT LETTER 79 (SQUIRES)

79-1 Please refer to our response 61-1.

79-2 OHV restrictions identified for the sandstone area of Red Mountain are somewhat more restrictive in the proposed plan than they were in the draft. As stated in the proposed plan, a recreation management plan will be prepared to identify in detail how the area will be managed. This plan will address the needs of OHV users, mountain bike users, horseback riders, and individuals enjoying hiking in the area. Some give and take will be required by all parties involved to accommodate the needs of others. Any plan must include the cooperation of, and be sensitive to, the desires of private landowners in the area. Please refer to Table 2-16 for decisions for special emphasis areas under the proposed plan.

79-3 Thank you for your support for the proposed ACECs and recommendations for inclusions in the National Wild and Scenic River System.

79-4 Please refer to our responses 74-3 and 79-2.

impact of the surroundings. Some individuals also abuse their right to use our road and highway system, and for this reason we have laws and regulations to govern vehicle use. I urge the district managers to develop a plan for the management of OHV's on BLM land and include in that plan restricted use of these vehicles in areas with sensitive vegetation, cryptogamic crusts and easily erodible soils. The slickrock region on the slope of Red Mountain should be included in the restricted zone. Attention should also be given to the concerns of hikers and other non-vehicle recreationists who often feel that noise and interference by OHV activity degrades their recreational experience. I enjoy the use of off-highway vehicles but have been appalled by the environmental damage I have witnessed in this and other parts of the state and would hope that such damage can be mitigated.

79-4 Cont.

I am personally opposed to phosphate mining in the Red Mountain to Ashley Creek area and would support an addition to the plan restricting mining activity in this area. I reiterate my support for the preferred alternative, alternative E, and hope that the district will resist efforts to alter this alternative in preference to alternatives A, C or D. I also strongly encourage careful consideration toward incorporating the Uintah Mountain Club's recommendations into the preferred alternative.

79-5

I commend BLM personnel for the efforts that have gone into the preparation of this plan and hope that effort and resources for implementation will be forthcoming. Thank you for your consideration of my comments.

Sincerely,

Lorin E. Squires

79-5 Please refer to our response 61-2.

CLIFFORD AND LENORA SMITH
DAGGETT CO. UT. RD. 26056, BX 4
MAYBELL, CO., 81640

23 MARCH 1992

Jean Sinclear
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Jean:

Our comments to the DMRA are submitted herewith. We would like to state that review of this plan in a 90 day period has put us at a disadvantage. In the process of identifying our Browns Park area from all other areas and then analyzing the impact of what is already in effect and all the subsequent changes has been a frustrating effort. There are segments of each alternative that we concur with however there is no one alternative that is acceptable.

Specific areas of concern are as follows:

80-1 1. Utilities corridor: The existing pipelines should remain as is as of 1991. There has been enough scarring of the land. No further pipelines should be allowed.

80-2 2. Airstrips on Taylor Flat and Willow Creek: These airstrips have been utilized by fishenpersons, charter fishing guide services, DWR to spray noxious weeds, and your organization to seed burned areas. They have also been used in medical emergencies. It is our understanding that they are depicted on road and air maps. They should be maintained by your agency as they are on public lands.

80-3 3. Livestock Grazing: We feel the present AUM's should not be increased.

80-4 4. Wildlife Habitat: Development of habitat should be of the type that does not require special watering. A species should be found that survives the existing weather and soil conditions.

80-5 5. Fire Management: Prescribed burns should be eliminated. The existing sage brush, pinyon-juniper stands provide watershed. Chaining and burning has reduced this area within the last 6 years. We have experienced flash flooding in the past and we believe this would occur if controlled burns are initiated again. The suppression areas should be increased to 1-2 miles. from private lands and buildings if controlled burns are allowed.

80-6 6. Reintroduction of Bighorn Sheep: We do not favor this

RESPONSE TO COMMENT LETTER 80 (SMITH)

80-1 The planning process identified a need for a north-south utility corridor, primarily to facilitate transportation of oil and/or gas between Utah and Wyoming. Jesse Ewing Canyon presently has three major pipelines and has been determined to support up to 3 more pipelines. The route depicted for this utility corridor basically follows these existing pipelines. Thus it is expected that the critical wildlife habitat and visual qualities of Browns Park would be maintained.

80-2 While we agree that an emergency landing strip may be needed in the Browns Park area, portions of the two existing strips are presently in trespass, creating an identified need for their resolution. BLM is not in the business of managing landing strips and would seek another entity to manage them.

80-3 The proposed plan would establish livestock preference at the present level of 50,299 AUMs, please refer to Table 2-15 under livestock.

80-4 Our standard reseeding procedures are to plant species that meet BLM forage and watershed objectives and can survive existing soil and weather conditions. Plants have been watered at the Taylor Flat study exclosure for a special study. It would not be practical for BLM to water plants on the open rangeland.

80-5 Refer to vegetation resources in the Planning Criteria in Chapter 1 and Management Common to the Proposed Plan and Alternatives in Chapter 2. Fire is an approved tool to meet activity plan objectives. Crucial deer winter range in Browns Park is a priority suppression area. The Browns Park home owners on Taylor Flat are within the crucial deer winter range.

80-6 The proposed plan would allow for the reintroduction of up to 400 bighorn sheep on public land in the Browns Park-Three Corners area, placing a seasonal restriction to surface disturbing activities (September 1 through June 30) to protect existing rutting and lambing areas. We would also like to take opportunities to eliminate domestic sheep grazing on public lands through negotiations to reduce the potential of disease transmission between domestic and wild sheep. No road closures have been proposed related to the reintroduction of bighorn sheep. We recommend you discuss your hunting concerns with UDWR, the agency responsible for management of big game and regulating hunting seasons. Your contention that bighorn sheep will attract more tourists may be true, however, we anticipate a much larger increase from river recreationists than would be expected from bighorn sheep enthusiasts. We have expanded our Bridge Hollow facilities and will be improving our Indian Crossing Campground and Jarvie

DRAA Comment Letter Continued

80-6 Cont.

action. The development of habitat for the sheep will require burning. We fear the impact of the reintroduction to our present way of life by the closure of roads, hunting and grazing by livestock. The plan cites restrictions of one mile and ten miles. Placing sheep in this area of the quantities stated will attract more tourists, environmentalists and photographers yet there are no plans mentioned for facilities such as restrooms and new roads. The time to budget all costs is now, not at a later date.

80-7

7. Jarvie historic Site: We would like to see preservation of the heritage of Esther Campbell at the Jarvie site. The rock garden in particular as that is all that is left. This was history in the making and should be retained. Many of the trees and shrubs have been destroyed by beavers and fires. The many seedling of trees on the property could be transplanted. The sidewalks placed for the physically challenged detracts from the historical theme. Utilization of Golf carts to service the people would have been a viable alternative.

80-8

8. Tourism: BLM and DWR should share in the costs to maintain and improve the roads (i.e. paving). Costs should be included in your budgets. Special consideration for widening the dugway from the Taylor Flat Bridge to 1/3 mile to the east should be included in the plan. When traveling the roadway, the scenery is beautiful and could be a distraction to a driver. The roadway is narrow and has blind spots to oncoming traffic. The widening of the roadway would not be visible from the river level as the road is several feet above it.

80-9

9. Sanitation Facilities and Landfill Area: With the increase of tourism the one garbage trailer on Bridge Hollow is not sufficient. Establishing a landfill area would encourage proper disposal of garbage. Placing restrooms facilities at 2-3 mile intervals from Bridgeport to Swallow canyon would reduce human waste along the river.

80-10

10. Riparian Areas: These areas along the river seem to sustain the activity of persons and the livestock grazing on the Jarvie Site. Increased flows from the dam would have a more devastating effect in the event of heavy spring runoffs.

80-11

11. Red Creek Drainage: This area should be a high priority. Coordination with Wyoming BLM should be initiated to prevent the flow of silt into the Green River. Construction of catch basins should be implemented immediately.

80-12

12. Wild and Scenic River Designation: We feel this designation will have an adverse affect on the private landowners and citizens in Browns Park. The economy of Daggett County could be impacted. The present tax base is at 8%. The Federal and State agencies have more than enough control over the river and

-2-

Historic Site to meet some of these needs. These facilities will have adequate restrooms and roads to meet the future public needs.

80-7 The Jarvie property was acquired by BLM to preserve and interpret the history of John Jarvie between 1880 and 1909. Although there may be a value in preserving the heritage of Esther Campbell, we do not feel that it should be done at the Jarvie Historic Site. The sidewalks were installed at the historic site after consultation with the State Historic Preservation Officer. They are intended to make it more accessible to the physically challenged. Various other alternatives were examined, but none were found to be satisfactory.

80-8 The road of concern is a county road. Daggett County is responsible for maintenance and safety problems along its route.

80-9 If more than one garbage trailer is needed at Bridge Hollow, another one will be provided. Establishing a landfill area in Browns Park would be much more expensive at this time than hauling garbage to Dutch John or Vernal. We agree that additional restroom facilities are needed in Browns Park along the Green River. These will be provided over time as funding permits.

80-10 Livestock grazing on the Green River in Browns Park under the proposed plan would be open to restricted grazing on a case-by-case basis only as a biological tool to control noxious weeds or to maintain or enhance wildlife habitat (refer to the ACEC prescriptions for livestock in the proposed plan). Periodic flooding during heavy spring runoffs has the potential to expand or improve riparian areas.

80-11 The majority of the watershed for Red Creek is in Wyoming. Wyoming BLM is currently planning watershed improvement projects as part of the Green River RMP which is also currently in development. BLM in Utah has built 115 reservoirs as part of the existing Red Creek Watershed Plan. We have added these reservoir numbers to Table A8-1 under the Clay Basin Allotment. BLM proposes to build 15 more reservoirs under the proposed plan. See Table A8-4, Clay Basin Allotment.

80-12 Please refer to our response 36-1. Toliver Creek was on a list of streams looked at for possible wild and scenic river designation, but it was determined that it did not meet the criteria for further study. It is proposed to be dropped from further study.

DRMA Comment Letter Continued

and lands in this area.

80-12 Cont.

The citizens of Daggett County would like to take the initiative to develop tourism consistent with the history of the rancher, sports and outdoors persons way of life.
The list of rivers and streams includes Toliver Creek which runs thru our property.. We question the inclusion as the only time there is water is during spring runoff. Buffer zones on either side of this creek would affect our lands. We oppose this inclusion.

We are sure there are more areas of concern we should have addressed. Some of the statistical data seemed questionable, however not enough time was available to verify.

We do not want our quality of life to be impacted unfavorably. We have family that share our love of the area and we intend to leave our land and home and culture that we have built for the past 18 years to our children and their future.

We would like to be able to continue to care for the area and take our part in protecting the existing beauty without further restrictions.

We wish to be included in the remaining phases of this plan.

Respectfully submitted,

Clifford Smith

Lenora Smith

United States Department of the Interior
NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
12795 W. Alameda Parkway
P.O. Box 25287
Denver, Colorado 80225-0287

IN REPLY REFER TO:

L7619 (RMR-PP)

MAR 25 1992

Memorandum

To: Team Leader, Diamond Mountain Resource Management Plan/Environmental Impact Statement, Bureau of Land Management, Vernal, Utah

From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region

Subject: Diamond Mountain Resource Area Draft Resource Management Plan and Environmental Impact Statement (DES 91/0034)

The National Park Service (NPS) has reviewed the above-referenced document and offers the following comments.

Management of Bureau of Land Management (BLM) lands is of concern to the National Park Service (NPS) because actions taken on these lands may impact units of the National Park System or other areas where the NPS has program responsibilities. One unit, Dinosaur National Monument, as well as several National Natural Landmarks, could be impacted by activities proposed in this document.

Based on our NPS responsibility to protect monument resources and resource values, we recommend adoption of Alternative E (preferred alternative) with modifications based on our recommendations in this response. Without those modifications, we recommend adoption of Alternative B (ecological systems).

The proposed action generally classifies areas adjacent to Dinosaur National Monument as Management Levels 3 and 4. In Alternative B, those same lands are generally classified in Management Level 2.

82-1 The document indicates that lands adjacent to Dinosaur National Monument include high sensitivity paleontological zones, relatively low mineral potential, high values for a variety of wildlife, critical watersheds, and 100-year floodplains. The lands inside the monument also have high public values for wildlife, paleontological resources, public enjoyment and recreation, watershed, and solitude. Adoption of Alternative E with designation of lands adjacent to the monument in Management Levels 3 and 4 would not adequately protect monument resources and park values.

RESPONSE TO COMMENT LETTER 82 (NATIONAL PARK SERVICE, Snyder)

82-1 BLM specialists independently portrayed resource values, restrictions and management levels they determined were needed to protect resource values on public lands. This analysis resulted in lands adjacent to Dinosaur National Monument being placed in management levels 2, 3, and 4. We feel these management levels are adequate to protect resources without compromising the resource values within the monument. Adjoining landowners would be consulted prior to initiating any actions that may affect them.

82-1
Cont.

Alternative E would likewise not adequately address similar values on contiguous public lands covered under this draft plan. Of particular concern is one block of land immediately contiguous with park lands that is recommended as Management Level 4 (open management). We suggest that open management is an inappropriate designation for any public lands adjacent to Dinosaur National Monument.

Given BLM's affirmative obligation to consider and aid in the protection of park resources and resource values, Alternative B more closely fits as the preferred alternative on lands immediately adjacent to Dinosaur National Monument. A modified Alternative E (preferred alternative) that would enhance protection for adjacent lands by redesignating those lands from Management Levels 3 and 4 to Management Level 2 would be an acceptable alternative.

We appreciate the opportunity to review this document. Our general comments are enclosed.

Michael D. Snyder

Enclosures

NATIONAL PARK SERVICE COMMENTS ON DIAMOND MOUNTAIN RESOURCE AREA DRAFT RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT

Mineral Resources

Our comments address only those areas in which oil and gas operations could impact the resources of Dinosaur National Monument and are directed toward inconsistencies within (a) the mineral potential classification, and (b) the management alternatives.

82-2 We have difficulty reconciling the regional geology of the "Horseshoe Bend-Ashley Valley Region (HB-AV)" surrounding the park with the "moderate" hydrocarbon potential and the oil and gas play type assigned to it (depicted on Maps 3-12 and A4-1, respectively). Examination of the geology indicates the dominant feature here is an upthrown block, bounded on the north by the Island Park fault and on the south by the Wolf Creek fault, and cored by exposed Mississippian age rocks along its axis. This area is topographically expressed as Split Mountain. The north flank of this block, situated on the moderate potential land, is the overturned southeast limb of a syncline, exposing Pennsylvanian through Jurassic age rocks on the hanging wall block, and Jurassic through Cretaceous age rocks on the foot wall block. The axis of the syncline is overturned beneath the Island Park fault, and the northeast limb climbs gently to the northwest where it crops out in the Diamond Mountains. One of the three producing formations in the HB-AV region, the Pennsylvanian Weber, is breached all along the north flank and on the westward plunging nose, enhancing the probability of reservoir flushing. Both regional structure and surface exposures suggest this is an unlikely area for hydrocarbon accumulation.

Examining the well information in the area surrounding the monument further supports our contention that the area would be more appropriately categorized as "low potential." There were only three wells drilled adjacent to the monument. The Hiko Bell Jensen well number 1 was drilled in Township 3 South, Range 23 East, Section 28 to a total depth of 6,208 feet to the Weber formation. Only a very light cut of crude was found with the drill mud. The well was subsequently plugged and abandoned. The Union Texas Rammison 7-1, Township 4 South, Range 23 East, Section 7, was drilled in August of 1980 to a total depth of 8,285 feet. The drill stem test indicated no presence of hydrocarbons, and recovered fresh water at 8,000 feet. As with the Hiko Bell well, this well was plugged and abandoned. The final well was located in Township 4 South, Range 23 East, Section 34. The target formation was the Weber at 5,552 feet. There was a weak blow of gas at 2,890 feet that died in 5 minutes. Again, this well was plugged and abandoned. In fact, there is no production anywhere between the two areas of outcrop mentioned above. The fields discussed in the HB-AV region are all located west of the monument, closer to Vernal.

Two other zones (Tertiary Green River and Uinta Formations) are described in the document as having hydrocarbon potential in the HB-AV area. Examination of the surface geology in the area immediately adjacent to the park indicates the Tertiary section was either denuded or never deposited anywhere between the park and the Diamond Mountains. We dispute the inclusion of this area in the "Tertiary Shallow Undiscovered Oil Play" when these rocks are not present.

82-2 Moderate and low mineral potential lands are defined in the Glossary (please refer to page G.8 "Mineral Potential"). Published subsurface maps indicate that the subsurface geologic environment is favorable north of the Dinosaur National Monument boundary. Both the Hiko Bell Jensen No. 1 exploratory well and an additional Hiko Bell well (Township 4 South, Range 23 East, section 34) indicate that both wells had shows of either oil or gas. Therefore, based on the definitions of mineral potential in this document, it seems appropriate not to change the designation of the potential of the lands north of the Dinosaur National Monument boundary.

We agree with your comment that Tertiary strata is not present at the surface surrounding Dinosaur National Monument (please refer to Map 3-11. Therefore, we agree that draft Map A4-1 which displays "Tertiary Shallow Discovered Oil Plays" as present adjacent and within the Monument is in error. Please refer to final Map A4-1 to note the correction.

While the Horseshoe Bend-Ashley Valley Region is undoubtedly hydrocarbon rich, we question the inclusion of the area surrounding the nose and flank of the uplift. Both surface and subsurface information available indicate that this is a poor area for oil and gas production and should be categorized as having "low potential." By doing so, either careful or restricted minerals management guidelines could be imposed in the area surrounding the park with minimal adverse effect on the oil industry.

Visual Resources

82-3 The document shows Visual Resource Management (VRM) classes in Map 3-33 (page 3.71) within the Resource Area. Nearly all of the lands adjacent to the monument are in classes III and IV. Given the high value associated with scenic vistas in, to, and from the monument, we recommend that these adjacent lands be reclassified to higher value VRM classes that would offer added protection to this important public resource. This is especially important for areas adjacent to Dinosaur National Monument proposed wilderness zones.

Solitude

82-4 Solitude is a very important resource value within Dinosaur National Monument. Through ambient sound monitoring, we have established a baseline that documents the near absence of man-made sounds in the monument. L90 sound levels in backcountry areas are consistently in the low to mid-20 dB range. L50 averages seldom exceed 30 dB. Developments on lands adjacent to the monument could result in significant deterioration to this resource value. Adoption of our recommendations relative to management level reclassification would significantly protect the quality of solitude in the monument.

Fire Management

We commend your plan for the inclusion in the preferred alternative of prescribed natural fire management. Our respective Fire Management Officers have coordinated fire management efforts for compatibility over the past several years and we anticipate that will continue under the final plan.

82-5 Several places in the document (e.g. page 2.21) refer to maintaining late seral or climax vegetation conditions on 60 to 70 percent of the subject lands. We did not find your rationale that describes the fire or other disturbance regimes that would set back seral stages. Perhaps in some situations with frequent natural disturbances, more of a mosaic of seral stages would be desirable.

Wild and Scenic Rivers

82-6 Alternative B (ecological systems) proposes consideration of Wild and Scenic River designation for both the "middle" and "lower" reaches of the Green River. The "middle" reach is that section immediately below Dinosaur National Monument. Alternative E (preferred alternative) proposes consideration of such designation for only the "lower" reach. Given the potential to better protect high-value endangered fish habitats and riparian zones, as well as consistency in considering designation of the entire Green River below Flaming

82-3 Visual resource classes, as used in this plan, were developed using standard BLM criteria by an independent contractor in 1979. We appreciate the National Park Service's concern over scenic vistas that go beyond monument boundaries, but feel the VRM classes as shown accurately describe the appropriate classes on the lands administered by BLM.

82-4 Thank you for your comments. As stated in the standard operating procedures of chapter 2 of the proposed plan, BLM will prepare site-specific environmental reviews before many of the actions proposed in this plan are implemented. The NEPA process calls for inclusion of consultation with private individuals, local governments and governmental agencies that would be affected by the proposed action. The proposed plan goes on to state explicitly that BLM-approved actions on public lands would be coordinated fully with adjoining landowners, local governments, and anyone with a valid existing right on the land (i.e., grazing permittee, mineral lessee).

82-5 Please refer to Table 2-15 under vegetation for ecological stages proposed by alternative. Management of the vegetation would be done by various practices of which prescribed burning is one. Refer to Appendix 8, Table A8-4 for rangeland management treatments or practices proposed by allotment. Refer to Chapter 4, under impact analysis of implementing the proposed plan regarding impacts from vegetation management to other programs.

82-6 Appendix 7 lists in detail the reasons BLM is not proposing to recommend the middle reach of Green River for designation as a Wild and Scenic River.

82-6 Cont. Gorge Dam, we suggest that the preferred alternative be amended to recommend consideration for both the "middle" and "lower" reach of the Green River within the Resource Area.

Recreation Development

82-7 The document notes that recreation facilities may be developed in areas near Dinosaur National Monument (e.g. Jones Hole area). The Monument staff looks forward to cooperating with BLM in planning and design efforts to ensure our respective developments are compatible with efficient visitor services and protection of resources and resource values.

Grazing

82-8 The RMP/DEIS notes continuation of grazing by domestic livestock adjacent to the monument in all of the alternatives. With each alternative there are shades of differences in how that grazing will be authorized and managed. Grazing adjacent to the monument, particularly where the boundary is unfenced, has direct and indirect impacts on park resources and resource values. As you know, grazing of domestic livestock is generally prohibited on lands administered by the National Park Service. Recent history has shown that where early consultation is lacking in our respective management of grazing, both Agencies and the permittee are impacted. We make two recommendations relative to management of grazing:

1) The DEIS should be amended to acknowledge the impact of permitted grazing on BLM lands to park resources and resource values as a result of trespass grazing. These problems (existing and potential) can be significantly reduced by construction and maintenance of adequate boundary fences. The DEIS should note that more efficient use of BLM lands and protection of park resources would accrue with BLM participation in boundary fencing programs.

82-9 2) In implementation of the RMP, earlier and more complete coordination and consultation in the design and location of range improvements, water developments, and grazing systems will significantly reduce the potential for impacts to park resources and conflicts with authorized BLM permittees. We again recommend that both Agencies endeavor to maintain such coordination and consultation.

Threatened and Endangered Species

82-10 The document should be amended to reflect completion of the formal endangered species listing process for Ute Ladies Tresses orchid (threatened) and razorback sucker (endangered).

Employment

82-11 Table 4-3 (page 4.14) projects impacts to jobs by alternative. That table is drawn from a U.S. Forest Service publication without reference to its

82-7 Thank you for your comments and offer of assistance.

82-8 The Wild Mountain area you may be referring to is within Colorado, and is outside the management boundaries of DMRA. The management responsibilities for Wild Mountain lie with the Little Snake Resource Area of the Craig District. DMRA administers the area in conformance with the management direction contained in the Little Snake RMP. We agree, trespass problems from BLM-permitted livestock drifting onto National Park Service-administered lands must be solved through continued coordination and consultation efforts. It is however the grazing permittee's responsibility to insure BLM-permitted livestock remain where authorized. New range improvements on BLM lands will be planned in such a way to minimize trespass problems occurring on National Park Service-administered lands. We also agree fencing through a cooperative effort may be a solution to a trespass problem.

82-9 See our response 82-8 above.

82-10 Thank you. Chapter 3 has been updated to show the most current status for Ute Ladies Tresses orchid and razorback sucker.

82-11 This table has been deleted.

82-11 Cont. applicability to the BLM RMP alternative. Given current levels within the Diamond Mountain Resource Area, it seems questionable that adoption of Alternative B would result in a loss of 3,100 jobs in the oil and gas industry. We recommend that supporting documentation be provided or that this table (and similar narrative) be deleted.

Paleontology

82-12 On page 2.34 the plan calls for surface collection of fossil invertebrates and plants and later amateur collection of fossil vertebrates (pending BLM approval). This is to occur in areas identified as having High Sensitivity (page 3.6). The proposed management actions are inappropriate for the noted sensitivity of the resource. The professional paleontology staff at the monument is familiar with some of the exposures and formations in these areas and some fossil invertebrates and plants that would be of high scientific significance if they were found in these areas. The blanket assumption that fossil invertebrates and plants are not significant is erroneous. The potential for significance needs to be evaluated for each formation before open collection is allowed.

82-13 The collection of fossil vertebrates by other than scientific institutions should not be allowed. Rarity and uniqueness of fossil vertebrate remains mean that most specimens will have high scientific value that will be lost if amateur collection is allowed.

82-14 These activities will be occurring on lands contiguous to Dinosaur National Monument. It is our historical experience that opening adjacent areas to amateur collecting will have negative impacts on our resources through increased illegal collecting.

82-15 On page 3.5, the chart showing paleontological resources is highly biased towards vertebrate fossils. No mention is made of potential for significant plant and invertebrate fossils. A more comprehensive scientific evaluation is needed for this section (the source listed is the Vernal District files).

82-16 According to your draft plan, over 300 fossil localities are known with only one percent of the land surveyed, yet all the land is to be opened to amateur collection. Such richness should dictate continued closure at least until an adequate baseline inventory and scientific evaluation has been done.

82-17 On page A1.2, the paleontological mitigation guidelines noted are those of the Utah State Paleontologist. There is no indication that they will be adopted by BLM, how they will be implemented, or how such actions will be used to manage areas as a result of this planning document. Nearly all the classes of paleontological sites listed require some mitigation. Only the last, Class V, requires no mitigation. Even then, intensive survey is required before this class ranking is to be assigned. The plan simply calls for opening the area for amateur collecting of fossil plants and invertebrates. The apparent preferred management action is not in consonance with the mitigation chart in the document.

82-12 The paragraph you refer to has been changed in the proposed plan, please refer to Table 2-15. The potential for significance will be evaluated for all formations within areas proposed for collection.

82-13 The paleontological resources section in the proposed plan has been changed to consider both plant and invertebrate fossils. The paleontological resource map in Chapter 3 of this document, has been modified to include additional highly sensitive paleontological zones. Casual use collection of vertebrate fossils within the resource area will not be allowed. However on a case-by-case basis, collection of vertebrate fossils by a scientific institution could be considered.

82-14 All lands will not be open to collection. Collection will be permitted only at specified locations following BLM approval.

82-15 Our intent is to follow the mitigation guidelines developed by the Utah State Paleontologist. It should be noted that BLM's policy on management of paleontological resources is still being developed. The BLM State Paleontologist will work closely with the Utah State Paleontologist in finalizing this policy. The chart showing paleontological resources has been expanded in the proposed plan.

82-16 Please refer to the response provided above to comment 82-15.

82-17 Paleontological inventories will be conducted on all sensitive formations before surface disturbing activities will be permitted. If fossils are found, their significance will be evaluated and if necessary mitigated through avoidance or excavation by qualified individuals. Amateur collecting will be closely regulated by BLM.

82-18 The plan does not adequately address paleontological resources. The potential for scientifically significant material is high for the areas covered by the plan, yet there is no attempt or plan to inventory and access those resources. Management actions appear to be based on seriously deficient baseline data.

82-19 There is no discussion on how development (roads, stock ponds, etc.) on these lands will impact fossils or how such impacts will be mitigated. Overall, the plan proposes activities that will in all likelihood result in the loss of valuable scientific material. In addition, unregulated amateur collecting in areas contiguous with Dinosaur National Monument lands poses a strong potential threat to our own nationally protected fossil resources.

National Natural Landmarks

The National Park Service administers the National Natural Landmark (NNL) program. The purpose of the program is to identify significant ecological and geological features that make up our Nation's rich natural history. The objectives for the program are: 1) to encourage the preservation of sites illustrating the ecological and geological character of the United States; 2) to enhance the scientific and educational value of sites thus preserved; 3) to strengthen public appreciation of natural history; and, 4) to foster a greater concern in the conservation of our Nation's natural heritage.

The following potential NNL's are within the Diamond Mountain Resource Area:

82-20

1) Ashley Creek Canyon	2) Asphalt Ridge
3) Sheep Creek Canyon	4) Sheep Creek Narrows
5) Hickerson Park	6) Castle Cliffs of Duchesne
7) West Hanna Narrows	8) Hidden Valley Badlands
9) Duchesne River Bluffs	

Enclosed are copies of the approximate locations and descriptions of each area from our files and informational materials on the NNL program. Please consider the opportunities to preserve our Nation's natural heritage in the Diamond Mountain Resource Area Management Plan. Please contact Cheryl A. Schreier at (303) 969-2929 if you have questions regarding these potential NNL's.

82-18 We believe the changes to made to Alternative E in response to public comment as reflected in the proposed plan are adequate.

82-19 Please refer to our response 82-17 above.

82-20 Of the 9 potential National Natural Landmarks (NNLs) listed in your comment, only two, Ashley Creek Canyon and Asphalt Ridge, contain public lands surface managed by BLM.

Ashley Creek. That portion of the potential NNL south of the Ashley National Forest contains Ashley Springs which is used by much of Ashley Valley for both culinary and irrigation water. It also contains a culinary water treatment plant. All public land in the area is withdrawn to protect this important water supply. Our position is that the portion of the potential NNL on public land does not meet the criteria for designation and should be removed from further consideration.

Asphalt Ridge. Of the 640 acres in this potential NNL only 40 acres are controlled by BLM. The area is being actively mined by Uintah County for road asphalt. It is our position that the area's principle value is as a source of asphalt. It does not meet the criteria for designation and should be dropped for further consideration.

Carl E. and Myrna A. Cobbs
1728 East 1700 South
Vernal, Utah 84078

March 27, 1992

Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Attn: Penelope Smalley - Team Leader

Re: Diamond Mountain Resource Management Plan

Dear Ms. Smalley;

In reviewing the Diamond Mountain Environment Draft Statement, we have come to the conclusion that it is so complex and not understandable that I and my wife are both having real problems trying to come up with the logic that this statement is trying to make.

We have a small summer home on Pot Creek and we also own land in the Warren Draw. We have Studied your proposals and our recommendation would be to let the B.L.M. manage their property in exactly the way they have during the past years and not to try to impose the environmentalist ideas into a plan that will not work.

83-1 We are completely opposed to opening public roads through private land ownership areas. There are so many problems associated with the taking of private ownership rights that we recommend and ask that these proposed actions be taken out of this environmental statement.

Leave the Davenport, Lambson, Jackson and Warren Draws as they are. Leave Red Mountain and Ashley Creek as they are.

Carl E. Cobbs

Carl E. Cobbs

Myrna A. Cobbs

Myrna A. Cobbs

CEC/MAC/jk

RESPONSE TO COMMENT LETTER 83 (COBBS)

83-1 We appreciate your concern. Please refer to our response 12-1.

March 26, 1992

Penelope Smalley-Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal UT 84078

To whom it may concern:

This letter is about the Diamond Mountain Management Plan and Environmental Impact Statement in the Jackson Draw area.

After reviewing the above plan it is my understanding that the organization is intending to make a road from the Jackson Draw to the Davenport Draw by way of Maimes Hole and create a picnic area in Bear Hollow.

84-1 These plans are not in the best interest to the many different types of wildlife in the Jackson Draw area. For instance, Maimes Hole is one of the popular calving sites for the elk in the Jackson Draw. If this is disrupted they will have to moves on to other sites. The road and picnic area will also bring in more hunters to go along with the already diminishing elk and deer herds in the area. It is my feelings that these plans are going to bring more people into the area and move the wildlife out.

As a sportsman and outdoorsman I have seen what unlawful people can do to roads and lands. They cut fences, harass cattle, litter and trespass on to private land without permission just to name a few. If we let this action pass these areas are not going to be the same as they have been for generations.

It is not only the outdoorsman and wildlife that are being punished but also the land owners whom have ranched these lands for generations. And now you tell them they have to make public access through their lands.

It is my concern that these actions should be removed from the Management Plans.

Concerned

DUSTIN HENLINE

RESPONSE TO COMMENT LETTER 84 (HENLINE)

84-1 Thank you for expressing your concern. Please refer to our response 12-1.

Vernal, Utah

To: Penelope Smalley, Team Leader
Bureau of Land Managment
Vernal District
170 South 500 East
Vernal, Utah 84078

As a concerned citizen I would like to comment on the Diamond Mountain Resource Managment Plan and Environmental Impact Statement.

Although my comments could pertain to many other areas of Diamond Mountain I would specifically like to direct my concerns to the Jackson Draw area since I am familiar with this section. As I understand it most of the meadowlands and water is owned by the Hacking and McCoy family, and I would like to commend them on the way they have handled the problem of tresspass in the past, not only tresspass but access to BLM land which is of course what this is all about.

I have had the privilege of hunting in this area for many years. And in that time I have seen many other hunters , some with permission to tresspass and others with no permission. I might add that most of the people that tresspass without permission do not even contact the landowners to ask for permission. I have seen both elk and deer killed and left for the coyotes and birds of prey, I have also seen the meadowlands torn up by four wheel drive trucks in the wet season, fences knocked down and gates left open, and still these landowners let many hunters on their property and all they ask of us is to protect what is rightfully theirs.

Another thing that concerns me very much is the portions of the Jackson Draw, specifically "Haimes Hole" and "Bear Hollow" are both calving areas for as many as 250 head

of elk. I have observed this every spring for many years. Both of these areas can be seen with binoculars and spotting scopes from the county road, so there should no need to any type of road access into these areas.

One more thing I should mention is what seems to be the growing number of moose in this area. Last year 1991, I observed 5 moose in the Raimes Hole area during the general elk hunt. Also almost every year several bear are spotted in this general area, and again all of this can be seen from the main road that goes through the Jackson Draw. Now you tell me what is going to happen if public access is allowed in these areas? I'm sure we all know it would have a very adverse effect on the wildlife in this area.

85-1 Going back to the issue of the BLM land in the Jackson Draw, anyone wanting to gain access can do so from either the south or north ends and also from the Warren Draw to the east. So what could possibly be gained by opening up public access through the very delicate meadowlands which are privately owned, other than creating many bad feelings between landowners and concerned citizens but, most infringing upon what seems to be a haven for deer, elk, moose and mt. lion.

I hope you will consider my input in any future plans for whatever changes are made in this very special area of Diamond Mountain.

Yours Truly,
Karl J. Baese- owner Split Mountain Motel
1015 East Hwy 40
Vernal, Utah 84078
801-789-9020

85-1 Thank you for expressing your concerns. Please refer to our response 12-1.

Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

RE: Diamond Mountain Resource Management Plan

Attn: Penelope Smalley, Team Leader

Dear Ms. Smalley;

After Reviewing the Diamond Mountain Environmental Draft Statement, I feel it is my duty as a sportsmen and a supporter of the outdoors to express my feelings on this issue.

My concerns are particularly focused on the area of northern Diamond Mountain - including the Davenport, Lamson, Jackson and Warren Draws. Most of the area consists of FEE lands which are mainly in the low lying areas of the Draws and are particularly used for grazing by the land owner or the lessee. The remainder of the land being B.L.M., State & National Forest.

During the past decade my family and I have enjoyed some of our most memorable moments in these areas, mostly due to the fact of limited accessability to the area. The abundance of wildlife in the area in my opinion is contributed to this fact. We have witnessed
the ELK calving seasons, ELK & DEER rutting seasons, BEAR, MOOSE and MOUNTAIN LION. (FROM THE MAIN ROAD !!)

If public access is opened in these areas to allow anyone to roam through PRIVATE land to reach one destination or another then Diamond Mountain as we now know it, will not be what we had hoped that our children and grandchildren could enjoy. There is plenty of access to state and federal lands now if people would decide that there are other ways to reach an area other than a four wheel drive pickup. Some of the tops of these draws are as close to a wilderness setting as the people in this area will likely see. If it is ruined by roads then that distinction can never be regained.

Another concern to me is the landowner which seems to be affected as much as our wildlife and habitat. In most cases their ancestors homesteaded the mountain land for the use of its rich grass lands for grazing. The thought of seeing a public access through the middle of one of the very large pastures makes me cringe. The land owners have a lot of time, money and sentimental value into their land and I do not think that anyone has the right to change or alter their property in any form without their consent.

86-1

RESPONSE TO COMMENT LETTER 86 (HENLINE)

86-1 Thank you for your concerns. Please refer to our response 12-1.

I think that the B.L.M. should focus their concerns on protecting the resources and not try so hard to expose that which we still have. I highly recommend that the actions which I have addressed be removed from the Management Plan.

Concerned:

TRACY D. HENLINE

TDH/tdh

March 17, 1992

Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

ATTN: Penelope Smalley

Gentlemen:

As a concerned citizen I would like to comment and express some opinions pertaining to Table 2-13, Lands and Realty, in the access portion of Table 2-13. According to alternative E, which is the Bureau's preferred alternative, you are seeking public access through privately owned property. My main concern in this proposal is the Jackson Draw portion, with which I am most familiar.

The Hacking's and McCoy's are the only land owners in the Jackson Draw and are opposed to any further access through or across their private property. They already have a public road right through the heart of their property. From this road they have lost a number of livestock over the years, to both vehicles traveling at excessive speed, or being shot.

Furthermore, there is not one spot along the Jackson Draw where a road would not disturb some kind of archeological site. I talked with a B.L.M. representative at the Elk Expo in Salt Lake City. According to the gentleman, the Bureau was not going to push an access on anybody that didn't want it. I hope very much this is true.

I, along with may others, have been fortunate enough to have access to this area. These land owners are very good to deal with, yet they are always having trespass problems during the hunting seasons. This is mainly due to hunters shooting game off from the main road. Any further access via road would greatly intensify this problem.

There is access to either side of the Jackson Draw. From the south there is D.W.R. property that joins the B.L.M. land, from the north there is National Forest property and from the east there is D.W.R. property that joins B.L.M. land. So for those willing to gain access, it's already there.

I suspect that whomever proposed or is wanting this access, probably wants to be able to road hunt more of this private property.

This area, the Jackson Draw, is a haven for many species of wildlife, even though there is a very heavily used public road right through the heart of it. In the spring it serves as a calving ground for a large herd of elk and many deer. The moose in this area have been on the increase for the past ten years. The area, as is, supports bear and cougar in a fair amount. Any further access would severely impact this ongoing habitat.

Please, before you take any of the access issues in the Land and Realty sections in table 2-13 into any further action, consider the impact on the wildlife, land owners, and archeological sites, that it may effect. I think you need to do a little more homework on the issue. As an advocate of more habitat for wildlife, I believe that fewer roads mean more habitat.

87-1 I am strongly opposed to public access in the Jackson Draw area. Thank you for your consideration of my comments.

Very truly yours,

Nolan Massey

Nolan Massey
1398 West 400 South
Vernal, Utah 84078

87-1 Thank you for expressing your concerns. Please refer to our response 12-1.

Attention: Jean Sinclear
Bureau of land Management
Vernal District

March 19, 1992

As a concerned citizen and a person who truly enjoys the recreation offered by our area, I would like to comment on the Diamond Mountain Resource Management plan and Environmental Impact Statement. Specifically the Area of Diamond Mountain known as "Jackson Draw".

88-1 During the past several years I have had the privelege of watching the Elk herd increase in this area. Not only have the elk increased but also the moose population seems to be grazing along with the bear. All of these animals, I and my family, have watched from the county road. In my opinion, more roads would only serve to drive the Wildlife back farther and out of sight, not to mention the loss of wildlife due to poaching and loss of habitat. In a time when we hear and talk so much about preserving wildlife & wildlife habitat, It seems senseless to push more roads, campgrounds and other access, back into these prime calving grounds for elk.

After we build these roads, which unrightfully takes land away from the land owners, and push the wildlife back out of sight, what then? Will we build more and more roads back until

RESPONSE TO COMMENT LETTER 88 (HOLMES)

88-1 Thank you for expressing your concerns. Please refer to our response 12-1 and 12-2.

88-1
Cont.

the wildlife has no place to go? This area is already riddled with enough roads. As it is, the beauty of this Area can be enjoyed from the County road which seems to be a safe distance from the animals. For those who are a little more ambitions and care to hike, There is plenty of access to these areas from the north & South ends of JacksonDraw.

In years past I have also witnessed the destruction of private & public lands by vehicles. Some People just don't care. Grassy meadows, fences, ponds and springs all have been daystroyed by those who don't care. Why should the private landowners have to suffer the loss and daystruction? Past experience proves that it cannot be stopped.

Please consider these thoughts and the opinions of others like myself befor takeing any more than we already have from the landowners and the Wildlife

Thank you for your time

Yours Sincerly

Allen Haines

3-15-92

Bureau of Land Management
Vernal District
attention: Jean Sinclair

as a long time resident of Vernal Utah and one who has enjoyed the Mountains in our area, especially Diamond Mountain I have felt an Urgency to Comment on the Diamond Mountain Resource Management plan and Environmental Impact Statement, particularly the area of Diamond Mountain known as Jackson Draw.

I feel that further Development of any kind in this area would not serve any truly useful purpose but instead be very Detrimental to wildlife habitat and create a Situation impossible to Control for the land owner involved.

There are several different species of wildlife that can be observed from roads that are a safe Distance from where these animals feed, Calve in the Spring etc.

I feel the land owners have been more than fair in allowing hunters and others to cross their land when permission to do so was requested.

If I could see where there was a need for further Development of Roads, Campgrounds etc. in this area, and if I felt like we have treated Game to the wildlife that Can be seen there, I would surely support the Management plan proposed - But as it is I would like to go on Record as being very much opposed to it's Please Consider My Feelings have expressed.

Sincerely

Warren Holmes
3852 S. 1500 E
Vernal Utah 84078

89-1

RESPONSE TO COMMENT LETTER 89 (HOLMES)

89-1 Thank you for expressing your concerns. Please refer to our response 12-1 and 53-1.

MOON LAKE ELECTRIC ASSOCIATION • PO BOX 278 • 168 WEST 2ND NORTH • ROOSEVELT, UTAH 84066 • PH 722 XAJS

March 18, 1992

Penelope Smalley, Team Leader
BUREAU OF LAND MANAGEMENT
Vernal District
170 South 500 East
Vernal, Utah 84078

Subject: Comments Concerning the Draft Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement of November 1991

The Bureau of Land Management (BLM) has prepared a detailed document explaining the plans for management of the Diamond Mountain Resource area, and environmental impacts anticipated due to activities within the Resource area are outlined. We understand that this document now in draft form will eventually be modified into the final RMP/EIS which will guide the decisions made concerning the Resource Study lands administered by BLM in the future.

In general, Moon Lake Electric supports the recommendations of the Draft Resource Management Plan and Environmental Impact Statement (DRMP/EIS). The DRMP/EIS represents a very significant effort in defining existing uses, future issues, and probable environmental impacts which may be created by activities expected on BLM administered lands. Defining guidelines which will be used to help manage and resolve future issues is usually quite beneficial for everyone involved.

As a public utility serving a large part of the area within the Resource boundaries, we are very sensitive to impacts resulting from the BLM decisions regarding their administered lands in the following categories:

1. Developments which are allowed to occur within our service territory.

2. The regulations governing maintenance of existing power lines and rights of ways.

3. The regulations governing new extensions of power lines .

Being subject to the BLM regulations imposed upon us usually increases cost and introduces time delays for providing service to our members when BLM lands are involved compared to when they are not involved. We recognize that many of the regulations result from Congressional mandate, and do not originate within the BLM. When the reasons for added expenses are understood, reasonable, and affordable, we comply willingly to meet the requirements and accept the additional costs.

90-1

There is a proposal within the DRMP/EIS which causes us much concern however. This proposal is for the reintroduction of the Black-Footed Ferret in two (2) or less of several possible locations. We believe that the results anticipated and the impacts that are probable from such an action are unacceptable and therefore should be avoided. We question the wisdom of such activities in an area where, if the Black-footed ferret did once reside, conditions evidently changed to eliminate the species. Reintroduction of this endangered species into this area with all the related problems which will result does not seem like wise management. It could become a rather expensive experiment.

We note that the DRMP/EIS states that power lines would be required to avoid the Black-footed ferret reintroduction areas or they would need to be buried or designed to preclude raptors from using the power lines as hunting perches. While these alternatives are viable, the additional expense for a selected alternative can be significant. Who must bear such increases above normal expenses? We do not see the BLM statement that since this is in the interest of the citizens of the United States to reintroduce the Black-footed ferret, that BLM will help with the additional expenses to limit impacts such that alternatives remain cost neutral to those who would otherwise be directly impacted. We feel that should be one of the criteria used to recognize the costs of such a project, and that such expenses should be analyzed for costs and benefits.

We understand that the guidelines for management of this issue would allow some activities within the reintroduction areas. However, we do not feel that the complete facts are

90-1 The decision for the reintroduction of black-footed ferrets has been modified. Please refer to Table 2-15 for the proposed decision. The Endangered Species Act and subsequent Bureau policy and guidance directs DMRA "...to conserve ecosystems upon which endangered and threatened species depend." The act further states that: "...it is the purpose of congress that all Federal departments and agencies shall seek to conserve endangered and threatened species and shall utilize their authorities in furtherance of the purpose of this act." (Section 2(c)(1)).

We believe it is wise management to maintain species diversity which maintains ecosystem stability. Species diversity is a good indicator of the health of the individual habitats. The proposed reintroduction sites have been evaluated and the most recent information suggest the sites meet minimum USF&WS guidelines for the reintroduction of black-footed ferrets. These sites would need to maintain these qualities for two years prior to reintroduction to ensure suitable conditions exist at the time of release. All releases would be classified as "experimental nonessential" which allow the management flexibility to assure that black-footed ferrets will not significantly impact existing or future land uses on public lands.

All costs associated with powerline modifications to preclude raptors from perching on them within the black-footed ferret habitat would be paid by the company proposing the development. We believe that anti-perching structures provided on powerlines would not be a significant additional expense to the company proposed the powerline.

represented. We have had significant delays in projects introduced because of the timing of projects in areas suspected as the habitat for Black-footed ferrets on BLM administered lands. Such delays have affected us in that we could not even survey for power line centerlines during certain times of the year, and the timing of construction was limited to only a few months of the year. We have had to pay for studies about ferrets which were done by expensive consultants without any benefits to show for the studies other than the fact that no Black-footed ferrets were observed. We have had customers that have experienced worse problems than we have because of overzealous concern for the Black-footed ferret. We fear that the possible failure of the experiment to establish the Black-footed ferret could result in similar impacts as above for many, many years.

The areas for reintroduction of the Black-footed ferret are not confined to small parcels of land. The areas cover rather significant amounts of land. This land will have limited activities immediately when the final RMP/EIS is approved even prior to when the ferret is reintroduced. This has the effect of limiting resource development which may not be in the best interest of the United States or its citizens.

We urge the BLM to reconsider the reintroduction of the Black-footed ferret into this area, and to eliminate this proposal from the final RMP/EIS.

Sincerely,

Kenneth A. Winder

Kenneth A. Winder
Manager - Engineering

March 29, 1992

Dear BLM:

Of the various alternatives in the Diamond Mountain RMP, **I support Alternative B.** For too long, the BLM has ignored an ecological systems approach to land management. You quote Aldo Leopold at the beginning of the RMP, but show little understanding of what he stood for. For example, while the RMP goes on at length about economics, it says virtually nothing about biodiversity. The long term health of the land and of the life on it should be your #1 priority. Alternative B comes closest to managing for these values.

91-1

If you choose your preferred alternative, "E," please incorporate into it the modifications proposed by the Uintah Mountain Club, which provide a bare minimum standard for wise land use.

Regardless of which alternative you chose, please designate *all* of Red Mountain as an ACEC and as a *semi-primitive nonmotorized area*, under *level 1 management* with a VRM class 1 designation. It does in fact meet the criteria. From my reading of the RMP, you seem to understand the values of the upper part of the mountain, but you've completely overlooked **the lower part of the mountain which includes the slickrock areas from the arch across to the pinnacles and fins. This is a spectacularly beautiful area, the prettiest in the basin, and one of the most fragile.** It has a riparian area, geologic formations to rival southern Utah's, forage for wildlife, petroglyphs, and an abundance of cryptogamic soils being torn up by OHVs, resulting in a lot of erosion. Please note that **it is essential that you acquire state sections 16 and 2,** especially section 16. The mountain should also be closed to mountain bikes and to rock climbers placing fixed (permanent) protection.

91-2

I also hope to see more protection for the Browns Park area, the reintroduction of ferrets into the resource area, Wild and Scenic Status for the Green River, and a **very much stronger emphasis on identifying and protecting the habitats of existing endangered species.** You know you could have some on Red Mountain. Shouldn't you check it out before risking getting into hot water and having to do an expensive and painful recovery project because you let the ORV people buffalo you into giving them access anywhere? Finally, I really revile bear baiting. You should make hunters on public lands get off their butts and be sportsmen by banning bear baiting, and for that matter, hounding as well.

91-3

Thanks for your consideration.

Nicki Wake
848 W. 400 S.
Vernal, Ut 84078

RESPONSE TO COMMENT LETTER 91 (WAKE)

91-1 We agree with your concern regarding the long-term health of the land and the life dependent upon it being our number 1 priority. However we must disagree with you on the matter of biodiversity. Although the term "biodiversity" is consciously not used, the terms "species diversity" and "vegetation diversity" are used throughout this document in their proper context, which incorporates the concept of biodiversity. We believe a general definition of biodiversity (now included in the glossary) has in fact been followed from the outset. An interdisciplinary team of specialists developed the documents; representing the resource values and programs effecting the nonliving and living (including human) components of the ecosystems within the resource area. These specialists forged alternative plans and decisions with the overriding awareness of and concern for the inherent dependence and interconnectedness of these ecosystems' parts.

91-2 Thank you for your comment. Please refer to our responses 79-2 and 12-1.

91-3 It is recommended in the proposed plan that the Browns Park area be managed as an ACEC. Management prescriptions for this area are contained in Table 2-18. It is also proposed to reintroduce black-footed ferrets on one suitable site, as well as ending the issuance of bear baiting permits on public land. All of the alternatives in the RMP would protect the habitat of existing endangered species, but we believe the best emphasis is stated in the proposed plan. We concur with your statement concerning the need to identify special status animal species habitat. We currently show no endangered or threatened species utilizing habitat on Red Mountain. We continue to update our data with new inventories and will continue to monitor the known habitat to ensure protection is maintained.

THE WILDERNESS SOCIETY

CENTRAL ROCKIES REGION

March 25, 1992

Jean Nitsche-Sinclear
Vernal District BLM
170 South 500 East
Vernal, UT 84078

Re: Diamond Mountain Resource Management Plan DEIS

Jean Nitsche-Sinclear:

The Wilderness Society is a non-profit conservation organization dedicated to the preservation and wise management of America's public lands and natural resources. We have approximately 2000 members in Utah, and 136,000 nationwide. All our member value and benefit from the public resources on the Vernal District and Diamond Mountain.

The Wilderness Society Supports Alternative B

This alternative would not only enhance natural values but provide setting in which long term, sustainable economic development could be enjoyed by the local population. Livestock grazing would remain at present preference unless reductions are indicated. Surface occupancy mineral activities would be allowed on nearly half of the entire resource area with no surface occupancy mineral activity allowed on the entire balance. Seventy-eight percent of the resource area would remain open to off-highway vehicle use. Riparian areas and watershed would be protected. This alternative serves the greatest public interest with the exception of unnecessarily restricted access. Alternative E's access guidelines are more appropriate.

92-1 It is essential that mineral development not be allowed in critical or crucial wildlife habitat, sensitive watersheds areas, or in areas of high scenic value. The short term economic gains from extraction could only be gained by the loss of these other

Utah Office
Walker Center • 175 So. Main Street • Salt Lake City, Utah 84111
(801) 355-4742 • FAX (801) 575-5202

RESPONSE TO COMMENT LETTER 92 (WILDERNESS SOCIETY, Leeson)

92-1 Management prescriptions outlined in the proposed plan will provide adequate protection for crucial wildlife habitat, sensitive watershed areas and areas of high scenic value either through mitigation measures or avoidance.

92-1 Cont. values which themselves have not only ecological and recreation value, but economic values of their own. It is essential that phosphate mining, for example, be disallowed in these areas.

92-2 The scenic and recreation values of the slickrock country north of Steinaker deserve greater protection. This area should be managed specifically to protect and facilitate non-mechanized recreation opportunities.

92-3 The DEIS has failed to provide sufficient protection for the unique paleontological and archeological resources in the resource area. The final plan should include management prescriptions for protection.

92-4 In the event that the two WSAs are not designated wilderness, the RMP should provide for ACEC designation.

Why Do the Other Alternatives Not Serve the Public Interest?

92-5 Alternatives C and D are serious departures from multiple-use, sustained yield management objectives. It is appalling that these alternatives ignored so many management imperatives. They violate FLPMA, violate the agency's own Riparian-Wetlands Initiative, and all but ignore non-discretionary protection of wildlife and listed species critical habitat.

Rivers Protection

92-6 It is important that both the Upper and Lower Green River be protect under the Wild and Scenic Rivers Act.

Grazing

92-7 The DEIS has utterly failed to justify continued grazing on any of the allotments that are in less than good condition. Only 28 allotments in the entire resource area are in satisfactory condition. All of the other allotments have or may have conflicts with other resources. Keeping these allotments in the suitable grazing land base is questionable and should have been analyzed. Even Alternative B fails to adequately protect wildlife habitat, plant communities and watersheds from the negative impacts of livestock grazing.

92-8 The rangeland projects briefly described include many vegetation conversions but provide no description or discussion or justification for such conversions. It is unacceptable that the final plan would authorize, even at the programmatic level, such plant community changes without full disucssion of the need and impacts.

92-9 Nineteen riparian areas are in unsatisfactory condition yet these areas have not been removed from suitable grazing land base.

I appreciate the opportunity to participate in this important planning process.

Sincerely,

Jane Leeson

92-2 Thank you for your comment. Please refer to our response 12-1.

92-3 The section on paleontological resource has been revised. Please refer to the responses provided to 82-13 through 82-17. It is our opinion that archeological resources have been addressed adequately in the plan. Federal law mandates protection of cultural resources.

92-4 Please refer to our response 77-5.

92-5 BLM believes Alternatives C and D are consistent with the laws, regulations, and policy guidelines governing management of public lands refer to the planning criteria outlined in Chapter 1. As stated in Chapter 2: "Each alternative is a complete, reasonable, and implementable resource management plan, in which the different management practices are described, and the different ways of achieving balanced resource management under different management priorities are discussed."

92-6 Thank you for your support. The recommendation to designate both the Upper and Lower Green River for inclusion in the Wild and Scenic River System has been continued into the proposed plan.

92-7 You are referred to Appendix Table A8-6. There are 94 allotments designated in satisfactory range condition; 14 in unsatisfactory condition. The categories are a general overall determination of vegetation health on an allotment. Although an allotment may have been placed in satisfactory condition, it may contain localized resource-specific problems or concerns. The high number of "I" allotments or "Improve" category is due primarily to high wildlife habitat potential or riparian improvement needed (please see Appendix 8 for a description of the allotment categorization process).

92-8 Grazing can be managed for improvement of vegetation resources. Refer to Chapter 2 under vegetation resources in the management common to the proposed plan and all alternatives, relating to livestock grazing as one of many vegetation treatments to achieve improvements to resources or a desired ecological stage or plant community. We believe ecosystems are adequately protected from livestock grazing where permitted in all alternatives. Please refer to Chapter 2 Management Guidance Common to the Proposed Plan and all the Alternatives, livestock section.

92-9 As stated in Table 2-15 under riparian in the proposed plan, riparian improvement will be accomplished by rangeland improvements and grazing systems designed to enhance riparian areas. Livestock grazing would be discontinued on riparian areas that do not respond to improved grazing management.

Uintah Special Service District
P.O. Box 144
Vernal, Utah 84078 (801) 789-4636
Mar.26,1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal Utah 84078

Comments on DRAFT EIS Diamond Mountain Resource Area RMP.

96-1

1. The Diamond Mountain Resource Area Plan should consider existing county roads in all Public Lands decisions.
   A. Page 1.10 under RIGHTS-OF-WAY fails to consider the existing RS 2477 rights-of-way established by Uintah County, including roads BLM has previously recognized. For example there is an agreement signed by BLM District Manager, and State Director and the Uintah County Commissioners in 1981 acknowledging RS 2477 rights-of-way within the County and District. I can find no mention or reference to those rights-of-way.
   B. Page 3.20 ACCESS AND ROADS states that roads are maintained by the county, but fails to acknowledge the existence of the numerous RS 2477 County roads within the Resource Area.

96-2

2. Page 3.69 Table 3-25, Russian Olive and Halogeton should be added to the undesirable plant species occurring within the RA because of their impact or possible impact on Public Lands.

Thom Wardell
Manager

"Moving the Basin Ahead"

RESPONSE TO PUBLIC COMMENT 96 (UINTAH SPECIAL SERVICE DISTRICT, Wardell)

96-1 The issue of county RS 2477 rights-of-way is an administrative matter. When implementing the land use decisions we will make an administrative determination as to the effect of the decision on the status of such roads.

96-2 Thank you for your information. Halogeton is discussed in Chapter 3 as a noxious and poisonous plant. We recognize Russian olive to be a county-noxious weed. We have added both to the list in Chapter 3.

11584 88TH AVE CT SW
TACOMA WA 98498
March 25, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal UT 84078

Regarding: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Alternative of Choice: Alternative C Forage Production

Dear Ms Smalley,

97-1 We are opposed to any development in the Mame's Hole and Bear Hollow areas of the Jackson Draw. A road would destroy the remote beauty of these places, erode the mountain side and require the cutting of evergreen and aspen trees that have stood untouched for centuries. The wildlife would be displaced by the intrusion of humans into their environment.

Do not destroy our children's and grandchildren's children opportuny to see a part of the Old West as it has been for many years. The building of roads is not the best use of the mountain peaks in Jackson Draw. There are roads all over the Uintah Mountains among the downed timber. Please preserve the land as it is for future generations.

Sincerely yours,

Delilah & David Badger

Delilah and David Badger

RESPONSE TO COMMENT LETTER 97 (BADGER)

97-1 Thank you for expressing your concerns. Please refer to our responses 12-1 and 53-1.

111 South 200 East
Springville UT 84663
March 23, 1992

Jean Sinclear
Bureau of Land Management
Vernal District
170 South 500 East
Vernal UT 84078

Dear Ms Smalley,

Regarding: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Alternative of Choice: Alternative C Forage Production

100-1

The building of roads into Mame's Hole/Bear Hollow areas is not the best use of these quiet wildlife inhabited mountain areas. Please leave us some areas to show our children and grand children and great grandchildren that are not criss crossed with roads that have required the cutting of trees and the destroying of the mountain sides.

We are opposed to any development of the Mame's Hole/Bear Hollow and Jackson Draw areas.

Sincerely yours,
Debbie, Scott Storie
Debbie and Scott Storie

RESPONSE TO COMMENT LETTER 100 (STORIE)

100-1 Thank you for expressing your concerns. Please refer to our responses 12-1 and 53-1.

6047 S Redwood RD
Salt Lake City UT
March 23, 1992

Jean Sinclear
Bureau of Land Management
Vernal District
170 South 500 East
Vernal UT 84078

Regarding: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Alternative of Choice: Alternative C Forage Production

101-1 We are opposed to any access or campground into the Mane's Hole-Bear Hollow and Jackson Draw area. This area should not be disturbed but preserved in its remote primitive state.

These areas should not be destroy by buildings new roads up the sides and over the tops of the hills. When I travel in Jackson Draw I feel that if I watch carefully I could meet up with a cowboy on a horse at any moment, who might be one of the outlaws who road this way so many years ago.

Sincerely yours,

David + Stacy Ely

David and Stacy Ely

RESPONSE TO COMMENT LETTER 101 (ELY)

101-1 Thank you for expressing your concerns. Please refer to our responses 12-1 and 53-1.

1624 South 1000 West
Vernal, Utah 84078
March 25, 1992

Jean Sinclair, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Sinclair,

I am very concerned about the resource management plan for Diamond Mountain. Proposals A, B, C and D seem to be loaded to the desires of special interest groups. Short term profits and improper use of fragile land is not in the best interests of the people of Utah. The Federal Government and the State of Utah need to consider the alternative which will best benefit the majority of citizens. This choice should be Alternative E. It is the most sensible management plan. Our fragile desert environment needs to be protected, therefore I must also concur with the Uintah Mountain Club's proposals for the improvement of Alternative E. 102-1

Our delicate must be carefully protected, we cannot afford to error in the management of precious natural resources. Please consider the tremendous potential for long term environmental destruction the other proposals would allow. Please adopt E with the changes put forward by the Mountain Club.

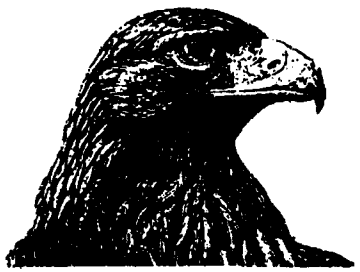
Sincerely,

Steve Kreek

Steve Kreek

RESPONSE TO COMMENT LETTER 102 (KREEK)

102-1 Thank you for your comments.



Land is an organism. When we see land as a community to which we belong, we may begin to use it with love and respect.

There is no other way for land to survive the impact of mechanized man.

Aldo Leopold

UINTAH MOUNTAIN CLUB • P.O. Box 782 • Vernal, Utah 84078

March 23, 1992

Team Leader Jean Sinclair
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Sinclair,

Let me express my hardy support for the general principles outlined in Alternative E of the Draft Diamond Mountain Resource Management Plan. Alternative E truly goes a long ways towards addressing the competing needs and desires of various interest groups. However, while Alternative E is a bold step in the right direction, there are some weak points which need correction before its adoption as the final RMP. The Natural Resources Committee of the Uintah Mountain Club will be sending you a detailed list of specific wording and paragraph corrections we would like to see. In this letter I wish to highlight some of the more general issues which need to be addressed in the final RMP.

In terms of overall goals, we would like to see the BLM move toward a greater balance between conflicting uses. We need a truly workable multiple-use philosophy, which takes into account both non-consumptive and consumptive uses. Ecological preservation and recreational uses of the land need to have an equal footing with income and employment generation. Multiple-use should mean various, separate lands being set aside for different uses. Quiet and solitude oriented recreation cannot co-exist on the same acreage open to motorcycles and ATV's. Grazing and primitive, backcountry camping do not go well together. It is imperative that the BLM designate and reserve lands to meet the needs of all of the different people wishing to use them.

103-1 With the above comments in mind, I ask the BLM to address the inequities expressed in Table 2-2 "Management Priority Areas by Alternative" page 2.16. I do not see much balance between competing land uses when proposals A, C and D call for zero acres of Level 1

RESPONSE TO COMMENT LETTER 103 (UINTAH MOUNTAIN CLUB, Borton)

103-1 Please refer to our response 61-1. Using this concept, an even progression of level acreages between the alternatives and the proposed plan did not develop.

land. Even proposal E with 6,100 acres of Level 1 appears to be an unfair compromise, when compared to the 113,000 acres of Level 1 land called for under B. Even at Level 2 protection levels, proposal E with 9% is not an adequate compromise between the 1% of C and the 42% of B. While many of the specific proposals of plan E are fine, in terms of the overall balance between competing land use philosophies and needs, far too little acreage is sufficiently protected. In terms of Level 1 and 2 Management Priority Areas, I would like to see a compromise between the acreage figures of proposals B and E. Specific areas deserving special protection will be dealt with below, but in terms of the general overall balance of land use options, this question of total acres under level 1 and 2 status needs to be addressed by the BLM. More areas with unique and important non-commercial resources should receive level 1 and 2 management prescriptions. This should include paleontological and archaeological sites, vital wildlife habitat, riparian areas and lands of scenic and recreational importance.

103-1 Cont.

Even though Alternative E calls for designation of 5 Areas of Critical Environmental Concern, not enough land is protected. In particular, the slickrock country north of Steinaker deserves protection. Here we have a ten-square-mile section of some of the most scenic country around. This is an excellent area for hiking, photography and other non-motorized forms of recreation. Furthermore the area includes relic vegetative communities and cryptogramic soils in need of protection. In the last two years, the area around Moonshine Arch has suffered vandalism and trashing, while ORVs have extended trails into previously untrailed areas to the detriment of the existing vegetation. Most of this area should be preserved for primitive and semi-primitive, non-motorized recreation. The motorized travel to the Arch should continue to be banned, the ban expanded to the surrounding area, and the ban enforced with ticketing of offenders. The BLM should also acquire adjoining private lands and State Section 16 in the Red Mountain Area so as to better manage and protect the area.

103-2

Other areas in need of attention are the Diamond Break's and West Cold Springs WSAs. Should they not receive wilderness status from Congress, they still deserve to be part of the Brown's Park ACEC. Both the Upper and Lower Green River should be granted Wild and Scenic Status. Equally important is the closing of sage grouse leks and raptor nesting sites to OHV use or other surface-disturbing activities. Maximum protection should be given all threatened, endangered and special status species. The Mountain Club strongly supports all efforts to reintroduce bighorn sheep, river otters and black-footed ferrets. However, we oppose phosphate mining in the Red Mountain / Ashley Creek area as this is critical/crucial winter range for deer and elk. The draft RMP fails to offer any differences in the alternatives offered on this issue. Furthermore, it is important to establish protective zones around archaeological and paleontological sites. Such lands should also restrict ORV and other surface disturbing activities.

103-3

103-4

103-2 Thank you for your concerns. Please refer to our response 70-1.

103-3 Please refer to our response 77-5.

103-4 Regarding your concern of phosphate mining in the Dry Fork area, please refer to our response 61-2. We do not believe it is necessary to establish buffer zones around archeological and paleontological sites. We are however expanding Map 3-3 to identify additional sensitive paleontological areas brought to our attention during review of the draft RMP. Refer to Chapter 2 for a comparative description of how these resources will be managed between the proposed plan and the alternatives.

103-5

The only other major problems with the plan I see is the failure to adequately deal with the need for future restrictions on mountain bike use and your labeling of social categories. Mountain bike use is growing rapidly and needs to be addressed. In Chapter 4 your designation of social categories is bothersome. Your terms of "workers" and "young newcomer" seem to distort the facts. Mountain Club members range in age from diapers to retirees. Many were born here, while others have lived here for many years. All hold jobs, many in professional fields, and work very hard in support of their community. Less divisive terms should be found for naming these categories.

We are pleased with the new emphasis the BLM is placing on riparian areas, Wild and Scenic River designation, and the reintroduction of indigenous species. We approve of the BLM commitment to improvement of rangelands, preservation of scenic areas, enhancement of recreational values, protection of wildlife habitat, and the designation of 5 Areas of Critical Environmental Concern. This draft RMP is a grand step forward. Alternative E is a good beginning. With the changes the Mountain Club is proposing it can be a great alternative suitable for meeting the many diverse needs of the community and the land.

Sincerely,

Stephen Borton
President

103-5 Mountain biking is a legitimate use of public lands. Currently in the Diamond Mountain Resource Area there are no problems identified with this use. It is expected that if problems develop it will be in areas that receive heavy recreation use such as Red Mountain and Browns Park. Mountain biking along with other uses will be addressed when recreation management plans are prepared or revised for these areas. All discussion to the "social categories" have been removed from the proposed plan/final EIS.

Allan E Smith
Box 153
Duchesne, Ut 84021

March 24, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Ut 84078

Response to Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement.

General Comment:

I am a third generation rancher and my family has been using my allotment before and since the inception of the BLM through the Taylor Grazing act of 1934. Any decesion by BLM affects my livelihood and the economic base of all the counties of Utah in which I do business.

Under the section"Purpose and need I pg. 1.1 the principal of "Multiple-use is referred to and its principals are to be followed in management. I can consure with this policy in total. This policy of Multiple-use is mandated by law and can not be changed by simple in house policy. The" Memorandium of Understanding " between Ut. Dept of Ag. and the Ut State Director of the BLM signed on 6/21/88 provides for State involvement in this EIS. The Uintah County Commission adopted a similar ordinance incorparating the "MOU" on 11/5/91 and the Duchesne County Commission isconsidering such an ordinance.

104-1 In general these ordainances and "MOU" state that where the economic base and cultural value of its area are affected the Utah Dept of Ag, and County Commissioners must be made a part of any decision making process. Futher the public range lands Improvement act of Oct.25,'78 ensures full participation of the permittee(s) and UDA in the planning process if requested and agreed to by the permittee.

I as a permittee am requesting such permission to pafticipate in any planning process and I am requesting my present and future comments be made a part of the record reqarding this DEIS.

I am also asking our Duchesne County Commissioners and Uintah County commissioners to be involved in as much as they are charged by law to protect the economic base of their counties.

Any decesion made by the Vernal District BLM that may adversely affect my allotment on the BLM will inturn affect my total operation and in turn any tax base that I may provide. I want it noted that the economic multilper

104-2 of Agriculture in the State of Utah is between 3 and 4 and is much higher than other industries. For example for every dollar I spend as a rancher is multiplied 3 to 4 times. I spend most of my money in the rual part of Utah and in turn this money helps keep rual Utah alive. Eastern Utah gets most of its revenues from agriculture and oil. These industries must be protected at all costs.

Under"Cumulative Impacts of Implementing Alternative B paragraph # 7 states: Cululative increased wildlife use from 27,600 AUM's to 40,000 AUM's

104-3 could result in livestock reductions(9,000 AUM's) which any result in a $11,500 yearly loss to the local livestock industry. However, this increase may also generate up to $94,300 for the local community from lodging, food and transportation costs paid by the hunters and recreationists" These figures I challenge.

RESPONSE TO COMMENT LETTER 104 (SMITH)

104-1 Thank you for your comment. Be assured that BLM has seriously sought the input of the State of Utah, Duchesne and Uintah County Commissions, as well as DMRA grazing permittees throughout the development of this RMP. Please refer to the State of Utah's comment letter (114), the Duchesne County Commissioners (36) and Uintah County Commissioners (110) comment letters as well as our specific responses.

104-2 Please refer to our response 69-2.

104-3 The 9,000 AUM reduction was printed in error. We believe livestock preference will be met under the proposed plan. Please refer to our response 52-2.

There should not be any reduction of livestock Aums in favor of wildlife. Any reductions need to be made on scientific evidence based upon the resources.

104-4 The 31% increase of wildlife can not stand and alternative E must be changed to illiminate this large increase.

This EIS is stating that wildlife Aums are 8.24 times more important than the livestock aums. I can not accept these figures. The $1.27 value of a livestock Aum is in error and should be $ about $9.19. From what expert did the $94,800 increase come from?

Page 4.65 Table 4-18 Summary
Alternative C states present levels of Big game at 27,600 Aums. Can the BLM show scientific data to support these figures. My opinion is that the present big game aum levels are now more at the proposed levels in Alternative E, 40,000 Aums.
The BLM has not sufficient population counts to support their proposals. The BLM has relied upon DWR's population count and I believe DWR's data to
104-5 be in favor of DWR's whims. I believe more range studies such as we have done in Big Wash Draw are necessary to document forage use by domestic livestock and big game. The pellot counts and utilization studies are the best method to document populations.
I understand big game levels on a Unit wide basis may be in line but some areas are receiving more than their percentage big game usage. This non uniform grazing by big game must be addressed.

Page 4.65 of the Summary of Impacts of livestock assignments.
Alternative A states forage assignments coud be given to livestock on a temporary, non-renewable basis until needed by wildlife. This is not my understanding of the present management system. During the 1960's when live-
104-6 stock levels were reduced by permittes it was agrered that any increase of forage would be given 50% to livestock and 50% to wildlife. If this EIS is ever challenged in the court system, I believe that the BLM authors of this DEIS could be held accountable for their miss statements regarding how forage is presently allocated. The 50% allocation needs to be in writing and not hiden from all concerned.

The only way I could live with a new EIS is that alternnative E if accepted continue the present formula for forage allocation..

This is the end of general remarks and I will now address those concerns of mine with my present cattle allotment in the Big Wash Draw. My 5 year average use is low because I have just recently changed from a sheep operation to a cow operation plus the drought of recent years has influenced my running
104-7 lower numbers than my preference calls for. The statement of page A 2.4 273 wildlife Aums and cow aums of 290 equal 563 present use does not ncessarly represent what our pellot and utilization studies show. I believe gig game usuage show more like 65% of the feed utilized. The BLM office has the actual records and it should show what is actually going on. I can agree at the total aums present (1,332) as stated on page 2.4 but I can not accept a reduction of my preference to accomidate the proposed wildlife objectives

104-4 Please refer to our response 53-3 regarding wildlife and livestock forage allocations, and the socioeconomic assumptions in Chapter 4.

104-5 The 27,600 AUM forage assignment for Alternative C is based on UDWR's annual surveys. We recognize UDWR as the expert on wildlife management within Utah and accept their use levels. We currently have 30 pellet transects in place on crucial areas throughout the resource area and have plans for additional studies. We recognize that both livestock and wildlife prefer certain areas and as a result "nonuniform" grazing occurs throughout the resource area. We have always attempted to even out this use through water developments and forage enhancement project work.

104-6 As part of Table 2-15, under Alternative A, additional AUM distributions to livestock and wildlife are stated in agreement with the decisions in existing planning documents. In the Ashley-Duchesne areas, forage increases would be divided equally between livestock and big game on non-crucial areas. If this forage were not needed by big game, it would be given to livestock.

104-7 Monitoring studies on Big Wash Draw Allotment indicate a total of 1,141 AUMs are presently available to livestock and wildlife, refer to Table A2-1, in Appendix 2. Currently, there appears to be sufficient AUMs on the allotment to accommodate existing livestock preference and objective levels for wildlife.

104-8 The population of elk using Big Wash Draw allotment is now much higher than this BLM DEIS statement is now showing.. I believe that the ob ective wildlife level is already now achieved. We can not accept DWR/s count only but must use all of our tools available. The DWR has used the Elk Management Plan which has been in the process for at least 10 years to achieve its desired elk levels. While this plan has been in development the elk numbers have increased by leaps and bounds. ust because the whole elk unit may not be at DWR's desired level is not a concern of mine but if Big Wash Draw allotment is at its objective level then any future increase of wildlife will have to delt with by me, BLM and DWR.

104-9 As for the 82 Aums gained for wildlife I Have the following comments:
First the contor disking and seeding this past fall of 1991 in Big Wash Draw is not an increase of aums but it simply replaces what was done in the early 1960's. The old seeding project quit providing the quality of forage it used too. I believe the main reason was the flood action silted over the seeded land, thus stoping water infiltration and normal plant growth.
Secondly, Steve Strong,BLM range Con.. contacted me last year and asked if I would contribute seed to the proposed seeding project in Big Wash. I stated I would if DWR would also contribute some seed. I waS NOT TOLD THAT any future increase in Aums would go soley to wildlife. This DEIS has been in the process for quite a long time. It is my contention that my contribution of some 400 lb. of seed at a cost to be of $1,000 was received by the BLM under false pretences. Either I receive half of the increase from this seeding project if it is actually an increase or I receive all of the benifits if it simpley replaces what was one there. The proposed DEIS is not yet final and we must allocate forage under the present system of 50% for livestock and 50% for wildlife.

104-10 I have in the past objected to BLM personel both in writing and verbably that I oppose BLM's policy of creating a year around habitat for elk on this BLM range by making water ponds for wildlife. The Big Wash Draw is a winter range. BLM must be held accountable for its creation of watering ponds. I can not agree that thse ponds are only for erosion control. After one or two years from now if the four ponds made in the fall of '91 are not filled up with sedement I will ask the BLM to fill them. This range can not tolerate elk using it all though the growing season. of March through June. My cows leave this allotment the First of March thus alowing for new growth to become established

104-11 I appreciate BLM and DWR personal working with me on the Big Wash Draw allotment. We should continue to work to gether and have constructive dialoge. I intend to be a good steward of the range so that my future use of this range will continue. Protection of the range resources should be the number 1 goal of all of us. I have reduced my livestock nimbers in drought years and I am willing to continue to work for better range conditions.

Sincerely

Allan E Smith

Allan E Smith

104-8 In 1986 we established pellet group transects in cooperation and coordination with you and UDWR as a means of monitoring livestock and wildlife use. We continue to monitor the utilization on vegetation and will use this data as the key factor in determining eventual stocking levels. Vegetation improvement work also continues on the Big Wash allotment with 150 acres of old grass seedings replanted in 1991 and 400 acres of pinyon and juniper trees planned for firewood harvest in the future (refer to Appendix 8). The Anthro-Argyle elk herd management plan will be scheduled for completion in 1994 in accordance with State of Utah priorities. We look forward to working with you and UDWR to resolve objective and wildlife-livestock concerns.

104-9 The RMP was not in effect when the plowing and seeding project was completed in 1991 on Big Wash Draw Allotment. The project was completed, as you indicated, to improve existing production to post-treatment productivity, or in other words, to maintain the project viability providing forage for livestock and wildlife. UDWR contributed half the seed to provide for increasing elk use in the area. Until the proposed RMP is approved, any increases in forage will be allocated under the direction of the current planning document.

104-10 Please refer to our response 104-8 above. We believe with normal precipitation some spring elk use on the grass is not detrimental. Our management objectives have been to increase forage production for both livestock and wildlife through habitat improvement projects and to improve elk distribution by developing new water sources. The data collected to date indicate that these objectives are viable under good range management principles.

104-11 Thank you for your comment.

P O Box 6306
USAFA CO 80841-6306
March 23, 1992

Jean Sinclear
Bureau of Land Management
Vernal District
170 South 500 East
Vernal UT 84078

Regarding: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Alternative of Choice: Alternative C Forage Production with limitations.

105-1 I am opposed to the development of any roads or campgrounds in the Mame's Hole - Bear Hollow area. There is not a road into this area and it should be left that way. We need to have some areas of this country left untouched by the hand of man. Roads will destroy the natural habitat of the wildlife and animals that live in those mountain meadow environments.

Sincerely,

Daniel J Ely

Cadet Daniel J. Ely
United States Air Force Acedemy

RESPONSE TO COMMENT LETTER 105 (ELY)

105-1 Thank you for expressing your concerns. Please refer to our responses12-1 and 53-1.

A. Rex Gardner
18402 Augusta Drive
Monument, CO 80132
March 25, 1992

Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

ATTN: Penelope Smalley
Team Leader

RE: Diamond Mountain Resource
Area - Resource Management
Plan and Environmental
Impact Statement

Dear Ms. Smalley:

Recently it was brought to my attention that your office, United States Department of the Interior Bureau of Land Management, November, 1991, released for public comment a detailed report in a large book, Diamond Mountain Resources Area RMP/EIS (Draft).

After obtaining a copy of your above mentioned report and a serious attempt to comprehend the purpose and intent, referenced, (acquire needed public vehicle access for recreational purposes).

I am submitting my comments from Florida and I do not have my records with me for exact dates and in the essence of time I shall make my statements with dates approximately.

In the 70's, Alvin Kay, Glenn Cooper, and myself purchased 5,149 acres of Fee property called the Warren Draw, and purchased under the name of Gardner, Cooper, and Kay, G.C.K., and shortly after the purchase we, G.C.K. was contacted by the Department of Wildlife Resources and B.L.M., to sell the G.C.K. properties to replace deprived wildlife habitat that was taken by the building of Flaming Gorge Dam. G.C.K. agreed to sell only 2,400 acres and Alvin Kay and myself decided to keep the North 1600 approximately acres and continue to use in conjunction with B.L.M. and State of Utah grazing A.U.M's.

The 2,400 acres became a public use area and the old original Patented Properties Cabins, fences, and corrals have been burned by deer hunters and four wheel drive vehicles have roads where they should not be; the deer and elk are scarcely seen in these areas now.

To: Penelope Smalley
From: A. Rex Gardner
Date: March 25, 1992
Page two

The remaining 1,600 acres is unique, in that the only way to continue access to the North end of the Warren Draw would be to cut a road in the center of the long sliver of private property, seriously dividing the grazing and requiring fencing. After public access is acquired by this approach, it would only accommodate a short distance and a turn-around for the North and has a steep drop to the Green River below.

There is no public fishing in the Warren Draw and the public is now not deprived of foot traffic or horseback hunting and I see no point in destroying our privacy of our existing cabin and grazing for this small distance to accommodate a road that cannot be used for any purpose other than a turn-around.

106-1 I am not in favor of this invasion of additional access for public use in the area of i.e., Warren Draw, Jackson Draw, Lumbson Draw, and Ashley Creek. Ranchers are struggling to survive as is, and wildlife is also being threatened by this proposal.

Sincerely,

A. Rex Gardner

A. Rex Gardner

RESPONSE TO COMMENT LETTER 106 (GARDNER)

106-1 Please refer to our response 12-1.

March.28,1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

To Whom It May Concern:

As the livestock permittee on the Bridgeport allotment, we appreciate the opportunity to comment on the Draft Environmental Impact Statement for the Diamond Mountain Resource Area Resource Management Plan. Our season of use on this allotment is April 1t - May 15. For the past 15 years with the agreement of Bureau of Land Management we have grazed more numbers with a shorter season of use. This is actually a better grazing system for the vegetation, due to better distribution throughout the allotment with light use occurring on the majority of the allotment. We are out of the allotment early enough in the growing season to allow vegetation to achieve significant growth and set seed. This leaves more vegetation for wildlife use in winter.

We have been working with the Soil Conservation Service to improve our private land. It seems contradictory that one government agency wants to see improvement to help the livestock industry and another wants to hinder it's very existence.

107-1 We agree with your comments that high overhead costs and taxes have caused several ranchers to sell, and nontraditional owners buy these properties. It would seem to be of value to all involved for you to support the traditional ranchers who are very

RESPONSE TO COMMENT LETTER 107 (RADOSEVICH)

107-1 Thank you for your comment. BLM also believes there are great benefits to ranchers and wildlife managers working together to achieve resource goals while maintaining or improving the quality of life.

much aware of the lands around them and know they can not abuse these lands and still make a living. Also most traditional ranchers we know enjoy seeing wildlife, and would do all they could to help improve wildlife habitat, to help compensate for the amount of forage that wildlife consume on their private property. The only time ranchers don't enjoy seeing wildlife is when they are consuming valuable forage and the rancher is not being compensated for this loss. We can see benefits to ranchers and wildlife managers in working together to preserve both our way of life and the wildlife habitat.

107-1

The following comments pertain to the Browns Park area and the Bridgeport allotment, since management changes in this area would affect us.

Wildlife

What about impacts by wildlife to the private land owner? According to our counts this past year, on our private ground, there was in excess of 300 head of deer, 60 head of elk, 15 head of antelope and uncountable numbers of geese.

107-2

In reference to statement A8.18 #3, if this statement is true, then wildlife numbers should not be increased . If the forage can not support an increase, then you can't put it there.

We feel there is little or no conflict for vegetation between deer and livestock the time of the year that livestock are grazed on the Bridgeport allotment. Studies have shown that most competition between deer and livestock is behavioral and occurs when competing for forage on summer ranges. (John G. Kie ETAL.USFS,Pacific South West Research Station) We are not trying

107-3

107-2 Please refer to our response 12-2.

107-3 In the draft RMP, Bridgeport was shown as having a forage availability problem in error. Table A8-3 has been corrected accordingly. You are correct, if the forage cannot support an increase in use, BLM will not advocate an increase. We agree, spring livestock grazing in Browns Park is beneficial to maintain deer winter range.

to discourage wildlife, just the exclusion of livestock. According to a recent study by Richard Decker and David Pyke, of Utah
107-3 Cont. State University, cattle grazing can be beneficial to sagebrush growth, which supports the deer herds in Browns Park in the winter. There is no competition between livestock and deer for this winter forage.

Any range improvements made would be beneficial to wildlife and livestock and should be encouraged. We are willing to improve our allotment and have offered to use our equipment, fuel and labor to pull a rangeland drill to improve forage.

Table A2-1 talks of increasing antelope use by 6 AUMS, elk by 92 AUMS, moose by 5 AUMS and bighorn sheep by 25 AUMS. It seems that Division of Wildlife Resources can not manage the current number of wildlife efficiently, we feel the numbers they have counted for this area are low. Increasing wildlife by these
107-4 amounts would directly impact our private land. We don't support an increase of wildlife numbers in the Brown's Park area, due to the above reasons. We also feel the vegetation in this area should not be asked to support such an increase. If the wildlife increase is necessary, we hope the increase would not occur until sufficient forage has been established, in order to decrease impacts by wildlife on government and private ground due to such events as a drought and other natural occurrences.

Riparian

The riparian on the north side of the river, Bridgeport
107-5 allotment, where there is cattle grazing early in the spring, are in better health than the other side of the river. There are

107-4 We agree with your concern for sufficient forage to support objective levels of wildlife as requested by UDWR. Appendix 2 footnotes this objective stocking level request according to the condition of the habitat. We have identified approximately 300 acres of pinyon and juniper woodlands on Bridgeport allotment as a possible treatment area (refer to Appendix 8). Such improvements would be programmed and executed over the life of the RMP to coincide with anticipated wildlife increases. Vegetation monitoring would determine if objective levels could be met once all improvements are complete.

107-5 The conflict with spring cattle grazing on the Green River through Browns Park is largely with recreationists, not riparian vegetation. Cattle grazing is incompatible along this river during high intensity fishing and float boating periods. We agree, some grazing systems are used as a method of maintaining or improving riparian areas.

107-5 Cont.

more willows and vegetation on the north side of the river. Grazing systems can be managed to improve or maintain riparian areas, without the exclusion of livestock.

Impacts by livestock on the riparian area of the Bridgeport allotment are considerably less than recreation impacts in this same area. Impacts by recreationists, include litter, human waste, and compaction of soil by vehicle and foot traval. More sanitation and litter facilities should be provided in the Browns Park area. A recreationist lighting his toilet paper on fire near our private ground below the lower Swallow canyon boat ramp. started a grass fire. He left and we had to fight the fire to keep it from burning onto our private land. As recreationist in this area increase, we are sure this type of incident will become more frequent.

107-6

The impact statement suggests fencing the corridor of the green river to prevent livestock impacts. Recreationist do not respect fences and we are not so sure they would consider fences very scenic. Gates would most likely be left open allowing livestock access to the river and cause more problems in the long run. Cost of fencing and cattle guards (if these would be put in, instead of gates) on each access road to the river would be enormous. Who would be responsible for the cost of fencing the corridor and maintaining the fence after it is in place?

107-7

Where are the studies that show the riparian on the Bridgeport allotment to impacted? Table A8-2 shows the condition of the riparian along the Green River in Browns Park to be in mid condition in 1990. What stage was this area in previously, is it

107-6 Much of the river corridor has already been fenced. The only area currently not fenced (and is planned for fencing) is on the north side of the river, near the pipeline crossing at the head of Little Swallow Canyon and at Little Hole, where Davenport Creek enters the Green River. BLM and/or other cooperators would fund and maintain needed fencing to control livestock grazing on the Green River. We agree that at times gates are inadvertently left open, allowing access to the corridor by livestock, therefore cattle guards would most likely be used in highly used access areas to the river.

107-7 A riparian inventory was done in 1990. Photo points and an ocular assessment of condition was conducted along the Green River through the Bridgeport Allotment. We have no record of riparian condition of this area before the inventory was done. We agree, in most cases, one year's worth of monitoring is not sufficient to determine trend. Your grazing license extends to May 30, which is well within the high use period of float boaters and fishermen for this area.

improving or degrading? One years worth of monitoring is not sufficient to determine what is happening on the ground. Could this mid condition rating be enough or the most productive stage for wildlife habitat and livestock grazing ?

107-7 Cont.

The time of year that we graze this allotment is before the tourist season begins and conflicts between cattle and recreationist would be minimal and visual quality would not be a significant issue.

Economics

When this EIS talks of tourist money going into the local economy, what is considered the local economy? A lot of the people that visit this area, are just passing through and don't purchase anything locally, a lot of the recreationists come here in self contained campers that they furnished in Salt Lake or Denver, we wouldn't call this local. A majority of the fishermen in the Browns Park area just come here for one day and they bring everything they need. They are not putting any tourist dollars into the local economy. What about the $300,000 we put back into the local economy every year. As one larger land owners in Daggett County, we know any impact to us would also impact the local economy.

107-8

We feel the economics in the EIS need some rethinking. The economic value for a recreation visitor day of $25 is just a value and there is nothing showing how this figure was derived. We also feel your values of $9.19/ AUM is too low as it relates to permittees.

107-8 Please refer to our response 3-24.

Wild and Scenic River

We do not support having the Green River become a wild and Scenic river. We feel it does not qualify for anything but a recreation river. The Flaming Gorge Dam seems to prevent the river from being free flowing, which is one of the main criteria for consideration as a wild and scenic river. There are several diversions already in place, for the Browns Park Waterfowl management area, pumps for the two ranching interests, not to mention the five areas used as boat ramps. The only area that could possibly qualify would be from the dam to Indian crossing boat ramp.

107-9

We definitely would not be willing to sell our land along the corridor, due to the fact that is where one-third of our hay production for our operation comes from. We also are not receptive to the restrictions that apply to Wild and Scenic rivers. Our land on the river is very productive portion of land that supports part of our operation not to mention the large number of geese, deer and elk also found here. We are sure you would not appreciate the Federal Government telling you what you may do to improve your yards. We have seen how the Division of Wildlife Resources has let their refuge land for waterfowl turn to a noxious weed patch. We feel it is better to have that land in production for us and the wildlife, than to just add to the already enormous noxious weed problem along the Green River.

107-10

In closing, has your monitoring shown significant change in resource management and/or condition to reclassify Bridgeport as

107-11

107-9 We reconsidered our original recommendation to designate the Green River for inclusion as a scenic river in the National Wild and Scenic River System. We still concur with this recommendation. Any opposition will be considered by the Secretary of the Interior and Congress prior to a final designation. The concerns you have about intrusions into the river corridor affecting the river's eligibility and classification were discussed in the original wild and scenic river study completed in 1980. At that time it was determined that the river should be recommended for designation as a scenic river in the Wild and Scenic River System.

107-10 Thank you for expressing your concerns. Any land acquisitions undertaken by BLM in support of the upper Green River's W&SR recommendation would be from willing sellers or givers should the opportunity to acquire such lands arise. The management prescriptions for the Green River Corridor in Browns Park would affect only public lands managed by BLM.

107-11 The Bridgeport Allotment is proposed to be an "I" category allotment due to high potential for improving wildlife habitat, not due to unsatisfactory range conditions. We appreciate your desire to be involved in the decision making process and in the monitoring of your allotment. We will continue to give you the opportunity for maximum involvement.

an "I" allotment, instead of an "M" allotment and how will this affect our management? We would like to remain involved in the decisions made about management of our allotment, and would like to participate in any monitoring you do in the future. We know our rangelands are a valuable resource and we want to do our best to keep them in a condition we can be proud of. We feel this EIS is very biased towards wildlife and is not taking a multiple use approach.

107-11 Cont.

Sincerely,

Alex Radosevich

President, Willow Creek Land and Livestock, Inc.

March 28, 1992

Re: BLM Resource Management Plans

Dear Ms Smalley:

Please restrict the Red Mountain area north of Vernal in your upcoming BLM Resource Management Plans. As you know, this is the most scenic mountain of the whole area. Motorcycles should not be allowed to ride all over it. Please support the United Mountain Council position; ie, Alternative E with modifications.

I'm specifically concerned that Red Mountain get Scenic - Primitive non-motorized status and Level I management for the area from the top down & including the area from Brownie Park & the Rocky Riverbed on the west side.

I support & prefer Alternative B but at the very least Alternative E with the United Mountain Council modifications proposed.

Sincerely

Ruth L Wake
51 E 2050 N
Provo, Utah 84604

375-5519

108-1

5.141

RESPONSE TO COMMENT LETTER 108 (WAKE)

108-1 Thank you for your comments. Please refer to our response 79-2.

U.S. Diversified Group
600 Grant Street
Pittsburgh, PA 15219-4776
412 433 4870
Telex 86 8425

Resource Management

Donald R. Saxauer
General Manager

US Diversified Group

March 26, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South, 500 East
Vernal, Utah 84078

Diamond Mountain Resource Area (DMRA)
Environmental Impact Statement

Dear Ms. Smalley:

After a review of the subject DMRA document we would like to comment on its relationship to our future phosphate development area. This contiguous property block is 8,751 acres situate in Township 2 South, Ranges 22 & 23 East consisting of three federal phosphate leases (7,472 acres), one state phosphate lease (1,157 acres), and fee land (122 acres).

109-1 The description of this future phosphate operation is accurately covered in Chapter 4 - Assumptions, page 4.8. The portrayed impacts and the environmental controls which would be associated with the underground mining and surface milling operations appear realistic and are consistent with our current plans.

109-2 In Chapter 3 - Affected Environment, page 3.32, the Phosphate section mentions 4,000 acres under federal lease rather than the 7,472 acres which we control. The companion Map 3-14 does not show the KPLA extending into Township 2 South, Range 23 East as would be consistent with our leases.

For the various alternatives in the DMRA we would offer the following comments:

109-3 Alternative A - As stated on page 4.19, our Iphosphate ands would be open to development with restrictions to minimize adverse impact to deer winter habitat. Development of these reserves could add 350 jobs and $4,000,000 annually to the local economy.

RESPONSE TO COMMENT LETTER 109 (U.S. DIVERSIFIED GROUP, Saxauer)

109-1 Thank you for your comment. It is helpful to know our assumptions, outlined in Chapter 4, are realistic and consistent with your plans.

109-2 We have modified our figures in the proposed plan describing the number of acres under lease by USX.

109-3 Your assessment of the affect of Alternatives A and D upon USX leases is correct.

US
Diversified Group

109-4 Alternative B - This alternative would effectively prevent development of phosphate reserves as stated on page 4.29, due to obscure wildlife considerations. Your statement in Chapter 1 - Minerals Management , page 1.11 appears to ameliorate these restrictions. It is stated that "Areas under existing leases will be managed in accordance with the stipulation attached to the existing lease". While "... additional restrictions could be applied to protect critical resource values ...", "These additional restrictions would not preclude the existing lease rights".

109-5 Alternative C - This appears to be concerned with impacts to cultural and paleontological resources. While there is no mention of phosphate lease lands listed under this alternative, we believe underground mining would not have an adverse impact.

109-6 Alternative D - Similar comments to Alternative A on phosphate lands.

109-7 Alternative E - Similar comments to Alternative A on phosphate lands with one exception. Designation of the Southeast quadrant of Township 2 South, Range 22 East as an ACEC could adversely impact development of the phosphate reserves since there is some overlap with planned surface facilities.

We appreciate this opportunity to review the draft DRMA.

Thank you for your interest and consideration to our comments. Would you please include us on your mailing list for the final EIS.

Yours very truly,

Donald R. Sexauer

cc: Richard F. Riordan, Consultant
Sandy, Utah

109-4 The restrictions under Alternative B would be imposed only at the time of lease renewal.

109-5 The lack of comment about phosphate in Alternative C reflects the fact that we did not believe there would be any impacts to phosphate under this alternative.

109-6 Please refer to our comment 109-3 above.

109-7 It is unlikely that ACEC designation would impact USX leases. No additional restrictions are imposed within the bounds of the ACEC that are not imposed outside. At the time of actual lease development or lease renewal, restrictions would be developed only after site specific analysis and mine plan adjustments.

UINTAH COUNTY

STATE OF UTAH

Our past is the nation's future.

COMMISSIONERS:
Max D. Adams
Lorin F. Merrell
H. Glen McKee
ASSESSOR - Lorin T. Merkley
ATTORNEY - Harry H. Souvall
CLERK/AUDITOR - Pat S. McNeill
RECORDER - Randy J. Simmons
TREASURER - Donna Richens
SHERIFF - Lloyd D. Meecham
SURVEYOR - Nelson J. Marshall

DATE: March 26, 1992

TO: Penelope Smalley and Jean Nitschke-Sinclair,
Team Leaders
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

FROM: The Uintah County Commission

RE: Diamond Mountain RMP

Uintah County is requesting the BLM to consider Alternative A, for the following reasons:

First, we recognize that the DMR Area is a very large and complex resource area. Coordination and cooperation will inevitably be needed to finish an acceptable draft. We also recognize that some team members who worked on the DMRA and EIS drafts are not native to this area and are susceptible to making mistakes. We hope these mistakes, calculation errors, etc., and personal opinions are not part of the final Alternative Draft for submittal to the Director.

110-1 Some time ago, Uintah County suggested that the Uintah County Extension Agent form a committee and respond with any concerns relative to the livestock industry. This resulted in a letter to you from the Diamond Mountain Permittees and Other Concerned Individuals. We concur with the response from that committee. Please find attached, a copy of this letter, also signed by the Uintah County Commission.

110-2 43 CFR § 1610.3-1 (d) states "A notice of intent to prepare, amend, or revise a resource management plan shall be submitted, consistent with State procedures for coordination of Federal activities, for circulation among State agencies. This notice shall also be submitted to Federal agencies, the heads of county boards, (and) other local government units."

Also, referring to Chapter 5, Consultation and Coordination, page 5.1, third paragraph, "Initial steps in the process began in 1988, with the development of a preparation plan. Other early efforts included research, inventory, analysis, and interagency coordination." Further, also on page 5.1, under the heading of Consistency, paragraph 1, "Coordination with other agencies and

1

COUNTY BUILDING • 152 EAST 100 NORTH • VERNAL, UTAH 84078

RESPONSE TO COMMENT LETTER 110 (UINTAH COUNTY COMMISSION, McKee, Merrell, Adams)

110-1 We are in receipt of the Diamond Mountain Permittees and Other Concerned Individuals' letter (comment letter #226). Both the Uintah County and Daggett Soil Conservation District submitted copies of the permittees' letter with their own individual comments. Please refer to our specific responses to the Diamond Mountain permittees' letter as requested by the Daggett Soil Conservation District (comment letter #179).

110-2 We believe we are in compliance with the regulations regarding public scoping and involvement and have made every reasonable effort to involve Uintah County in the preparation of this plan. At the onset of the RMP process, several public scoping meetings were held to identify issues and discuss the then-upcoming plan. A scoping meeting was specifically held on November 2, 1988. It was stressed at this meeting (and at every opportunity) that at any time the public, including county officials, was encouraged to contact the BLM to express their concerns and/or offer suggestions. In September 1989, planning issues and criteria, developed after input from the public scoping meetings were mailed. In September 1990, members of the Uintah County Commission were invited to attend a two-day briefing and tour for the Governor's Resource Development Conservation Committee to familiarize them with the issues and scope of the RMP. An update report was mailed to all interested individuals and organizations in January 1991. This report briefly outlined the alternatives under consideration. Again county commissioners of Uintah County were provided information and the opportunity to respond. The draft document was released for public review and comment in January 1992. An open house on the draft RMP was held on January 29, 1992, in Vernal to assist the public in their review of the draft document. Team members have made numerous contacts with the county commissioners during the scoping and alternative development stages. In addition one of the commissioners has been on the Vernal District Advisory Council throughout the process, and therefore had numerous opportunities to become involved.

consistency with other plans were accomplished through frequent communications and cooperation efforts between the BLM and involved federal, state , and local agencies and organizations." And, in paragraph 2, "The RMP team reviewed the land use plans for Daggett, Duchesne, and Uintah Counties to ensure consistency. BLM personnel have met with the respective county planners and commissioners to promote greater understanding of goals, objectives, and resources of both the counties and the BLM."

Chapter 1, page 1.14, "The Planning Process", reviews "Action Steps In The Planning Process". Step 1 states that Issues and Management Concerns will be identified. This is intended to expose concerns, conflicts, or opportunities which can be resolved through the planning process. "The BLM managers and specialists from the Diamond Mountain Resource Area and Vernal District staffs held several scoping meetings in November, 1989. The public, other federal agencies, and state and local governments were asked to participate in this scoping process. Information from these sources was combined by BLM into three broad land-use planning issues appropriate for resolution in the RMP/EIS planning process."

110-2 Cont.

According to the Federal Statutes quoted, the initial contacts by your agency with the Uintah County Commission should have begun in 1988. The BLM should have met with the county, one on one, and explained what the resource area consists of, how many anticipated alternatives would be considered, and possible conflicts, concerns or opportunities that might exist. Such contacts would have discovered existing county plans and policies which could have been considered.

The present County Governmental Administration (Commission) is not the same administration that existed in 1988 and 1989. Therefore, the Uintah County Commission hereby notifies you that we do not agree that you have complied with the regulations and statues with regard to our involvement in the planning stages which have been quoted in this letter, and in your draft document. We respectfully request that any reference to "local government", "county government", "county commission", "county agency or departments", "county planner", or other terms which would refer to Uintah County, including but not limited to Chapter 5, Consultation and Coordination, be withdrawn from the document.

The Uintah County Commission was essentially left out of the early planning process which eliminated our input regarding social, economic, cultural and custom data, as suggested in Chapter 5, Consistency, paragraph 2. Team leaders may not have intentionally neglected to solicit our input, however, they must be responsible for this oversight.

110-3

Uintah County is asking the BLM to consider our issues and position as stated in the Uintah County Interim Land Use Policy, adopted October 1, 1991.

110-3 To the extent the Uintah County Interim Land Use Policy is consistent with federal regulations, we will naturally adhere to the county's policy. In those instances where the policy outlines adherence to state or local laws and ordinances contrary to federal directives, we would have to arrive at some common understanding. Be assured that we will continue to consult and coordinate closely with the county on matters that may/will involve the county or its residents.

110-4 Under the general comments section of the attached letter from the Diamond Mountain Permittees, etal, we wish to make additional comment regarding the economic impact of the $54,000,000 annual revenue generated in the three county area from livestock and livestock products. There is no evidence to substantiate that people from outside the Uintah Basin will offset the annual loss in revenue from reductions in AUM's or general ranching operations. Ranching and agriculture are the major economic cornerstones of local community stability.

From this point, we will address specific sections of the draft and our concerns:

Section: Chapter 1 Purpose and Need

Page 1.17 Step 2 - Original criteria were developed in early 1990, and sent to interested parties.

Page 1.17 Step 3 - Collection of various kinds of data. During this phase, special status plant species were inventoried during the summer of 1989.

Why was step 3 done prior to step 2 ?

110-5 Neither the present County Commission or the County Public Lands Representative were aware of any DMRA planning effort until some time during Step 5, in mid-summer, 1990. The preferred Alternative E, was not specifically discussed with the County before it was selected.

On July 10th, 1991, a second notice was sent to team leader Smalley requesting a copy of maps or material relating to Alternative E. Was the material available at that time? Attached is a copy of the second letter of request.

Chapter 2 - Common Management, Riparian Management

Page 2.10 It states that on January 22, 1987, BLM issued its national riparian area management policy which defined the term
110-6 riparian area, set management objectives, and outlined specific policy direction. This policy should not be subject to the liberal extended definition as given on page A6.1, titled Utah State Office Policy, Riparian Area Management Policy, IM UT 87-261 Revised, February 28, 1988. The Utah definition, in our opinion, goes far beyond the National BLM Director's original definition and intent.

Reintroduction of Black Footed Ferret

110-7 We would prefer that introduction or reintroduction of the Black Footed Ferret be eliminated from the document. We have no satisfactory evidence that this mammal ever inhabited Uintah

110-4 Thank you for your comments. Please refer to our response 104-2.

110-5 Again, please refer to our response 110-2. We have consulted with and encouraged participation by the county commissioners at the outset and through out this planning project. We believe we have complied with BLM's established procedures and in the established order for completion of a major planning document such as an RMP.

110-6 The Utah State BLM Riparian Policy is an extension of the National BLM Policy and describes guidelines to further the national policy statements including initiating management to maintain, restore, or improve riparian values.

110-7 Documentation that the black-footed ferret inhabited Uintah County has been shown in the Black-footed Ferret Recovery Plan (USF&WS, 1988, p. 7) and the Draft Black-footed Ferret Reintroduction and Management Plan for the Coyote Basin, Utah Complex (USF&WS, 1991, p. 5). It is BLM's opinion that this is satisfactory evidence presented by USF&WS and UDWR that black-footed ferrets have indeed inhabited Uintah County. Prior to any reintroduction, a site specific plan will be prepared with the assistance of a local committee representing all affected interests.

County. At some point, with the existence of the Ferret, an EIS would be required prior to any improvements, sowing of new vegetative habitat, or improving range or ranches in general. We prefer that this not be a part of the agenda for the Diamond Mountain Resource Management Plan.

110-7 Cont.

Chapter 4 - Assumptions

Page 4.5 It states that for the life of the plan, the price of oil will equal $20 per barrel, and the price of gas will be $1.50 per thousand cubic feet. Future demands are certainly going to place these prices at higher levels than have been assumed in the draft document. We feel these figures are underestimated.

110-8

Page 4.16 It states under "From Management Actions for Special Emphasis Areas" that not designating Nine Mile Canyon, Red Mountain-Dry Fork or Browns Park Complexes as ACEC's would make it more difficult to stabilize and protect the important cultural resources within these areas because they would not receive the management priority consideration afforded an ACEC. We disagree with this thinking. These were nominations by the Nature Conservancy and the Uintah Mountain Club, and are not necessarily worthy of being granted special management consideration. Do the opinions of these two environmental groups merit the extension of additional ACEC's?

110-9

Page 4.17 "From Management Actions for Livestock Programs", states that it is intended to eliminate domestic sheep grazing within 10 miles of identified Big Horn Sheep reintroduction areas. Again, we concur with the comments given by the Diamond Mountain Permittees findings, that the 10 mile buffer is not defendable.

110-10

Alternatives A and E, have distinctly different land areas in Level 1 through 4. Future oil, gas and mineral inventories are presently unknown and we cannot place more restrictive levels of management on these areas that could contribute to the future economic welfare of the Uintah Basin. For an example, are there valuable trace minerals, uranium, or deep overthrusts of hydrocarbon reservoirs that are presently undiscovered? It wasn't until the late 1970's that the overthrust major hydrocarbon reservoirs were discovered in Uinta County, Wyoming, just North of the Diamond Mountain Resource Area.

110-11

Uintah County would like some language inserted in the proposed final draft to state that if any future unknown resources or reserves (hydrocarbon minerals or otherwise), are discovered within the DMRA, that local government be included with other appropriate agencies to make necessary amendments to the plan to accommodate the development if deemed economical.

110-12 Mineral leasing is incompatible within approximately 65% of the lands in the Red Mountain-Dryfork complex. The entire area is

4

110-8 We agree that the price of oil and gas may fluctuate over the next 15 years and demand may increase. However, for analysis purposes, the current oil and gas prices were used. Should the price of oil and gas significantly change, the economic impacts to oil and gas companies would also increase significantly as would the benefits from production.

110-9 ACECs may be nominated by anyone. Justification for an ACEC and supporting documentation must be submitted to BLM for consideration. The Nature Conservancy, Uintah Mountain Club and the Utah Chapter of the Archaeological Society each nominated and supplied supporting documentation for their areas of concern. During the development of the RMP these nominations were analyzed and if found to be compatible with the overall management objective for one or more of the alternatives developed, they were included in that alternative.

110-10 There are numerous studies recommending a buffer between domestic and wild sheep. At the outset of this planning project, we identified a need to know which recommended buffer size, if any, would be appropriate for the specific topographic situations within the Basin. At that time no bureau guidelines were available. A committee of local experts was formed, with representatives from UDWR, CDOW, USFS, NPS, BLM and local veterinarians. A buffer up to 10 miles was recommended by this committee to account for the Basin's unique topographic features while minimizing the possible threat of disease transmission between both sheep species from common water and gathering facilities and direct species contacts. The wording of the proposed plan, involving opportunities to create this buffer through negotiations with the involved permittee(s), allows us the greatest management flexibility for each potential reintroduction site.

As a point of historical accuracy, the Bureau did issue draft guidelines (under Instruction Memorandum No. 92-239) which recommends a 9-mile buffer. This guidance was issued after the draft RMP was released for public comment. We sought clarification from our Washington office as to which buffer guideline to propose. Based on this consultation, it was determined that a 1 mile difference in buffer zones would not be significant, again with the condition that negotiations would be used prior to any final reintroductions. This documentation as to the rationale for the proposed plan has been added to Chapter 3. Please also refer to our responses 116-8 and 179-39.

110-11 Should significant mineral resources be discovered in the resource area which require a plan amendment, the Uintah County and other appropriate agencies would be involved.

110-12 Please refer to our response 61-2.

110-12
Cont.

mapped on page 2.111, map 2-7, of the Draft EIS. The map should be amended to include only the areas West of Highway 191. This is consistent with the 1000+ signatures relative to this issue. All alternatives should recommend withdrawal of mineral leasing for this area at the expiration of the current lease period. A reassessment of management levels for this special management area needs to be done.

In summary, we strongly encourage you to consider our concerns, these recommendations and potential conflicts. The impact of the DMRMP has an important influence on the local economy, and quality of our present and future customs, culture and community stability.

Sincerely Yours,

H. Glen McKee

Lorin F. Merrell

Max D. Adams
UINTAH COUNTY COMMISSION

UCC:dc
enclosures
cc: Jim Parker

QUESTAR PIPELINE COMPANY

79 SOUTH STATE STREET • P.O. BOX 11450 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2511

March 26, 1992

TIMOTHY R. BLACKHAM
DIRECTOR, PROPERTY AND
RIGHTS OF WAY DEPARTMENT

Ms. Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Subject: Comments on Diamond Mountain Resource Area - Draft Resource Management Plan and Environmental Impact Statement.

Dear Ms. Smalley:

Questar Pipeline Company (Questar) is an interstate natural gas pipeline company that operates gathering, transmission and storage pipeline and related facilities in Colorado, Utah and Wyoming. Questar operates over 2,400 miles of pipelines within the Rocky Mountain area. Our company provides Uinta Basin producers with gathering, transportation and storage services and with access to customers, markets and other pipeline companies within the region.

Questar's pipeline facilities within Daggett, Duschene and Uintah Counties presently have an assessed valuation of $72,600,000. During 1991, Questar's property taxes to these counties totaled $714,400.

As such, Questar has a sizable facility and operating investment within the Diamond Mountain Resource Area, and appreciates the opportunity to provide comments on the draft Resource Management Plan and Environmental Impact Statement (RMP/EIS).

1. Oil and Gas Management Categories:

111-1 The RMP/EIS recommended management plan (Alternate E) provides for a mix of management actions allowing for resource development while protecting environmental values. However, this approach proposes that an increasing highpercentage of resource development areas now be subject to controlled or restricted stipulations (Category 2 and 3) while substantially less resource acreage is subject to standard stipulations. In fact, percentage of lands classified as Category 2 and 3 increase from 50% to 77% while Category 1 development lands decrease from 50% to 23%. In a region heavily dependent upon the oil and gas industry and during

RESPONSE TO COMMENT LETTER 111 (QUESTAR PIPELINE COMPANY, Blackham)

111-1 The socioeconomics sections of the proposed plan/final EIS have been expanded from the draft. Please refer to the socioeconomics sections of Chapter 4.

somewhat difficult financial times, this reduction of available acreage presents a potential negative impact to the area's economic growth. The RMP/EIS should consider management direction that encourages oil, gas and mineral development which in turn supports the economic growth and stability of the surrounding communities and helps fund the state and federal agencies which manage the lands, resources and wildlife.

111-1 Cont.

2. *Designated "No Surface Occupancy" Areas:*

Areas being considered for "no surface occupancy" (NSO) should be carefully evaluated prior to designation. Usually, NSO areas are restricted from use in order to protect particular wildlife species, improve riparian or range land areas, avoid water shed areas or close areas due to other environmental concerns. Often, the oil and gas industry has demonstrated that its activities can be scheduled and conducted without disturbance to wildlife or environmental issues. In addition, state-of-the-art construction and reclamation techniques have been successful in minimizing land disturbance and reducing environmental impacts. Overall the BLM is urged to work with industry where possible regarding particular NSO designated areas to resolve problems and allow development within these areas.

111-2

3. *Existing Leases and Rights-of-Way:*

Questar urges that BLM maintain provisions to acknowledge and honor the valid existing rights granted for leases and rights-of-way associated with the location and operation of existing facilities. These existing facilities located within proposed Wild and Scenic River corridors, recreational use areas, or ACECs should not be subject to new or additional conditions or stipulations contained within the RMP/EIS.

111-3

4. *Utility Corridors:*

The RMP/EIS Preferred Alternative apparently designates a "utility corridor" across the Diamond Mountain, Browns Park, and Ewing Canyon areas. This utility corridor has a bottle neck at Jesse Ewing Canyon. Presently four pipelines pass through the area. The proposed quarter mile wide corridor is to be reduced to 1/8 mile in the canyon due to slopes greater than 30% which is felt by the RMPto be unsafe for heavy equipment. The preferred alternative E states that the bottleneck will allow only a maximum of three new facilities in the corridor essentially closing the North-South passage between Utah and Wyoming. In Chapter 3 of the draft, EIS, it is stated that "Jesse Ewing Canyon in Browns Park has four major pipelines

111-4

111-2 BLM should work closely with industry before NSO designations are formulated in order to allow development, while still protecting critical resource values. NSO stipulations are only proposed where they were deemed to be the least restrictive to protect crucial or important resource values.

111-3 Please refer to Chapter 1. Within the opening paragraphs of Chapter 1 the document states: "...valid existing rights take precedence over any management decisions depicted on the alternative maps. Nothing on the alternative maps should be interpreted as challenging those rights." Also within Chapter 1 the planning criteria (those constraints or ground rules to which the RMP and associated EIS are developed) specifically states: "All alternatives recognize the existence of valid existing rights. Nothing in the management options identified would preclude those rights." These directives also apply to the proposed plan.

111-4 Chapter 3 has been clarified to support the decision regarding the utility corridor through Jesse Ewing Canyon. Under the proposed plan the canyon would not be closed to major rights-of-way; however, we believe the Canyon could only support up to three additional rights-of-way.

and reached capacity". This North-South corridor is critical to energy transportation in the region.The route should not be closed at the present time and the RMP should be open to new technologies which could allow for the safe installation of new facilities while mitigating environmental impacts.

111-4 Cont.

5. *Black-Footed Ferret Reintroduction Areas*

Proposed black-footed ferret reintroduction areas identified as Shiner and Antelope Flats overlap existing pipeline rights of way. The draft EIS places restrictions on surface activities from March 1, through August 31st within 1/4 mile of the habitat occupied by the black-footed ferret. However, the draft EIS states "these restrictions will not apply to maintenance and operation of existing facilities". These restrictions should not be placed on maintenance and operation when these rights of way are renewed.

111-5

6. *Areas of Critical Environmental Concern*

The preferred alternative E creates several areas of critical environmental concern (ACEC), which overlap existing Questar facilities. The impetus into most of the overlapping ACEC's is the wildlife in the area. Sage grouse strutting grounds, critical deer and elk winter habitat, raptor protection zones and black-footed ferret reintroduction will all effect future pipeline activities in the area. The cumulative effect of these protection zones should not be to prevent current and future natural gas transportation and storage in area.

111-6

In summary, the Diamond Mountain Resource Area is in a critical area for natural gas activities. The unique geology of the area has allowed the development of an underground gas storage facility at Clay Basin. The utility corridors and pipelines in the area are critical routes for supplying natural gas to much of the country. One of the national environmental issues addressed in the RMP were activities that "...can positively affect current trends involving global climate changes and acid rain". Continued development of clean burning natural gas will have a positive effect.

Questar and its affiliate companies, have been active in the oil and gas business within areas covered by the RMP/EIS for over 50 years, and urges BLM to consider management direction which encourages economic stability and honors existing leases and rights. Questar appreciates the opportunity to submit these comments pertaining to the draft RMP/EIS.

Very truly yours,

Timothy R Blackham

TRB/gf

111-5 Under 43 CFR 2881.1-1(f) the authorized officer may modify the terms and conditions of the right-of-way at the time of renewal. According to the right-of-way grant authorized in 1989 for the Questar pipeline in question, the renewal date is October 2019, which should alleviate your concerns. It is reasonable to assume that restrictions concerning black-footed ferrets will probably be updated by the time Questar's right-of-way is renewed.

111-6 We believe the protection zones created in the proposed plan in the ACEC also offer windows of activity or areas that could be used for current and future natural gas transportation and storage.

March 20, 1992

Penelope Smalley, Team Leader
Bureau of Lamd Management
Vernal District
170 South 500 East
Vernal, Ut. 84078

Subject: Diamond Mountain Resource Management Plan Draft E.I.S.

Dear Ms. Smalley,

I must commend you and your team for the comprehensive effort in creating the Draft EIS of the Diamond Mountain Resource Management Plan.

112-1 After close review of the Diamond Mountain Resource Management Plan, I have some concerns about phosphate leases in the Red Mountain-Dry Fork Complex.

This is a very unique area because of it's wide diversity of high quality resource values within a close proximity to an urban area. It will be very important to determine the best use of this land. To do this we must first identify the resources of the area. The resources of the Red Mountain-Dry Fork complex are:

1. Recreation (Hunting, Fishing, Camping, Picnicing, Hiking, Skiing, Riding of Horses, Bicycles, Snowmobiles, and OHVs)
2. Scenic Vistas and Aestetics
3. Riparian Areas
4. Wildlife Habitat (Including crucial winter range for Deer and Elk)
5. Cultural and Historical Resources
6. Watershed (Surface and Underground Aquafir)
7. Vernal Area Municipal Water Supply
8. Archeological and Paleontological Sites
9. Biological Diversity
10. Relict Vegetation

ACEC designation is in tune with the best use of these lands. In light of critical resource values identified in the ACEC nomination for this area, no alternative addresses the impacts to these resources should mining occur. Alternatives B, C, and E designate the Red Mountain, Dry Fork Complex as an Area of Critical Environmental

RESPONSE TO COMMENT LETTER 112 AND 113 (GODDARD)

112-1 Thank you for expressing your concerns. Please refer to our response 61-2.

Concern. However, withdrawls for this area have not been considered. The potentially unacceptable impacts are as follows:

1. Changes to Municipal Water Supply Aquafirs
2. Changes to the 100 Year Flood Plain
3. Changes to Local Springs
4. Noise from Blasting and Equipment
5. Degradation of Scenic and Environmental Values
6. Degradation of Property Values

For these reasons mineral leasing is incompatible within 100% of the lands in the Red Mountain-Dry Fork Complex, a total of 25,800 acres. This area is mapped on page 2.111 of the Draft EIS for the Diamond Mountain Resource Management Plan dated November 1991.

All alternatives should recommend withdrawl of mineral leasing for this area at the expiration of the current lease period. A reassessment of management levels for this special management area needs to be done.

I look forward to working with you in developing the site specific management plan for the Red Mountain-Dry Fork Complex area.

Thank You,

Michael Goddard

Michael Goddard
10348 N. Dry Fork
Vernal, Ut, 84078

OFFICE OF PLANNING AND BUDGET
Resource Development Coordinating Committee

Charles E. Johnson, CPA
Office Director
Brad T. Barber
Office Deputy Director
Rod D. Millar
Committee Chairman
John A. Harja
Executive Director

116 State Capitol
Salt Lake City, Utah 84114
(801) 538-1027

March 26, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

SUBJECT: Draft Resource Management Plan/Environmental Impact Statement for the Diamond Mountain Resource Area
State Identifier Number: UT911223-010

Dear Ms. Smalley:

The Resource Development Coordinating Committee, representing the State of Utah, has reviewed this draft RMP/EIS. Following are comments from various state agencies:

State Lands and Forestry

Preferred Alternative

114-1 Designations such as management priority areas and special emphasis area, with associated surface occupancy restrictions, withdrawals, use restrictions, etc., may adversely affect trust land management goals within DMRA. For the alternatives presented, the management theme for Alternative D is the most consistent with trust management goals, therefore, the Division of State Lands and Forestry recommends Alternative D for the preferred alternative.

Utility Corridors

114-2 At this time, we see no reason why the state lands in the corridors would not be available for use as utility corridors. However, we cannot guarantee continued availability over the long term.

Land Exchanges

114-3 We are somewhat disappointed that the draft RMP doesn't specifically identify trust lands for potential federal acquisition. However, Tables 2-14 through 2-18 provide a reasonable framework for development of exchange scenarios. Given the apparent preference to

RESPONSE TO COMMENT LETTER 114 (Resource Development Coordinating Committee, Barber)

114-1 Thank you for your comment.

114-2 Thank you for your comment.

114-3 Standard operating procedures involving land ownership adjustments are outlined in Chapter 2. The DMRA Management Situation Analysis provides a list of state lands BLM would be interested in acquiring. For this reason the RMP includes guidelines that would allow the greatest management flexibility involving land ownership adjustments.

114-3 Cont. pursue exchanges/acquisitions as opportunities arise, we wonder which agency (BLM or DSLF) will make the first move. If we receive an application for a trust land use that the BLM may perceive as inconsistent with its objectives in an area, we may find it difficult to opt for an exchange to accommodate BLM's management objectives.

Executive Order Withdrawal

114-4 The oil shale protection withdrawal imposed by executive order is characterized as "**not being used for its intended purpose**" (page 3.20). The withdrawal seems to work to the detriment of other management objectives in the DMRA. Perhaps the RMP should develop the rationale for a recommendation by the Secretary of the Interior that the withdrawal be terminated.

Utah Natural Heritage Program

As with previous comments during the Diamond Mountain planning process, the Heritage Program response to the DRMP focuses on two major topics: 1) the identity and treatment of rare plants, and 2) the recognition and continued protection of natural areas on the Resource Area.

Rare Plants

114-5 Two definitions pertaining to rare plants in Appendix G of the DRMP were reviewed. The definition of "CANDIDATE SPECIES" (page G.2) is correct, but the definition of "SENSITIVE SPECIES (page G.12) may not be. In particular, we suggest checking the statement that "The sensitive list is made up of species listed as Category 3c in the *Federal Register*..." It is our understanding that the BLM list of sensitive species (at least plants) in Utah is essentially the same as the U.S. Fish and Wildlife Service (USFWS) list of Candidate species (Categories 1 and 2). That is, the BLM has provision for creating its own list of sensitive species, but for plants (at least) has chosen to make this list essentially identical to the USFWS Candidate species list, not the Non-Candidate (Category 3c) list. Clarification of this topic could probably best be done by the BLM State Botanist.

Table 3-26 on page 3.69 shows the identities and current status of special-status plants known or potentially occurring in the Diamond Mountain Resource Area. We suggest a few minor revisions to this table based on the following:

114-6 1. The table includes Non-Candidate (Category 3c) plants as well as Candidate and listed plants. However, the table does not include all of the known Category 3c plants on the Resource Area. We suggest that the table be consistent and include either all or none of such Category 3c plants. For sake of brevity, perhaps it would be best to include none of them.

114-4 Rather than remove the Oil Shale withdrawal in its entirety, the proposed plan specifically outlines those areas where a withdrawal termination is recommended.

114-5 Thank you for your comment. We agree, please refer to the Glossary for a correction of the term sensitive species.

114-6 We agree, Category 3C plant species have been deleted from the table.

114-7

2. Status of a few of the plants are different than shown in the table, either through the table being in error or from status changes that have taken place since publication of the DRMP. We also suggest referring to Category 1 and 2 plants as "C1" and C2" rather than "1C" and "2C", in keeping with the most common usage of these abbreviations.

3. There are a few minor corrections needed based on taxonomic changes and spelling.

With these suggested revisions, the plants and statuses of Table 3-26 would appear as follows:

114-8

COMMON NAME	SCIENTIFIC NAME	STATUS	(Heritage Comments)
Park Rock Cress	*Arabis vivariensis*	–	(To become C2 in '92)
Horshoe Bend milkvetch	*Astragalus equisolensis*	C1	
Hamilton milkvetch	*Astragalus hamiltonii*	C2	(Is not C1)
Ownbey's thistle	*Cirsium ownbeyi*	C2	(Note correct spelling)
Untermann's fleabane	*Erigeron untermannii*	C2	
Barneby's pepper cress or ridge cress	*Lepidium barnebyanum*	E[3]	
Flowers penstemon	*Penstemon flowersii*	C2	
Gibbens beardtongue	*Penstemon gibbensii*	C2	
Goodrich's beardtongue	*Penstemon goodrichii*	C2	
Graham's beardtongue	*Penstemon grahamii*	C1	
Clay reed mustard	*Schoencrambe argillacea*	T[5]	(Newly listed)
Toadflax cress	*Schoencrambe suffrutescens*	E[2]	(Not Glaucocarpum)
Uinta Basin hookless cactus	*Sclerocactus glaucus*	T[1]	
Ute ladies' tresses	*Spiranthes diluvialis*	T[4]	(Newly listed)

1. 44 FR 58870; dated October 11, 1979
2. 52 FR 37420; dated October 6, 1987
3. 55 FR 39864; dated September 28, 1990
4. 57 FR 1403; dated January 14, 1992
5. 57 FR 2053; dated January 17, 1992

Next with regard to rare plants, we believe it is important for the eventual RMP to state the level of formal protection that will be given to special-status plants through law and/or BLM policy. This appears to be done adequately in the following parts of the DRMP:

114-9

1. In Chapter 2, under the section MANAGEMENT GUIDANCE COMMON TO ALL ALTERNATIVES, the management governing special-status plants (page 2.14) is the same as that outlined for special-status animals (page 2.5-6). The latter policies appear to be adequate for plants as well as animals, and it is appropriate that such management is the same in all alternatives.

2. The statements for "Special Status Species" on page 2.60 are also good (though there appears to be an unintentional double negative in the statement under Alternative A).

114-7 The table has been updated to reflect changes in status. Thank you.

114-8 Please refer to our response 114-7 above.

114-9 The unintentional double negative for Alternative A has been corrected.

114-9 Cont. 3. Under Alternative E, the above management directions appear to be further strengthened by defining listed T/E plant habitat as Management Level 2 and Candidate plant habitat as Management Level 3.

114-10 Finally, a key objective in the Recovery Plan for *Sclerocactus glaucus* was that certain significant populations of the species on public lands receive special designation and management protection. The designation and (most importantly) proposed management of the Nine Mile Canyon and Pariette Wetlands ACEC's appear to satisfy this Recovery objective. If the U.S. Fish and Wildlife Service concurs, then these two ACEC designations could hasten *Sclerocactus glaucus's* eventual removal from the list. The Heritage Program thus strongly supports designation and management of the Nine Mile Canyon and Pariette Wetlands ACEC's as proposed in Alternative E.

Natural Areas

114-11 The Natural Heritage Program supports ACEC designation as proposed in Alternative E for the three relict vegetation areas on the Diamond Mountain Resource Area. These areas are Red Mountain (north of Vernal), Castle Cove (northwest of Vernal) and Leers Canyon (tributary to Argyle Canyon). The first two are included within the larger proposed Red Mountain-Dry Fork Complex ACEC, while the latter would be an ACEC by itself. If the BLM decides to adjust the boundary of the Red Mountain-Dry Fork Complex ACEC as a result of public comments, then we recommend that the individual Red Mountain and Castle Cove relict areas retain their proposed ACEC status and management.

114-12 We support and recommend carrying forward almost all of the individual management prescriptions for the above two ACEC's, as shown in Table 2-18 of the DRMP. Rather than listing all of the items in this table with which we agree, we will only comment on one possibly questionable item. It concerns the prescription for fire in Leers Canyon found on page 2.114. In a near-relict area, it seems best to let fire have as near to natural a role as possible in the context of the surrounding lands. It is not clear if the "prescribed fire" in Leers Canyon refers to: (1) wildfires that are managed in certain ways rather than being immediately suppressed, or (2) fires that are intentionally set and then managed. In the latter case, it would not seem appropriate to let intentional burns be used as a tool to support crucial big game habitat management objectives as ends in themselves. Given Leers Canyon's small size and long/narrow orientation, there should be ample surrounding land on which to conduct intentional burns for big game habitat. As a contrast, the prescription for fire in the Red Mountain relict area (page 2.115) reflects the goal of maintaining fire's natural role.

Division of Water Rights

The Division of Water Rights has two concerns that we would like to see addressed in the final EIS. They concern (1) water rights for instream flow, and (2) wetland improvement at Pariette Draw.

114-10 Thank you for your support of these ACEC nominations.

114-11 Thank you for your support of the ACEC designations for the relict vegetation areas. The boundaries of the encompassing Red Mountain-Dry Fork ACEC Complex has not been modified in the proposed plan.

114-12 BLM agrees. We have changed the fire prescription for the Lears Canyon ACEC in the proposed plan to read: "Maintain the natural role of fire within the relict vegetation area. Large scale fires would not be allowed to kill more than 50 percent of the pinyon-juniper community, or 40 percent of the Douglas fir-mountain browse community in Lears Canyon over the life of this RMP. Outside of the relict vegetation area, allow fire to burn under prescribed conditions to support the stated values of a vigorous, healthy vegetation community, to support critical soils; and, crucial wildlife habitat."

114-13 In several locations in the EIS, it says that the Bureau of Land Management will seek to acquire water rights on certain streams for the purpose of maintaining instream flows and riparian habitat. However, there is no explanation of how such water rights will be acquired. At this point, we assume that acquisition will be made from willing sellers and in accordance with Section 73-3-3(11), Utah Code Annotated. Whatever method the BLM chooses to fulfill their objective should be stated in the final EIS and conform to state law.

114-14 The BLM also proposes to improve the wetland habitat in the Pariette Draw area. They give little information in the Draft EIS on how they will accomplish this improvement. We are particularly interested in where they propose to get the water they will need for making the improvement. Again, their methods should be stated in the final EIS and conform to state law.

Division of Wildlife Resources

Alternative A

114-15 This alternative places seasonal restrictions on activities occurring in sage grouse nesting areas and peregrine falcon nesting habitat, but the restrictions are not adequate. Restrictions on sage grouse nesting habitat should be from mid-March through June and peregrine restrictions should be from February through August.

114-16 Page 2.18, Paragraph 4 states that surface-disturbing activities would be allowed within the 600-foot riparian buffer zone if there was no practical alternative. However, there is no mention of mitigation measures if such activities were to take place. Riparian habitats are critical to most wildlife species. Surface disturbing activities result in severe negative impact through loss of such habitat. The BLM's Riparian Area Management Policy states that long-term losses of riparian habitat must be mitigated. If this alternative is chosen, mitigation measures must be included in environmental assessments tied to this RMP. We also believe a statement referring to coordination between your resource area and the Army Corps of Engineers would be necessary before any decision document is signed concerning potential loss of jurisdictional wetlands.

Alternative B

114-17 This alternative is the alternative of choice for the Division of Wildlife Resources. It provides for active management of wildlife populations and wildlife habitat. It provides for restriction of activities which would adversely affect wildlife species. This alternative also provides the greatest protection to critical wildlife habitats and wildlife species which are threatened, endangered, or in need of special attention. From a wildlife perspective, this would be the preferred alternative.

114-13 The following statement has been added in Chapter 2: "Water rights acquisition will be made from willing sellers and in accordance with Section 73-3-3(11) Utah Code Annotated.

114-14 BLM proposes to continue habitat maintenance and development at Pariette Wetlands for waterfowl production, riparian enhancement, and reduction of sediment loading of the Green River. Any additional water acquisitions for Pariette Wetlands would be from willing sellers and in accordance with Section 73-3-3(11) Utah Code Annotated.

114-15 Please note, comments 114-15 through 114-33 are identical to comment letter #8 (UDWR, Moretti). Please refer to our response 8-2.

114-16 Refer to our response 8-3.

114-17 Refer to our response 8-4.

Alternative C

114-18 While this alternative provides restrictions on sage grouse strutting grounds, no protection zone is described. This alternative also lacks adequate seasonal restriction of activities for sage grouse nesting areas and peregrine falcon nesting areas. Sage grouse restrictions should be from mid-March through June and peregrine restrictions should be from February through August.

114-19 This alternative does not provide for protection of potential bighorn sheep and black-footed ferret reintroduction sites. This should be included in the DMRMP as these are animal species requiring special consideration. Existing BLM Habitat Management Plans for this area outline actions for the reintroduction of bighorn sheep and black-footed ferrets (Page 2.7) and should be considered in this RMP.

114-20 Any additional AUMs realized through range improvements would be assigned to livestock. We realize that this is the objection of this alternative, but not allocating any of the additional AUMs for wildlife makes this alternative unsatisfactory to DWR.

114-21 The riparian buffer zone is only 330 feet in this alternative. While this provides for some protection of these sensitive areas, a 600 foot or greater buffer zone would be preferred. There is no mention of mitigation for riparian habitat loss when such loss is unavoidable. Mitigation must be considered for riparian losses.

Alternative D

114-22 Concerns regarding this alternative are similar to those expressed under Alternative C. There is no protection zone outlined for sage grouse strutting grounds. Seasonal restrictions are not adequate for sage grouse and peregrine falcons. Black-footed ferret introduction sites do not receive adequate consideration and protection. Additional AUMs acquired through range improvements are assigned to livestock with none assigned to wildlife. The intent of this alternative is to minimize wildlife restrictions to mineral exploration and development. Impacts from these activities often have a negative effect on most wildlife species. These impacts must be considered in the RMP. Page 2.5, Paragraph 8 states that it is the BLM's responsibility to recognize opportunities to maintain, improve, and expand wildlife habitat. Activities related to mineral exploration and development often conflict with this objective. Alternatives which minimize negative impacts on wildlife should be considered.

Alternative E

114-23 This alternative provides for the best implementation of multiple use of the resource area. The DWR supports the effort to protect wildlife and the environment while providing for the development of other resources. We would suggest that wildlife be considered initially for additional AUMs developed from range improvements. Page 2.30, Paragraph 7 states that these AUMs would initially go to livestock. Experience has shown that it is difficult

114-18-20 Refer to our responses 8-5 through 8-7.

114-21 Refer to our response 8-8.

114-22 Refer to our response 8-9.

114-23 Refer to our response 8-10.

114-23 Cont. to assign AUMs to wildlife that were previously assigned to livestock. We would also suggest that the riparian buffer zone be expanded from 330 feet to 600 feet as in Alternative A. This would allow for greater protection of critical riparian areas.

The following comments may apply to several of the alternatives:

114-24 Monitoring should occur to identify areas of use by peregrine falcons. DWR is concerned that prairie falcons and goshawks were omitted from the list of raptors occurring in the area. There are known locations of these species in the Nine Mile Canyon and other areas. The Northern goshawk is a USFWS category 2 species requiring special management. The prairie falcon is a raptor of special concern. Ferruginous hawks, also a USFWS category 2 species, are located within the DMRA. A 0.5 mile buffer zone around active nests and seasonal restrictions from March through July would be required for these species. We would also like to emphasize the presence of golden eagles in the area. DWR would like raptor surveys conducted prior to implementation of management activities. After the data is gathered, it should be made available to us for inclusion in our database.

114-25 Seasonal restrictions on critical elk and deer winter ranges would not be required if animals were not present on the site (Page 2.35). For short-term activities this would be acceptable. However, for long-term activities, we are concerned with this statement. Although animals may not be present one year, if an area is designated as critical winter habitat, then use has occurred in the past and is likely to occur in the future. Allowing activities with long-term impacts could cause big game animals to be displaced into poor quality habitat.

114-26 While surface-disturbing activities and OHV use are not allowed within sage grouse buffer zones, grazing is allowed (Page 2.36). Seasonal restrictions of grazing within the outlined buffer zones from March 1 to June 30 should be considered. Guidelines adopted by DWR, BLM, and USFS state that a two-mile buffer zone be established around sage grouse leks and protected from vegetative treatments. Sage grouse populations and habitat are declining. This species provides unique hunting and viewing opportunities and critical habitats, such as leks and nesting areas, need to be protected.

114-27 In order for adequate habitat to be maintained for possible bighorn sheep reintroduction, domestic sheep must be excluded from these areas. Disease is a major contributor to declines in bighorn sheep populations. BLM must make a serious effort to eliminate domestic sheep in bighorn habitat by changing classes of livestock or exchanging grazing permits, or retiring permits (Page 2.40). DWR should be involved in negotiations and kept informed of possible conflicts and alternatives.

114-28 Increased vehicular access as outlined on Page 2.41 presents some negative impacts on wildlife. Many studies have shown that increased use by improving access causes many wildlife species to abandon the area. Species particularly sensitive to such disturbance include black bears, cougars, raptors, bighorn sheep, and elk. We would suggest that

114-24 Refer to our response 8-11.

114-25 Refer to our response 8-12.

114-26 Refer to our response 8-13.

114-27 Refer to our response 8-14.

114-28 Refer to our response 8-15.

114-28 Cont. access improvements concentrate on horse, foot, and bicycle trails. This could reduce impacts to wildlife.

114-29 In addition to the road restrictions placed on OHV on Page 2.50, seasonal restrictions outlined for wildlife should be applied to OHVs in areas critical to wildlife such as leks, nesting areas, wintering areas, and fawning and calving areas.

114-30 DWR should be consulted during analysis of cases involving the harvest of ponderosa pine, aspen, cottonwood, and other large conifers as outlined on Page 2.62.

Regardless of which alternative is chosen, guidelines for seasonal restrictions and buffer zones for the protection of important wildlife species should be followed. These restrictions would apply if the species is present in the area. Clarification of these guidelines follows:

Seasonal restrictions -

Mule deer	12/1 - 4/15 and 5/15 - 7/5
Elk	12/1 - 4/15 and 5/15 - 7/5
Antelope	5/1 - 6/30
Goshawks	4/1 - 7/20
Ferruginous hawks	3/1 - 6/15
Golden eagles	2/1 - 7/15
Peregrine falcons	2/1 - 8/31
Prairie falcons	4/1 - 7/15
Sage grouse	3/15 - 6/30

114-31

Buffer zones -

Peregrine falcons	1 mile
Bald eagles	1 mile
Other raptors	0.5 mile
Bighorn sheep	0.5 mile from canyon rims and talus slopes

114-32 There are several statements to the effect that restrictions can be waived following site specific analysis which receive a "no effect" or "no practical alternative" result. DWR would like to be involved with and informed of such analyses in order to determine the effects on wildlife before restrictions are waived.

114-33 The following species are listed as sensitive by the state of Utah and potentially occur in the DRMA. Actions which could potentially have negative effects on these species must either be considered, steps taken to minimize impacts, or mitigated for losses. These species include:

Dwarf shrew	Purple martin
Red bat	Utah milk snake
Spotted bat	

114-29 Refer to our response 8-16.

114-30 Refer to our response 8-17.

114-31 Refer to our response 8-18.

114-32 Refer to our response 8-19.

114-33 Refer to our response 8-20.

Proposed decisions on Page 2.35 suggest bear baiting be allowed by permit only in Alternatives A, C, and D. Alternatives B and E indicate that bear baiting permits will not be issued. The DWR is opposed to not issuing bear baiting permits. Our stand indicates that bear baiting is an acceptable method of hunting bears, as outlined in our cougar and bear hunting regulations. The methods of taking are under the jurisdiction of the Utah Wildlife Board.

114-34 Bear harvest rates are regulated by totally limited permit numbers. Baiting, which is only permitted when the bears are harvested with archery tackle, is an important method of allowing archers to get close enough to harvest a bear. If archers weren't allowed to hunt over baits, using dogs would be the only practical method of harvest. Not all archers choose to utilize dogs.

If cleanup of the bait site is the issue, the BLM certainly has the responsibility and prerogative to regulate this potential problem. Bear bait sites are like oil drilling sites, firewood sales, and other activities where humans can affect the environment. Like these other activities, satisfactory cleanup stipulations should be incorporated into the permit and enforced.

114-35 DWR appreciates the wildlife stipulations identified and proposed in Appendix 2. All of these stipulations are considered essential to effective management of wildlife and mitigation of impacts.

114-36 Management guidelines identified for black-footed ferrets on Page A2.11 indicate that Alternatives A & E would continue to support DWR hunting regulations as they apply to prairie dogs. This should also be applied to Alternative B.

114-37 The Division of Wildlife Resources would like to review and comment on the final Resource Management Plan and Environmental Impact Statement. If questions arise, please contact the appropriate Regional Habitat Managers. They are Clay Perschon and Ken Phippen for the Northeastern and Southeastern regions, respectively.

Division of Oil, Gas, and Mining

From our review of the RMP/EIS, it is obvious that a great deal of effort and craftsmanship has been employed in its development. Furthermore, our field trip to the area with the EIS team was helpful in understanding the complex issues involved.

There are, however, two areas in the scheme of the planning effort with which we take issue and feel deserve comment. One issue concerns the use of "No Surface Occupancy" (N.S.O.) as a lease stipulation, the other is in how the RMP/EIS will affect solid minerals development and use.

114-34 We agree, UDWR does control the method of taking. However, the proposed decision would not allow the issuance of bear baiting permits due to the potential public health hazard and conflicts with recreational users. Please refer to our response 70-3.

114-35 Thank you for your support.

114-36 Thank you for your comment.

114-37 UDWR will receive copies of this document.

No Surface Occupancy

The use of no surface occupancy appears to be a stipulation which is used to replace careful management of juxtaposed resource uses. Further, the RMP/EIS does not contain any technical analysis as to whether N.S.O., as a lease stipulation, enables a lessee to, when used, actually recover minerals under a lease. Currently, 8%, or 66,000 acres of the resource area is categorized as N.S.O. (Page 3.29) for Oil and Gas Development. Under Alternative "E", the preferred alternative, this amount would increase to about 12% of the resource area, or 90,100 acres (Page 2.47). Without an analysis or a presentation of the technical feasibility of how possible oil or gas drilling and recovery may occur under N.S.O. stipulations, an analysis of cumulative impacts (as is presented on page 4.61 for Alternative E) is not possible.

One solution to the lack of this technical analysis would be to include it in the document. As an alternative, however, rethinking the compatibility of uses and the timing of certain uses may be a more efficient and effective way to approach the dilemma. 114-38

As an example, N.S.O. is proposed as a lease stipulation for all level 1 and 2 lands in the Brown's Park Complex. The exact acreage involved is uncertain, as the calculated amount of winter range required. Since the Brown's Park Complex contains crucial deer and elk winter range, special consideration is warranted in this area. Therefore, considerations such as timing of drilling activity, the site specific nature of drilling activity, and the concept of drilling which, which requires specialized mitigation, should be utilized in place of no surface occupancy applying to the complex as a whole.

This same creative approach should also be examined as an alternative to applying an N.S.O. lease restriction in the 18,300 acres of potential black-footed ferret habitat. These areas with potential for ferret reintroduction will have significant negative impacts on seven percent of the high potential oil and gas areas in the Myton Bench - Nine Mile Canyon and Horseshoe Bend - Ashley Valley oil and gas regions. (Page 4.67 Alternative E Impacts). The Pariette Wetlands are listed as an area which require special emphasis in management as an A.C.E.C. Instead of applying the blanket N.S.O. stipulation to level 1 and 2 lands, these areas in Pariette Wetlands should be designated as places where special stipulations would be applied to drilling activity or development.

Solid Minerals

Tar sands development and use would be precluded under the application of Alternative E, due to the Pariette STSA's designation as level 2 land. While we can understand the need for protection of the Pariette Wetlands, it appears that the use of currently available reclamation technology needs to be examined as part of the alternative. Given the opportunity for special lease stipulations requiring land reclamation, precluding the development of asphaltic materials is not warranted. 114-39

114-38 Upon review of the extent of lands with NSO stipulations in the proposed RMP category map, and current horizontal drilling technology, it is concluded that NSO stipulations overall do not significantly impact the technical feasibility of extracting oil and gas resources.

The NSO stipulations proposed in the proposed RMP are not "blanket" in nature and are described below for the Brown's Park Complex, the black-footed ferret reintroduction area (Eight Mile Flat), and the Pariette Wetlands areas. We believe current technology involving horizontal drilling could be used successfully in these areas to access oil and gas from adjacent non-BLM administered surface lands (e.g., state or private lands).

In the proposed final RMP, NSO stipulations concerning crucial deer winter habitat in the Browns Park Complex would be applied only to the crucial sagebrush vegetation type and is not a blanket stipulation (please refer to Appendix 4).

In the proposed RMP reintroduction of the black-footed ferret is proposed only at one site (Eight Mile Flat). The area will not be covered by NSO stipulations either prior to or after reintroduction. Rather prior to reintroduction the area will fall under a lease notice (see Appendix 4) and following reintroduction a controlled surface use stipulation (see Appendix 4).

The NSO stipulations which will apply in the Pariette Wetlands ACEC are outlined in Appendix 4 and are for: Special status plant species, and goose nest sites. These are specific stipulations applied to specific areas and are therefore not blanket NSO stipulations.

114-39 The decision involving tar sands has been modified in the proposed plan. Please refer to Table 2-15.

114-40 In another solid mineral area, phosphate, Alternative E, appears to address the potential opportunity to develop the preference right leases (6,650 acres) in a manner which is preferable to the other alternatives. The opportunity to use specific restrictions to minimize adverse impacts to crucial deer winter habitat (Page 4.56) is indicative that this technique can be used in other areas, i.e. Brown's Park.

Summary of DOGM's Position

114-41 The planning employed in the Diamond Mountain Resource Area is complex and, we trust, a dynamic process. If the planning team would examine the parts of the RMP/EIS which we have noted above, the use of no surface occupancy lease stipulations, and the use of site reclamation as a mitigation tool, the plan would better address minerals management from our perspective. We encourage the BLM to be creative in its approach to using special lease stipulations, at both the leasing and minerals development stages. If there is a need for further clarification of the Division's comments, we will be glad to discuss them with the RMP/EIS team.

The Committee appreciates the opportunity to review this proposal. Please direct any other written questions regarding this correspondence to the Utah State Clearinghouse at the above address, or call Carolyn Wright at (801) 538-1535 or John Harja at (801) 538-1559.

Sincerely,

Brad T. Barber
State Planning Coordinator

BTB/rpj

114-40 As discussed in our response 114-38 above, the proposed NSO stipulation is not a "blanket" stipulation, but applies only to the sagebrush vegetation communities in Browns Park. Cooperative studies with UDWR have documented significant numbers of deer from four herd units traveling up to 70 miles to winter in the confines of the park. We believe this data supports the crucial nature of this community, thus resulting in the NSO stipulation. We do not have sufficient data to support such a restriction on the crucial deer winter range on the much larger southern slope of the Uintas. Also the exploration and development methodologies of oil and gas and phosphate recovery are significantly different. We believe it is appropriate at this time to recommend only special restrictions to future phosphate development, not NSO stipulations on the south slope of the Uintas.

114-41 Please refer to our response 114-38 above.

1610
1782

TO: Vernal District Manager

At our meeting of March 17, 1992, the Vernal District Advisory Council reviewed and discussed the Diamond Mountain Resource Management Plan. Following a straw vote that indicated five votes for Alternative A and five votes for Alternative E, The Council passed a resolution as follows:

That the Bureau of Land Management recognize that the Council did not pass a specific resolution on any of the alternatives because none received support of a majority of the Council members. However, the Council requests that as the final Resource Management Plan is completed, that the Bureau consider the concerns expressed by individual members as recorded in the minutes of the meeting.

These concerns are briefly summarized as:

1. Alternative E best manages riparian areas.

116-1 2. On page 4.23, there was an objection to the use of the word "insignificant" in describing the importance of the livestock industry.

116-2 3. The RMP should address what would happen if there were feral horses discovered on BLM lands in the Resource Area.

116-3 4. Consider the affect of wildlife grazing in riparian areas.

116-4 5. On page 2.31 the section on vegetation treatment does not say anything about chemical treatment in Alternative E. There should be some chemical treatment, particularly of weeds.

116-5 6. On page 8.25 the totals on vegetation treatment are not correct.

116-6 7. On page 4.54, there was a question as to whether a citation of "Bangerter" is a proper source of data for wildlife values.

116-7 8. On page 4.54, there was a question as to whether the $9.19 figure for an AUM was properly used in describing the value of an AUM to the local economy. There may be more current data from the University extension that indicates a value more like $25 per AUM.

116-8 9. There may be new data from University extension that shows there is no need for a buffer between domestic sheep and wild big horn sheep.

116-9 10. On page 2.35, bear baiting is eliminated. This is an emotional issue and any decision should be based on wildlife needs.

RESPONSE TO COMMENT LETTER 116 (VERNAL DISTRICT ADVISORY COUNCIL, Beers)

116-1 Utah's beef industry does not represent a significant portion of the Nation's beef production when viewed from a national point of view. However, locally it is significant as indicated in the socioeconomic section of Chapter 4. Also please refer to our response 104-2.

116-2 Please refer to Chapter 2 dealing with wild horses. In the proposed plan DMRA recommends the Range Creek Herd Management Area Boundary be adjusted to exclude that portion of the herd management area within DMRA. No other wild horse herd management areas will be designated. Any feral/wild horses detected within DMRA will be subject to the provisions of the Wild Horse and Burro Act or to the estray laws, as applicable. Until the recommendation has been accepted, DMRA will continue to provide 49 AUMs for wild horses in this HMA.

116-3 As stated in Chapter 4 under impacts to riparian habitat: "Allowing wildlife forage to increase for wildlife use up to 67 percent from present forage use levels could cause unacceptable use on riparian areas, especially during drought years when wildlife would concentrate in wet areas." Significant impacts to riparian by implementing the proposed plan is not expected; however, as part of Standard Operating Procedures outlined in Chapter 2 for Vegetation Resources, it states: "Temporary adjustments in use due to effects of drought would be made to livestock and wildlife as shown by monitoring."

116-4 Please refer to Chapter 2 management common to the proposed plan and all alternatives for vegetation. For the proposed plan chemical treatment is one alternative method allowed for the proper management of the vegetation resource.

116-5 Thank you for your attention; the correction has been made to the Table A8-4.

116-6 The citation has been corrected to USF&WS, 1985; please refer to the reference section.

116-7 Please refer to the clarified discussion of socioeconomics in Chapter 3.

116-8 The majority of current data would suggest the need for a buffer between domestic and bighorn sheep. Such a buffer would protect both species

116-9 Cont. Consideration of whether to allow bear baiting is inappropriate in a planning document. Stick with Alternative A which would allow continuation of bear baiting.

116-10 11. No alternative addresses surface disturbing mining strongly enough, particularly phosphate mining in the Dry Fork/Red Mountain area.

116-11 12. Allow no reintroduction of black footed ferrets.

116-12 13. Leave the Red Mountain area open to off road vehicle use.

Signature: _____ Date: 3/30/92

Randy Beers
Council Chairperson

from possible transmission of harmful pests and disease. Please refer to our response 110-10.

116-9 Please refer to our response 70-3.

116-10 Please refer to our response 114-1.

116-11 Thank you for your comment. Please refer to our response 90-1 concerning black-footed ferret reintroductions.

116-12 Please refer to our response 13-1.

good ✓ (1)

To: Ron Trogstad
Diamond Mtn. R.A. Manager
170 So. 500 E.
Vernal, UT 84078

From: Scott Williams
692 Wall St
S.L.C. UT 84103

Please send copy of the draft EIS to this address

Dear Ron,

It has been brought to my attention that BLM has released its Draft EIS ~~for the~~ and RMP for Diamond Mountain Area. I would like a copy of this document as management of this area is of great concern to me. I have spent much time, as a Utah native, enjoying the wildlife and Indian heritage of this area, and I know it well. It contains important habitat for rare and endangered wildlife, as well as potential for reintroduction of such wildlife. Visits to the area have used

(2)

my concern, as I have witnessed adverse effects of grazing, ORV, and other activities. I would like a chance, as an effected member of the public, to play a part in considerations for future management of this area. I have been briefed on the current draft document, and it sounds as though alternative B may have some promising ideas. But without the opportunity to view the document, I cannot be as specific as I would like.

If, for some reason, I cannot obtain a copy of the EIS from you, please note the following comments on future management of this area:

117-1 - Any alternative that would allow any bear baiting is absolutely intolerable.

117-2 - Reintroduction of wildlife, incl. the black footed ferret, should be a high priority.

117-1 Please refer to our response 70-3.

117-2 Thank you for your support.

(3)

- Considering recent events both nationally and especially in the West, any NEPA document that fails to offer a full range of alternatives related to grazing - INCLUDING A "NO GRAZING ALTERNATIVE" - is surely inappropriate, and probably illegal.

117-3

- ACEC and Scenic River designations are crucial to this already highly fragmented area.

117-4

- OHV use should be eliminated or limited to existing ROADS only.

117-5

I will respond in greater detail after I have the opportunity to review the draft EIS. Thank you for your cooperation and consideration.

Sincerely,

Scott Williams

Scott Williams

117-3 FLPMA, section 102, states that public lands be managed in a manner that will provide food and habitat for fish and wildlife and domestic animals. Livestock grazing is considered a "principal or major" use on public lands along with fish and wildlife development and utilization, mineral exploration and production, rights-of-way, outdoor recreation, and timber production. Although different amounts of acreage would be closed to livestock grazing by alternative, a no-grazing alternative is considered unnecessary and counter productive to solving resource problems. There is a range of alternatives for forage allocation. Please refer to Table 2-15 for vegetation allocations for the proposed plan and each alternative.

117-4 Thank you for your comment.

117-5 Restrictions are placed on OHV use to protect sensitive are as that could be damaged if use was allowed to proceed without limitations. Individual RMP team members identified these sensitive areas and the needed limitations to OHVs. Areas that were identified as nonsensitive to OHV remain open to such use. BLM cannot limit OHV use without a good reason.

March 26, 1992

Dear Mr. Troastel;

This is in response to the BLM's proposed alternatives re: the Diamond Mountain Resource Management Plan.

It would be appreciated if you would consider the following modifications to Alternatives "B" and "E";

118-1 (1) All the Browns Park Complex ACECs and the Nine Mile Canyon ACEC should be closed to mineral entry.

118-2 (2) All the critical estegory 1 and 2 lands should be closed to mineral leasing including the Ouray National Wildlife Refuge and not merely leased with no surface occupancy stipulations.

118-3 (3) All of Diamond Mountain should be closed to mineral development.

118-4 (4) All ACECs and Wild and Scenic Rivers should be closed to mineral development and ORV use except on existing and designated roads. The entire length of the Green River in the Resource Area should be protected as a critical habitat/travel corridor.

118-5

RESPONSE TO COMMENT LETTER 118 (BERNARD)

118-1 Please refer to the Summary of this document for a discussion of the management priority area concept. Chapter 2 provides a detailed list of the management levels and the resource values assigned for the proposed plan and each alternative. We believe it would be counter productive to close the entire Browns Park Complex and Nine Mile Canyon to mineral entry.

118-2 BLM-administered mineral estate would only be closed to leasing when it is determined that other land uses or resource values cannot be adequately protected even with the most restrictive lease stipulations and that appropriate protection can only be ensured by closing the lands to leasing.

118-3 Please refer to our response 118-2, above.

118-4 We agree that ACECs and rivers proposed for designation as wild and scenic rives need special protection. Each of these areas possess certain values that make them special. We identify these values and propose management of these areas to protect these special values. If we feel protection requires closing an area to mineral leasing or restricting OHV use to designated roads and trails, that is what we do. Using this method we often find that ACECs and rivers proposed for wild and scenic designation can be managed using a variety of management practices. That is why some areas in an ACEC, for example, may be closed to mineral leasing and OHV use, while other areas can accommodate both uses with no adverse affects.

118-5 The entire length of the Green River that flows through the resource area was evaluated for possible wild and scenic river designation (see Appendix 7). Based on this evaluation and public comment it was determined to drop the section between Dinosaur National Monument and the public land boundary north of Ouray from further study in the proposed plan. The remainder of the Green River was brought forward in the proposed plan for possible designation in the Wild and Scenic River System.

118-5 Cont. and studied for Wild and Scenic River status.

118-6 (5) All riparian areas should be closed to ORV use.

118-7 (6) BLM should consolidate land holdings on Diamond Mountain, and not further confuse land ownership patterns by trade.

Thank you.

Sincerely,

Bonnie Bernard
2060 East 4800 South
Salt Lake City, Utah 84117

118-6 We believe it is unnecessary to close all riparian areas to OHV use in the proposed plan to maintain or improve riparian conditions. Although intensive OHV use in riparian areas can be damaging, many riparian areas in the resource area receive very little OHV use currently, and most likely will not receive heavy use over the life of the plan. However, riparian areas in the proposed plan that would receive special consideration are the upper Green River segment in Browns Park and Pariette Wetlands. In these areas, OHV use would be limited to designated roads and trails. The upper Green River is getting increased OHV use, while Pariette is an important waterfowl nesting area. Refer to the Utah State Riparian Policy in Appendix A6.1. In Alternative B, OHV use would not be allowed within 700 feet of riparian areas.

118-7 Please refer to Chapter 2, management common to the proposed plan and all alternatives, for lands and realty management regarding land ownership adjustments.

March 30, 1992

Dear Ms. Smalley:

167-1 This is my comment in regard to the draft Diamond Mountain Resource Management Plan. Of the five alternatives, I prefer "B." It comes closest to managing the resource area with biodiversity in mind, which is the key to the type of management that will promote the long term health and stability of the land. I especially like its emphasis on endangered species protection, ferret reintroduction, Wild and Scenic Status for the Green River, greater care in managing the Browns Park area, foot access to Ashley Gorge, and protection of Red Mountain, Dry Fork canyon, and of the slickrock areas above Red Fleet. However, there still isn't enough emphasis on enforcement, and the document's socioeconomic categories are appalling--they label anyone in

167-2 favor of careful use of the land as a "young newcomer" and reserve the title of "worker" only for those who favor exploitive use of the earth. That is extremely offensive and very inaccurate. One other general observation regards bear baiting; this lazy person's way of hunting, like hounding,

167-3 shouldn't be allowed on public land.

It may well be that you'll end up choosing alternative E. If so, please modify it by incorporating the Uintah Mountain Club's proposed changes. These proposals, which I was involved in formulating, are definitely not of the let's-ask-for-a lot-more-than-we-want-and-hope-

167-4 we-end-up-getting-exactly-what-we-want variety. They are an attempt by a variety of people to compromise and come up with a solid proposal that should need no further dilution. If anything, they don't go far enough toward promoting biodiversity and nondestructive recreation.

My main concern with the RMP involves the Red Mountain area. *No* alternative adequately protects this area. All of Red Mountain, as well as the slickrock extending eastward into the rock formations north of Red Fleet reservoir and westward across the bottom of Taylor Mountain and up into Dry Fork Canyon, should be protected not just as an ACEC, but by level one management. *The Red Mountain area should be protected as a semi-primitive, nonmotorized area!* Additionally, it should get VRM class one designation. This area meets the criteria for such management, it deserves it, and it should have it! (Actually, it should have been designated a wilderness study area and included in the BLM's wilderness proposal). It is important to the maintaining of the integrity of the area that the BLM acquire sections 16 and 2 on Red Mountain, especially 16, and include them in this overall management plan. Also, as much surrounding area as possible should receive

167-5 level two management.

From forest to year-round riparian areas to slickrock, Red Mountain has a diversity of life and landforms. This area has the finest scenic values of any spot in northeastern Utah. The geological outcrops, pinnacles, and fins, the red uplift, the large arch, and the relict vegetation community make this both a scenic and an educational and scientific area of value (and it is utilized by local teachers). It is also very valuable for wildlife forage. There are a number of areas that are potential habitat for endangered species; they should be checked for the possible presence of such species, and for suitability for reintroducing species. Also, it is part of a high density archaeological/paleontological area, and is know to have ancient cultural sites and art. Two other values are important and interrelated--watershed and recreation. This area is not only very beautiful, it is very fragile. Much, probably most of the soils on the lower half of the mountain are cryptogamic. Motorized recreation is destroying those soils. Steinaker Draw is showing the effects of this erosion, with sediment washing through deep channels into Steinaker Reservoir much more rapidly than it should. This would not happen if the mountain were protected for its multiplicity of values. Designating it a nonmotorized area would preserve the watershed and allow for outstanding opportunities for solitude in a wondrous setting just a few miles from Vernal. The area will lose most of its values in proportion to its use by OHV riders.

RESPONSE TO COMMENT LETTER 167 (WAKE)

167-1 Thank you for your support.

167-2 The socioeconomics portions of the document have been substantially reworked. Please refer to our response 103-5.

167-3 Please refer to our response 70-3.

167-4 Please refer to our responses 103 (UMC, Borton) and 228 (UMC, Durrant) for our specific responses to the Uintah Mountain Club's comments.

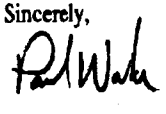
167-5 Please refer to our response 79-2.

I understand that the OHV users are very much in favor of Alternative A. I am in fairly close contact with a few of these individuals and am dismayed by their attitude, which is basically that they should be allowed to ride wherever they want, and that any area that might be closed to them should immediately be fought for regardless of its other possible uses. They justify their activities in part by claiming that the weather washes away signs of their passage. This is definitely not true of Red Mountain. I have photographic and video evidence which the BLM is welcome to of long term damage that has been done to this area by OHVs. There are eroding ruts, tire-blackened slickrock, litter, and vandalism through much of the area accessible to vehicles (and vehicles have tried to get to all of it). Please keep in mind that you have an obligation to protect a variety of values, and to promote a variety of uses of public land including quiet, nondestructive uses. This area's values do not involve grazing, mining, or other economic activities, they involve aesthetic, biological and other values as noted above, values that are not compatible with motorized vehicles. There are many other areas to ride in. For example, the "sand hills" north of Steinaker Reservoir are used by OHVs a lot more than the mountain itself, and could be left open for their use (the Uintah Mountain Club's proposed boundary for the lower part of the Red Mountain ACEC deliberately avoids this area). Red Mountain should be protected, and designated for walk-in recreational use only. In keeping with this, even mountain bikes and rock climbers drilling in fixed protection should be prohibited.

167-5
Cont.

In conclusion, I ask you to consider that the economic, physical, and mental health of the people of the Uintah Basin will be best served over the long run by keeping intact the web of life that we are a strand in. Emphasize biodiversity in your final plan and forgo short-term economic projects that do long-term environmental damage, in favor of a stable, earth-friendly plan. You included a quote on conservation by Aldo Leopold at the beginning of the draft RMP/EIS. Please keep in mind the quote that perhaps best sums up that great man's philosophy: *"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."* Thank you for you consideration of my views.

Sincerely,



Paul Wake

848 W. 400 S.
Vernal, UT 84078
789-8235

Dinaland Snowmobile Club

Vernal, Utah 84078

February 22, 1992

Bureau of Land Management
District Office
170 South 500 East
Vernal, Utah 84078

Dear B.L.M.:

Here are brief comments regarding the Diamond Mt., Red Mt. and Dry Fork Management Plan Proposal:

168-1 1. The plan is difficult to interpret for the layman. If pubic input was the intent, then the language would discourage this. Un-necessary word and idea abbreviations, and the use of scientific terms, serve no purpose for encouraging input from the average citizen.

168-2 2. No single alternative is acceptable; there are none that allows continued use of Red Mountain by RHVs on existing expert and novice trail systems.

168-3 3. While we are all environmentally conscious, the plan belabors environmental concerns and almost completely ignores most recreational use and economic values of areas.

168-4 4. Specifically, we would like Red Mountain to remain open for use as is with no restrictions unless irresponsible damaging is caused and can be authenticated. This means keeping the present major trail open for OHVs and the expert trailing systems left open.

168-5 5. Because snowmobiles can travel is areas and create no environmental impact, they should be given more latitude rather than be confine to the RHV category.

Thank you for accepting these comment.

Sincerely Yours,

Don Hatch

Don Hatch
Executive Director

RESPONSE TO COMMENT LETTER 168 (DINALAND SNOWMOBILE CLUB, Hatch)

168-1 We are sorry you found the draft document difficult to interpret. The summary section immediately preceding the Table of Contents was intended to help the reader understand the document's format and ease in its review. To the extent practical, without losing the desired intent, the use of government "jargon" and scientific terms were kept to a minimum. The glossary has a complete list of abbreviations, key words and phrases used in this document and their definitions.

168-2 Please refer to our response 10-1.

168-3 We feel the proposed plan addresses a wide range of recreation uses on public lands in the resource area.

168-4 Please refer to our responses 10-1 and 70-1.

168-5 The reason for most restrictions to OHV use during winter months is to protect deer and elk on their crucial winter habitats. Impacts from snowmobile use in these areas are considered to be similar to wheeled OHV impacts relative to wildlife disturbance and displacement. In the proposed plan there are many areas in the resource area where snowmobiles can travel with no restrictions. At the elevations of crucial big game winter habitat, normally snow accumulations are low enough to prevent snowmobile use. However in winters of heavy snow accumulations, enhancing snowmobile use in these areas, are also winters of extreme stress to big game and snowmobile use would increase big game disturbance and displacement.

NOTE: An alternative proposal and petitions with approximately 560 signatures was submitted with Mr. Hatch's letter. The exact wording of the petition is:

In reference to the Diamond Mountain resource area RMP/EIS, we as concerned citizens of the Uintah Basin do not and will not support any of the alternatives as proposed in the RMP/EIS. Furthermore, we strongly recommend B.L.M. to continue with current management policy, ourselves maintaining that alternative A, the so called "No Action" alternative is simply a mere smoke screen which would enable B.L.M. to change management policy at any given time without regard to economical, social, and cultural impacts these changes would have on local citizens. Our deepest concerns are the nomination of the Dry Fork Red Mountain area as ACEC.

(revised)

THIS DOCUMENT IS SUBMITTED BY THE DINALAND SNOWMOBILE CLUB AND THE COALITION FOR RESPONSIBLE OHV USE. BOTH ORGANIZATIONS ARE LOCATED IN VERNAL, UTAH. ADDITIONAL SUPPORT IS, OR WILL BE FORTH-COMING FROM THE BLUE RIBBON COALITION, A NATIONAL ORGANIZATION FOR "SENSIBLE USE" OF PUBLIC LANDS.

SINCE THIS DOCUMENT HAS BEEN REVISED, WE NOTE AT A LATER DATE THAT THE TRAILING SYSTEM CREATED BY EXPERT BIKERS SHOW LITTLE OR NO EVIDENCE OF USE. THE TRAILING ESSENTIALLY FOLLOWS EXISTING GAME TRAILS. IMPACTS ARE ERASED ON AN ANNUAL BASIS BY NATURAL ELEMENTS OF WIND, WATER AND RAIN. EXCEPT FOR THE USERS -- THE EXPERT BIKERS -- NO ONE SEES NOR KNOWS OF THESE TRAILS. THIS IS A POSITIVE TESTIMONY FOR THEIR CONTINUED USE.

For the sake of brevity only, neither this proposal nor the petition signature sheets are duplicated in this document. They are available for public review in the Vernal District Office.

A proposal to allow continued OHV use of Red Mountain, to exclude it from RNA status, and to submit it as in-put for consideration toward the Diamond Mountain resource area RMP/EIS.

Descriptive Location

Red Mountain is located nine miles north of Vernal, Utah. It falls adjacent to the Steinaker Reservoir boundary on the southeast, is bound on the west by the dirt Taylor Mountain road, and is adjacent on the north to the Chevron Resource, (Simplot) phosphate operation. It contains approximately 1972 acres. The location is unique because:

1. It is a recreational area close to Vernal.

2. The rugged physical features offers not only beauty and solitude, but is compatible with ORV travel on the already existing major trail and minor expert class RV trailings.

3. Non-discernible expert trails are generally confined to the east side; a single trail goes from the north rim to Taylor Mountain Road.

4. Outstanding geological features display brilliant red moenkopi formation in sharp constrast to shinarump mowrey sandstone. The Red Mountain summit contains ponderosa pine, but indications show harvest that took place in the late 1800s and early 1900s.

5. While the mountain is extensively used by RVs, hikers horses, and lately mountain bikes, the remainder of mountain is pristine in nature. While other trails have been used over the years, these do not show.

6. Evidence of displacements by man is manifest in tree stumps, poles shoring up the main trail; wagon tracks that are cut into the sandstone.

Historical Past

When Ashley town was settled in the area north of Vernal in the late 1800s, much construction was necessary. Timber was hauled from the Ashley National Forest as well as posts from the south slopes of the Uintas. Wagon trails made patterns across, up and down these slopes; some can still be seen today.

But different from all of this was the unique and beautiful Red Mountain consisting of 1972 acres. Here was a source of close timber - the mighty ponderosa. Hence, a wagon road was laboriously carved from the southwest sector upward about two miles to the summit. A second and connecting road was constructed by hand, down the east slope, across ravens and along precarious, narrow sandstone slopes. Over this the pioneers pulled their wagons loaded with logs. Destination was Ashley town where building was taking place.

Soon the sensibility of hauling timber from Red Mountain waned. The better trees were gone and what few remained were not worth the effort.

But a use pattern was set. Families from Vernal still visited the area by horseback, hiking and with old model ford cars. The same old wagon trail was used since it was the only trail and the only way to get up and back. Occasionally entire wagons full of kids frequented the mountain -- the young and the old. To this day the pattern continues except access, instead of by wagon, is by OHVs, hiking and again, horses. So we have had, over a period of about seventy years, an established and non-conflicting type of recreational use.

We do not want this use pattern to change. Additionally, other OHV trails are used with no apparent impact on Red Mountain proper. There is ample evidence that the area has, in fact rejuvenated from a period of intense use and construction to it's present condition of a most pleasant place and an all around, diversified recreation area. To re-designate or to "fix it when it works" idea, does not make sense. Management, not closure to the many recreational opportunities, is the answer.

ENVIRONMENTAL IMPACT

Since Red Mountain is a remnant of the Uinta Mountain system, and it's prominence is the result of hard Shinarup formation protecting the red moenkopi, the resulting system is striking in that it all stands alone to the south of the main range. The tough exterior offers little chance for tender, perennial plant growth... Likewise, growth is not possible for many of these kinds of plants because of a lack of water. Therefor, ORV travel is possible with minimum or no impact. It also should be noted that "No endangered, threatened or sensitive animal species are known to occur on Red Mountain", according to J. S. Tuly, "Red Mountain Research Natural Area". Animal displacement is minimal or non-existent since there is no sustaining water, and a lack of dependable food.

Of significance is the fact that the Shinarup formation is greatly exposed, especially along the southeast slopes. Along the upper stretches it provides a hard surface that shows little or no impact from R.V.s. Other than the main trail, no impact from R.V.s is found because of the hard surfaced terrain even though other trails and areas are used. It is recommended that this use continue, but certainly monitoring for damage should be in order.

The present rough trail systems make it possible for one to leave the trails and hike to various spur areas which over-look the gulleys and draws. The panorama is breath-taking to both the north and west. To the east and southeast, a rugged and expert RV set of trails are offered on the slick Shinarup sandstone. There is little or no evidence of these trails because of annual weather cleansing. One would say that nature's natural elements, wind, water, rain, ice and snow re-arranges the landscape and keeps it in a natural form by obliterating tracks left by animals and RVs alike...Finally, the trail systems provide a <u>wide range</u> of human recreational needs for both the expert, the young, the old, handicapped and even the blind. This is and can be a place for <u>everyone</u> with each finding his or her degree of solitude considering diversity of areas.

To further substantiate the above claims, I again quote the J. S. Tuhy study wherein he states, "Soils appear to be shallow and considerable bare sandstone is exposed in many of the locations beneath the pine". This barren condition is even more pronounced over the entire surface of Red Mountain except to the extreme south. From the above we can conclude that ORV's have little or no impact on Red Mountain. Because of this, and the fact that more people can enjoy Red Red Mountain when it is not designated (43 CFR 8223), or locked in to the present proposed management plan, leads to the belief that Red Mountain should remain used <u>as is</u>.

Recreational and Economic Needs

At the present time, Red Mountain's biggest asset is recreation. Management should point to this and allow a wide and diversified kind of recreational activities. Considering the area, a great variety of recreational activities are possible. In this respect the mountain is uniquely different from most. There is no reason that hiking, biking, picnicing, ORV use, horseback riding, can't all exist side by side in this fine area. As mentioned, the variety of trails makes it possible to find solitude as well as experience group education and instructive activities. Few places can afford this. Red Mountain can.

The State of Utah is in an economic crisis, and particularly is it shown in Vernal, Utah. Because the extraction industries are now dormant, recreation comes to the fore-front as a viable economic factor. Recreation is big business, for it affords over 2 billion dollars to Utah's annual economy... The industry is the fastest growing,and ranks second in the State (Utah Travel Council, 1986). Red Mountain can become a part of this industry with careful and sensitive management -- management which will suffice rather than closures and limitations.

J. S. Tuhy suggests in his paper of March 17th, 1987, that the resources of Red Mountain are probably insignificant to the social and economic bases of Uintah County. RNA/ACEC designation should have not effect, positive or negative, on revenue". THIS COULDN'T BE FARTHER FROM THE TRUTH!!. The same might be said about river trips in this area that now bring over 2 million dollars annually to this area's economy. Recreation? Yes. It continues to amaze me how Mr.Tuhy's (Nature Conservancy)single trip on foot on to Red Mountain, has lead him to so many conclusion -- all supporting a single biased view. He may have spent a week or two; natives here have spent a lifetime of use and study.

TO-BLM
VERNAL DISTRICT OFFICE
170S. 500E
VERNAL UT. 84078

FROM-
UTAH FOUR WHEEL DRIVE
ASSOCIATION INC.
WESTON DAVIDSON
LAND USE OFFICER
375S. 100E
LOGAN UTAH 84321
750-2534 W
753-8521 H

RESPONSE TO BLM DRAFT RESOURCE MANAGEMENT PLAN/ENVIRONMENTAL IMPACT STATEMENT, DIAMOND MOUNTAIN RESOURCE AREA.
1616.10

DEAR SIRS,
WE HAVE FOLLOWED THIS PROCESS FOR SOME TIME, OUR FEELINGS THAT LOCAL PEOPLE SHOULD MAKE THE DECISIONS AFFECTING THE LAND AROUND THEM HAVE LIMITED OUR RESPONSE UNTIL THIS STAGE.

HOWEVER DUE TO REQUESTS AND COMUNICATIONS WITH THE PEOPLE LIVING WITHIN THE AREA, REQUESTS FROM PEOPLE FROM THE AREA, OUR EXPERIENCE WITH REGULATION IN OTHER PARTS OF THE STATE, AND OUR RECREATIONAL USE OF THE AREA, WE MUST NOW ENTER THE DEBATE.

-THIS RESPONSE IS AIMED AT INFORMING THE BLM, AND OTHER DECISION MAKERS OF THE CONCERNES OF CERTAIN LONG-ESTABLISHED USER GROUPS. INCLUDING BUT NOT LIMITED TO; 4 WHEEL DRIVE, MOTORCYCLE, ATV, & SNOWMOBILE USERS,ETC. WHO USE MOTORIZED OR OTHER VEHICLES FOR PERSONAL RECREATION, EXPLORATION, HOBBIES, AS WELL AS OCCUPATIONAL REASONS AND COMMERCIAL PURPOSES.

WE ARE ALSO MEMBERS OF UNITED 4WD ASSOC. AND THE BLUE RIBBON COALITION, THIS RESPONSE WILL BE CONSIDERED AS REPRESENTING THOSE GROUPS AND THEIR MEMBERS AS WELL.

IN GENERAL THOSE PEOPLE WHO HAVE ENJOYED ACCESS TO COMMONLY HELD LANDS BY WHATEVER MODE OF TRANSPORTATION HAS BEEN NORMAL AND CUSTOMARY FOR THE TIME AND ACTIVITY.

-DUE TO POPULATION GROWTH IN THE REGION AND EXTENSIVE LAND CLOSURES AND REGULATION IN OTHER AREAS, THE VALUE OF ACCESS TO LAND WITHIN THE STUDY AREA IS PROJECTED TO INCREASE OVER THE LIFE OF THIS RMP.
ALSO FUNDS DUE TO STATE AND FEDERAL OHV AND TRAIL ACTS WILL CONTINUE TO INCREASE. THESE FACTORS WERE NOT APPEARANT AT THE BEGINING OF THIS PLANNING PROCESS AND MUST BE ADDRESSED BOTH IN THIS MANAGEMENT PLAN AND IN FUTURE BUDGET REQUESTS.

THE SINGLE FORM OF RECREATION WHICH STANDS OUT AS BEING UNIQUE TO BLM LANDS AND UNAVAILABLE ELSEWHERE. IS THE OPPORTUNITY TO EXPLORE AND DISCOVER THE LAND AND WHAT IT HOLDS.

EACH PERSON NEEDS THE OPORTUNITY TO DISCOVER FOR HIM OR HER SELF THE BEAUTY OF THE LAND, IF THEY ARE TO DEVELOPE AN APRECIATION OF IT.
THIS IS A NEED WHICH THE BLM LANDS ARE UNIQUELY ABLE TO FULLFILL, AS THESE LAND HAVE BEEN OPEN TO TRAVEL BY WHATEVER MEANS NORMAL AND CUSTOMARY FOR THE TIME.
THE BLM HAS ENCOURAGED THIS AND WE LOOK FORWARD TO MANY MORE YEARS OF ENJOYING THESE OPPORTUNITIES.

WE MUST ASK THAT A PROCEDURE, LIKE THAT OF THE FOREST SERVICE, BE INCLUDED IN THIS PLAN AS APROVED, FOR CREATING TRAVEL PLANS TO REGULATE ANY AREA DESIGNATED AS AN EXISTING TRAIL OR
169-1 DESIGNATED ROUTE AREA.
THE LACK OF PROCEDURE TO ALLOW INTENSE PUBLIC INPUT OR THE FAILURE TO FOLLOW ONE ONCE IN PLACE. WILL RESULT IN CONFLICT AND TIME AND MONEY EXPENSE ALL OUT OF PROPORTION TO THE SAVINGS RESULTING FROM ADMINISTRATIVELY CREATING THOSE PLANS.

WE HAVE REVEWED THE DRAFT MANAGEMENT PLAN AND MADE SOME RECOMENDATIONS. WE ASK THAT THEY BE CONSIDERED.

THE RANKING OF ALTERNATIVES FOLLOWING IS PREDICTABLE, WE WILL ASK FOR THE MOST ACCESS POSSIBLE.

FIRST CHOICE WOULD BE A FORM OF "D" MORE PROTECTIVE OF SOME CRITICAL OR FRAGILE SITES OR A LESS RESTRICTIVE FORM OF "E" OR "A" ALL AREAS HAVE TOO LONG AND EXTENSIVE OF SEASONAL RESTRICTIONS.

"D" SECOND
"A" THIRD
"E" FOURTH
"B" AND "C" NOT ADVISED AS LOST USES OUTWEIGH POTENTIAL BENEFITS AS WRITTEN

-WE COULD NOT HELP BUT NOTICE THE EXTREME RANGE OF OHV POSSIBILITIES AVAILABLE IN THE DIFFERENT ALTERNATIVES. THIS INDICATES TO US THAT SIGNIFICANT IMPAIRMENT OF OTHER USES IS
169-2 NOT EXPECTED AS A RESULT OF OHV USE WITHIN THE DMRA.

-THUS WE LOOK FORWARD TO OPEN AND LIBERAL OHV OPPORTUNITIES IN THE FINAL MANAGEMENT PLAN. OUR PREFERENCE WOULD BE AS CLOSE TO "D" AS POSSIBLE AS NOTED.

- THE UNIFORMITY OF AUM AVAILABILITY FOR GRAZING ACCROSS THE
169-3 SPECTRUM OF ALTERNATIVES IS ALSO A QUESTION. ESPECIALY AS REGARDS "C" WITH THE RESRTICTIONS ON OTHER USERS AND NO AUM CHANGE.

THE LAST SECTION OF THIS REPLY IS A LIST OF PREFERED
169-4 ALTERNATIVES SELECTED FROM THE DIFFERENT ALTERNATIVES.

-THE BODY OF THIS RESPONSE IS ORGANIZED ALONG THE SAME THEMES

RESPONSE TO COMMENT LETTER 169 (UTAH FOUR WHEEL DRIVE ASSOCIATION, INC., Davidson)

169-1 An important part of the RMP process is the development of a travel plan for the resource area. The RMP will include a map identifying all public land in the resource area as being either open, limited, or closed to OHV use. This same map will show roads that will be designated as travel routes during periods of limited use. After the RMP is completed, a larger scale map will be published that will be used as the official resource area travel map.

169-2 The wide range of OHV opportunities in the draft was for analysis purposes. The proposed plan offers a level of OHV use somewhere between the two extremes.

169-3 Alternative B, livestock closures were recommended on municipal watersheds, riparian areas, T&E habitat, and bighorn sheep reintroduction areas. Also to accommodate an increase in wildlife use, livestock reductions would be necessary due to minimal rangeland treatments proposed in this alternative. A 25,292-AUM loss for livestock was analyzed in Chapter 4 but was not shown as an initial reduction in Chapter 2. This has been corrected and now reads: "Establish livestock grazing preference at 25,007 AUMs." The remaining alternatives and the proposed plan would remain initially at 50,299 AUMs due to no initial complete closures affecting existing use. Possible future reductions to livestock from livestock/wildlife conflicts for forage in crucial wildlife habitat could be mitigated by rangeland treatments and management practices. Any AUM losses to livestock due to negotiation to eliminate domestic sheep from proposed bighorn sheep reintroduction areas would occur over time and be done voluntarily by grazing operators through change in class of livestock and alternative grazing systems.

169-4 Thank you for your comments and suggestions.

NOTE: The remainder of Mr. Davidson's comments presents an alternative proposal, selected from the alternatives presented in the draft document. For the sake of brevity only, this proposal is not duplicated in this document. It is available for public review in the Vernal District Office.

169-4 Cont | AS THE BLM DRAFT DOCUMENT.

-ATV/OHV/4WD AREAS; WE SUPPORT PROPOSALS TO PROVIDE ATV/OHV/4WD INTENSIVE USE AREAS IN CONVENIENT PROXIMITY TO SERVICES.
THESE AREAS PROVIDE AREAS TO TRAIN YOUNG RIDERS AND PROVIDE IMPORTANT SOURCES OF RECREATION IF SIMPLE OPERATION OF A VEHICLE OR A FAMILY OR GROUP OUTING IS PLANNED.

-PLANNING CRITERIA
-OVERALL CONSIDERATIONS
THE SUCCESS OF THIS PLAN DEPENDS ON THE FAIR AND EQUITABLE APPLICATION OF THESE CRITERIA AND RECOGNITION OF EXISTING RIGHTS AS ENJOYED BY LAND USERS, WHETHER PAST REGULATORY ACTIONS HAVE RESULTED IN SPECIFIC PERMITS AND RESTRICTIONS/RECOGNITION OF THOSE RIGHTS OR NOT.

-SPECIAL MANAGEMENT AREAS
WE AGREE THAT CERTAIN AREAS ARE BY THEIR NATURE DESERVING OF DIFFERENT MANAGEMENT OF CARE OR USE. IT IS OUR ADVISE THAT THESE AREAS ONLY BE DESIGNATED AFTER DUE CONSIDERATION AND THAT THE NUMBER AND SIZE OF THESE AREAS BE AS SMALL AS POSSIBLE TO MINIMIZE DAMAGE TO AND/OR LOSS OF RESOURCES OR VALUES DUE TO MISAPPLICATION OF SPECIAL PRESCIPIONS OR RESTRICTIONS, SUCH AS CHAINING, BURNING, ROAD OBLITERATION AND REMOVAL OF HISTORICAL FEATURES IN THE NAME OF RECLAMATION.

-RESOURCE AVAILABILITY AND ACCESSIBILITY
AS THIS IS OUR PRIMARY CONCERN, IN THIS RESPONSE WE WILL ADDRESS THIS ISSUE UNDER THE APPROPRIATE SECTIONS AND HEADINGS.

-BUDGETS; AS THE BUDGET OF THE BLM IS GOING TO BE USED AS A CRITERIA FOR SELECTION OF MANAGEMENT PRIORITIES, THE REALLOCATION OF BUDGETARY MONIES TO IMPLEMENT AND ADMINISTER THIS RMP MUST BE SUBMITTED TO THE SAME CAREFUL CONSIDERATION AND PUBLIC INPUT AS ANY OTHER FACTOR GOING INTO THESE DECISIONS, AS MUST FUTURE BUDGET REQUESTS.

-CULTURAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT
THOSE FEATURES AND ARTIFACTS OF THE PAST 150 YEARS ARE OFTEN GIVEN TOO LOW A PRIORITY, OFTEN RESULTING IN THEIR "RECLAMATION" AND SUBSEQUENT LOSS.
ALSO TOO LARGE A BUFFER ZONE AROUND AREAS OF INTEREST WILL ADVERSELY AFFECT OTHER RESOURCES AND USES, AND MAKE IT DIFFICULT TO MANAGE THE RESOURCE BEING PROTECTED.

-FIRE MANAGEMENT
COSTS OF FIRE SUPRESSION WILL INCREASE IN DIRECT PROPORTION TO REDUCTION OF ACCESS TO AN AREA. THIS MAY RESULT IN LARGER AREAS BEING BURNED. ALSO BEFORE/AFTER EFFECTS OF FIRES WILL BE GREATER DUE TO MOVEMENT OF FIREFIGHTING PERSONEL AND EQUIPMENT. THESE FACTORS AS WELL AS OTHER EFFECTS MUST BE

=VISUAL
ALTERNATIVE "A" ALLOW SEMI-PRIMITIVE ACCESS ROUTES ETC, TO ALLOW DESPERSION OF USE AND EXPLORATION BY CASUAL USERS ETC.

=WOODLANDS
=PRODUCTIVE PINYON-JUNIPER, USE SUSTAINED YEILD EXCEPT IN TREATMENT AREAS, MANAGE TO CREAT SUSTAINED FENCE POST YEILD CLEAR/ REPLANT IF NECCESSARY.

=CONIFERS, ASPEN, PINE, USE SUSTAINED YEILD,OR COORDINATE WITH OTHER MANAGEMENT PRIORITIES, PLANT AS PART OF RIPZONE TREATMENT, REPLANT AS NEEDED, SALVAGE DEADWOOD AS, CREATE SOME ECONOMIC VALUE IF POSSIBLE.

=700,000 ACRES USABLE FOR GATHERING, HARVESTING, CO-ORDINATE WITH OTHER MANAGEMENT GOALS IF POSSIBLE, TREATMENT AREAS SHOULD BE OPEN FOR PLANT SALVAGE.

== THANK YOU FOR THE OPPORTUNITY TO RESPOND TO THIS WELL-DONE DRAFT DOCUMENT.

Dave Ison
UT 4W D Assoc. Inc.

March 28 1992

Penelope Smalley, Team leader
BLM

Some comments pertaining to the Ruple Cabin alotment.

4.23 In reflecting the economic value to the community. You should include more than just the feed put into a.u.m. values. You should include everything involved, the value of the cow, investment in private lands. Because private and public lands are economically tied together. With out each other they are not an economical unit. Just the Uintah Basin Grazing Asso. alone puts more into the local economy than you have stated in the report.

170-1

May we suggest that you get help from professional economist, USU, or county agents who understand agricultural economics, to more fairly represent agriculture interests.

Also the visitor days seem over stated in value and numbers, for this report they should be tied only to BLM land users.

A2.6 On Ruple Cabin alotment the livestock aums have been voluntarily reduced to improve range conditions. But the increase in wildlife has more than filled in for those previously used by livestock. The proposed wildlife aums are to be more than double. We think this is extreme and puts to much pressure on the private land owners. While not doing enough on public lands to produce aums needed for public wild life.

170-2

The wild life going between Colorado and Utah needs monitered better. It isn't unusal for us to have 300 to 400 elk in just one day on the Ruple Cabin lands. While there should be only 390 wild life aums total.

170-3

We would also object to any new wild life species being introduced without permission of private land owners impacted.

Due to the volume of this draft, we may have missed something, we would like to be able to respond more in the future.

With Uintah Basin Grazing Asso.

Lynn Burton

RESPONSE TO COMMENT LETTER 170 (BURTON)

170-1 Please refer to our response 104-2.

170-2 We agree with your concern that sufficient forage be present to support objective levels of wildlife as requested by UDWR. We have planned approximately 300 acres of new sagebrush treatment within the allotment (refer to Appendix 8). We would also continue to maintain the more than 3,300 acres of previously treated sagebrush as per the agreement signed in 1988 between the UBGA, UDWR, SCS, and BLM. Vegetation monitoring would determine if objective levels could be met once all improvement work was completed.

170-3 Private landowners would be involved in any reintroduction of wildlife species to resolve issues prior to releasing wildlife.

Vernal, UT 84078
March 29, 1992

Jean Sinclear
Bureau of Land Management
Vernal District Office
170 S. 500 E.
Vernal, UT 84078

Dear Ms. Sinclear

171-1 I am opposed to any development of the Bear Hollow/Mamels Hole areas. These areas should not be destroyed by building new roads up and over Mamels Hole. This will bring pollution and trash to this beautiful area. These roads will also destroy the natural habitat of the wildlife which live in the mountain meadow environment.

Sincerely

Bentley Jesse Hall Jr.

RESPONSE TO COMMENT LETTER 171 (HALL)

171-1 Thank you for expressing your concerns. Please refer to our responses 12-1 and 53-1.

March 31, 1992

Jean Sinclear
DMRMP Team Leader
Bureau of Land Management, Vernal District
170 South 500 East
Vernal, UT 84078

Dear Jean:

I am writing to express my appreciation for the fine job you and your staff have done on the Draft Diamond Mountain Resource Management Plan, and particularly on Alternative E. I admit I've had time only to scratch the surface of the draft, but the parts I've read show that BLM is making the effort to provide for truly multiple uses—and fewer abuses. The volume as a whole must be equally good, for Will Durant doesn't pass out compliments lightly!

My special concern is for the slickrock/red rock area between Steinaker and Red Mountain. When I worked and lived in Dinosaur National Monument I labored under the naive belief that any scenery worth seeing was in the monument. After moving into Vernal and exploring its environs more, I saw how wrong I had been. Moonshine Arch and the steep Navajo Sandstone slopes around it are like a little piece of classic southern Utah canyon country transplanted right into our back yard. A little farther north and east, in the strike valley along the south slope of Red Mountain, there is an area of numerous pillars and small windows eroded in red sandstone. This latter area seems relatively unknown and undisturbed—I'm not sure what the land status is—and offers superb opportunities for hiking and solitude.

172-1

The Moonshine Arch area, in contrast, seems rather too well-known to a few ORV-users, vandals, and litterers, yet many other people who appreciate outstanding natural scenery have been unaware of it. It deserves much better, starting with physical barriers to vehicle access. Designation as a "primitive recreation site" of some sort, with encouragement of hiking and other non-motorized use, would be ideal protection. There may also be a potential for a mountain bike trail in the area, utilizing parts of the slickrock and the existing roads at the foot of the slickrock. Both hikers and bike riders would need to be educated to stay off fragile cryptogamic soils. Such protection, minimal trail development, and some interpretation could ultimately be linked with the Flaming Gorge-Uintas Scenic Byway Development Plan.

Thank you for taking the time to read my (and, I hope, many others') comments. Keep up the good work!

Sincerely,

Linda West

Linda West
764 West 500 South
Vernal, UT 84078

RESPONSE TO COMMENT LETTER 172 (WEST)

172-1 Please refer to our responses 70-1 and 79-2.

1671 North 3996 West
Vernal, Utah 84078
March 30, 1992

Jean Sinclear
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Jean,

As a member of the Grant L. Hacking Partnership who owns Mame's Hole and Bear Hollow, I am greatly concerned as to the proposed plans for these areas. I appreciate the care that the Bureau gives to the land but do not feel that the proposals for the above mentioned areas are necessary.

As I was listening to a news report on the American farmers and how they have always been the backbone of this nation and yet are quickly being driven out of business, I thought about what is happening now with our own land. My father has always taken great care to manage his private land in Mame's Hole and Bear Hollow for the benefit of the wildlife as well as his cattle. He has tried to preserve the natural state of the land and plant life also.

174-1 I oppose the creation of a road from Mame's Hole over into Lambson Draw because of the disturbance of the ecosystem and the possibility of fence cutting, trash, off road vehicle damage and danger to the cattle. I cannot see that the expense that this road would create would be worth the benefit of being built. It would take acreage from my dad who has paid many taxes which goes back into the community and take away feed for his cattle.

174-2 I am also opposed to the burn proposal without knowing specifically where the burn is to take place. My grandfather tried it many years ago and after a two year wait tried burning and the wind shifted and burned many acres that shouldn't have been.

174-3 The building of a campsite in Bear Hollow is absolutely unnecessary. How is the BLM going to patrol this area to keep the public from trespassing and desecrating the private land surrounding it. Has the expense of building this campsite been considered when there is a public campsite located at Matt Warner reservoir a few miles down the road.

I am opposed to all of these proposals because they are catering to the recreation side of our society and not the concerns of the tax paying farmers who are the food producers of this nation. Who is going to take care of this land and produce meat for people if little bits and chunks of it are continually opened up to the public. This affects not only the cattlemen but the fragile balance of the plantlife and the wildlife. We need to leave some of this area untouched by further development.

RESPONSE TO COMMENT LETTER 174 (HALL)

174-1 Thank you for expressing your concerns. Please refer to our response 12-1.

174-2 Please refer to our response 68-2.

174-3 Please refer to our response 53-1.

174-4 I am opposed to any development and increase in wildlife in the Mame's Hole and Bear Hollow area.

Sincerely,

Barbara H. Hall

Barbara H. Hall

174-4 Please refer to our response 53-3.

Conservation Issues Committee
134 West Main
Vernal, UT 84078

March 26, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

SUBJECT: Draft Environmental Impact Statement for the Diamond Mountain Resource Management Plan.

Dear Ms. Smalley:

After thorough study and discussion of your Draft EIS for the Diamond Mountain Resource Management Plan, we have made the decision to support Alternative E as the best alternative of the five presented for our consideration in the draft document.

It should be noted that although we support Alternative E a the best for the five alternatives, there are some modifications that we feel should be made in your proposed alternative before it is finalized.

It is important for BLM to realize that the economic future of the Vernal area will depend upon several, often conflicting, uses of the natural resources found on public lands. While much of our economic success, past and future, is linked to hydrocarbon and mineral extraction, there is a growing awareness that recreation and "quality of life" will pay an increasingly important part in the generation of revenues and livelihoods in Northeast Utah. The importance of natural resources that we may refer to as "amenities"--clean air and water, scenic vistas, the consumptive and nonconsumptive enjoyment of wildlife, the extraordinary cultural and paleontological resources, and a wide variety of recreational opportunities--cannot be overstated. It is the maintenance of these resources that enhances the quality of life for current Uintah Basin residents and that will also draw individuals and businesses to our area in the future.

A "full investment portfolio" for the future will include both protection of these "amenities" and preservation of environmental values, as well as the timely and beneficial use of renewable and non-renewable commodity resources on the public lands. In large measure, we depend upon the Bureau of Land Management for guidance and cooperation in planning a healthy economic future for the

Vernal area. The partnership that has existed between BLM and the Vernal Area Chamber of Commerce must continue, and we look forward to working with you in implementing a Diamond Mountain Resource Management plan that will be beneficial to all our Citizens.

What follows are specific observations and suggestions for improving the final form of Alternative E:

175-1 1. The Draft EIS seems to be comprehensive and well-researched. Alternative E appears reasonable in the balance it attempts to strike between resource use and environmental protection.

175-2 2. A very positive aspect of the Draft EIS is its emphasis on riparian areas, rangeland improvements, and the protection and enhancement of scenic and recreational areas.

175-3 3. The Draft EIS places emphasis on the appropriate exchange and transfer of lands between BLM and private individuals where improvement of management would result and where all citizens would benefit. It also allows for the timely and appropriate transfer of lands to municipalities and to the county in cases where these lands would be essential for the continued growth and benefit of the community.

175-4 4. It allows necessary water development, new communications sites, and essential right-of-ways with adequate safeguards and restrictions.

175-5 5. "Protection zones" should be established around valuable and high-sensitivity archaeologic and paleontologic sites. While these zones may not prevent vandalism, they may help to avert damage by casual visitation. More interpretive facilities should be provided for the education of the public on these sites. Such facilities may actually encourage the public to help BLM protect sensitive sites in well-travelled areas. BLM must also give more emphasis to enforcement of those regulations for the public lands which protect unique and sensitive, "one-of-a-kind" sites.

175-6 6. There appears to be no difference between alternatives concerning the development of potential commercial phosphate deposits in the Red Mountain-Ashley Creek area. The high scenic quality of this area and the crucial wildlife habitat found there cause some ambivalence about the wisdom of allowing another full-scale phosphate mine in the foreseeable future. Most of the Chevron phosphate mine has not been adequately reclaimed, and until reclamation has proceeded further it may not be wise to allow the magnitude of surface disturbance you foresee with full scale development of the resource.

175-7 7. Considering the expanse of public lands now open to OHV use, it may be good management to restrict OHV use in riparian areas, areas of highly erodible soils, critical soils and floodplains, cultural and archaeological protection zones, and areas with semi-primitive, non-motorized values. This would provide adequate

RESPONSE TO COMMENT LETTER 175 (VERNAL CHAMBER OF COMMERCE, CONSERVATION ISSUES COMMITTEE, Perry)

175-1 Thank you for your comment.

175-2 Again, thanks.

175-3 Thank you for your support.

175-4 Thank you.

175-5 BLM will continue to emphasize protection and interpretation of both paleontological and archeological resources as well as enforce existing laws dealing with disturbance and removal of these important resources.

175-6 Please refer to our response 113-1.

175-7 The limitations you recommend are being included in the proposed plan. We recognize the importance of the Moonshine Arch area and the need to develop a management plan that will protect the area.

175-7
Cont.

protection to sensitive areas, and more diversity in the recreation spectrum on BLM lands. Specifically, the extraordinary area known as Moonshine Arch, located north of Steinaker, has undergone marked degradation and scenic damage is occurring or has occurred to the slickrock.

Thank you for the opportunity to comment on this Draft EIS. We appreciate the hard work that has gone into bringing this document to the public in its current form, and we look forward to sharing with you in the wise management of our public lands in years to come.

Best regards,

P.S. Please understand these comments are made by the Conservation Issues Committee of the Chamber and do not necessarily represent the opinion of the Chamber Board of Directors or the Chamber membership as a whole. The Board of Directors has asked each committee to prepare its own ideas and suggestions where it feels it appropriate.

March 30, 1992

Penelope Smalley
Bureau of Land Mangement
Vernal District
170 South East
Vernal, Utah 84078

Attention: Penelope Smalley

We have reviewed the Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement and tried to understand it. We are concerned about the 'take from livestock - give to wildlife' impression we get.

We believe the BLM has a good track record in managing or monitoring our allotment (Little Hole). According to our figures and yours, we run 1 cow to 96.5 acres from June to October. This is a high acre per cow ratio.

176-1 For 11 years we have used Taylor Flat allotment to help manage the Little Hole and delay the use of the grass for 30 days. On page A8.40, the Little Hole is listed in unsatisfactory condition. We disagree.

We have built several reservoirs to improve cattle distribution and recently proposed a pipeline. We realize water holes and wet meadows can be overgrazed, but by using Taylor Flat, we have observed, as we gather and move cattle, an overall improvement in the Little Hole.

176-2 The chart on A2.6 shows you want to double the wildlife AUM in the Little Hole and the same chart says the current resident deer population is 44. We believe this is a low figure, but believe wildlife and livestock AUM could be significantly increased with juniper and pinion control. (through controlled burning)

176-3 Page 4.60 shows that 9,000AUM will result in $11,500 yearly loss to the local livestock industry. This is incorrect.

176-4 Referring to page 4.59, we would like to comment that firewood is and important resource. Dead and down trees and dead-standing trees should be harvested.

176-5 On page 4.56, we believe the black-footed ferret transplants put too many restrictions on the multiple use system.

176-6 On page 4.16, Gov. Norman Bangerter is used as a reference and we don't feel he has an expertise in this area and his comments should not be taken as fact.

176-7 On page A7.12, Gorge Creek is listed as being 17 miles long. This is incorrect. It is closer to four miles and two of those miles are on private ground. We know of only 3 places livestock can drink out of Gorge Creek. They can not trail up it or down it. We feel that Gorge Creek should definitely not be a riparian or wild and scenic river system concern.

176-8 On page A7.14, Little Davonport Creek is listed as the headwaters being in confluence with Gorge Creek. This is incorrect.

176-9 We are opposed to the closing of riparian areas to livestock grazing. These areas can be managed! (see page 2.54)

176-10 On page A8.40, the Little Hole is listed as a riparian concern. Why? We would like this clarified.

176-11 Referring to page 2.30, we are concerned about the Wild and Scenic River Act. There are too many restrictions that affect the use of natural resources. It infringes on private property rights.

RESPONSE TO COMMENT LETTER 176 (HUNTING)

176-1 The Little Hole Allotment was listed in unsatisfactory condition in error; it has been changed to show satisfactory condition.

176-2 One thousand (1,000) acres of closed stands of pinyon-juniper are proposed to be burned and seeded in the Little Hole Allotment. Please refer to Table A8-4. The 44 deer is an estimate of deer numbers on public lands only. This may account for the differences we estimate and the number you have observed.

176-3 Please refer to our response 104-2.

176-4 It is our opinion that cutting cottonwoods adjacent to the Green River (including dead and down) would not be compatible with protecting riparian or wild and scenic river values. Such trees also provide valuable perching and possible nest sites for numerous bird and small animal species. There are many areas in the resource area where dead and d own pinyon and juniper firewood can be harvested.

176-5 All black-footed ferret reintroductions would be classified as "experimental nonessential" which allows for management flexibility to assure the reintroduction would not significantly impact existing or future land uses on public lands. All proposed restrictions have originated from draft USF&WS guidelines intended to ensure a successful reintroduction. We have also recommended no changes to current authorized permits or leases in areas where black-footed ferrets are proposed for reintroduction. We believe this does not restrict multiple use.

176-6 The reference to Governor Bangerter has been corrected to USF&WS, 1985. Please refer to the reference section of the document for the complete citation.

176-7 Gorge Creek was listed as 17 miles in length in error, the correction has been made to read 1.7 miles. Although Gorge Creek is inaccessible for the most part, it is considered a riparian area because it exhibits riparian vegetation. Gorge Creek was inventoried and placed in a late seral stage of ecological condition; however, the lower end next to the Green River is below its potential. Gorge Creek was determined to be non-eligible for further consideration in the national wild and scenic river system. (Please refer to Appendix 7.)

176-8 Thank you for the correction, the change has been made to the text.

176-9 Please refer to our response 92-9.

176-12 We are opposed to the acquisition of private land by federal or state agencies. (page 2.11)

176-13 We are opposed to the closing of bear baiting. (page 2.35)

176-14 After reviewing this document we feel that none of these alternatives are acceptable without serious revision. As private land owners and permittees, who are concerned, who use, know and improve the natural resources, we feel we, and others like us should have more imput on the direction of this management plan.

There are many other comments we would like to make but they are not specific to our main concern.

Sincerely,

Ray Hunting

Marilyn Hunting

Rayma McCarrel

Scott McCarrel

176-10 Little Hole Allotment is listed as a riparian concern due to the increasing presence of noxious weeds, primarily whitetop, along the banks of the Green River. Riparian conditions are far below potential where livestock can easily access the river and livestock can be a conflict with float boaters.

176-11 Please refer to our response 30-1. Managing a river corridor to protect wild and scenic values could, at times, limit some types of uses in the river corridor. Private property rights would not be affected.

176-12 Thank you for expressing your concerns. Any transfers of land ownership involving private land would be on a willing seller or willing giver basis.

176-13 Please refer to our comment 114-34.

176-14 Thank you for your comment.

Brent Hansen, CPA
P O Box 263
Vernal, Utah 84078

March 31, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

RE: Diamond Mountain Resource Management Plan

Dear Ms. Smalley:

I support alternative E. But, some improvements need to be done to that alternative before it is acceptable. Alternatives C and D are inconsistent with balanced management as required by the Federal Land Policy and Management Act because of their emphasis on livestock and minerals over other resources. Alternate A is the status quo which is unacceptable because management practices and values have changed since the previous plan was adopted.

I support the Uintah Mountain Club's proposed changes for alternative E. Their suggestions provide better protection of the resources and a better definition of multiple use. You can not use all lands for all uses. Some uses preclude other uses so there has to be an understanding that some lands will be limited to certain uses. Multiple use means that the needs of all users will be met.

177-1 How can you claim that you have a balanced alternative when you will allow livestock grazing on 99% of the land and leasable mineral activities on 90% of land and open the other 10% with no surface rights (page 2.30)? Only 1% is closed to grazing and zero is closed to mining. Multiple use and a balanced plan require that these percentages be decreased.

You have not included enough land under the level 1 and 2 classifications. There is definitely more than 1% of level 1 land in this management area. And, because of all the critical wildlife winter range and archaeological sites within this area, the level 2 acreage is understated. You need to provide more protection to a larger percentage of the land in this plan.

177-2 Phosphate mining should not be permitted in the Red Mountain-Ashley Creek area. This land has high scenic value and is critical/crucial winter range for deer and elk. You did not provide

RESPONSE TO COMMENT LETTER 177 (HANSEN)

177-1 Please refer to our response 61-1. The multiple use concept does not require multiple use on every acre nor does a balanced plan require a more even split of the management levels. We attempted to use the priority management area concept and assigned resource values to the specific management levels consistent with the overall management objectives for the proposed plan and each alternative.

177-2 Please refer to our response 61-2.

177-2 Cont. a broad range of management direction on this issue because all of your options allow phosphate mining.

177-3 More protection of the slickrock area north of Steinaker Reservoir is needed. This scenic area needs to be protected. It should be closed to OHV use. You should actively work to acquire section 16 in the Red Mountain Area for improved management of this area.

177-4 Protection zones need to be established around important and sensitive archaeological and paleontological sites which limit or restrict surface disturbing activities. More survey and enforcement activities are needed to protect these resources on public lands.

177-5 The lands in Diamond Breaks and West Cold Springs WSA's need to be placed in the Browns Park Complex ACEC should either of these not receive Wilderness designation.

177-6 I support Wild and Scenic Status for the Upper and Lower Green Rivers. I have on both stretches and they both qualify for this special designation.

177-7 Too much of the area in alternative E is open to OHV use. 84% with no or seasonal restrictions does not equal a balanced plan. Especially when only 6% is closed to OHV use (excluding any roads within that 6%). As a minimun alternative B should be implemented on this portion of the plan.

177-8 The riparian protection zones are too narrow at 330 feet. They should be twice this width. The experiment on Salt Creek in Wyoming where a stream was created where there was no stream showed that the surrounding vegetation will create raparian habitat if it is properly managed. Livestock grazing in these extended zones prevent the vegetation from expanding the water zone.

177-9 I do not agree with the plan to aggressively suppress all wildfires (page 2.31). Fire is an important and natural tool for nature. Suppression of all fires is poor management. This kind of policy is what got us in trouble at Yellowstone. I believe that wildfires should be permited to burn unless they threaten structures or are life threatening.

177-10 An allowable cut of 3700 cords of wood per year (page 2.31) is contrary to the assumption that a maximum of only 3000 cords of greenwood should be cut (page 4.15). Opening up 85% of the woodlands for cutting only leaves 15% of the land as natural woodland. This is inadequate since part of this 15% will be poor woodland.

177-11 You need to further restrict cedar post and christmas tree cutting to be the "lesser of demand or substainable yield". You sold 560 tree permits for an area where good quality trees are rare (page 3.72). Why sell something you do not have?

177-3 Please refer to our responses 70-1 and 79-2.

177-4 The need for protection zones around important archeological and paleontological sites was discussed during preparation of the plan, but it was determined they would not be needed because the laws that protect these resources give adequate protection without establishing additional protection zones. We agree that more surveys and enforcement activity is needed to protect these resources.

177-5 Please refer to our response 77-5.

177-6 Thank you for your support.

177-7 The purpose of OHV restrictions is to protect resources that would otherwise be damaged if the situation went uncontrolled. We feel that objective will be accomplished in the proposed plan. Approximately 42 percent of the resource area would be open, 6 percent closed, and 52 percent would be limited either yearlong or seasonally to designated roads and trails.

177-8 The 330-foot riparian zone begins at the outer edge of the riparian vegetation. BLM believes this provides adequate protection to riparian areas. Please refer to Appendix 6 for the BLM Utah's riparian policy.

177-9 We do not propose to aggressively suppress all wildfires. Refer to Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives, for common guidance for prescribed fires. Naturally or human-induced fires would be allowed to burn when approved prescriptions are established and burn plan prescriptions are met.

177-10 The maximum firewood cut that can be maintained on a sustained yield basis in the proposed plan, is 3,700 cords per year. This figure was derived after eliminating all productive acres that could not be harvested due to restrictions imposed on woodlands by other resources or topographic features. It was assumed, based on demand, that the annual cut would level off near 3,000 cords per year. The additional 700 cords would be available for harvest each year if demand increased due to some unexpected event. Assuming 3,000 cords are cut each year, 65 percent of the productive woodland area would never be cut.

177-11 We realize good quality christmas trees and cedar posts are hard to find in the resource area. The only permits we sell are for personal use. There are many families that use this recreational opportunity for an early winter outing and

You only have 78000 acres of commercial value timber capable of a substable yield. The other 105000 acres are not productive
177-12 enough to manage for a substainable yield (page 3.70). Harvesting this other acreage could prevent its return to a woodland site. On page 1.14 you state "All alternatives contain measures for protection of important woodland resources." This statement is false as indicated in the above paragraphs.

Why does alternative E specify treating 19,400 federal acres, when assumptions on page 4.15 says "Total vegetation treatment
177-13 opportunities could be realized on approximately 18,000 acres . . . over the life of this plan"? Is this a balanced plan, or are you looking out for the livestock industry at the expense of other concerned users?

I have writen several other comments in my book which would be time consuming and lengthly to put into letter format. Therefore, I have attached copies of the relavant pages. If you can not read may sloppy writing, I can come in and read it to you. My phone number is 789-7162.

Sincerely,

Brent Hansen

Brent Hansen, CPA

attachments

have been doing it for years. The opportunity to cut a family christmas trees is very important to many people, even though the quality of the tree they cut may be only fair.

177-12 We have approximately 78,000 acres of pinyon-juniper woodlands productive enough to be managed on a sustained yield basis for firewood production. There are many other pinyon-juniper areas in the resource area that could be cut for firewood, but do not grow fast enough or reproduce well enough to be considered productive stands. Many times the best use of these areas is for wildlife habitat or livestock forage and they may, in some areas, be harvested with these goals in mind.

177-13 The 22,950 acres shown in Table 2-15 and A8-4 is a total figure, which includes vegetation treatment for wildlife and watershed management principally in the sagebrush and pinyon-juniper woodland communities.

NOTE: Mr. Hansen included hand-marked pages from the draft document. For the sake of brevity only, these additional pages are not included in this document. They may be reviewed at the Vernal District Office.

Lamont W. Moon
P.O. Box 257
Duchesne, Utah
84021
Phone: 738-5742

U.S. Dept. of The Interior
Bureau of Land Management
Diamond Mountain Resource Area
Resource Management Plan and
Environmental Impact Statement

Dear Sirs,

178-1 The first paragraph on page 1.5 reads as follows: "This issue involves the conflicting demands for consumptive and nonconsumptive uses of the vegetation, soil, and watershed resources within the Diamond Mountain Resource Area. The basic challenge is protecting resources such as rangeland values, air, water quality, soils productivity, vegetation cover, riparian areas and wildlife habitat while allowing, to the extent possible, uses affecting these resources. Conflicting uses could include: livestock grazing, woodland product harvest, off-highway vehicle use, recreation development, oil and gas development, and mining activities. The following questions will be answered in the plan."

I think this paragraph is a good example of the bias, and could be irresponsible thinking that we are seeing so prevalent in our country today. Part way through the 1st paragraph the word, conflicting, is used in referring to livestock, woodharvest, oil & gas, and mining. The real conflict is: How are the schools, hospitals etc. going to improve as they ought to while such a concerted effort is being taken to destroy the tax base. We are allowing things that are thrilling and exciting, to take precedents over things that are important.

Page 1.9 The Fish and Wildlife Habitat Management write up has the same problem as mentioned above.

178-2 Page 2.6 Animal Damage Control - The A.D.C. should have authority to control predators. The B.L.M. should stick with range management, which should include the control of overstocking of big game, as is done with domestic stock.

178-3 Page 2.7 Livestock Management - Mention of the Taylor Grazing Act of 1934 FRIA of 1978 as inadequate, is based on the fact that more wildlife and pleasure in America is what

RESPONSE TO COMMENT LETTER 178 (MOON)

178-1 Economic impacts are analyzed for each alternative in Chapter 4. Impacts from implementing the proposed plan should not significantly reduce the local tax base.

178-2 BLM responsibilities in animal damage control (ADC) are outlined in Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives.

178-3 Under management common to the proposed plan and all alternatives for livestock in Chapter 2, it was not stated that the Taylor Grazing Act and PRIA were inadequate. It does say however, that the existing planning documents did not clearly analyze the forage needs for objective wildlife levels.

is needed. Japan and much of the world is laughing at us. The people who wrote the Taylor Grazing Act etc. were people that had been affected by wars and hard times. They recognized what was important in relation to pleasure. How far are we going to continue in the direction that is drawing ridicule from Japan. Lets use our man-power and money in producing things that will compete on the world market.

178-3 Cont.

178-4 Table 2:13 Alternative C is the best. See the following under:

Page 2.35 Habitat Improvement - Increase wildlife only as improvements are made, is good.

Page 2.35 Habitat Protection - Most suggestions under this would be too expensive to manage in contrast to damage alone. We need limited control.

Page 2.40 Wildlife Transplants - Elk and Antelope are

178-5 even now becoming too many. The B.L.M. needs to do more control, not use Fish and Game Courts. We don't need Big Horn Sheep if it will harm the livestock industry, destroy tax base or customs & culture.

Page 2.45 Livestock - I feel the B.L.M. should maintain present livestock numbers.

178-6 Page 2.47 Guzzlers and Springs are preferred to too many ponds. Most all reservoirs become boggy as they silt in and thus become a great danger to livestock.

Page 2.51 Recreation Development - Maintain existing facilities.

Vegetation

178-7 Page 2.57 Control noxious weeds!

178-8 Page 2.59 If forage assignment can not be met, wildlife should be reduced.

178-9 Page 3.4 Antelope should stay at present level - not keep increasing. Elk numbers in many areas are too great.

Page 4.60 Dollar figures are not correctly portrayed. Can dollar values for recreation and dollar values for livestock industry really be compared. One will feed the

178-10 world in good as well as hard times, while the other will only happen in good times. Pleasures happen in a time of ease. In hard times people do without luxuries and pleasures. Are the comparison of dollars for wildlife and domestic stock like trying to mix oil and water?

178-11 Page A2.3 Big Horn Sheep will cause a serious problem to the livestock industry. What becomes of customs and culture!

178-12 Table A2.1 See Castle Peak: The current number of Antelope and Elk stated in the chart are no where close to the present numbers. The objective of 255 Elk and 217 Antelope is too big. I highly oppose such numbers.

178-4 Thank you for your comment.

178-5 Please refer to our response 68-1 which discussed livestock-wildlife forage needs. Our analysis shows range improvement work could also supply additional forage for livestock and wildlife on the Castle Peak allotment. We believe the reintroduction of native bighorn sheep would not significantly affect the livestock industry as outlined in the proposed plan. Changes from domestic sheep to cattle would be accomplished through voluntary negotiations. Please refer to Table 2-15 under livestock.

178-6 Guzzlers are generally more expensive to construct than reservoirs and spring locations are limited. In many cases reservoirs are the only feasible water source option.

178-7 Thank you for your support.

178-8 Please refer to Table 2-15 under vegetation for forage assignments.

178-9 Please refer to our response 68-1.

178-10 Please refer to our response 109-4.

178-11 Please refer to our response 178-5 above. Any AUM losses to livestock due to negotiation to eliminate domestic sheep from proposed bighorn sheep reintroduction areas under the proposed plan would be accomplished over time and done voluntarily by grazing operators through change in class of livestock and alternative grazing systems. We hope this would alleviate any serious problems to the livestock industry.

178-12 Appendix 2 displays current wildlife use in AUMs, not individual animal numbers. If we assume the big game use in the Castle Peak allotment for 6 months, the AUMs would convert to 75 deer, 66 antelope, and 17 elk current use; and, 125 deer, 348 antelope, and 80 elk objective use. These estimates are for public land only and do not account for big game use on adjoining state and/or private lands. Based on herd unit population figures supplied by UDWR, we attempted to "pro-rate" these estimates on an individual allotment basis. We realize such an exercise could account for the difference in numbers we estimate for Castle Peak allotment and the numbers you have observed. Achieving objective levels would be based on continued range improvement work and vegetation monitoring to assure adequate forage is available to all.

#15 Starting last season the Castle Peak Allotment started to be used by both sheep and cattle.

178-13 Table A8.4 See Castle Peak - Alternative (A&C Co.) I suggest a firewood harvest of 300 acres, which is good; however, 100 ponds are suggested which would be a great detrement to the country. It would create too many pog holes. All ready this is the best permit on the B.L.M. South Myton Unit for well distributed water.

Approximately 18 good ponds now exist:

1) 2 at Crow Knolls
2) 1 at Snider Spring
3) 2 further down Snider Spring Wash
4) 3 at Billies Knolls
5) 3 in Castle Peak Wash northeast side of permit
6) 2 at New Knolls
7) 3 at Castle Peak
8) 1 northeast of gilsonite mines
9) 1 between Snider Spring and Crow Knolls

Livestock producers are discontented. Oil companies in the Uintah Basin are selling where possible and moving, in some cases, over seas. The list goes on. How much further can we allow environmentalists to create rules and regulations which are pushing industry in the back ground?

Sincerely,

Lamont W. Moon

Lamont W. Moon

178-13 The correction of adding 18 existing reservoirs to Table A8-4 on page A8.3 has been made. Also the 100 reservoirs have been changed to read 50 on Table A8-4. These reservoirs would be built primarily for watershed improvement, but would have other benefits such as providing wildlife and livestock water and providing potential sites for riparian establishment.

Daggett Soil Conservation District

MANILA, UTAH 84046

March 30, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley:

The Daggett County Soil Conservation District Board is responding to the request for review of the "Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement."

179-1 As a District Board we feel that the document is biased towards Tourism and Wildlife. We are supporting the letter that has been prepared by the Permittees. We feel these permittees support the concept of multiple land use.

We are attaching to this letter the comments presented by the permittees. Please address each of the items as you prepare the final document for the Diamond Mountain Resource Area.

Thank you for your consideration.

Sincerely,

Ivan Gene Ruble
Chairman

RESPONSE TO COMMENT LETTER 179 (DAGGETT SOIL CONSERVATION DISTRICT, Ruble)

179-1 Thank you for your comments.

GENERAL COMMENTS:

Economics of the Livestock Industry in Uintah County:

Several times in the document agriculture is referred to as a minor or insignificant industry. According to the 1991 Utah Agricultural Statistics agriculture produced the following cash receipts:

	Dagget County	Duchesne County	Uintah County
1989 Cash Receipts			
Livestock & Livestock Products	$1,500,000	25,700,000	19,900,000
Crops	$200,000	4,200,000	3,400,000
Total	$1,700,000	29,000,000	23,300,000

Total for 3 Counties = 54,000,000

179-2 Fifty-four Million seems like a significant amount of money to us, the Diamond Mountain Resource Area has a direct impact on agriculture in these counties. As you can see most of the money derived from agriculture in the basin is due to livestock. Most of which at some time or other spend time on public land.

Several times in the document the value of an AUM is assumed to be $9.19. This value we believe, refers to the value of the forage to the permittee, including all cost associated with raising livestock except the capital cost of the livestock itself. This is not the value an AUM returns to the economy. In a paper publish in the Utah State Economics Department Dr. Nielsen has research the value for AUM to local Utah communities generated by cattle and sheep. The values per AUM of federal grazing for range animals in Utah's economy are:

Gross value cattle (cow-calf operation)	= $23.72/AUM
Net value cattle (cow-calf operation)	= 13.66/AUM
Net value cattle x 3.5 multiplier	= $31.43/AUM
Net value sheep x 3.5 multiplier	= 47.81/AUM
Gross value sheep & cattle (slaughter weights)	= $35.86/AUM
Gross value sheep & cattle (retail-cut value)	= 54.07/AUM

The 3.5 multiplier is from a state economic sector study by Dr. Syder USU Economist. He estimated the appropriate multiplier to measure secondary impacts to be 3.5 and should be used on net values.

179-2 Please refer to our responses 3-24, 104-2 and 104-3.

To figure a weighted average we took the net value for cattle and sheep and times that by the number of allotments which are: 88 cattle allotments and 16 sheep allotments. We took an average of the 31.43 value for cattle and the 47.81 value for sheep for an average value (39.62) for the dual-use allotments and obtained the following values:

88 x $31.43 = 2,765.84
16 x $47.81 = 764.96
4 x $39.62 = 158.48
3,689.28

179-2 Cont.

88 + 16 + 4 = 108

3689.28/108 = 34.16

The $34.16 would represent an average AUM value on the Diamond Mountain Resource Area which is significantly higher than the $9.19 value use to calculate gains or losses to the industry in the document.

We also believe it should be realized that several economists are questioning the value of hunting and tourism to local economies. They make the point that after you take in the amount spent on building and maintaining roads, providing additional law enforcement, picking up litter etc. in some cases tourism and hunting might have a negative economic value or a value that is significantly below the $25.00 value that is used in the document.

Also even though tourism might help the local economy, it must be realized that it does not generate any new wealth. If the money is spent here that means it is not spent in some other community. In contrast, the livestock industry generates new wealth every year with that year's production of livestock.

Furthermore, reductions in livestock AUMs result in direct loss to the local economy, a 9000 AUM reduction means that quantity of animals and the associated dollars are lost to the local economy. While an increase in the number of Wildlife AUMs might draw more tourist or might not draw more tourist and hunters depending on a number of factors and conditions.

Of deep concern to the livestock operators is the fact that every citation in the document concerning livestock returns refers to gain or loss to the livestock permittee or livestock industry. Never is it mentioned as a gain or loss to the local economy. In contrast, in almost every case gains or loss to the tourism industry is expressed as a gain or loss to the local economy. It is not expressed as a gain or loss to the local tourism industry. As livestock operators we feel we are an integral part of the local economy as we live here spend our money here and have done so for generations.

Wildlife/Livestock Conflicts:

179-3 Several times in the document conflicts are mentioned between wildlife and livestock. In almost every incidence the recommendation is to reduce livestock AUMs. While this might be the only solution in some causes we believe in most incidence's wildlife and livestock can coexist on the range. Terry Messmer Utah State Wildlife Extension Specialist recently reviewed the available literature on the subject he found 150 studies that looked at the effects of wildlife and livestock grazing. In 150 studies that mention livestock and wildlife 88% reported beneficial effects to wildlife from livestock grazing. We believe with proper management livestock and wildlife can graze together with beneficial effects to both. We also believe that this is also the best management practice to keep the range healthy and productive. Furthermore, since the area is supposed to be managed as a multiple use area we believe this best fits that usage. Included with this letter is citations of 52 studies reporting beneficial impacts from livestock to wildlife.

Bighorn Sheep Introduction:

179-4 The management plan calls for introduction of Rocky Mountain Bighorn Sheep. It also calls for a 10-mile buffer zone around reintroduction sites from domestic sheep. However the 10-mile buffer zone was not documented to any literature. We did find the Desert Bighorn Council did in one of there transcripts recommend a 9-mile buffer, however this was not based on research it was just a recommendation. It seems that the size of the buffer zone should be based on topography and be highly dependent on the natural barriers that separate the species. In Nevada Bighorns have been successfully reintroduced with a 2-mile barrier. Although, the several times bighorn reintroduction is mention in the document only one time does the document describe all the factors that govern successful reintroduction, these include: Adequate quantities of available range (2) lack of competition with other ungulates (3) Improper juxtaposition of key habitat components (5) adequate quantities of one or more critical seasonal ranges (6) lack of human harassment (Smith et al. 1991). We believe because of the serious impact these releases would have on livestock permittee's in these areas, very serious study and consideration should be given to these releases. We also feel much more research is needed on the subject, as these releases are extremely expensive and can force local sheep operators out of business. If bighorns are to be reintroduced it should be with the smallest buffer zone needed so as not to waste resources and lower the impact to local sheep producers. Therefore, we would like to see justification for the 10-mile buffer zone in the Diamond Mountain Resource area and how that was arrived at. Recently University of Idaho Veterinary Scientist have done several studies to study disease transmission from domestic livestock to Big Horn Sheep. In consulting with Dr. Alton Ward Head Diagnostic Bacteriology, several questions have

179-3 Please refer to our response 52-2.

179-4 Please refer to our responses 116-8, 178-5 and 179-22.

sheep populations. In sampling 250 live-captured, and 7 dead bighorn sheep from Central and Southwestern Idaho and 19 Dall Sheep captured near Arctic Village Alaska. Lungworms were present in all groups even though none of the animals had contact with domestic animals. Also lungworms were found in two lambs that were taken by caesarean section and separated from the ewe suggesting the worms can be passed to offspring in the maternal environment. Furthermore, DNA fingerprinting of lungworms obtained from domestic and wild sheep showed they were a different species. Dr. Foryet found that in vaccinating wild sheep with domestic sheep Lungworm vaccine that the wild sheep still died. It appears that earlier literature suggesting lungworm transmission from domestic sheep to wild sheep was invalid because samples were taken from the nasal passages only, while recent research has shown that most wild sheep harbor the organism in greatest numbers in the tonsils. In talking with Dr. Ward he felt there were a combination of factors that caused Bighorn mortality including: Viruses, bacteria, stress, and population that are so small inbreeding results and causes a reduction in the immune system. Also, while Dr. Ward thought the populations should be separated, he could see no justification for a 10-mile barrier. Included is some recent research on the subject.

179-4 Cont.

Section: Summary

	Page:	Comment:
179-5	i	The management priority area concept is not defined as to how or what criteria are used to designate the levels also what personnel is envolved in making this decisions. Also these management priority areas should be guided by the multiple use concept and not give one use priority above another use.
179-6	iv?	Comment by Aldo Leopold according to the World Book Encyclopedia he wrote several essays defining the need to have wilderness areas. We hope this does not set the tone for the entire document as devoted to one area of interest and not to a multiple use, multi-group area.

Section: Chapter 1 Purpose and Need

	Page:	Comment:
179-7	1.5	Under the title Resource Uses Affecting Vegetation, Soils and Watershed Values, this whole section is aimed primary at developing wildlife habitat. It fails to address range improvements that will benefit wildlife and livestock. Also the paragraph on areas suitable for livestock grazing, grazing is not restricted to livestock, wildlife also graze, no mention is made of controlling over grazing by wildlife.
179-8	1.9	Under the title Fish and Wildlife Habitat Management at the top of column two the statement land closures for livestock grazing or surface disturbance are identified in terms of wildlife objectives. This seems to imply that wildlife are the dominant consideration, and that land closures for livestock grazing or surface disturbance is the only way to reach these objectives. This does not consider the most important factor, habitat, which may actually be improved by livestock grazing and it assumes that the grazing of livestock and wildlife have to be detrimental to each other.
179-9	1.14	Under the title Vegetation Management the statement Conflicts between wildlife and

179-5 Please refer to our response 61-1.

179-6 Thank you for your comment.

179-7 We believe the first paragraph in the section you reference adequately explains the issue of resolving conflicting demands for consumptive and nonconsumptive uses of vegetation, soils, and watershed resources. The subsequent questions related to these broad issues are meant to help identify and analyze all uses affecting these primary resources and management actions necessary to maintain or improve these resources for the long term. The term 'management practices" ,as used in these questions, include range improvement and vegetative treatment, both of which may be beneficial to both livestock and wildlife.

179-8 The statement: "Land closures for livestock grazing or surface disturbance are identified in terms of wildlife objectives", has been deleted.

179-9 The statement: "At least one alternative gives wildlife first priority on critical winter ranges", has been deleted.

179-9 Cont.

livestock forage uses are identified in terms of range carrying capacity. At least one alterative gives wildlife first priority on critical winter ranges. This statement fails to recognize vegetation management is the main objective and any management objective should be thought of in terms of the best possible management strategy for that goal and not in terms of giving wildlife or any other use first priority.

Section: Chapter 2 Alternatives

Page:	Comment:
179-10 2.7	The statement Livestock grazing management will incorporate the needs of key plant species important to wildlife and safe to use by wildlife . . . we hope this is also takes into account the fact that livestock grazing can benefit plant species needed by wildlife and can have a positive effect on vegetation management.

Section: Chapter 3 Affected Environment

Page:	Comment:
179-11 3.11	Under the heading Mule Deer in the statement about deer wintering in the Brown's Park area no mention is made of the resource damage that is occurring do to high deer populations (Urness PC). MAS/THESIS
179-12 3.50	The statement "Riparian communities along the Green River have been affected by historical human and livestock overuse and regulation of river flows from the Flaming George Dam." This statement does not include the damage from wildlife in that area.
179-13 3.50	Under Socioeconomic heading the statement "since the twentieth century, however a slow progression toward a land-extractive economy has been occurring" it must be realized that agriculture has not diminished in the area also agriculture is probably the most stable industry in the area.
179-14 3.52	Under the heading Recreation the statement "the

179-10 Livestock grazing benefits to plant species needed by wildlife has been taken into account. Deer winter range in Browns Park, for example, is maintained by allowing spring cattle use on grass in the area to promote the vigor of existing sagebrush species.

179-11 The following sentences have been added to Chapter 3, under mule deer to clarify the heavy deer use. Six years of drought conditions (1986-92) have reduced sagebrush forage production and plant vigor on much of the deer winter range. Heavy deer winter use has intensified this problem and has been documented on the annual interagency deer pellet group transects. In response, UDWR has issued over 2,850 doe permits to offset these poor forage conditions.

179-12 We were unable to document historical wildlife overuse in the riparian communities along the Green River and thus the reason for wildlife being deleted from this sentence.

179-13 Thank you for your comment.

179-14 The economic section in the document has been substantially modified. The $25 figure you refer to has been removed.

179-14 Cont.

net economic value per day for recreation visitor day is $25." We would assume the means on average and he is not saying $25 is without exception the value. Also there is no mention of how this value was derived this needs to be explained and documented with facts or data.

179-15

3.53

Table 3-23 this table has some impressive figures on it however, it has no documentation as to how the net economic value was derived therefore no way to tell if it is accurate or not. Also is this net economic value to the Uintah basin or to Utah, Wyoming and Colorado.

179-16

3.53

The first paragraph that addresses hunting and recreation the reference to the citation by Bangerter 1989. This citation has no place in a scientific document a political speech by a political figure with no training in economics is very dubious to its validity. These figures may or may not be accurate, however where they were obtained is unknown so they cannot be validated. If these figures are to be cited they should be referenced to the person who calculated them and how they were calculated, not to who used them in a speech.

179-17

3.53

Under the heading Agriculture, the statement agriculture plays a minor role in the basin economy is hard to define what is considered a minor role, and even if it is minor it is an important role to those affected by it. Also the statement Presently an AUM is valued at 9.19 as determined by the Agriculture Statistics Service USDA (1991). This might be a true statement but should not be used in the context that an AUM is only worth 9.19 to the local economy. The figure 9.19 is the value on average that AUM is worth to the permittee. The value of a Cow Calf AUM in Utah is estimated at 34.16 (Nelson 1991). This is the figure that should be used for economic comparisons, especially when comparing effects with hunting and recreation dollars.

Section: Chapter 4 Environmental Consequences

Page: **Comment:**

179-18

4.4

Under the heading Livestock the statement "the more recent demand for leaner red meat may

179-15 Table 3-23 of the draft has been deleted. We believe the information as provided in this document adequately presents and analyzes the social and economic conditions and impacts of the proposed plan and the alternatives.

179-16 The correct reference for Governor Bangerter's speech is the 1985 "National Survey of Fishing, Hunting, and Wildlife Association Recreation -Utah", prepared by the U.S. Fish and Wildlife Service. The reference section of the document has been revised.

179-17 Please refer to our response 104-2.

179-18 The assumption section of Chapter 4 provides a basis for analysis based on available literature and trend. A demand for leaner red meat is not necessarily contrary to the statement that the livestock industry appears to have reached maturity in the West, it may mean a shift from feedlot finished cattle to rangeland cattle.

179-18 Cont.

affect the use of feedlots, increasing demand for rangeland forage by yearling cattle operations" seems to be in disagreement with the statement at the bottom of the paragraph. "Both the sheep and cattle industries appear to have reached maturity in the west. There is little indication of prospects for significant expansion." Also the reference to Field 1991 is not cited in the Reference Section so it is impossible to check the reference. Furthermore, statements like this should be used sparingly and conservatively, no one knows the future.

4.13

179-19

Under the paragraph The Rancher/Farmer desires to maintain traditional lifestyles does injustice to the farmers and ranchers these people are also deeply concerned about the environment, the condition of the resource area and the continued effort to improve the value, condition and ascetic value of the resource. They are also strong supporter of the multiple use concept and usually have a greater vested interest in the area than the young newcomer because the condition of the area can impact their heritage, livelihood and social values.

4.14

179-20

Table 4-3 Job Projections by Alternative, projections for Alternative E show a rather high impact to agriculture especially since several times in the document it is referred to as a minor or insignificant industry. It is not known how these figures are derived since under alternative E the number of livestock AUMs is supposed to stay the same.

4.16

179-21

Under the heading Impacts to Fish and Wildlife Habitat Resources the statement "Additional forage and increased numbers of watchable and hunting wildlife could generate an additional 63,400 per year to the local economy in expenditures for lodging, food, transportation, and equipment (Bangerter, 1991) This is seen as a beneficial impact." We think it must be realized that just because wildlife is there it is not certain that additional tourist will come view them, the tourism market may have already reached a maximum. Also the dollar figure has no documentation and once again the reference to Bangerter is unacceptable.

179-19 This section of Chapter 3 has been deleted as it does not add or detract from the intent of the analysis.

179-20 Table 4-3 of the draft has been deleted from this document. The model used to derive the data used in the table has limited applicability and was determined to be unsuitable for this project.

179-21 The word "could" was used to express the point of whether tourists would come to view additional wildlife. Our analysis is based mostly on increased hunting opportunities and the development of interpretive trails to enhance wildlife viewing.

4.17

Under the heading From Management Actions for Livestock Programs the statement "Negotiating with livestock permittees to eliminate domestic sheep use within a 10-mile buffer of identified bighorn sheep reintroduction areas has the potential to reduce the likelihood of disease transmission for domestic livestock to bighorn sheep. This would significantly increase survival rates for bighorn sheep." There is no reference to where the 10-mile buffer zone came from, after reviewing the available literature we could find no such reference, the Desert Bighorn Council Technical Staff 1990 in Guidelines for management of domestic sheep in the vicinity of desert bighorn habitat (Desert Bighorn Council 13 pp.) recommend a

179-22

nine mile buffer. Some Bighorns in Nevada have been released with success with a two mile buffer. Besides the proximity to domestic sheep many other factors influence bighorn survival rates: Some recent research from the University of Idaho suggest Bighorns already carry the diseases that some are claiming they obtain from domestic sheep. The stress due to capture, transport, and release, and subsequent stress due to human activity, and forage competition with other wildlife can result in these diseases becoming lethal. Simply setting a ten-mile buffer will not guarantee success. Therefore the last statement in the paragraph "this would significantly increase survival rates for bighorn sheep" absolutely cannot be documented and should be stricken from the document.

4.17

Under the heading Impacts to Livestock Management Programs "improved grazing systems would result in an increase of 500 AUMs annually thereby positively affecting

179-23

permittee's incomes" not only would this improve permittee's income it would also help the local economy, and the resource, and improve wildlife habitat and species diversity.

4.23

The last paragraph on the page "Assuming that 9.19 is the value of the forage consumed per AUM, 50,299 AUMs brings in 462,200 to the local

179-24

economy annually." This is inconsistent with the statement of what the 9.19 value mentioned on page 3.53. This statement is what the value of forage is to the permittee and not the value the AUM has to the local economy which is

179-22 Please refer to our responses 110-10, 116-8 and 179-39.

179-23 Please refer to our response 3-24.

179-24 Please refer to our response 104-2.

179-24 Cont.

significantly more at $34.16 (Nelson 1991).

4.24

The first paragraph "Assuming $25 is the visitor use day value, then 190,000 recreation days will equate to 4,750,000 into the local economy annually." There is no documentation as to where the number of visitor days came from. Also we would challenge the statement to the local economy. This must include the Salt Lake metropolitan Area and parts of Colorado and Wyoming, Which shouldn't be considered the local economy.

179-25

4.26

Paragraphs 1,2,3 all make direct reference to the removal of livestock to benefit wildlife. This does not include management of livestock and wildlife to the benefit of each other and the resource area. It only allows that livestock and wildlife are not compatible which is in direct disagreement with literature on the subject.

179-26

4.26

Under the title Impacts to Livestock Management Programs first paragraph. Again no thought is given to management systems incorporating wildlife and livestock which have been shown in the literature to be beneficial to both.

179-27

4.26

Under the title From Management actions for Vegetation Resources. The figures are not validated and the reference to Bangerter is unacceptable.

179-28

4.27

The whole first column is implying the that livestock and wildlife are incompatible. This is very narrow minded thinking and is definitely not supported by any research or evidence. Also the figures of the cost to livestock industry are inaccurate and don't address the loss to the local economy.

179-29

4.30

Under title IMPACTS TO RIPARIAN HABITAT RESOURCES subtitled; From Management Actions for Livestock Programs. We agree completely with the statement "However not using livestock grazing to control noxious weeds on 18 percent of the early and mid ecological stage riparian areas, would result in weed expansions in riparian areas. These weed expansions could move ecological condition toward an earlier biogical stage." We also agree completely with the statement in the next paragraph. "Allowing

179-30

179-25 The visitor day number came from a report compiled annually by BLM. Estimates are made using visitor registers, car counters, UDWR hunting reports and estimates made by field personnel. Please refer to our responses 179-14 and 179-15.

179-26 The statement: "Where livestock management can be used as a tool to benefit wildlife, compatible grazing systems would be implemented" has been added to Chapter 4 under impacts from management actions for livestock management.

179-27 Grazing prescriptions are proposed as a tool to maintain or improve resources under the proposed plan and Alternatives A, C, and D.

179-28 Please refer to our response 179-16 above.

179-29 Under Alternative B, removing livestock to increase wildlife AUMs is one way to achieve the stated goals. It is not BLM's preferred method, however. Please refer to 104-2.

179-30 The same statement is not used under the other alternatives, because livestock could be used as a tool to control noxious weeds in riparian areas and to maintain or improve riparian values and wildlife habitat.

wildlife forage to increase for wildlife use up to 67 percent from present forage use levels could causes unacceptable use on riparian areas, especially during drought years when wildlife would concantrate in wet areas. Livestock use could be controlled during these periods while wildlife are not easily controlled. Benefits to the riparian resource from reduced livestock grazing could be offsetby increased wildlife use." These statements we believe state very real concerns to simply reducing livestock AUMs as a panacea for everything. We wonder why they are not mentioned in other areas of the document.

179-30 Cont.

4.31

Under the title From Management Actions for Vegetation Resources. We agree with the statement "Even with 100 percent allocation to watershed, this alternative would benefit watershed the least due to the low number of acres identified for vegetation treatment and the least amount of pinyon-juniper woodlands and sagebrush in mid ecological condition." This is a very good point.

179-31

4.33

The figures are inaccurate due to wrong assumptions about the value of an AUM to the local economy.

179-32

4.34

Column two again compares figures of loss to the livestock industry and gains made by recreation. These comparisons as stated are invalid. Also any loss to the livestock operators is also a loss to the local economy.

179-33

4.36

Column one, paragraph 3 we also agree with the statement "Vegetation management decisions in Alternative B allow only Biological control of noxious weeds and insects within the ACECs. This may cumulatively affect adjacent lands, via degradation and loss of desired vegetation composition and production levels, causing economic losses to state and private landowners".

179-34

4.37

Column two, top of the page. The statement "This would be a significant long-term negative impact to the majority of wildlife species within the resource area." How many and what species is the term majority referring to, and how are they negatively affected. According to

179-35

179-31 Thank you.

179-32 Again, please refer to our response 104-2.

179-33 Refer to 104-2.

179-34 Thank you.

179-35 Please refer to changes made in Chapter 4, impacts to fish and wildlife habitat from livestock for Alternative C.

179-35 Cont.

the literature most species can benefit from livestock grazing.

4.38

179-36

Under the title Impacts to Livestock Management programs the statement about extra income to livestock permittees does not take in to account the positive economic impacts to the local economy.

4.39

179-37

Under heading From Management Actions for Livestock programs the statement "Cattle would congregate along the riverbank and adversely affect the visual quality of the corridor." This statement assumes first that cattle would congregate there and second that cattle somehow affect visual quality. This is a subjective viewpoint that would depend entirely on the viewer.

4.43

179-38

Column two Paragraph 2 and 3 appears to be mathematical error. Figures inaccurate due to previously stated reasons.

4.45

179-39

Column 2 last paragraph Statement "this would reduce or eliminate the successful return of Rocky Mountain Bighorn Sheep to their native habitat within the resource area". This statement is misleading and is not documented by scientific fact or evidence.

4.46

179-40

Under the title From Management Actions for Riparian Habitat Resources the statement "However, unfenced riparian areas could allow uncontrolled human and livestock use, resulting in continued deterioration of certain riparian areas in the resource area." This should also include a statement about uncontrolled wildlife use.

4.46

179-41

Under title From Management Actions for Vegetation Resources. Does not take into the account the value of the increase forage to the local economy or to wildlife.

4.50

179-42

Column 2 paragraph 4 the statement "Forage allocated to wildlife would remain at the current use of 27,600 AUMs." What about the addition 3,400 AUMs mentioned on 4.46 for bighorns and pronghorns.

179-43 4.52

Column one paragraph 4 and 5 wrong figures for previously stated reasons.

179-36 Please refer to our response 104-2.

179-37 We agree that the statement would depend entirely on the viewer. In this situation we are talking about a person that is floating on the river in a raft or fishing, picnicking or hiking along the river bank. We stand by our statement that cattle congregating along the river bank would affect visual quality in the area.

179-38 Please refer to our response 104-2.

179-39 This statement refers to the increased risk of disease transmission from livestock to bighorn sheep when livestock use is allowed in bighorn sheep habitat. This has been documented in the following scientific studies: Desert Bighorn Council Technical Staff, 1990; Spraker, T.R., 1977; Jessup, D.A., 1982, 1985; Foreyt, W.J., 1982, 1989; Onderka, D.A., 1988; Callan, R.J., 1990; Bunch, T.D., 1989; Sandova;, A.V., 1988; and Goodson, N.J., 1982.

179-40 Whether standard fences that control livestock are or are not used for riparian protection would not affect wildlife from using these areas. Concentrated wildlife use can have a detrimental effect on riparian areas, especially during drought. Please refer to impacts to riparian habitat resources from livestock program in Alternative B in Chapter 4.

179-41 Please refer to our response 104-2.

179-42 The paragraph on page 4.46 has been deleted.

179-43 Please refer to our response 104-2.

4.54

179-44

From Management Actions for Livestock Programs Again the claim for a ten-mile buffer with no documentation. In the second paragraph under this heading "Management actions would, overall benefit fish and wildlife habitat." Should also consider specific actions to manage wildlife to protect riparian areas.

4.54

179-45

From Management Actions for Vegetation Resources "Alternative E allows wildlife forage demand to increase from current levels of 27,600 AUMs to 40,000 AUMs a 31% increase" it should be mentioned that the vegetative treatments and other suggestions to provide additional forage should be implemented first before the wildlife is allowed to increase otherwise resource damage will result. Also the citation to Bangerter is not acceptable and the figures cannot be documented.

4.55

Under the title From Management Actions for Vegetation Resources. This section assumes addition forage for wildlife will come from range improvements and reduction in livestock AUMs. Livestock AUMs have already been reduced significantly and wildlife also winter much of the time on private ground it should not be the sole responsibility of the livestock owner to raise wildlife for the state. Any increases in wildlife should come after additional forage is provided and no more reductions in livestock numbers should have to be forced on the permittees. As in many cases livestock numbers are reduced then wildlife is allowed to increase above carrying capacity, resulting in resource damage which is blamed on livestock.

4.58

179-46

Under the title IMPACTS TO RIPARIAN HABITAT RESOURCES we agree with the management strategy presented in the statement " This improvement would be accomplished by implementing prescribed grazing practices conducive to riparian improvement, along with rangeland improvements and noxious weed eradication".

4.60

179-47

In column two, third paragraph there appears to be a mathematical error as a reduction of 9000 AUMs using the figure of 9.19 would equal a loss of 82,710 not the 11,500 dollar figure

179-44 Please refer to our responses 116-8 and 226-38. We would consider specific actions to manage wildlife to protect riparian areas if this became a problem.

179-45 Rangeland practices and grazing prescriptions would occur to provide additional forage in the proposed plan. Also preliminary monitoring indicates that the total forage available is close to meeting wildlife objective use and existing livestock preference levels. As stated in the document, reductions in livestock would be made on crucial wildlife habitat only after all management options are exhausted and only where there is a conflict between livestock and wildlife in meeting forage assignments shown by monitoring. It was assumed, as stated in Chapter 4, that achieving ecological condition goals through rangeland improvement and other management practices would provide enough forage for existing livestock grazing preference. The reference to Governor Bangerter has been corrected to USF&WS, 1985. Refer to the references section of this document for the full citation.

179-46 Thank you.

179-47 Refer to our response 3-24.

179-47 Cont.

stated and the figure of 94,800 increase from tourism is not documented.

4.62

179-48

In paragraph 4 again the figures do not accurately reflect the impact to the local economy the reduction of livestock AUMs would cause. And over state the impacts of the possible increase in tourism would have to the local economy.

4.63

179-49

Paragraph 4 talks about the closure or heavy use restrictions imposed on livestock grazing within level 1 areas will result in a long-term ecological benefit to improved riparian ecosystem in these areas and water quality of the Green River drainage. What research or data is this based on, this is an open-ended statement with no substance. Riparian areas ought to managed as an area and not a small ecosystem excluded from the rest of the area. How is livestock grazing by itself affecting the water quality of the Green River? Is this implying the whole stretch of the Green River is being degraded by Livestock? Statements like this should be use conservatively and documented by data or research.

A8.18

179-50

This table is very general we realize it was done to save space in the document. However, it is extremely hard to understand the problems on the allotments when they are described in such general terms. The best solution would be a short statement individually describing each allotment its specific problems and possible management practices to solve the problem.

R.2

179-51

We could not find the citation by Godfrey E. Bruce anywhere in the document.

179-48 Refer to our response 3-24.

179-49 The sentence referred to has been omitted.

179-50 As you stated, the method used was intended to save space and the types of problems were intended to be general. Detailed objectives and problems by allotment will be stated and addressed at the activity plan level. Allotment management plans will be written, as funding provides, in a priority as listed on Table A8-5.

179-51 Bruce Godfrey was consulted during the writing of the economic analysis of the draft document, but none of his text information was used initially. In the final document Mr. Godfrey is cited as a reference.

NOTE: The comments from the Diamond Mountain permittees (comment letter #226) are responded to here. Approximately 200 original signatures were attached. For the sake of brevity only, these signature pages and accompanying reference section are not reproduced in this document. The entire letter, with signatures, is available for public review in the Vernal District Office.

RESPONSE TO COMMENT LETTER 180 (UTAH TRAIL MACHINE ASSOCIATION, Huck)

UTAH TRAIL MACHINE ASSOCIATION
CONSERVATION • COURTESY • SAFETY

March 24, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

RE: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement.

Dear Ms. Smalley:

The Utah Trail Machine Association represents the interests of all motorized recreational users of public lands in Utah. Over the past several years we have become increasingly concerned with the apparent trend among federal land managers to restrict motorized access to public lands even though there is no objective data indicating that such access has resulted in any disproportionate impact to the resource.

This trend is especially troubling considering that motorized users are singled out from all other classes of users for special restrictions. This is inappropriate because any type of use will have some kind of impact on the land. Foot travel, mountain biking, and horseback riding all leave their own unique imprint on the land. Yet when the BLM , as well as other federal agencies, formulate plans restricting access, only motorized users and their effects are addressed.

We are well aware that certain well financed and highly organized groups have made it a priority to attack motorized recreation on public land by developing and perpetuating a body of propaganda that greatly exaggerates the negative impacts of motorized recreation, while completely neglecting the impacts of their own chosen uses. It is your responsibility as professional land managers to make decisions that are not only based on factual information, but also are responsive to the needs of all classes of your constituents.

Also keep in mind that in the next few years approximately two millions acres of the most scenic land in our state will be withdrawn from multiple use and placed into the the most restrictive category of all: Wilderness. Because all motorized users will be totally excluded from these vast areas you should have an added incentive to maintain such access to the greatest possible portion of the remaining lands.

Motorized recreation is an important part of the economy of our state. The 1990 Utah OHV Survey found that motorized recreation adds 180 million dollars to our economy annually. The figures given in Table 3-23 show that motorized travel in the DMRA encompassed 54,200 hrs while non-motorized travel amounted to only 14,000 hrs. It is clear that reducing motorized travel opportunities will negatively impact a huge segment of your users.

We would suggest that if it becomes necessary to impose travel restrictions in any particular area, these such restrictions should apply to ALL forms of travel. If soils, wildlife, or plants in a region will be harmed by a passing motorcycle, then they will also be harmed by horses, mountain bikes, and troupes of hikers. A few quick calculations will reveal that the specific pressures exerted on the ground by horses' hooves, bicycle tires, and even hikers boots can greatly exceed those exerted by motorcycle or ATV tires. Furthermore, motorized users tend to make day trips, returning to a camp or to home to spend the night. Non-motorized users, on the other hand, due to their slower rate of travel tend to stay overnight, thereby increasing certain types of pollution. This is especially true of horse travel. All public land users should be included in any travel restrictions that you propose for the Resource Area.

180-1

We find the motorized travel restrictions suggested for the Red Mountain area unjustified and arbitrary. For many years this has been a popular destination for motorized users and there has been no objective data presented showing excessive impact from this use. The argument that certain resources COULD be impacted by motorized access is without merit and inconsistent with our system of laws and does not belong in any public document. If damage is occurring due to human activities in this area then it should be closed to ALL human access.

The protection of relict vegetation is cited as a reason to restrict motorized travel in the Red Mountain area. Page G.11 cites the following definition for relict vegetation:

> A vegetation community or area within a vegetation community relatively undisturbed by **human activities** to allow the community to progress towards it natural climax composition. (bold face added)

This definition in and of itself would compel the land manager to restrict all human travel in the area to be protected. To limit the closure to motorized travel is not only discriminatory but also defeats the purpose of the restriction.

180-1 It is not our policy to limit all users to an area unless there are impacts being created by all users. We prefer to address impacts and consider needed restrictions on an individual basis. Some give and take is normally required by all to accommodate the needs of others. Please refer to our response 13-1.

CONCLUSION:

180-2 We argue strongly AGAINST the adoption of Alternative B (Ecological Systems) It is a kind of watered-down wilderness management approach that totally ignores the needs of the vast majority of your constituents. You have a responsibility to serve the needs of the people who use these lands. There will be enough formal wilderness designated to achieve the whatever purpose is served by removing human activity from the public lands.

The Red Mountain area should remain open to motorized access as has been the case for many years.

We urge you to adopt one or a combination of the remaining alternatives together with increased sensitivity to the legitimate needs of those who desire or require motorized access to lands under your stewardship.

Thank you,

Rainer Huck, Ph.D.
President, UTMA

180-2 Thank you for your comment.

P.O. Box 592
Vernal, Utah 84078
March 30, 1992

Jean Sinclair, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Sinclair,

181-1 I am very concerned about the resource management plan for Diamond Mountain. Proposals A, B, C and D seem to be loaded to the desires of special interest groups. Short term profits and improper use of fragile land is not in the best interests of the people of Utah. The Federal Government and the State of Utah need to consider the alternative which will best benefit the majority of citizens. This choice should be Alternative E. It is the most sensible management plan. Our fragile desert environment needs to be protected, therefore I support the Uintah Mountain Club's proposals for the improvement of Alternative E.

181-2 I oppose any more land designed for phosphate mining in the Red Mountain - Ashley area. I would rather see more Level 1 and Level 2 management prescriptions. Protective zones around sensitive archaeological and palaeontological sites should be included.

181-3

I hope the BLM will be sensitive to the land and the people rather than the needs of special interests.

Sincerely,

Roy Krubsack

RESPONSE TO COMMENT LETTER 181 (KRUBSACK)

181-1 Thank you for your comments. Regarding phosphate mining, please refer to our response 61-2.

181-2 Please refer to our response 61-1.

181-3 Please refer to our response 177-4.

March 31, 1992

Good Morning.

I haven't comprehensively plowed through the whole Diamond Mountain Resource Management Plan, but here's an opinion anyway.

Of the five alternatives, Alternative E is clearly the best. The others are far too biased toward various single purposes. Even this good start can be improved, I think.

189-1 -- Please consider removing the area around the Taylor Mountain Road between Red Mountain and Dry Fork from eligibility for mineral development. That seems to be extraordinary ground for a number of reasons and deserves to be given some protection.

189-2 -- Maybe you could identify more land as Level 1 and Level 2. That would at least give more time to inventory the resource and be able to make more informed decisions on pockets of sensitive terrain. It's easier to preserve it than repair it.

189-3 -- Feel free to regulate access by ORV's. Nothing says that machines have the same access rights as people, especially in delicate areas.

189-4 -- Is there some way to give more emphasis to paleontological and historical values? How can already identified sites be protected?

Again, Alternative E seems to be the best bet. I congratulate you on your work; it's lots of information about some pretty great country. Please keep me informed on further developments in the planning process. Thank you very much for your time.

Sincerely,

Day DeLaHunt

Day DeLaHunt
PO Box 69
Jensen, UT 84035

RESPONSE TO COMMENT LETTER 189 (DELAHUNT)

189-1 Thank you for your comment. Please refer to our response 61-2.

189-2 Please refer to our response 61-1.

189-3 The proposed plan does outline the OHV designations for the resource area. Please refer to the interim OHV map enclosed in Map Packet #10 for the graphic depiction of the designations.

189-4 The map in Chapter 3 identifying highly sensitive paleontological areas has been expanded to include additional areas. The criteria used in the draft for allowing collection of this resource has been strengthened to give more protection to the resource. More frequent visits to important paleontological and histoic areas by BLM personnel would provide a greater degree of protection for these resources.

VERNAL AREA CHAMBER OF COMMERCE

134 WEST MAIN VERNAL, UTAH 84078 (801) 789-1352

March 27, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Ut. 84078

Dear Team Leader Smalley:

190-1 From what we have been able to learn in general about the Diamond Mountain Resource Area Resource Management Plan And Environmental Impact Statement Draft, we prefer alternatives A or E over alternatives B,C and D. We are not prepared at this time to make comments on specific aspects of the draft but we have encouraged our members and committees to participate as they feel appropriate on their own behalf.

We appreciate very much the efforts made by the bureau, its director and staff to keep us informed of the progress of this very important project.

Sincerely yours,

Mark Foley
President
sn

RESPONSE TO COMMENT LETTER 190 (VERNAL AREA CHAMBER OF COMMERCE, FOLEY)

190-1 Thank you for your comment.

March 30, 1992

Penelope Smalley
Bureau of Land Management
Vernal District
170 South, 500 East
Vernal, UT 84078

Dear Ms. Smalley,

I appreciate the opportunity to comment on the BLM's proposed Diamond Mountain Resource Management Plan. I support Alternative E, only if it is extensively amended. Before I detail the suggested amendments, I must express my general dismay at the apparent one-sidedness of the alternative. I feel it fails badly to provide a full spectrum of varying degrees of development on the land. In particular, a pitifully small area is slated for very protective management, whether it be for watershed protection, recreation, or wildlife. I would like to see much more land designated level 1 and 2. I also support the Uintah Mountain Club's proposal, which seems to me a true compromise.

191-1

The slickrock area north of Steinaker Reservoir should be closed to motorized vehicles, except for the existing road to the top of Red Mountain. This slickrock, with arches, and alcoves, is a very unusual area for northern Utah. It is the closest natural area recreation to Vernal, and I go there about 10 times per year. I also take student groups there, in the Earth Sciences Field Studies classes. Limiting access would protect the area, but it is, and still would be, accessible to anyone capable of walking up easy paths for short (less than 1 mile) distances.

191-2

I feel the only legitimate conflict here is between motorized versus non-motorized recreation. The mineral resources (e.g., phosphatic rock) appear far too deeply buried for economic recovery. The rock itself is not liable to much habitat or range improvement. Inasmuch as nearly all of the resource area will be open to motorized vehicles, including part of this area, then I feel non-motorized recreation should be the highest use at Level 1.

Protection zones restricting surface activities around archaeological and paleontological sites should be established, along with enforcement of same to protect our public resources. These sites are numerous throughout the slickrock area, both behind Steinaker and Redfleet.

191-3

RESPONSE TO COMMENT LETTER 191 (ELDER)

191-1 Please refer to our response 61-1.

191-2 Please refer to our response 79-2.

191-3 Please refer to our response 177-4.

191-4 If the land in Diamond Breaks and West Cold Springs WSA's are not designated as wilderness, then this land should be placed into the Browns Park ACEC. Both the Upper and Lower Green River would benefit from Wild and Scenic designation.

191-5 The riparian area and canyon of Dry Fork around Alma Taylor Hollow should be a Level 1 recreation area, with non-motorized recreation the highest use. In this area is an extensive riparian forest, the large springs of Dry Fork, as well an informal trail system up Alma Taylor Hollow.

191-6 The Endangered Species Act should be followed when dealing with;

- the riparian zones of the Middle and Lower Green River (for the 4 endemic fish, and roosting of wintering bald eagles)
- The slickrock canyons and pinnacles behind Steinaker and Redfleet (peregrine falcon eyries)
- The riparian areas of Ashley Canyon, Dry Fork Canyon, and the riparian areas of the slickrock canyons (Spiranthes and silverspot)

Sincerely,

Tom Elder

191-4 Please refer to our response 77-5. Both the upper and lower Green River segments are recommended for wild and scenic river designation in the proposed plan.

191-5 Dry Fork Canyon around Alma Taylor Hollow has been identified as a developed recreation site. OHV use is limited to designated roads and trails. It has been identified as a no surface occupany area for leasable minerals. It also has been closed to grazing by livestock. It is our opinion that designating the area as level 1 would be unnecessarily restrictive to recreation development of the area.

191-6 Please refer to Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives, for a discussion of the Bureau's responsibilities under the Endangered Species Act.

March 31, 1992

BUREAU OF LAND MANAGEMENT
Vernal District Office
170 South 500 East
Vernal, UT 84078

REGARDING THE DRAFT DIAMOND MOUNTAIN RMP WHICH WAS RECENTLY SENT TO ME, I WOULD LIKE TO GIVE YOU MY RECOMMENDATION IN THE RED MOUNTAIN AREA.

THIS AREA HAS BEEN USED IN A MULTI-USE CLASSIFICATION FOR YEARS. THIS AREA IS MOSTLY SANDSTONE, WHICH IS NOT SUBJECT TO DESTRUCTION FROM VEHICLES, HORSES OR HIKERS.

THERE HAS BEEN CATTLE, WILDLIFE AND MANY OTHER TYPES OF ACTIVITY IN THIS AREA. THE STATE OF UTAH CREATED SOME OFF ROAD TRAILS FOR ORV USE AND THESE ARE USED EXTENSIVELY, NOT ONLY BY LOCAL PEOPLE, BUT MANY FROM OTHER AREAS ARE USING THIS PUBLIC LAND FOR RECREATIONAL PURPOSES.

AS FAR AS I CAN DETERMINE, THERE HAVE NOT BEEN CONFLICTS BETWEEN DIFFERENT GROUPS OF PEOPLE, SUCH AS HORSES VERSUS ORV USERS. ALL TYPES OF PEOPLE SEEM TO ENJOY THE AREA AND COOPERATE WHILE USING THIS AREA.

192-1 THE SMALL AMOUNT OF EROSION DAMAGE SEEMS TO BE NEGLIGIBLE OR EASILY REPAIRED . I WISH TO RECOMMEND TO THE BLM THAT THEY LEAVE THE PRESENT CLASSIFICATION OF THE RED MOUNTAIN AREA AS IS, WHICH I BELIEVE WILL SERVE THE CITIZENS BEST.

SINCERELY,

NORMAN C. PEASE
2293 West 1000 North
Vernal, UT 84078

RESPONSE TO COMMENT LETTER 192 (PEASE)

192-1 Thank you for your comment. Please refer to our response 10-1.

March 31, 1992

Penelope Smalley
Bureau of Land Management
170 South 500 East
Vernal, Utah 84078

Attention: Penelope Smalley

We became aware of this Diamond Mountain Resource Plan a few weeks ago. We have looked at it and tried to understand it, but, frankly, it is so complicated it is unfair to expect an informed opinion of much of it.

193-1 One thing we did notice is the introduction of bighorn sheep could limit grazing. This is not right. We don't market and eat bighorn sheep.

193-2 Also we don't understand the black-footed ferret issue but it seems it will have an impact on use of livestock that would be restrictive.

We do not directly run livestock, but our family does and we share acreage on Diamond Mountain. So we are interested in changes that would affect this area. We have an interest in the Little Hole and do not think the range condition is unsatisfactory, as listed in this plan. It is our experience that a farmer or rancher who provides a living from the very land he uses, tries to manage the resources to the best advantage.

193-3 We are concerned about the cost involved in producing this management plan and huge volume. Also, it is interesting that little to no input is included from those who actually work on and care for the land and resources and from private land owners included in the study.

193-4 We are concerned about the restrictions that could be placed on private ground and limits to livestock permits. Before any of these alternatives are considered those directly involved should have more input.

Sincerely,

Pam Whitmire

Clif Whitmire

Clif and Pam Whitmire
2611 South Vernal Avenue
Vernal, Utah 84078

RESPONSE TO COMMENT LETTER 193 (WHITMIRE)

193-1 We believe the reintroduction of native species could be accomplished without significantly affecting the livestock industry. Reintroductions would also be consistent with other federal and state land management agencies' goals of restoring bighorn sheep to their historic range. Please refer to our responses 116-8 and 178-11 for further information.

193-2 Refer to pages A2.10 and A2.11 for the proposed black-footed ferret reintroduction guidelines. Under the proposed plan there are no significant impacts to livestock grazing resulting from these guidelines.

193-3 Thank you for expressing your concern. Public input from all the public land users has been sought and received throughout the RMP process. Specifically, input has been sought and received during the initial scoping period, to identify issues of concern to the public land users; in the development of the planning criteria, the guidelines in the development of the alternatives, and, in the development of the alternatives themselves. It is our opinion that the draft RMP and the proposed plan/final EIS adequately reflects the input from the public land users received during the public scoping period at the beginning of this project.

193-4 No restrictions outlined under the proposed plan or any alternative would be applied to private land. Livestock permittees will continue to be directly involved in management of their allotment.

March 30, 1992

Penelope Smalley
Bureau of Land Management
Vernal District
170 South, 500 East
Vernal, UT 84078

Dear Ms. Smalley,

I am a concerned citizen interested in the best possible long term management of our federal lands, and would like to support Alternative E for the BLM's proposed Diamond Resource Management plan. This alternative seems more balanced than the others. In addition, I would like to see some modifications to it to make it better.

194-1 There are several issues only partially addressed in Alternative E. First, I would like to see more lands in level 1 and 2. In particular, the Uintah Mountain Club's proposal seems to be a reasonable compromise, which would allow more protection than Alternative E alone would provide. Also, the slickrock area north of Stainaker Reservoir should be closed to motorized vechicles as this is a very unusual area for northern Utah. The area adjoining Moonshine Arch consists of spectacular slickrock which has been abused because of motorized access. I hiked there in

194-2 November, and there were several areas where slickrock had been spray painted with lots of beer cans and trash on the ground. Limiting access would provide some protection from this type of abuse. In addition, the BLM would do well to consider the acquisition of State Section 16 in the Red Mountain Area to help preserve this slickrock area. Some private lands should also be acquired.

194-3 Protection zones restricting surface activities around archaeological and paleontological sites should be established, along with enforcement of same to protect our public resources.

194-4 I have no problem with ORV use in general, but it seems to make sense to me to concentrate ORV use in areas less sensitive to long term damage than the present proposals allow. It seems to make no sense to allow ORV use on all lands within the Diamond Mountain Resource Area.

194-5 If the land in Diamond Breaks and West Cold Springs WSA's are not designated as wilderness, then this land should be placed into the Browns Park ACEC.

RESPONSE TO COMMENT LETTER 194 (OLSON)

194-1 Please refer to our response 61-1.

194-2 Please refer to our response 70-1.

194-3 We are not planning to establish 200-foot extended protection zones around archeological or paleontological sites in the proposed plan, but the sites will be protected.

194-4 OHV use will be allowed on the less sensitive areas in the resource area without restrictions. However, on sensitive areas this use will be limited during critical time periods to protect important resource values. Examples of these are deer wintering areas and critical soils during wet periods. There are several areas in the resource area where OHVs are prohibited yearlong. Please refer to the OHV map provided in Map Packet #10.

194-5 Please refer to our response 77-5.

194-6 Both the Upper and Lower Green River would benefit from Wild and Scenic designation.

Sincerely,

David P. Olson

194-6 Thank you for your support.

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Jerry A Miller
Division Director

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS AND RECREATION

1636 West North Temple, Suite 116
Salt Lake City, Utah 84116-3156
801-538-7220

March 30, 1992

David E. Little, District Manager
Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Dear Mr. Little:

As curator and park manager at the Utah Field House of Natural History State Park in Vernal, Utah, we are frequently involved in the evaluation of paleontological resources on BLM land in the area. This letter is in response to your request for a review of the draft Resource Management Plan/ Environmental Impact Statement for the Diamond Mountain Resource Area. Your Alternative E seems to be the most acceptable management plan. However there are a few points that we would like you to further consider.

195-1 PALEONTOLOGY: Map 2-7, Table 2-18 Alternative E, defines several ACECS. Known paleonotologically sensitive formations, with known fossil localities, are found in several of these areas (as defined by Map 3-3). More detail is needed under the Browns Park Complex (Miocene vertebrate fossils from the Browns Park Formation); Red Mountain-Dry Fork Complex (Mesozoic vertebrate fossils - see my expanded list); Pariette (Uinta Formation badlands - Eocene mammals).

195-2 Table 2-13: Surely there is a misprint under Cultural and Paleontological Management Alternative E. Protection zones should be established for paleontological and cultural resources, with vertebrate fossil collecting only allowed by permit. Casual collecting of invertebrates and plant fossils using hand tools could be allowed with BLM permission (check in with you prior to going into the field). Surface disturbance by OHV use should be kept to a minimum in these zones. Type localities for numerous mammal fossils and some other vertebrate material are known from the Diamond Mountain Resource Area. To not protect these areas would be considered very poor management by the scientific community at large.

195-3 Table 3-2 Highly (to moderately sensitive depending on the area) formations for paleontological resources. In the last few years paleontological researchers have discovered significant vertebrate fossils and traces in this area (see enclosed figure). If you need references regarding this data, please contact us. Therefore, please add these formations:

Carmel Formation - Middle Jurassic - Presence of heretofore unknown dinosaur footprints

RESPONSE TO COMMENT LETTER 195 (STATE OF UTAH, DIVISION OF PARKS AND RECREATION, Bilbey & Hamblin)

195-1 Thank you. This information has been added to Chapter 3.

195-2 This table has been corrected. Inventories for paleontological resources will be conducted on highly sensitive areas before surface disturbing activities are allowed to take place. If paleontological resources are found, impacts will be mitigated through avoidance or exacvation. At this time OHV use will be allowed to continue.

195-3 Thank you. Both the table and map have been modified to include the new data you provided.

Curtis Formation - Late Jurassic - Presence of marine reptiles, both types the first found in Utah of this age. (Ichthyosaur and Pliosaur)

Mowry Formation - Early Cretaceous - Presence of the first known perch (Beryciforme fish)

Frontier Formation - Middle Cretaceous - Presence of heretofore unknown dinosaur footprints.

195-3 Cont.

Wasatch Formation - Early Eocene - Reptile and mammal fossils, some of the earliest primates. Aided in the definition of mammal ages.

Browns Park Formation - Miocene - Mammal fossils (*Gomphothere*, camel, horse, etc.)

The definition of Tertiary mammal ages was determined by fossils collected from the Uinta, Duchesne River, Bridger, and Wasatch formations from the Uinta and Green River Basins.

195-4 Table 4-18: Summary of Impacts: Alternative E would be best, perhaps with additional recognition of sensitive areas which could be managed more rigorously, e.g. the anticlinal nose of Split Mountain where the Morrison Formation is well exposed and is known to contain vertebrate fossils. See the enclosed map that outlines paleontologically sensitive areas.

195-5 WATER: Although you consider the potential for contamination of the ground water from a number of sources, you do not discuss potential for destruction of the aquifer itself. Mining, particularly west of the on-going phosphate operation, places the ground watershed at risk. Much of the annual flow into the valley's aquifer comes from water flowing into caverns in the limestones of the Mississippian and Pennsylvanian formations. These caverns honeycomb under the Park City Formation. Blasting associated with mining collapses these caverns, destroying inlets for the groundwater. Water is our most precious commodity in this desert. Most of it is being carefully managed: let's protect these caverns and the aquifers as well.

I hope that this further information will assist you in preparing the final draft of the Diamond Mountain Resource Area Management Plan.

Sincerely,

Sue Ann Bilbey

Sue Ann Bilbey, Curator

Alden Hamblin

Alden Hamblin, Park Manager
Utah Field House of Natural
History State Park
235 East Main
Vernal, Utah 84078-2605
(801)789-3799

195-4 Please refer to our response 195-3 above.

195-5 Please refer to our response 61-2.

1060 4th Ave
Salt Lake City, Utah 84103-4122
March 27, 1992

Ron Trogstad
Diamond Mountain Resource Area Manager
170 South 500 East
Vernal, Utah 84078

Dear Mr. Trogstad:

196-1 I am writing in regard to the Diamond Mountain Resource Management plan currently under review. Please adopt a plan which will enhance ecological and cultural values which in turn will enhance low impact recreation opportunities.

The time I spend each year backpacking in the Uinta Mountains and rafting the Green River are tied to the Diamond Mountain Resource Area. The wildlife I see in the Uintas depend on the Diamond Mountain area for winter forage and the water quality of side streams entering the Green River depends on well managed land. Driving through herds of cattle on overgrazed land on the way to the Island Park put in last year marred the experience of a couple of friends from Vermont we were introducing to Utah rafting. Please increase the wildlife grazing allocation to balance the livestock allocations.

I want to thank you for opposing unfair hunting methods like bear baiting and I ask that the management plan be compatible with wildlife reintroductions including the blackfooted ferret. I want to ask for alternative livestock grazing levels that will allow better range management, so that vegetation treatment will not be necessary. Please limit any vegetation treatments to natural methods such as fire.

I would like to see off road vehicle use strictly limited under the new management plan. I do not think that sale or transfer of critical wildlife habitat should be allowed. I would like to see the Green river protected as a wildlife corridor and considered for more Wild and Scenic River protection. I hope mineral leasing can be strictly limited especially in productive wildlife lands and I hope low potential for mineral development will be equitably balanced against the high cost of environmental damage. This issue of mineral development is especially close to me because of damage I have witnessed in an area in which I once spent much time hiking.

Thank you for your consideration of my comments.

Sincerely,

Ron Raunikar

RESPONSE TO COMMENT LETTER 196 (RAUNIKAR)

196-1 Thank you for expressing your concerns. We believe the proposed plan is the best balance of protective management while allowing compatible uses within the resource area.

March 31, 1992

Dear Mr. Trogstad,

It has come to my attention that the BLM has released for public comment a draft Environmental Impact Statement and Resource Management Plan which address the Diamond Mountain Resource Area in northeastern Utah. My purpose in writing to you is to urge you to support the preservation and/or enhancement of the area's natural integrity, by deemphasising the potential for continued resource exploitation and/or development. I feel this area hosts many important archaeological, wildlife, and recreational values—and most importantly, it contains habitat for several endangered species (i.e. Colorado River squawfish, humpback chub, razorback sucker, bald eagle, peregrine falcon, and whooping crane).

In my opinion, alternative B of the draft EIS, would be the best choice, and alternative E would rank second out of the five proposed, even though several improvements and clarifications are needed. Specifically, these improvements are:

197-1 1. Further reductions in the number of AUM's allocated to domestic livestock.

197-2 2. Implementation of better range management instead of employing vegetation manipulation for improving the range condition--and if treatments are absolutely necessary, do them with prescribed burning, a natural method.

197-3 3. Opposition to any black bear baiting as an acceptable hunting method.

197-4 4. Close the entire Diamond Mountain area to all mineral development—and if that is not possible, at least close all of the proposed Browns Park Complex and Nine Mile Canyon Areas of Critical Environmental Concern, the Ouray National Wildlife Refuge, and the Wild and Scenic River candidate rivers, to any type of mineral leasing, as even the no surface occupancy stipulations could later be waived. (I understand the Resource Management Plan lists the mineral potential on Diamond Mountain as low.)

197-5 5. Study the entire length of the Green River in the Resource Area for Wild and Scenic designation, as it serves as a critical habitat and travel corridor.

197-6 6. Close all riparian, proposed ACEC's, Wild and Scenic Rivers, and the two Wilderness Study Areas north of Browns Park to Off-Highway Vehicle use, except on existing and designated roads.

197-7 7. Consolidate land holdings on Diamond Mountain, instead of further confusing land ownership patterns by trades.

In short, I strongly support the ACEC recommendations, the Wild and Scenic River study for all of the Green River, and a "no lease mineral" recommendation on sensitive lands. Please lend a listening ear, and take the courage to stand up to the seemingly overwhelming pressure from commodity interests. Thank you for your attention.

Sincerely,

James W. Thompson
3901 South Viking Road
Salt Lake City, Utah
84 109

RESPONSE TO COMMENT LETTER 197 (THOMPSON)

197-1 There have been significant livestock reductions in the past as stated under the "Forage Allocation History" in Appendix 8. This data has shown that we are very close to meeting both livestock preference and wildlife proposed increases under the proposed plan. Range improvement and management practices would provide the additional forage necessary to fulfill the requirements. Refer to Table 2-15, under vegetation, regarding forage assignment criteria.

197-2 Vegetation manipulation is an approved tool in range management. Refer to vegetation resources under Management Guidance Common to the Proposed Plan and the Alternatives in Chapter 2, and the 1991 bureauwide Vegetation Treatment EIS, available at each BLM office. Also refer to Appendix Table A8-4 for prescriptions of the major treatment methods planned.

197-3 Please refer to our response 114-34.

197-4 We believe it is unnecessary to close the entire Diamond Mountain, the proposed Browns Park and Nine Mile Canyon ACECs and recommended wild and scenic river segments to all mineral development. The proposed management levels and mineral categories for these areas are adequate to protect the important and crucial resource values while allowing for responsible resource development.

197-5 The entire length of the Green River in the resource area was evaluated for possible inclusion into the wild and scenic river system. Based on criteria set forth in the Wild and Scenic Rivers Act, it was our determination that the upper segment, through Browns Park to the Colorado state line, and the lower segment, between the public land boundary south of Ouray to the Carbon County line be recommended for designation as wild and scenic river segments. Because of conflicts and local opposition to designation of the segment between Dinosaur National Monument and the public land boundary north of Ouray, a determination was made to drop this segment from further consideration. Please refer to Appendix 7.

197-6 Please refer to our response 177-7. It is not our policy to close large areas to OHV use because they are called ACECs, Wild and Scenic Rivers, or wilderness study areas, etc. We prefer to identify particular problems within these areas and change or limit the type of use that are aggravating or causing the problem. Using this approach some areas can remain open to OHV use within these important areas.

197-7 Please refer to Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives, for land ownership dispositions.

295 Crossbow
Green River, Wy 82935
February 18,1992

Mr. David Little
District Manager
Bureau of Land Management
170 South 500 East
Vernal, Utah 84078

Dear Mr. Little:

I would like to make some comments about the Resource Management Plan. After communicating with Questar, I found out they paid Metcalf Archaeological $222,669. for the archaeological work they did on the recent pipeline across Browns Park. Mapco paid about the same amount for their pipeline and Cheveron has two pipelines across Browns Park. This adds up to nearly a million dollars paid for archaeological work required by BLM. Did the taxpayers get a million dollars worth of information out of these studies? Where are the artifacts and reports? In the same report from Questar it appears they spent $400,000. for the Jensen River Bore instead of about $40,000. for a wet crossing. This was to save the humped back chub. Is the Bureau of Reclamation still going to raise the amount of water released from Flaming Gorge to save the humped back chub this summer? Is this wasting water for irrigation and water for power? Questar spent $42,346 looking for the Black Footed Ferret along the pipeline. Questar paid $67,861 to Greystone Consultants for an environmental Assessment. Driving along any highway or dirt road in this area you will notice cows and wild game feeding in pipeline right aways and you see more game around the Cheveron Phosphate mine than anywhere else. It is obvious these companies are improving range conditions. Do we need environmental assessment statements or bonds to be sure reclamation is completed after construction? No matter how you look at it taxpayers eventually have to pay for these studies. No wonder we have such inflation in this country.

198-1

After the first pipeline went across Browns Park, was there any additional information gained in the following three pipelines, or did BLM just give the companies an excuse to raise the rates.

I think the BLM should publish each year what each company has to spend to satisfy government requirements that is not related to the actual construction of each project. BLM should publish each year what it costs in such projects as saving the Humped back chub, looking for Black Footed Ferrets, and saving the spotted owl.

If we are going to stay competitive with foreign markets, we are going to have to keep our cost down in the manufacturing of each product. Fuel is certainly a necessary requirement for any manufacturing product. I believe this information would help our legislators have the whole picture and the USA would not become a second rate country. Gas rates are high enough lets be sure studies are going to benifit taxpayers before requiring them.

Sincerely,

Allen Crane

RESPONSE TO COMMENT LETTER 198 (CRANE)

198-1 Thank you for your comments.

3-31-92

BLM
VERNAL UT

RE: CLOSURE OF RED MOUNTAIN

DEAR BLM,

LAST SUNDAY, MARCH 29, 1992 5 OF MY FRIENDS AND I RODE MOTORCYCLES ON RED MOUNTAIN. OUR PURPOSE WAS TO ASCERTAIN THE "DAMAGE" DONE BY OUR RIDING IN THIS AREA LAST FALL.

WE SPENT THE WHOLE DAY, AND THIS IS A SUMMARY OF WHAT WE FOUND.

1) FEW OF THE TRAILS WERE STILL VISIBLE BUT NOT HIGHLY VISIBLE
2) SOME TRAILS HAVE BEEN KEPT ALIVE BY GAME, MANY OF WHICH WERE GAME TRAILS ORIGINALLY.

MY QUESTIONS TO YOU ... IS BLM SUPPOSED TO STAND FOR "PUBLIC" LAND MANAGEMENT? DO SOME SPECIAL INTEREST GROUPS RATE HIGHER THAN OTHERS? CAN BLM ACTUALLY SHOW US THE DAMAGE WE HAVE DONE?

I TRULY FEEL THAT I AM

RESPONSE TO COMMENT LETTER 204 (BEERS)

204-1 Please refer to our response 10-1.

A RESPONSIBLE LAND USER. I DO NOT LITTER, I TRY TO LEAVE THE LAND BETTER THAN I FIND IT AND I DO NOT UNDERSTAND THE CLOSURE OF AN AREA THAT IS UNDAMAGED BY MY USE.

204-1 Cont.

SINCERELY,

David Beers

PRESIDENT, VERNAL COALITIONS FOR RESPONSIBLE LAND USERS

March 20, 1992

Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Ut. 84078

Subject: Diamond Mountain Resource Management Plan Draft E.I.S.

I must commend you and your team for the comprehensive effort in creating the Draft EIS of the Diamond Mountain Resource Management Plan.

After close review of the Diamond Mountain Resource Management Plan, I favor Alternative E, although I have concerns about the following Topics:

Phosphate Leases in the Red Mountain-Dry Fork Complex.

This is a very unique area because of it's wide diversity of high quality resource values within a close proximity to an urban area. It will be very important to determine the best use of this land. To do this we must first identify the resources of the area. The resources of the Red Mountain-Dry Fork complex are:

1. Recreation (Hunting, Fishing, Camping, Picnicing, Hiking, Riding of Horses, Bicycles, Snowmobiles, and OHVs)
2. Scenic Vistas and Aestetics
3. Riparian Areas
4. Wildlife Habitat (Including crucial winter range for Deer and Elk)
5. Cultural and Historical Resources
6. Watershed (Surface and Underground Aquafer)
7. Vernal Area Municipal Water Supply
8. Archeological and Paleontological Sites
9. Biological Diversity
10. Relict Vegetation

205-1

RESPONSE TO COMMENT LETTER 205 (PERRY)

205-1 Please refer to our response 112-1.

ACEC designation is in tune with the best use of these lands. In light of critical resource values identified in the ACEC nomination for this area, no alternative addresses the impacts to these resources should mining occur. Alternatives B, C, and E designate the Red Mountain, Dry Fork Complex as an Area of Critical Environmental Concern. However, withdrawls for this area have not been considered. The potentially unacceptable impacts from mining in the Red Mountain-Dry Fork Complex are as follows:

1. Changes to Municipal Water Supply Aquafirs
2. Changes to the 100 Year Flood Plain
3. Changes to Local Springs
4. Noise from Blasting and Equipment
5. Degradation of Scenic and Environmental Values
6. Degradation of Property Values

205-1 Cont.

For these reasons mineral leasing is incompatible within 100% of the lands in the Red Mountain-Dry Fork Complex, a total of 25,800 acres. This area is mapped on page 2.111 of the Draft EIS for the Diamond Mountain Resource Management Plan dated November 1991.

The Diamond Mountain Resource Management Plan should recommend withdrawl of mineral leasing for this area at the expiration of the current lease period.

Red Mountain

205-2 Motorized Travel should be allowed on Red Mountain, but restricted to existing roads.

Moonshine Arch

205-3 The area north of Steinaker Reservoir known as Moonshine Arch has suffered degradation due to motorized travel. This area should be closed to motorized travel.

Wild and Scenic River Designation on the Green River

I strongly support designation of the Green River Segments from Little Hole to the Colorado State Line, and Ouray to the Carbon County Line for inclusion in the National Wild and Scenic River System. The recreational and socioeconomic benefits of this designation cannot be overstated.

205-4 In Daggett County there is no doubt rafting the Green River is a major factor in the local economy. People come from all over the world to fish the river. Inclusion in the Wild and Scenic Rivers System would provide much needed facilities at Little Hole, Indian Crossing, Taylor Flat, and Swallow Canyon. Not to mention river camps in between. More importantly it would eliminate the threat of roads and dams in the river corridor.

The lower section is prime habitat for Colorado Squawfish, Humpback

205-2 Please refer to our response 10-1.

205-3 Please refer to our response 10-1.

205-4 Thank you for your support.

Chubs, Bonytail Chubs, and Razorback Suckers. It is also used quite heavily as a white water rafting recreation area. River running is a major factor in the economy of Green River, Ut.

205-4 Cont

These rivers need to be protected to the best of our abilities. The BLM needs to take an active part in seeking Wild and Scenic River status for both of these areas.

Black Footed Ferrets

The current management plan allows 19,000 acres for reintroduction of Black Footed Ferrets in the Sunshine Bench, Shiner, Antelope Flat, Twelve Mile, and the Buckskin Hills. None of these areas are high priority oil and gas producing areas.

In the DMRMP Draft it is stated that it takes 125 acres of prairie dog town to sustain one ferret. If this is true then 19,000 acres should sustain 152 ferrets. This is probably more ferrets than we can expect to reintroduce during the life of this management plan.

205-5

Although I favor Alternative E, I cannot support the additional 14,000 acres of ferret habitat this alternative provideds, in the high priority oil and gas producing lands south of Myton.

Rocky Mountain Big Horn Sheep

205-6 Your choices for Big Horn Sheep habitat are good, but I question the 10 mile buffer zone between Big Horn Sheep and Domestic Sheep.

I look forward to working with you in developing the Diamond Mountain Resource Management Plan.

Thank You,

Russ Perry
Sara Perry
11090 N. Dry Fork
Vernal, Ut.

205-5 Alternative A would allow for the reintroduction of black-footed ferrets in the Twelve Mile area which has been classified as a high potential oil and gas area. Guidelines for reintroduction of ferrets have been outlined in Appendix 2 of the document and define timetables and numbers. BLM anticipates the success of captive-raised ferrets would continue and that an ample supply would be available. The proposed plan has been changed to maintain 16,600 acres on Eight Mile Flat as the primary release site. If another potential area is determined to provide a better opportunity for a successful reintroduction, it would be selected and Eight Mile Flat removed from further consideration. Our most recent data indicates that Eight Mile Flat is the best site for reintroduction and it also happens to be a high oil and gas producing area.

205-6 Please refer to our responses 116-8, 110-10, and 178-11.

3/26/91

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 S. 500 E.
Vernal, UT 84078

Dear Team:

In regards to the Diamond Mountain Resource Management Plan, I support Alternative E. I support the Uintah Mountain Club's proposed improvements for Alternative E.

207-1 I am especially interested in more protection for the slickrock north of Steinaker reservoir. My family and I spend many evenings exploring that area, and often take visitors to moonshine arch. We are in the habit of taking trash bags to collect garbage found in the areas presently accessable by off-road vehicles. I would like to see the private lands at the access to this area acquired so it can be managed properly and closed to off-road vehicles. I have seen the stakes indicating your research into this area, and appreciate the interest.

207-2 I also appreciate the re-introduction of the bighorn sheep, and your plans for introduction of the black-footed ferret.

207-3 As a kayaker and canoeist, I have spent a lot of time on the Upper and Lower Green River, and would like to see these achieve Wild and Scenic Status. This is another local area where I am proud to take visitors.

Sincerely,

Sally Wackowski Ronald K. Wackowski

Sally Wackowski & Ronald Wackowski
1936 E. 1375 S.
Vernal, Ut 84078

RESPONSE TO COMMENT LETTER 207 (WACKOWSKI)

207-1 The Red Mountain recreation area, as outlined in the proposed plan, would include the slickrock country north of Steinaker Reservoir. A recreation management plan would be prepared for this area outlining specific management objectives to provide for numerous types of recreation activities while protecting the important resource values of the area. Also please refer to our response 79-2.

207-2 Thank you for your comments.

207-3 Thank you for your support.

Dear Jean Sinclear:

208-1 The Bureau of Land Management is planning to build a road up over Mames Hole and down into Lambson Draw. They are also planning to build a campsite in Bear Hollow. I think it is wrong, because it

208-2 will allow people to drive through private land, and be a hazard to the environment.

First, the proposed road, and campsite are a hazard to the environment. There will be litter and pollution in the water, and people will tear up the roads and trails. Also the BLM is planning to burn two hundred acres of land. When Joseph Hacking, my great grandfather, owned that land he tried to burn. He waited until the weather was just right for burning. He had just gotten the fire started, and under control when a big gust of wind came up and the fire ran wild.

Second, the land where they plan to build the road, and campsite is private land. The land has been in the Hacking family for ninety-two years. Joseph Hacking used it to run sheep; and Grant Hacking, my grandfather, uses it to run his cattle.

Third, the Hackings have tried not to let it get over grazed. The many reservoirs have all been built by hand. They have also made sure that the fences are kept so that cattle can't stray.

In conclusion, all the care of the land has been done by a private owner. The Hackings have improved the water and kept the grazing under control. To let the Bureau of Land Management build a road through that land would be very wrong.

Sincerely,
Jennifer Hall

RESPONSE TO COMMENT LETTER 208 (HALL)

208-1 Please refer to our response 12-1.

208-2 Please refer to our response 53-1.

March 29, 1992
Marcia Borton
644 E. 300 S.
Vernal, Utah 84078

Team Leader Jean Sinclair
Bureau of Land Management
Vernal District
170 So. 500 E.
Vernal, Utah 84078

Dear Ms. Sinclair,

I would like to express my support for Alternative E of the Draft Diamond Mountain Resource Management Plan. Even though the plan goes a long ways toward providing necessary protection of the land there are some modifications I would like to see made. The Uintah Mountain Club is sending you a list of changes and I support this list of changes they want to see.

One change that especially needs to be made is an increase in acreage of level 1 and 2 Management Priority areas. The amounts specified in Proposal E seem far too low. A reasonable

209-1

RESPONSE TO COMMENT LETTER 209 (BORTON)

209-1 Please refer to our response 61-1.

compromise between B and E is called for.

A special place of interest I would like to see protected is the Red Mountain Area north of Steinaker. This area deserves the maximum amount of protection possible. It should be restricted to nonmotorized travel only. The beauty of the Red Mountain Area rivals that of most National Parks so we should ban the ORV's and take better care of it.

Another special interest of mine I would like to endorse is the reintroduction of bighorn sheep, black-footed ferrets, and river otters.

Overall, I think Alternative E is a good plan. If the BLM will make the changes proposed by the Uintah Mountain Club it can be even better and should do a good job meeting the needs of the many different users of the land.

Sincerely
Marcia Barton

209-1 Cont.

209-2 Please refer to our response 79-2.

209-3 Thank you for your support.

1671 North 3996 West
Vernal, UT 84078
March 29, 1992

Jean Sinclear
Bureau of Land Management
Vernal District Office
170 S. 500 East

Dear Ms. Sinclear,

The Bureau of Land Management is trying to develop the Bear Hollow area and Manes Hole area on Diamond Mountain. While I believe that developing the different mountainous areas of our country is important, I also believe that the development of private land should be left to the owner of that land. I feel that the proposed developments of the aforementioned areas are wrong.

The proposed road would allow more people access to private land and this could prove hazardous to the surrounding vegetation as well as the cattle who live off that vegetation. The litter and pollution of the land will increase as more people gain access to it. A road will make it easier for people to travel through the vegetation and it will also increase temptation to travel off road, furthering the destruction of the precious grass necessary to sustain wildlife. 210-1

The proposed campsite in Bear Hollow will allow people to trespass on private land and possibly harm cattle and wildlife. Aside from that, I honestly don't think that anyone will use the campsite. The only time I ever see anyone camping up on Diamond Mountain is during hunting season and usually they stay in trailers. 210-2

I feel that the private owners of the Diamond Mountain land have used the land they own wisely, and that any interference in this care would be very wrong. Thank you for the time you have spent reading this letter and I hope you will take it into serious consideration.

Sincerely,

Amelia M. Hall

Amelia M. Hall

RESPONSE TO COMMENT LETTER 210 (HALL)

210-1 Please refer to our response 12-1.

210-2 Please refer to our response 53-1.

3-30-72

Diamond Mtn. Resource Manag. Plan

Dear Sir:

Being a Diamond Mtn. land owner, I protest any resource management plan. It will eventually interfere with Private land owners and I recommend leaving the situation as is.

211-1 I don't think its necessary to change the riparian area. Why can't Mother Nature be left as it is? As for wild life we don't need any more, we have enough to feed as it is.

R. Allen Bennion
724 N. 500 West
Vernal, Utah 84078

RESPONSE TO COMMENT LETTER 211 (BENNION)

211-1 Thank you for your comments.

EXXON COMPANY, U.S.A.
POST OFFICE BOX 1600 - MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION

ENVIRONMENTAL AND REGULATORY AFFAIRS

RICHARD D. GODDARD
SUPERVISOR

April 2, 1992

Ms. Jean Sinclair
RMP/EIS Team Leader
Bureau of Land Management
170 South 500 East
Vernal, UT 84078

Dear Ms. Sinclair:

Exxon Company, USA appreciates this opportunity to offer comments on the Diamond Mountain Resource Area Draft Resource Management Plan (DRMP). Much of the Uinta Basin has been productive for oil and gas which has been beneficial to industry, the State of Utah and its citizens and the national economy. Although primary production has been in decline for many fields, much of the Uinta Basin continues to be of strong interest to companies with current producing operations and those interested in secondary recovery from existing fields and development of unconventional resources.

General Comment

Exxon is concerned about the selection of Alternative E as the Bureau of Land Management's (BLM) proposed management direction for the next fifteen years. Based on our experience as producers in the Uinta Basin, we believe industry has generally had a positive and productive relationship with BLM, land-owners and land-users throughout our exploration and production activities. Unfortunately, this productive relationship is not reflected in the DRMP and may indeed be challenged by the Bureau's plan to impose new restrictions on the oil and gas industry throughout the Diamond Mountain resource area.

212-1 If Alternative E is implemented as proposed, industry faces a 54% decrease in the amount of acreage available for leasing with standard stipulations, an increase of 152% in the use of seasonal or special stipulations and an increase of 160% in the use of no surface occupancy stipulations. The net effect of these changes to the oil and gas industry is less opportunity at greater expense for exploration and development of federal energy resources in the Diamond Mountain Resource Area. Because maps that identify where specific lease stipulations will be applied are unavailable, it is impossible to determine how Alternative E affects Exxon's current interests.

Justification for Proposed Change in Management Direction

212-2 In spite of the dramatic shift in management direction proposed by the DRMP, the Diamond Mountain DRMP does not identify any specific problems, justification or need which clearly supports the Bureau's plan to impose more restrictive management for the oil and gas program. Indeed, several statements are made to

RESPONSE TO COMMENT LETTER 212 (EXXON, COMPANY, U.S.A., Goddard)

212-1 The restrictions outlined in the draft document and the proposed restrictions provided in this document would apply to new leases only. The draft document clearly states that nothing in the RMP would preclude valid existing rights. The priority management area map for the various alternatives provided in the map packet of the draft document provide a general spatial depiction of the alternative levels of management. Please refer to the generalized oil and gas category map provided in Map Packet #8. At the time the final RMP and Record of Decision are approved, a detailed map will be provided defining the oil and gas leasing categories and associated new stipulations, if applicable.

212-2 Wildlife information in Chapter 3 has been changed to specifically identify problems and the need for more restrictive management. For example the special status raptor section has been expanded to document loss of habitat from human activity. Restrictions on surface disturbing activities have been reduced 1.5 months in the proposed plan on deer and elk crucial winter range. This is an example of less restrictions in the proposed plan as warranted by a re-evaluation of current knowledge. In addition, antelope habitat restriction periods are the same in the proposed plan as current management, but offer the area manager the use of mitigation to neutralize negative impacts. Please refer to Map Packet #8 for a graphic depiction of these restrictions. Refer to Chapter 1 for clarification on how RMP decisions would effect split estate and existing leases. A map depicting producing fields and ancillary facilities was deemed unnecessary. Again, refer to Map Packet #8. These generalized leasing categories will be finalized and depicted, both in graphic and tabular form, in the RMP's Record of Decision. Please refer to Chapter 2, Management Guidance Common the Proposed Plan and the Alternatives, under minerals, for a discussion of how restrictions would be addressed on split estate lands.

the contrary (Chapter 3, Affected Environment (page 3.11)) that, "General nesting and hunting habitat appear to be adequate.....for raptors"; "Elk are common and their numbers increasing in all herd units within DMRA", and "Mule deer and sage grouse occur throughout the resource area". Additional DRMP discussion notes, "Reintroductions in 1971 and 1983 have resulted in antelope numbers achieving Utah Division of Wildlife's desired management level."

212-2 Cont.

Exxon believes the Bureau should justify the need for change in the revised RMP. Maps identifying currently producing fields and ancillary facilities should be presented as well as maps which identify where standard, special and no surface occupancy lease stipulations will be applied. Because much of the federal acreage in the Uinta Basin is on split estate or held by production, discussion should be presented about how the Bureau will resolve conflicts arising from the Bureau's imposition of a more restrictive management scenario on private lands and in situations where leases predate the RMP.

Geophysical Operations

Aside from new leasing stipulations and prior rights, Exxon is also concerned about the RMP's proposals for geophysical operations and off-highway vehicle management. The discussion and intent for geophysical exploration management as presented in Table 2-13 (page 2.48) and Table 4-13 (page 4.67) are unclear and should be clarified. Both Tables appear to imply that operators can only conduct seismic programs on leased lands and only to the extent permitted by the lease stipulations. If this is the intent, the Bureau's assumptions are erroneous on two counts. First, it has been amply demonstrated by industry and BLM that geophysical operations are temporary and can be conducted with minimal or no on-the-ground imprint by utilizing a combination of data acquisition methods (conventional shothole, vibroseis, Poulter seismic and heli-portable drilling) and BLM conditions of approval which are tailored to local conditions and needs. Second, geophysical operations are routinely conducted (after BLM review and approval) on unleased lands or on leases held by other operators.

212-3

It is our view that geophysical activities are exempt from off-road vehicle restrictions. As such, Exxon is opposed to changes which would require conventional seismic operations to be confined to existing roads and trails and, would require all cross-country seismic to be conducted as heli-portable operations. All lands in the DMRA should be available for geophysical exploration.

Overstated Industry Impacts

We note references throughout the DRMP about impacts to resources and aesthetic values stemming from the oil and gas industry that appear to be somewhat biased. For example, discussion is presented on page 4.54 that industry activities degrade or compromise existing fish and wildlife habitats; similarly, discussion on page 4.57 states that oil and gas development on 150,900 acres would result in a drop of one recreation class. Conversely, the benefits accruing from the oil and gas industry are addressed only in the broadest terms without identification of actual figures for disturbed (or in-use) and reclaimed acreage and state revenues from production royalties, lease bonus and sales, severance or property taxes paid to the State of Utah.

212-4

212-3 An error in Table 4-18 of the draft has caused confusion between Table 2-13 and Table 4-18. Geophysical operations are discussed in Appendix 4. As discussed in this Appendix, geophysical operations "... may be conducted by bonded geophysical operators on BLM surface lands regardless of whether the mineral estate is leased or unleased,". Therefore, operators may conduct geophysical programs on both leased and unleased lands administered by the Bureau of Land Management. The wording of the proposed plan would allow geophysical activities to occur on level 3 and 4 lands with appropriate restrictions and on level 1 and 2 lands if determined to involve insignificant surface disturbance. OHV designations in this plan apply to casual OHV use. Permitted use, such as geophysical operations, can be allowed, provided the method used or resultant exploration would not cause significant surface disturbance.

212-4 The economic significance and importance of oil and gas resources to the Uintah Basin and to the State of Utah is stated on the oil and gas section of Chapter 3. The reasonable foreseeable oil and gas development and associated surface disturbance is listed in Appendix 4, Table A4-3. Further, Appendix 4 (Figure A4-1) and "Plugging and Abandonment Phase" discusses reclamation. The amount of oil and gas royalty and tax revenues which would be lost to the State of Utah and the federal government is analyzed and calculated for each alternative in Chapter 4.

The DRMP should be revised to eliminate the apparent bias and to include the specific information noted above. BLM should also draw attention to the fact that oil and gas projects are allowed to proceed only after BLM (and the public) reviews each proposal for impacts, identifies mitigation measures to be used if the project is approved, and attaches operating and reclamation requirements as conditions of approval.

Please do not hesitate to contact Mr. Fernando Blackgoat of my staff at the address noted above or by telephone at (915) 688-7560 if you have any questions or if we can provide additional information.

Sincerely,

Richard D. Goddard

c: A. Benitez, Rocky Mountain Oil and Gas Association
J. Peacock, Utah Petroleum Association
J. M. Parker, Utah State Office

April 1, 1998

Bureau of Land Management
170 South 500 East
Vernal UTAH 84078

RE: Comments on Diamond Mountain Resource Area

In general, I agree that Alternative E is the most balanced. I do however have areas of concern with Alternative E which are enumerated below.

214-1 1. Dry Fork/Red Mountain west of the Taylor Mountain road, and the Red Mountain areas need to be withdrawn from Mineral Leasing. The reasons include the damage of subsurface water aquifers by active mining. These aquifers supply the culinary water through water wells to Dry Fork residences. Mining would change winter forage for Deer and Elk as well as the resident deer forage. Much of the habitat on the Dry Fork

214-2 hillsides is mature Juniper which lacks wildlife forage in the understory. This area needs to be strip chained or burned to provide varied vegetation. I would personally favor chaining with firewood being gathered and the remaining slash left to deteriorate and leach nutrients back into the soil without burning. The reaction of the area to the Archer Proposal would [illegible] to make any of your Alternatives unacceptable as to Phosphate mining in this area.

214-3 2. The 10 mile buffer between reintroduced Big Horn Sheep and domestic grazing is excessive and should be 1-2 miles.

3. Bear baiting is not sport hunting and should be used only when excess bear numbers need to be reduced.

214-4

4. Cougar running should be restricted to a 5 day period per license. The lions should not be run for several days by dogs just to train the dogs during the middle of winter when most game is on near starvation diets. With current radio telemetry used to follow the dogs, this hardly constitutes sport.

214-5 5. More restriction of OHV to existing roads and trails with less destruction of ground cover and less interference to wildlife and small critters.

214-6 6. If Peregrine Falcons will nest in downtown Salt Lake City and other major metropolitan areas, the 1 mile restrictive nesting buffer is excessive and should be 1/4 to 1/2 mile at most.

RESPONSE TO COMMENT LETTER 214 (GARCIA)

214-1 Please refer to our response 112-1.

214-2 Two hundred acres of pinyon-juniper are proposed to be burned and seeded in the Dry Fork Allotment, refer to Appendix Table A8-4 for the proposed plan.

214-3 Please refer to our responses 116-8, 178-11 and 179-39 concerning the need for buffers between domestic and bighorn sheep.

214-4 Please refer to our responses 114-34 and 116-9. Regarding your comment on cougar running. The BLM manages wildlife habitat; UDWR manages the wildlife populations. Therefore your concerns should be referred to the Division of Wildlife Resources.

214-5 Please refer to Table 2-15, under OHV, as well as the interim management OHV map provided in the Map Packet #10. We believe this plan provides for the protection of critical resource values while allowing OHV use within the resource area.

214-6 The one-mile nesting buffer around peregrine falcon eyries has been recommended by the USF&WS and UDWR who have management and expertise on wildlife. In this matter we accept their recommendations.

214-7 7. Areas reserved for Black Footed Ferret reintroduction are excessive. To the best of my limited research, Black Footed Ferrets have never been demonstrated to have ever existed in Utah. The impacts to Oil/Gas Leasing and Uintah Basin economics are not justified by the INTRODUCTION of a new species to the area. The successes of the captive breeding program make the 1997 target date seem ambitious.

214-8 8. Less acerage needs to be withdrawn from Oil/Gas Leasing, especially in the Myton Bench/Pariette Bench areas.

214-9 9. More acerage for Tar Sands development needs to be available.

214-10 10. The special Deer hunts in Dry Fork on BLM Administered Ground, should be delayed until the Fawns can servive without their harvested mothers, unless the object is harvest both fawns and does.

Sincerely

James Garcia
13591 N Dry Fork Canyon
Vernal UTAH 84078

214-7 Please refer to our response 176-6 concerning changes to the acreages proposed for reintroduction of black-footed ferrets. The Uinta Basin has been documented as historical range by C.N. Hillman and T.W. Clare, 1980, in Mustela nigripes, published by the American Society of Mammalogists, Mammalian Species No. 126. Please refer to our response 205-5 concerning the success of the captive breeding program and ferret habitat management guidelines.

214-8 The level 1 lands within the proposed Pariette Wetlands ACEC would be withdrawn from mining activity. This is a relatively small, albeit important, part of the entire Myton Bench. If you are referring to the proposed restrictions affecting oil and gas, we believe such restrictions are necessary to protect the critical resources values identified for the bench.

214-9 We believe we have allowed the greatest flexibility regarding exploration and development of tar sands within the resource area, while protecting and/or maintaining important resource values.

214-10 Again, your concern would be more properly addressed by the UDWR, the agency responsible for wildlife population management.

Heather Campbell
9122 E. Highway 40
P.O. Box 69
Jensen, Utah 84035

March 31, 1992

Jean Nitschke-Sinclear, Team Leader
Diamond Mountain Resource Management Plan
Vernal District, Bureau of Land Management
Vernal, Utah 84078

Dear Jean,

I believe that Alternative E is the best alternative outlined in the Diamond Mountain RMP. Within that framework, there are several issues I would like you to address.

A positive step in land management is to address ecosystems as a whole rather than just address individual species within an area. Maintenance of diverse wildlife species and habitat is important to our area. The inclusion of the ACECs in Alternative E will help do that and I support their inclusion.

215-1 The Red Mountain ACEC does cause some conflict for OHV users in the area. The people using the area at the present time are a responsible group and would like to see the area remain open. As in so much in our lives, we are distrustful of future users, whether they be land managers or future OHV users who might be less responsible. If the option to close the area remains in the management plan, I would like to ask that you actively work with the current users in identifying problems and solutions so that closure will not be necessary. If a working discussion group is built into the plan, then future problems are less likely to arise.

215-2 Land ownership and access continues to present problems to private land owners in the area and I would like to encourage you to continue your efforts to consolidate land ownership patterns and avoid isolated tracts of public land where access must be through private land. In instances where that is unavoidable and causes problems for private landowners, fenced right-of-way corridors, while expensive, might reduce the impact on land owners and could avoid sensitive privately owned areas.

RESPONSE TO COMMENT LETTER 215 (CAMPBELL)

215-1 Please refer to our response 79-2.

215-2 Access to public land would be acquired from willing sellers or givers. Please refer to Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives for criteria involving land transactions.

A few quick comments about issues which are being addressed more fully in other letters:

215-3 I don't think we need as much designated black-footed ferret habitat as Alternative E includes.

215-4 I'd prefer no new phosphate mineral leasing along the south slope of the Uintas, particularly in the Dry Fork Canyon area.

215-5 Moonshine Arch deserves some special protection.

In general, I'd like to commend you on the document you've prepared. It is well written and more readable than other documents prepared by Federal agencies in the past. The best way to address all of the issues before us is to become as well educated about them as possible and to maintain an open dialog between the land administrators and the public users. While that process is often slow and frustrating, it is most important to involve as many of us as is possible. Thank you for the opportunity to participate in the process.

Sincerely,

Heather Campbell

Heather Campbell

215-3 Please refer to Table 2-15 for the proposed decision regarding black-footed ferrets. Under the proposed plan, only 1 site would be offered for reintroduction, thus reducing the acreage substantially.

215-4 Please refer to our response 112-1.

215-5 The road to Moonshine Arch has been closed under current management. Proposed management of the arch will be outlined in the coordinated activity plan for the proposed ACEC, if approved. A recreation-specific activity plan for the proposed Red Mountain recreation area also will be developed to outline specific management objectives and projects necessary to meet the recreational needs of the various recreation users, while enhancing or protecting the values that make this area so popular.

April 1, 1992

Penelope Smally, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Team;

I am writing concerning the Dimond Mountain Resouce Area Manaegment plan. I give my support to Alternative (A), realizing that C and D protects livestock grazing privileges much more than the other Alternatives. I also realize there must be a comprimise so I feel like plan A is the most reasonable. I would like to point out some discrepancys that may have influenced others to support plans B and E. I question the credibility of some of your resoursr material, namly; Norman Bangerter as an economist, and M.M. Kingon the Big Horn Sheep, I will talk about this later in the latter.

Page 4.60 "cumulative increased wildlife use from 27,600 aum's to 40,000 aum's could result in livestock reductions (9000 aum's) which may result in a $11,500 yearly loss to livestock industry. However this increase may also generate up to $94,800 for the local commuinty" Was this a screen to get people to vote for Alternative E? I feel this is not correct. Everyone give a choice would elect to loss $11,500 in order to make $95,800. The annual grazing fee would generate about 9000 X 1.92 = $17,280. Our operation last year generated about $86,000 using about 2126 active aum's of which 75% of our operation depends on these aum's. $86,00 X .75 = $64,500 The $64,500 is what 2126 aum's generated which all went into our local economy, and the sheep prices was depressed.So therefore it took the full amount to pay operating expences we was unable to pocket any of it. Cattle operations did much better due to high cattle prices. The 2126 aum's divided into 9000 equals 4.23. 4.23 X $64,500 = $272,835. The 9000 aum's would have generated $272,835 under the management of our operation. Seems that $272,835 of comfirmed procceeds is much better than $94,800 of projected earnings. I feel that an established industry is being sold out for the propects of a unknown spectulation. 216-1

Inconsistance page 4.46 states that a 500 aum increase would be worth $38,000 a year to livestock. Page 4.60 states 9000 aum's are worth $11,500 to the livestock industry there should be a constant value per aum when judging the impact on the Alternatives.

The problem I have with the reintroduction of the Black Fooed Ferret is that of the possibility of loss of grazing privileges, forced animal classes, forced "use periods" that do not fit into our operation. Loss of the power to control praire dogs on agreculture lands and Ferrets killing domestic foul. I do feel that the Praire dog does nees a natural predator and the Ferret may be enough to contorl them and no farther control may be needed. 216-2

I feel like our grazing rights a private privileges and in order to obtain them we must buy them or spend money time, blood, and tears in order to improve the range to the extent that it will carry more livestock, just to fine that

RESPONSE TO COMMENT LETTER 216 (HOLMES)

216-1 Please refer to our response 104-2.

216-2 Please refer to our responses 90-1, 176-5 and 205-5, concerning black-footed ferret habitat management. Also please refer to Appendix 2 for further management guidelines concerning ferrets.

much of our work has been to increase the number of wildlife and not the livestock.

I feel that the Fish and Game Department is standing here with their hands out. If they want aum's transfered to wildlife let them buy the base property and permits and transfer them to wildlife. While paying the annual taxes and grazing fees. After all these aum's are only valued at $9.19. I also disagree with this price. I have had to pay 4 times
216-3 that amount for some of the ones we own ada Nile W. and Evelyn Holmes Family Trust. It will take that much to buy them from us. In our case the Big Horn Sheep is threating our ability to maximize our profits and threating a change from the class of livestock that we feel best suits our Alotment. The DWR should compensate the permittee for the protent dollars loss as long as the restrictions are in force. this should all be negotiated on the free enterprise system,instead of the gradual taking a few aum's here and a few there which has been used in the past. We find livestock aum's have been cut and wildlife increase. We feel like we are paying the total price for increased wildlife. Let recreations pay their share. I feel like the DWR and recreationast wants the grazing privileges we have had to buy, but instead of buying them, they want them given to them. We are also finding restrictions placed on us, (threat of increased grazing fees, limited repairean use, spectified animal class, and others,) these restriction make so we cannot make any money. This almost seems like a plan with the hope that we will not be able to continue, thusgiving up our grazing privileges "the DWR could thenuse them and get them for nothing" nad then neverhave to pay an annual grazing fee or the taxes on the private lands. Let them use the money generated by recreational use, to buy thebase property and grazing alotments or negociate trades or make agreement with the permittee.Many would cooperate if they did not feel like they were being shafted.

All through this document I felt the importance of agriculture has been played down. I think we had better
216-4 remember who produces our food and what importants it plays in ourlives. Recreation is of no use or is not important to us ifwe are hungry or spending all our time trying to provide food for our familys. If we are short on money the first thing to go is the vacation.

To reduce jobs in rural Americs would increase unemployment and the homeless. That is what would happen if we use our public land for recreational use only. It would put more people in the cities competing for jobs which would lessen the wages there. With less money for vacations would our public lands be used for recreation as much as they are today. The recreation services will replace a percentage of loss jobs loss by stopping grazing, mining and timbering, but not the total amount and then it would be seasonal.

I would like to state a fact in econmices. When supply exceed demand prices are low, when demand exceed supply prices are high. I realize that a amall percentage of red mest is produced on public land. But is that small percentage large enough to create a "surplus or a shortage" I feel that everyone profits from grazing by cheaper food prices. Therefore

216-3 Under the proposed plan, livestock grazing preference is not reduced, but remains the same as current management. Wildlife forage allocations have been proposed to be increased in the same alternative and will be based on vegetation monitoring to insure that ample forage is available. Also please refer to our response 80-3.

216-4 Please refer to our response 3-24.

we have more to spend on recreation if the needed items cost less, more is spent on play. Will all resource set aside for recreation be utilied if we are spending all our paychecks on "nessissaties" food, clothing, housing, and transportation.

216-5 Recreation in our area has declined for the past 3 years. Wii Seep Ridge Road change that or will the liability cost more tha- the benifits?

216-6 Does the Fish and Game have the ability to manage our wildlife it increase our "recreational use" We have had a steady decline in the quality of Deer, Pheasants, Quail, Chuckers, and Rabbit hunting, and will until we address the predation problem, we have.

216-7 Could the pooer quality of hunting and less wildlife be the reason for three years steady decline of recreational visition?

I qusetion as to the extent of potental increase inthe "recreational use"

Do we become dependent on Foreign Nations to produce our food, like we did in the 70's and still are dependant on imported petoreulm. Is there any need to be dependant on others when we have a renewable resoursr "RAnge Lands" All we need is the wisdom to harvest it. I feel that by utilizing the multiple use concept we can hunt,and observe wildlife, view fossils and formations, enjoy float trips and fish and also have a surplus of food that as Americans we have came to expect.

Thank you;

Holmes Bar-NE Ranch
By
Dwayne W. Holmes

Dwayne W Holmes

216-5 The economic impacts of the proposed Seep Ridge Road, also referred to as the Ouray to I-70 highway, are addressed in the forthcoming environmental impact statement. While this proposed highway would cross Diamond Mountain Resource Area, none of it would be across public lands administered by BLM. Please contact the BLM Moab District to have your name added to the mailing list.

216-6 We agree that the quality of habitat has suffered recently, mostly from continued drought in the Uinta Basin. Our information indicates that the recreational visitation has not declined, but rather the success during the hunt has decreased. We continue to propose and complete range improvement projects to improve habitat, but this would never compensate for ample precipitation throughout the year. Please refer to our response 12-2. In our ADC program, we have allowed for predator control where we feel it is necessary and justified.

216-7 Our prediction of future recreation use is based on increases we have experienced over the past several years. We have no reason to believe this trend will not continue. We use visitor counts, traffic counter data, and information from other governmental agencies in making these predictions.

TO: Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

FROM: Ralph Siddoway, land owner and Ashley Valley Farmer

RE: Diamond Mountain RMP

From my point of view as a Rancher and Farmer ~~that~~ there are some short comings in it that I would like to call attention to. Not that I would take anything from this plan, because it is excellent and real scholars have prepared it, but I would like to put my point of view into try and point some of the short comings of the plan if I can from my point of view.

While the experts have been preparing this for two or three years, I have only had a chance to spend a very limited amount of time on it. There are many things I will not even touch upon, but just a few things that I would like the attention to the Bureau of Land Management where I think the plan could be improved.

Briefly this plan includes 3,777,000 acres of land which is comprised of property which is administered to by the Ashley National Forest, the State of Utah, Bureau of Land Management, Duchesne County, Uintah County, Flaming Gorge National Recreation Area, Dinosaur National Monument and many private land owners, so we do have a problem of vested interests. Even the Indians were includes in this. The Uintah Ouray Indian Reservation is part of this plan. It needs be given consideration from many points of view. And it is with this in mind that I am going to try to give a point of view of at least of some of the Ranchers and Farmers.

217-1 It should be noted that 29% of the land included in this plan is privately owned land and any thing that is done by the Bureau of Land Management to change the present administration will effect most of these private land owners who are Farmers and Ranchers so we need to respect their rights also. Also many of these Ranchers are permitees on the Ashley National Forest so they will be affected from that point of view also. Then they are also lessers of state land and will be affected again for anything that this plan attempts to change from the degree

RESPONSE TO COMMENT LETTER 217 (SIDDOWAY)

217-1 Please refer to our response 52-1.

217-1 Cont.

of the administration of the state lands in relation to the Bureau of Land Management Plans, so it will require a lot of giving and taking if this plan is to work.

Quite a lot of this plan has reference to wild life and live stock, which rightfully it should and that is a big part of what this whole area is all about. If fact, the whole Taylor Grazing Act in which we get all the authority to operative this land from states very clearly. The purpose of the Taylor Grazing Act is to stabilize the live stock industry. With that in mind I think we should look at the various changes which are recommended by this plan to see if the really do stabilize the live stock industry.

217-2

Of course there other purposes it has also, but from the Rancher and Farmer point of view the big majority of the public domain was used and still is used for grazing purposes and it should be used where it will benefit the live stock industry. The issues here involves many conflicting demands for consumptive and non-consumptive pieces of vegetation, the soil, the water, the water sheds, the timber, and graze land grazing so it needs to be approached with a view in mind that everybody can get something good out of this plan.

When we are talking about use of this land for grazing we should recognize that not only the vegetation is important but the water is important, and the water shed is important and much of the available water for use by live stock and wild life also is on private land and when you increase or decrease livestock or wild animals either one it will effect the burden that is put on the private land and so if you increase by a large of wild animals that you put on the Bureau of Land Management Land it automatically increases the amount animals that will be on private land. And whether this is just or not somebody needs to determine because if you 1/3 more Elk on the Diamond resources than it presently has then we are going to many problems. The first problem is that in the view of many people there is not enough vegetation to carry this large number of Elk on the Diamond Mountain area without injury to the live stock industry and without injury to the deer population in fact the deer population has been hurt right now because they are in competition with the Elk. The Elk has increased real rapidly within the last few years, but you have noticed the deer have decreased, so you have got a problem there and we need to recognize that if you are going to increase the amount of elk by 1/3 then your automatically going to decrease the number of deer that are available and you are going to put quite a severe burden on the private land because even thought you may develop excess feed on Bureau of Land Management Land, nobody is going heard Elk. Those Elk will go where they want to go, and when they get thirsty they will go on private land, and if there is some

217-2 Impacts to private lands from possible increased wildlife use have been discussed under the cumulative impacts of the proposed plan and Alternative B in Chapter 4. Please refer to our response 12-2.

particular variety of feed on private land that they like they are going to get it. We saw that on the rim of Diamond Mountain in 1991, in the fall of 1990, and the winter of 1991 where on the rim of Diamond Mountain and a lot of money spent changing that surface from grazing to farm land. The deer have noticed that change and they have moved over there, but that wasn't nearly such a burden as when the Elk moved over there. These Elk are large powerful animals and you can't fence them out with an ordinary fence. It was real devastating to this new farm on Diamond Mountain when the Elk took over. Attempts were made to fence them out but they were not successful. It take a different kind of fence to control Elk than the farmers are used to is this area, and so it was a real hardship on this farming enterprise on the rim of Diamond Mountain and will continue to be a hardship on Diamond Mountain as it is developed into farming area. That should be recognizes to begin with that Elk are detrimental to farming and they are really difficult to control. In addition to that the Elk appears to have about as many animals on the area that we are speaking of as it can possibly control. In the winter of 1990 in January, February and March we saw the Elk invade the highways in Ashley Valley. Now for a long we have had deer on the state highways and they are a problem, but they are not near as severe a problem as the Elk are on the highway. The Elk are large and if you run into one of those Elk you just about demolish the car, but severely injure the passengers in the car much worse than the deer will do. And we did have on highways between Vernal and Jensen Elk on the highways that were a real problem, and that needs to be considered. And then when spring came these Elk stayed down in the Jensen and they didn't move back on the mountain area, so you have an invasion there. Where we have never had Elk before they have them. In fact when the elk first planted in the Vernal area sometime 1950 when they were planted here there was always heard of elk at Greendale that are native there, but there is not very many. There is not enough to hunt. So when the area was restocked by the Utah Division of Wildlife Resources it was done with the approval of the Forest Service, Bureau of Land Management, and the private land owners, they all agreed to this but they also agreed that the heard would not be over 150 head. It many, many times that now and it has caused a problem and we need to recognize that before definitely increase that heard a lot. In the first place there is not room for that many elk in this area without conflicting serious injury on the highways, on the farmers and ranchers, on the deer population and those people who like to hunt deer. It should be recognized that that is one of the problems that has to be solved and since is responsible for seeing that the elk stay where they should stay then the problem usually becomes the problem of the

private land owner, like it did on Diamond Mountain in 1990. That problem needs to be solved or most likely the elk will not thrive there and be a problem to the land owner and the elk population until something is done to solve it. It will take more than just to solve this problem. It is a new problem for us and it will take a lot of ingenuity to keep these elk off the farming ground. If there not kept off the farming ground these elk can not prosper and neither can the farmers. It will a bad situation for both.

Now in the plan on page A8.19 it states that the existing livestock preferences exceed the current production of vegetation. That is not a very long statement but it contains a world of thought and must go into the regulation of wild animals before they are increased. There is even enough feed there to take of the livestock that are permitted there, and now if you come along and increase the number of wild animals, which will take even more feed. then you have infringed upon the private land owner again and that is just not right thing to do.

Of course the plan says that there will be planning, administration, there will be more feed produced on the BLM land, more water will become available, that is fine it should be, but that should be done first before the elk population is increased. Don't increase the elk and then try and increase the vegetation and the water resources. It just doesn't work that way. Have these resources available before you increase the elk and then if you are successful in increasing the elk there will be a hold for them to go to. If you do it the other way, increase the elk and then encroach more upon private land owners water and vegetation there is going to be trouble.

On page 1.5 there is a very significant statement on this plan. It states "Management concerns, issues and problems are discussed with the RMP. When existing or proposed management of one resource significantly contains or curtails existing or proposed use of another resource." That is certainly true. If you increase the number of elk for constraining or controlling the amount of use the private land owner can get from his own land and his own water. That needs to be taken care of. The agency does like to guide and require the land use allocations not now in place to be made through the planning process. But lets make those available before you increase the elk.

Sometimes the existing land use is already in conflict with the elk and the farms, and the elk and the cattle, and the elk and the sheep, because stated previously this plan already recognized there is a shortage of vegetation and when you have a shortage of vegetation for the live stock

that is permitted there then you come and increase the amount of elk that are allowed to go on that, also you are just making a bigger problem than you have already got. If you are going to maintain a profitable and thriving grazing community for the livestock industry in this unit we must be aware of these problems. We must not cut down on the amount of water and feed the private land owner has developed for his own use and give it to the wild animals. In many cases the only place that the deer and the elk can water is on private land. Now that may be a hardship on the private land owners. And off of this, if you put another burden on them then it is going to make a real serious problem and it is not going to contribute to sustaining the livestock industry. If we are going to sustain the live stock industry lets look out for them while we put this plan into effect.

As the plan states on page 137. To the extent possible coordinate land use inventory, planning and management of public lands with the land use planning and management programs of other federal agencies, and the state and local government use. This must be done. While the plan provides for it, lets not over the plan. Lets not make it more difficult to graze this feed for the livestock industry as it already is. and not take any more of the ranchers water than we already do.

This plan does not address the wilderness designation that has been taken effect for the last ten years, which has been an encroachment upon private industry and private grazing. We shouldn't give them an added burden from this plan that will increase the burden that the wilderness area has already put on them. The livestock grazing has already lost 3800 animal units feed, since they were first permitted. That is quite a severe loss. and when you look at the other losses that are contemplated the other wilderness areas or other parks and withdrawal, and the other recreational demands that are made upon this land, the grazing area should not be reduced further than it already has been.

217-3

If the elk herds are increased by thirty or forty percent, who carries the burden of this?

1. The privately owned land owners. farmers and ranchers.
2. The United States Forest permitees who are licensed to feed on the forest.
3. BLM private allotment owners who are allowed feed and water on the BLM land.
4. The state land part of which are leased by private lessors will loose also.

217-3 General planning criteria, outlined in Chapter 1, directs wilderness designations already analyzed in the existing Colorado and Utah Wilderness EISs (completed in 1990) will not be addressed further. Impacts from designation or not as they affect the livestock industry are analyzed in detail in these statements. During the public scoping period at the beginning of this project, no new areas were identified for consideration as WSAs.

These unreasonable proposed increases in wildlife will further burden the poor classes of people and the general public. By a decrease in the economic value to the general public which will be lost to them. And who will receive the benefits from this increase of elk herds, largely hunters from out of state. While the increase the revenues to the wildlife resource of the state of Utah it will not nearly compensate for the burden caused the private ownership of land owners and the grazing permitees of Utah and the decrease of economic value to the general public. .

For the introduction of Rocky Mountain Big Horn Sheep. It also calls for a ten mile buffer zone around the introduction sight from domestic sheep. The twelve mile buffer zone was not documented from any literature but just stated by someone that was on the committee to write it. It seems to me that this is an awful big buffer zone. Wider that most allotments on the BLM. It is about the same distance the city dump to Brush Creek. What will happen to the buffer zone? Will that just be an increase in the amount of land that is allotted to the wild sheep or will the domestic livestock be allowed to trespass on thar at will. Will it be fenced, or how will it be maintained as two buffer zones so that neither class of stock infringe upon the other. It seems rather out of range procedure to me to set aside such a large buffer zone as this. It may be that there should be a buffer zone, because we know that Big Horn Sheep carry disease which is transmitted to domestic sheep. It is quite possible that domestic sheep carry a disease that can transmitted to the wild sheep. So it may possible that we need a buffer zone. But from all the evidence that is at hand immediately I think that including the ten mile buffer zone between the two is ridiculous.

217-4

Included the Diamond Mountain Resource Area Management Plan there is some evidence that domestic sheep have infected wild sheep with disease. But there is also more evidence not included the resource plan that the wild sheep have infected domestic sheep. It seems to me that wild sheep are going to infect domestic sheep. They should not be put on the range where domestic sheep can come in contact with them. The domestic sheep should not have the burden of leaving ten miles of vacant space between the sheep allotment and the wild sheep allotment. Something should be done to alleviate this. If fact, in the Salt Lake Tribune just recently there was an article where 100 Bureau of Land Management, U.S. Forest Officials and Utah Natural Resource Officials were using airplane and helicopters to scan the area that they could to determine if there was any poison scattered on range, and finding all the dead animals that they could and tried to detect if they had been baited for poison which would kill coyotes. If it is illegal to

217-4 Please refer to our responses 110-10 and 116-8. Please also refer to the discussion in Chapter 3 which documents the need for a buffer between domestic and bighorn sheep. The buffer zones would not be fenced and we would anticipate domestic sheep would be herded away from the zone, much like they are around adjoining grazing allotments. The allotments cited in Appendix 8 as exceeding current preference are few in number and are currently being resolved through agreements with the involved grazing permittees. Some allotments may need further monitoring before any adjustments are made.

poison coyotes it certainly should be illegal to poison domestic sheep. If wild sheep can be proved to carry disease to the domestic sheep then they should be excluded from the range just the same as poison should be excluded from being baited upon the open range so should wild animals be excluded from scattering their disease.

When the Taylor Grazing Act was passed in 1934, grazing allotments were organized and a significant decrease in the number of livestock the was permitted to run on the range was made. Many people were put out of business at this time. To make room for the livestock to graze the grazing that was there. It simply would not carry all the livestock that were being put on the grazing land and so there was a significant amount of sheep excluded and also cattle from running on the open range. At this time they also set up what they determined to be a fair share for the wild animals. They were given what was to be their fair share. Since that time there as been many times where this has been changed, and every time that I know of, where there has been an adjustment made the livestock have been decreased to make way for increase in the wild animals. This does not appear to me to be the way to solve a problem justly, maybe sometimes should be. I think this has been carried to an extreme and the livestock animals have been decreased to make way an increase in the wild animals more than the fair share of the time.

On page AS.17 of this plan, it has given a fair description of what has happened. It states how the livestock industry has been decreased and it has according to this report has been decreased 9%, and the wild animals have increased 25%. I am including this sheet just as it is printed in the resource area plan as part of my comment because it is significant to show that the domestic livestock have been imposed upon in my opinion to the advantage of the wild animals.

217-5 Also in this plan where it discussed the economic importance of the livestock industry in Uintah County. It seems to indicate that the livestock industry is an insignificant affair. It doesn't really amount to anything, and that what is really important is the wild animals in the county.
I think this is erroneous and can not be substantiated by the facts, and we have some proof of this. Mr. Cheeny who was manager of the Uintah State Bank during the years 1940, 1950, and 1960 made a statement in 1950 is really significant. The Uintah State Bank at that time was the leading bank in the Uintah and Duchesne Counties. During the years of 1940 and 1950 the Uintah State Bank had deposits of more than all the other banks put together. And he made a statement that his own record that 3/4 of all

217-5 Please refer to our response 69-2.

the money they took in at the Uintah State Bank came either directly or indirectly from the livestock industry. It is true that that is not the case today, and it can't be the case as long as you keep pulling the livestock industry and adding the wild animal industry to the grazing area. But at that time it was a significant part the Uintah County. And it is today. It is reported that of the three counties that have grazing allotments in this area, that theses allotments contribute $54 million dollars to the wealth of these three counties. Which seems like a significant amount of money for the Diamond Mountain Resource Area to contribute to the agriculture of these three counties. Most of the money derived from agriculture in the basin is do to livestock. Most of which is spent here in the basin.

217-5 Cont.

There is another significant part to this livestock contributing to the Uintah Basin and that is all the reservoirs and all the canal systems and all the irrigation systems that cost millions of dollars to install and to operate are dependant for the success of farming industries of livestock in the basin. True, some of the farm products can be exported but being 120 miles from the nearest railroad. It is impractical to try and export such crops as hay and grain. You just can't export hay and grain and compete with the outside world, so you have to feed it to the livestock that is here. That is what this livestock and farm industry have been based upon for the last almost 100 years. The farmers ~~sales~~ their hay and grain to the livestock people. The livestock people have been able to buy hay and grain produced here locally so they didn't have to import it. It is quite a unique operation, but when you disturb that and take the livestock off of this area, you are not only taking the livestock income away, but you are also taking the farm income to a great extent away from this place. It is not profitable to produce hay and grain in this area and export it. It cannot be done. But if it can be used to feed the livestock in this area where it compliments the livestock business, the livestock business compliments the farming business. This is a unique operation and has been for a hundred years and should still be that kind of an operation. It is profitable and contributes a lot to the economics of the whole area.

I would like to conclude my remarks about the resource management plan with this idea in mind. That the farmers, the merchants, the bankers, the county, the state and federal are all in this together. And if you can keep this working so that the livestock industry can be a prosperous industry it supplement the income from the farms, and the farms will supplement the income form the livestock industry and make this a productive unit as it has been in the past. And that is the way is should be operated not exclude the livestock. If they have to exclude the livestock to permit wild animals it just won't work.

Ralph Sudweeks

March 30, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

Dear Penelope Smalley, Team Leader;

I am amazed at the time and effort put into the making of the Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement and shocked at the cost of such a thing. I feel there are some things that need to be relooked at, clarified, or included in the document. I'll list some of them and hope you will take note.

218-1 As Co-chairman of the Uinta Basin Riparian Coalition, I and the other members discussed the document in our last meeting. The members felt the approach to riparian areas was fairly proper but lacking in some areas, such as no specific mention to water rights, nor that managing riparian zones would have to consider the impacts on private property as well as federal range. Water rights need to be recognized since if the right has to do with irrigation, riparian restoration could have an impact on water delivery. The members of the coalition brought up the fact that all grazing impacts need to be addressed, to include wildlife, not just livestock; especially since Diamond Mountain neighbors the Ashley National Forest and they've seen some overgrazing by elk on streams.

218-2 Talking about grazing, on page 1.11 where wild horses are addressed, instead of saying, "Wild horses will not be addressed further in this plan.", the plan should read more like feral horses will be subject to the Wild Horse and Burro Act and will be removed at owners cost or sold to retain cost of removal.

218-3 To make a statement as found on page 4.23, "The livestock grazing industry in the Uintah Basin has insignificant economic impacts nationally.", is in my opinion not very proper. Since we are talking about Diamond Mountain, why not state Diamond Mountain resource area has no significance nationally. To use a figure such as $9.19 as the cost of forage/AUM, and then say that it is the value brought into the local economy is an error in the use of the value of the forage since forage value and local economic value are not the same thing. On page 3.53 it's stated "Presently an AUM is valued at $9.19 as determined by the Agriculture Statistic Service, USDA (1991)." I coulan't find mention to that figure anywhere in the Agricultural Statistic book and I looked cover to cover. I feel that using an assumed value on wildlife and recreation is improper when this document will have a 15 to 20 year impact on the area.

RESPONSE TO COMMENT LETTER 218 (CHEW)

218-1 In Chapter 1 it states that valid existing rights take precedence over any management decisions depicted on the alternative maps. Water rights are considered "valid existing rights". Activity level projects will comply with NEPA procedures of which impacts to private property will be considered. In reference to wildlife use on riparian areas, please refer to our response 116-2. Significant impacts to riparian in the proposed plan are not expected, however, as part of Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives, under vegetation resources, it states: "Temporary adjustments in use due to effects of drought would be made to livestock and wildlife as shown needed by monitoring."

218-2 Again, please refer to Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives regarding management of wild horses within the resources area.

218-3 Please refer to our response 104-2.

218-4 Contrary to alternative B, I feel that bear baiting by permit is a proper activity to allow, as long as it is within DWR rules.

218-5 There are a lot of noxious weeds in the DMRA especially along stream corridors. I did not see anything in the document that addressed this problem. If some of the streams go to a wild and scenic status, would this limit chances to control the noxious weeds? Proper chemical treatment should be allowed in all forms of vegetation control.

218-6 I am concerned about some of the criteria talked about for the reintroduction of bighorn sheep. In everything I've ever read I've never seen anywhere that it is suggested there should be a 10 mile radius from domestic sheep. Recently there have been studies that show bighorns already possess the diseases that are of a concern of them acquiring from domestic sheep. History tells us that not very long ago people felt that domestic sheep were detrimental to cattle, and now everyone knows that common use of the range is beneficial for all animals.

Sincerely,

Scott H. Chew

218-4 Please refer to our responses 114-34 and 116-9.

218-5 The proposed plan provides a management decision for noxious weed; it is outlined in Table 2-15. The specific management prescriptions for weed control along the upper and lower segments of the Green River are also outlined in Chapter 2.

218-6 Please refer to our responses 116-8, 178-11 and 179-39 and new data added to Chapter 3 which should explain the need and justification for the buffer between domestic and bighorn sheep.

Vernal, Utah
April 29, 1992

Penelope Smalley
Bureau of Land Management
Vernal District
170 South, 500 East
Vernal, Utah 84078

Dear Ms. Smalley

This is my response to the Diamond Mountain RMP.

I realize the scope of the Draft document is considerable and that there are many concerns and areas affected by this plan.

My main concern is that it appears to me that no one with a true agriculture background assisted or had final say in the preparation of the Draft document. Several places the document refers to agriculture and particularly livestock as a minor industry in the Uintah Basin. The tone of the document is that Wildlife and Recreation have first priority on BLM lands. The 1991 Utah Agricultural Statistics points out that the cash receipts of livestock in the three county area of the Uintah Basin is 54 million dollars. Certainly that is a significant amount. Livestock represents the most basic and probably the most stable industry we have in the Uintah Basin.

219-1

RESPONSE TO COMMENT LETTER 219 (TAYLOR)

219-1 Please refer to our response 104-2.

219-1 Cont.

Further livestock create new wealth to the economy each year, as opposed to wildlife and tourism competing for dollars that if not spent in the Uintah Basin will be spent some where else.

On pages 1.5, 1.9, 2.7, 3.5, 4.26, 4.27 statements are made that imply livestock and wildlife are not compatible. I feel that in most instances livestock and wildlife, if properly managed, can complement each other.

I use and am most familiar with the Red Mountain and Spring Creek allotments. I see and count the wildlife on these allotments quite frequently. In refering to Tables A2-1 on page A 2.6 I feel that the wildlife AUM numbers are much closer to the objective numbers than what is shown as current numbers. The treatments for increasing AUM's should be accomplished before any increases in wildlife or livestock are permitted. Managment of the wildlife during March, April and May, when they are most detrimental to the range should be a concern. Objective wildlife stocking levels for this unit includes 10 Moose AUM's. We have seen moose in this allotment but they always move out in just a day or two indicating they don't want to stay in this area.

219-2

219-2 Current and objective AUM levels noted in Appendix 2 were derived from UDWR herd unit estimates and broken out by allotment by BLM. These estimates are for use on BLM-administered land only, and do not account for wildlife use on state, other federal, or private lands. We recognize wildlife do not follow administrative boundary lines and that wildlife use depends on availability of forage and physical and terrain factors. This may account for the differences in numbers you have observed. Our concerns not limited to spring wildlife use, but their long term, year 'round patterns. This accounts for the proposed decision stating objective levels would be achieved only if monitoring indicated adequate forage was available and the vegetation was not being harmed. The allocation of forage for moose is to account for the occasional moose that use the allotment as you indicated.

219-2 Cont. If they were to locate here on this allotment I think they would congregate at Stenaker Lake which would probably create a problem there.

The same generalization could be made for the Spring Creek allotment. This allotment has an objective use for 50 AUM for Big Horn sheep. I feel this allotment is too small for Bighorn ~~without~~ because of human harassment by recreation vehicles and herding of cattle.

219-3

I appreciate this opportunity to contribute and hope these views can be considered in the final draft.

Sincerly Yours

Kyle Taylor
2271 N 1500 W
Vernal, Utah 84078

219-3 The allocation of forage for bighorn sheep in the Spring Creek Allotment would be for the Ashley Creek Gorge area. This potential habitat area would connect across the face of Dry Fork Mountain to Dry Fork Canyon and onto the adjacent Ashley National Forest area. We identified this area due to documentation as historical habitat. We recognize the problems you mentioned involving private land in the area. Due to these reasons, the Dry Fork area would probably be the lowest priority on our list for reintroduction efforts.

MARCH 31, 1992

PENELOPE SHALLEY, TEAM LEADER
BUREAU OF LAND MANAGEMENT
VERNAL DISTRICT
170 S. 500 E.
VERNAL, UTAH 84078

PREPARERS:

CURRENT MANAGEMENT PLAN A FOR MANAGING PUBLIC LANDS IN THE DIAMOND MOUNTAIN RESOURCE AREA SHOULD CONTINUE. MULTI-USE CONCEPTS WITH RANGELAND MANAGEMENT TO MAINTAIN OR IMPROVE CONDITIONS MUST BE INCORPORATED BUT NOT LEANING TOWARD A ONE USE OR FIRST USE CONCEPT.

5.266

220-1

IF LIVESTOCK GRAZING MUST BE LIMITED AROUND BIG HORN SHEEP HABITAT IT SHOULD BE DONE WITH ALTERNATIVE GRAZING PLANS. BECAUSE OF THE SERIOUS EFFECT RELOCATION OF BIG HORN SHEEP COULD HAVE ON LOCAL SHEEP PRODUCERS MUCH MORE RESEARCH IS NEEDED BEFORE SUCH A LIMITATION ON GRAZING CAN BE JUSTIFIED. SOME LOCAL RANCHERS COULD BE FORCED OUT OF A LIFESTYLE THAT HAS EXISTED FOR FOUR GENERATIONS.

THERE MUST BE RANGELANDS, WILDLIFE, RECREATION, TIMBER SCENIC USE AND WITH A UNITED COOPERATIVE EFFORT OUR PUBLIC LANDS COULD BE MANAGED, PROTECTED AND IMPROVED WITH MULTI-USE PRACTICES FOR THE GENERATIONS TO COME.

SINCERELY

Ernest J. and Linda L. Holmes

RESPONSE TO COMMENT LETTER 220 (HOLMES)

220-1 Please refer to our response 178-11.

March 30, 1992

To Bureau of Land Management
Re Diamond Mt Resource Management Plan Draft

You deserve a lot of credit in your completion of the draft Diamond Mt Resource Management Plan. Completing a plan of this scope with the various issues and interests is not an easy task. You have also done a comendable job with public involvement. The recognition of the ACEC designation for Dry Fork-Red Mountain Complex is a result of this process. Your recognition of this critical area to the basin and the philosophy of critical resource values that give ACEC [redacted] recognization is well developed. You state the value of this area to the future of the basin through recreation and other values that give the area ACEC designation cannot be over emphasized.' yet at the same time you make the assumption that leasing and development of phosphate is compatible and it is not. The integrity of the ACEC designation and identified values cannot be maintained with mineral leasing of phosphate. Phosphate development is incompatible with the special emphasis programs of recreation, wildlife and watershed being pursued by federal, state and local agencies. It is also incompatible with traditional uses of the land such as livestock grazing and water uses. As additional housing development take place in the Bruch Creek and Spring Creek Area, as well as upper & lower Dry Fork, phosphate development become a threat to residents in the quality of life of those people directly affected by proximity and the basin as a whole as tradition uses of the area are deteriorated. In recognizing the best use of the land for the basin through ACEC designation, phosphate development is incompatible. The benefits to be gained by phosphate leasing & development are far outweighed by the quality of life the basin will experience by managing for those resources that give the area ACEC status. Your preferred alternative needs to withdraw phosphate leasing in these lands

221-1

5.267

RESPONSE TO COMMENT LETTER 221 (JOHNSON)

221-1 Please refer to our response 112-1.

designated as the Dry Fork Red Mt ACEC complex.

221-1 Cont.

The consequences of phosphate development to the identified resource values of the ACEC were not adequately addressed. In withdrawing these lands, as needs to be done in the preferred alternative, the reasons should be clearly spelt out. These reasons are all contained in the ACEC nomination

221-2

One of the most critical reasons to the west of 191 is the Vernal Municipal watershed and the springs the supply water to the valley. The critical condition of the underground caverns system should be addressed in Affected Environment. Numerous publications exist on dye testing to show the underground water flows both east and west of Ashley Gorge. Any activity that would cause a failure in this system would threaten the municipal water supply. On two occasions last winter, blasting at Chevron shook homes in Dry Fork. What level of blasting and how far west could cause changes in spring sources & possibly alter the entire underground water flows? Impacts to Watershed, residents, recreation, wildlife, Cultural Resources, ranching & the future of the basin are incompatible with phosphate development. The Red Fleet area portion of the ACEC east of 191, is receiving increase yearly and provides a scenic backdrop to the basin. The whole of the ACEC, rightly recognized needs to have withdrawal from phosphate leasing as part of the Mgt plan for the area. There are some vague & inconsistant coverages of phosphate. Part of the plan talks about strip mining & overburden, part of it underground room & pillar mining. Sections have the whole area open under Class 3 lands p. 4, 8 says Mining activities would be confined to lands east of Brush Creek.

221-2 Please refer to our response 61-2.

221-2 Cont.

The desire to work with the public on developing a plan for this area is an exciting and great opportunity. But in order for a meaningful plan to be developed clear direction for the area needs to be given & this involves the withdrawl of phosphate leases. Underground mining is unacceptable west of 191. This would not eliminate the threat to the underground water systems.

221-3

A few other Concerns with the preferred alternative:

Livestock Grazing: The ACEC nomination for the area recognized the value of livestock grazing & the need to continue this activity. Much of the rural makeup of the Uintah Basin is based on the ranching industry & this industry has been a stable economic force in the area. A higher priority needs to be given to the ranching industry and proper grazing levels the ranching community should not be hit with a reduction of AUM's. your document addresses the problems the ranching community is experiencing and to reduce AUM's would only add to the problem. Many ranches are incorporating recreation use in their operation such as cattle drives etc. Continued traditional ranching & modified recreation ranching are both a use that needs recognition it would not be in line with the reasons for ACEC designation to favor increased wildlife numbers & recreation use at the expense of campable traditional uses

221-4

Also p 4.65 - Under the preferred Alternative No additional public access should be acquired. This would create impacts unacceptable to the other resource values. No new access should be acquired

221-3 No reductions in livestock are proposed for the Red Mountain-Dry Fork area. Vegetation monitoring on the grazing allotments would be the basis for any future reductions.

221-4 Public access to public lands presently surrounded by private lands was identified as an issue during the scoping period. Public access would be acquired only from willing sellers or givers.

A very important recognition you gave to the 1978 American Indian religious Freedom Act and associated recognition in ACEC's to traditional Ute useage of the land really needs to be commended. This is the first planning document I have seen recognize not only the act but also the incorporation into the document. This is a highly commendable recognition.

The Native American heritage is very much a part of our culture.

The western ranching heritage is also very much a part of our culture and needs to be recognized not only from the economic standpoint of the basin + individual ranchers but also its cultural significance. I'm very recreationist that is appalled at seeing ~~cattle~~ livestock grazing on public lands, there are many more that share a certain excitement in seeing these same animals.

5.270

221-5 I would also like to discourage the use of fencing riparian areas and instead look at other management options to improve riparian areas.

Ian conclusion you need to go back to the original ACEC Nomenate for the Dry Fork Red Rt complex and to develop the management direction with the emphasis on compatible resource values and

221-6 The plan also needs to allow for additional restrictions if it becomes necessary to protect resource values at risk i.e. additional closures for ORV's and other recreation use restrictions to protect riparian values etc. ~~Implement~~ Encourage timing changes etc and other mgnt options to ranchers to reduce predator losses rather than current predator control methods. There are many opportunities for compatible uses to be worked out that have first short of tensions of disagreements. The plan for Dry Fork Red Rt ACEC can provide a great opportunity

Thanks. Darlene Johnson

221-5 Fencing of riparian areas is identified as only one management option to maintain and enhance riparian values.

221-6 We believe the management prescriptions for the Red Mountain-Dry Fork ACEC provide for the protection of important resource values; while allowing for reasonable development or use of compatible resources.

George R. Miller
2510 W. 1000 S.
Vernal, Utah 84078

March 27, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley,

As Diamond Mountain landowners of some 700 hundred acres which is used for summer grazing and recreation, we can't see the need to start opening up more roads. If anything, the existing ones need more work and maintainence.

Your draft is so complex and hard to read and understand it is difficult to form a good opinion in 90 days on what took a group of people and three years to prepare.

We would if anything have to favor Alternative A, at the same time we see no reason not to continue on the same level as in the past. We thought you were doing the job well enough as it was. We also hope that a few radical environmentalist groups are not trying to change your past policies and in doing so creating problems for the silent majority.

Sincerely,

George R. Miller
Maxine Miller

George R. and Maxine Miller

RESPONSE TO COMMENT LETTER 222 (MILLER)

222-1 Thank you for your comment. Also please refer to our response 12-1.

Department of Energy

Western Area Power Administration
P.O. Box 11606
Salt Lake City, UT 84147-0606

MAR 31 1992

Ms. Penelope Smalley
Team Leader
Vernal District
Bureau of Land Management
170 South 500 East
Vernal, UT 84078

Dear Ms. Smalley:

Thank you for the copy of the "Fall 1991 Draft Diamond Mountain Resource Management Plan (RMP) and Environmental Impact Statement (EIS)." Western Area Power Administration (Western) is very interested in the planning activities of the Bureau of Land Management (BLM), particularly RMPs and EISs. We have reviewed the RMP and EIS and offer the following comments for your consideration:

223-1 1. Major transmission lines and pipelines are prominent linear facilities and could be represented on the maps for information and reference purposes to facilitate the review process.

223-2 2. Western owns, operates, and maintains the Flaming Gorge-Vernal Nos. 1 and 3 138-kV transmission lines across the Diamond Mountain Resource Area. These lines have been in existence since the early 1960s and constitute existing utility corridors. These existing corridors should be represented on the maps and those new corridors proposed under the respective alternative management plans should be considered as additional. The distinction between existing and proposed new corridors could be clarified in the RMP.

We appreciate the opportunity to participate in the Diamond Mountain RMP and EIS and hope these comments will be beneficial. If there are any questions, please telephone me at (801) 524-6375 (FTS 588-6375) or Lloyd Nelson at (801) 524-5869 (FTS 588-5869).

Sincerely,

Jim Tomsic

James E. Tomsic
Assistant Area Manager
for Engineering

RESPONSE TO COMMENT LETTER 223 (DEPARTMENT OF ENERGY, WESTERN AREA POWER ADMINISTRATION, Tomsic)

223-1 Thank you for your suggestion to include major transmission lines and pipelines on our maps. However, the myriad of information needed to be shown on all maps necessitated our including only the most essential data. In this the township/range grid, major roads and general topographic relief lines were considered sufficient information and reference guides for the general reader.

223-2 Only major corridor routes, whether existing or proposed, are shown on the priority management maps for the proposed plan and alternatives.

Chevron U.S.A. Inc.
6400 South Fiddler's Green Circle, Englewood, CO 80111, P.O. Box 599, Denver, CO 80201

J.F. NewVille
Manager, Environmental,
Safety, Fire & Health

April 1, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Dear Ms. Smalley:

Chevron has some serious concerns with the Draft Diamond Mountain Resource Area RMP with regard to its impacts on oil and gas leasing and operations. Alternatives discussed other than A establish a disturbing trend toward greater restriction on acreage that has traditionally been available for exploration within this basin.

224-1 There is no justification furnished in the Draft to support the dramatic increase in highly restrictive seasonal stipulations in wildlife areas or for expanding protection zones for raptors and sage grouse, nor is there any documentation that current management of oil and gas leasing and operations has resulted in population decreases which warrant increasing restrictions.

The proposed seasonal restrictions could potentially restrict access to an area from December 1 to July 15, 7 1/2 months of the year! This would make things impossible from an operations standpoint.

224-2 Precluding geophysical exploration on 14,460 acres of high potential lands would also prevent any possible exploration or development of the area because most companies would be unwilling to fight for access to an area with no seismic evidence of hydrocarbons. This would all but lock out this area of the RMP.

224-3 Restricting access for maintenance and operations is unacceptable! We understand this as meaning that if our well went down during any of the proposed restriction periods, we couldn't get to the well to restore or increase production. Would this apply to existing producing wells within the area or would they be grandfathered?

The area discussed is a large piece of Utah acreage and we don't feel this document strikes a "balance" between the environmental and mineral resources of the area.

Thank you for the opportunity to provide our comments and we look forward to seeing them addressed in the final document.

Sincerely,

J.F. NewVille

RESPONSE TO COMMENT LETTER 224 (CHEVRON USA, INC., NewVille)

224-1 Please refer to our response 212-2.

224-2 Under the proposed plan , level 3 and 4 lands would be open to geophysical exploration. Level 1 and 2 lands would be closed to significant surface disturbing geophysical activities. Refer to Table 2-15, under minerals.

224-3 The proposed plan has added or emphasized wording regarding maintenance and existing operations to most restrictions. Thus existing oil and gas activities would be allowed to continue at producing well sites.

March 30, 1992

Ms. Penelope Smalley
United States Department of the Interior
Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Re: Resource Management Plans/Enviromental Impact Statement - The Diamond Mountain Resource Area

Dear Ms. Smalley:

C.W. McCoy Sheep Company is a closely held family corporation owned by the widow and sons of Clifton W. McCoy, son of Walter McCoy, who began grazing sheep on this public and private land in the late 1890's. The McCoy family has grazed livestock on these same lands for approximately 90 years. The following comments, general and specific were written by Paul W. McCoy, President and operator of the ranch, and John L. McCoy, Vice President.

5.274

SUMMARY OF COMMENTS

		Page
1.	THE MANAGEMENT PRIORITY AREAS ARE AND WILL BECOME SINGLE USE CONCEPTS AND A WAY OF AVOIDING MULTIPLE USE ADMINISTRATION BY THE BLM.	2
2.	THE EVALUATION OF LIVESTOCK AS AN ECONOMIC FACTOR IN THE DMRA IS GROSSLY UNDERSTATED; BUT THE EVALUATION OF TOURISM AS AN ECONOMIC FACTOR IN THE DMRA IS GROSSLY OVERSTATED.	3
3.	THE PROPOSED WILDLIFE AUM OBJECTIVES OF THE RESOURCE STUDY HAVE ALREADY BEEN ATTAINED AND SHOULD NOT BE EXCEEDED.	6
4.	NO INTRODUCTION OF SUCH ANIMALS AS THE BLACK FOOTED FERRET OR THE ANTELOPE IS WARRANTED.	10
5.	NO FURTHER ACCESS ROADS SHOULD BE BUILT IN CROUSE/ JACKSON DRAW/DRY HOLLOW ALLOTMENTS.	10

6. THE ALLOTMENT INFORMATION AS TO C.W. McCOY SHEEP COMPANY IS ERRONEOUS IN MANY WAYS. 11

7. THE MAJORITY OF RIPARIAN AREAS IN THE DIAMOND MOUNTAIN RESOURCE AREA ARE ON PRIVATE LANDS. 12

8. MANY OF THE SOURCES USED TO COMPILE THE STUDY ARE INAPPROPRIATE. 13

GENERAL COMMENTS:

1. THE MANAGEMENT PRIORITY AREAS ARE AND WILL BECOME SINGLE USE CONCEPTS AND A WAY OF AVOIDING MULTIPLE USE ADMINISTRATION BY THE BLM.

(a) The Federal Land Policy Management act, 43 USC §1712 (c) (1) directs management of public lands for multiple use and sustained yield as FLPMA provides at §1702 (c).

(b) The use of MPAs artifically constrain the alternative uses for the lands in the DMRA in this document.

225-1 (c) We believe that implementation of the plan proposed in the EIS prejudices the property and livlihood of ranchers and other non-recreational and non-wild life users in the Resource Area and violate the principle of multiple use under which the BLM is required to conduct management actions and decisions.

(d) Areas of critical environmental concern: The MPA restrictions on these areas are in some ways more restrictive than wilderness areas: Wilderness can only be set aside as wilderness by Congress. Under what power does BLM take upon itself the ability to lock up these areas in the same way or more stringently than wilderness when these areas have not been decreed by Congress to have the criteria for wilderness or for inclusion in the Wild and Scenic River Act. Truly these areas have scenic value and as they are currently being so managed by multiple use, will remain so. Due mainly because of the rough and inaccessable characteristics of the areas.

(e) FLPMA provides for multiple use of land for some or

225-1 Please refer to the Summary at the beginning of this document for an explanation of the management priority area concept.

all resources 43 USC §1702(C) it does not nesessarily follow that any one resource is to be given priority over another.

225-1 Cont.

(f) Congress established the concept of "Principle or Major Uses" which, when terminated must be reported to Congress 43 USC §1712(e)(2). The uses included domestic livestock grazing, fish and wildlife development and utilization. Mineral exploration and production, right of way. Outdoor recreation and timber production. 43 USC §1702(c)

2. THE EVALUATION OF LIVESTOCK AS AN ECONOMIC FACTOR IN THE DMRA IS GROSSLY UNDERSTATED; BUT THE EVALUATION OF TOURISM AS AN ECONOMIC FACTOR IN THE DMRA IS GROSSLY OVERSTATED.

(a)As long time residents of the Uintah Basin, and persons who have been on Diamond Mountain for the elk and deer hunt every year since 1966, and members of a family which has grazed livestock on these lands for over 90 years, we were rather shocked to read the statement in the environmental statement by the Bureau of Land Management at page 3.53 wherein it stated that agriculture was the Uintah Basin's major economic base until the early 1900's. Agriculture was the Basin's basic economic support until after World War II, when the oil boom began to shift the economic emphasis in the basin from agriculture to oil. However, the oil and mineral extraction businesses have tended to have the effect of boom and bust upon the economy, and have caused severe economic stress in the Uintah Basin when they have declined suddenly, as recently as 1985. Agriculture on the other hand has remained a major factor in the economic base of the Uintah Basin and still remains so today.

225-2

(b) A further erroneous statement is found at page 3:53 of the EIS:

"Today farm and ranch incomes account for approximately five percent (5%) of the tri-county's personal income."

(c) No citation is made in the EIS as to the source of this information. An economic study from Dr. Donald Snyder of Utah State University in 1989 found in Research Report #129 of the Utah

225-2 The discussion of agriculture in the socioeconomics section of Chapter 3 has been changed. Please refer to our response 3-24.

Agricultural Experimental Station. The Size and Role of Agriculture in Utah and is readily available to any persons who inquire of Dr. Snyder shows that twenty-two and one-half (22.5%) of the Basin's economic activity in 1987 is attributable to agriculture. Thus it appears that the BLM understates the impact of agriculture by 400%, a difference which indicates that the EIS does not appear to be remotely accurate.

225-2 Cont.

(d) The role that agriculture plays is further denegrated by the statement:

"Agricultural employment plays a minor role in Basin economy."

(e) While such statements may be accurate from the records of the Department of Employment Security, many agricultural employees are not so registered. In addition, such statistics do not accurately reflect the economic activity of livestock ranchers, as the economic activity of ranches is, in general, carried out with relatively few employees. For the most part, the ranchers in the Uintah Basin live on or near their ranches and they and their families actively operate those ranches. There are very few absentee livestock operators which have lasted more then a few years. The major portion of the cash flow from agriculture is paid to the owners of the various ranches who in turn, spend these funds for petroleum products, supplies, equipment, vehicles, occasional employees, groceries and various items necessary to run a ranch.

(f) The bias of the writers of this particular section is quite apparent when the above statements are read in conjunction with the statements relative to recreation appearing on page 3.52. Table no. 3-23 appearing on page 3.53 which purports to show the economic impact of tourists, hunters and others visiting the area.

(g) This table is in part based upon the figure of $25.00 per day for economic benefits, a statement attributed to Governor Norman Bangerter in 1989 in a welcoming address to a 1989 meeting of the Utah Section of the National Wildlife Society. Such a

statement is hardly what any statistician would call a reliable source or scholarly studied information upon which decisions of government should be based. The authors take great pains in compiling Table No. 3-23 to show the number of visits to the various areas of DMRA (for some reason, the number of visitors and hours are all in round numbers. Could it be that these figures are estimates?) These visitor hours are multiplied by the above political statement of $25.00 per day for a supposed grand total of $24.96 million, which number cannot be in any way verified. Apparently the authors felt that the sum of $24.96 million, was a significant amount of money, even though it is an obvious guess.

225-2 Cont.

(h) On the other hand, statistics kept by the Utah Department of Agriculture show that the sale of livestock brought in over $ 54 million to the economies of Daggett/Duchesne/Uintah Counties in 1989. Why was this not a significant sum of money to the authors? Or is it insignificant because livestock generated it?

5.278

(i) From the foregoing it is apparent that the authors have grossly understated the economic impact of livestock raising in the Uintah Basin by ignoring statistics kept by the State of Utah for many years. Instead the authors chose to engage in speculation with respect to the impact upon the DMRA by attracting hunters, tourists and other visitors and thereby arrive at a figure that is 50% less than the proven economic impact of the livestock business upon the Uintah Basin and never once states the economic impact of the livestock business anywhere in the EIS statement.

(j) If, indeed, the statement in the last paragraph at page 3.53 is true that agriculture only provides 5% of the total income of the Basin and according to the Department of Agriculture it provided at least $54 million in 1989, then the total income of the tri-county area must be in the area of $920 million, which would be spread between mineral development and tourism, according to the statement of the EIS at page 3.52 that the income of the DMRS is from these three (3) sources. The 1989 gross income figures from mineral development

and extraction and the sale of minerals. However, the Gross Taxable Sales from all sources in the tri-county area including hotels and restaurants for 1989 were as follows:

Daggett:	$ 7,095,635
Duchesne:	77,103,454
Uintah:	156,126,866
TOTAL:	$ 240,325,955

Source: Gross Taxable Sales By County and Major Industry, EDA, Tourism Study, Utah Office of Planning and Budget, Utah Department of Community and Economic Development, University of Utah, Bureau of Economic and Business Research, March 9, 1992.

225-2 Cont.

(k) The above study was of taxable sales under Utah's Sales Tax. The sale of livestock from a ranch is not subject to such tax and was not included; however, the income from all tourism certainly is taxed and was included in these studies. The sums for food, lodging and other items used by all tourists for 1989 in the tri-county area barely approaches the amount of money attributed by the BLM to the DMRA. When the tourist attraction of Dinosaur National Monument, Flaming Gorge Dam and Recreation area, Ashley National Forest and other tourist attractions are considered; it is apparent that Table No. 3-23 is in no way accurate.

5.279

THE PROPOSED WILDLIFE AUM OBJECTIVES OF THE RESOURCE STUDY HAVE ALREADY BEEN ATTAINED AND SHOULD NOT BE EXCEEDED.

225-3

(a) Antelope: (Diamond Mountain) We feel that antelope is not a species that is needed or wanted on Diamond Mountain, with fenced pastures, and private lands and BLM lands intermingled, and lack of winter habitat and conflicts with other wildlife.

(b) Elk: (Diamond Mountain) We have needed a statement from the BLM as to forage available for elk since 1966. At that time a letter was sent out to permittees which allocated 100 elk for winter use and 50 elk for summer use. Elk population has exploded since that time to between 1000 to 1500 head depending on the severity of the winter and how good the summer is. The data on current use and objective use

225-3 Please refer to our responses 3-24, 104-3, 216-3, 219-2 and 225-6 concerning wildlife forage allocations. Antelope currently exist on Diamond Mountain on the Cooper Draw Allotment. They summer on Diamond Mountain and winter under Diamond Rim to the Jensen area. We recognize the problems associated with antelope and hope to work cooperatively with concerned individuals to resolve these problems. We believe elk issues on Diamond Mountain also can be resolved with the development of the herd management plan as required by the 1992 Utah State House Bill No. 25. The use of posted hunting units beginning in 1992 also offer the private landowner the option of obtaining an economic return for wildlife use on private land. We appreciate your information on current wildlife use on the allotments you are permitted to graze. We have completed prescribed burns in Dead Horse and Roller Draws in the past few years as examples of our commitment to resolve issues on allotments on Diamond Mountain. We will be working with you and UDWR during development of the allotment management plan. Of concern to us will be the development of additional water sources and other needed range improvements. Please refer to Appendix Table A8-3, which outlines proposed management opportunities for the Jackson-Crouse-Dry Hollow allotments. As discussed in Chapter 4, we recognize BLM's role in the ranchers' livestock operations.

populations contained in the EIS is 30 years outdated. On many allotments where current use is expressed in AUMs and converted to herd numbers on a 12 month basis, we know without doubt the current head count being used by BLM is not correct and reflects populations in 1966 or 1967. The objective use as expressed in AUMs on most allotments in this document would meet with little objection from landowners and ranchers. By our estimates, the current herd would need to be reduced by half to be in line with the objective use expressed in the EIS. The AUMs available in the objectives is fairly accurate, however, the elk population shown as currently physically present is grossly in error.

225-3 Cont

Elk are presently adversely impacting rest rotation grazing systems, deferred systems and new burns, by being present all year long. Livestock grazing is being blamed for any resource damage occuring on forage because the BLM has consistently proposed lowering the livestock AUMs. However, Big Game have a continuous impact upon the range by staying in certain areas for long periods of time. Livestock on the other hand, can be and usually are managed so that they do not concentrate in one area for too long.

(c) Big Game: Big game cannot be excluded from blame for causing damage to forage. BLM should be counting elk populations in a whole herd area and not stop as they have in the past at property lines, state lines, park boundaries, Indian reservations when counting, if the areas across these artificial boundaries are a part of the normal migration pattern of the wildlife herd.

(d) Moose: The EIS shows no moose currently grazing on our allotments. Such a statment is not true. Moose have been present on Diamond Mountain and have been observed by these writers since 1971. There are 20 to 30 moose present on Diamond Mountain at different times of the year, winter and summer. Eight moose have been observed in the Jackson Draw area the last 3 elk seasons. Ranchers in these areas have not preceived them to be a problem. Primarily because moose do not seem to be in large herds, but are solitary in nature.

(e) At page 8.5 is found table A2-1 which purports to set forth the current wild life use in AUMs by the numbers of deer, antelope, elk and big horn sheep. In the section involving Jackson/Crouse/Dry Hollow, which is one of the series of allotments which McCoy Sheep Company owns, the table shows the AUMs of elk at 211 for all three (3) of these allotments. It should be pointed out that all three (3) of these allotments have areas which elk feed on year round, so that the use by elk of those allotments will be for twelve (12) months. Those 211 head of elk convert over using a .75 conversion rate to 20 head of elk for the entire year for each of the three (3) allotments.

225-3 Cont

(f) The conversion rate of .75 to convert the AUM figure to the elk numbers actually on the allotments, converts to 56.8 elk the year round on all of those allotments. By actual observation, we can document that we will have elk numbers approaching 100 elk on each one (1) of these allotments, ie. approximately 100 elk during the year in our Jackson Draw allotment, approximately 80 elk in our Dry Hollow allotment and a number roughly approaching that in Crouse Canyon. The number of elk and the number of elk AUMs which the BLM is showing in its table as presently using those allotments is totally inadequate and not based upon a proper determination of the actual number of elk grazing on those allotments.

5.281

(g) Further, it is our position that we presently have upon these allotments more than the number of AUMs for elk, 512 shown in your column for the future objective wild life stocking levels on the Diamond Mountain area. The figures shown as objectives have already been met. No further increase in the elk population is necessary, and would cause hardship on the range land as shown below.

(h) It is quite inconsistent for the BLM in the EIS to take the position that it is desirable to increase the wildlife on these three (3) allotments and at the same time make the comments that the department has made with respect to these permits made at page A8.18 in which each one (1) of these permits is shown as having a class one resource

conflict/problem, that problem being the following:

"Existing water resources are insufficient to allow uniform distribution in the allotment as a whole or are unreliable. Some areas are being over-utilized near existing water; other portions of the allotment are not providing the number of AUMs authorized."

(i) The BLM should not allow or encourage an increase in the number of wildlife grazing on these allotments so long as these conditions are present. Wildlife grazes near water resources and contributes to the above problem in the same manner as livestock. We might add that the proposed solution to this problem, ie: the development of water sources on BLM property further from the primary riparian areas was repeatedly proposed by our father, C. W. McCoy to the BLM, whose response was: "If you do it, it will be solely at your expense and risk." Despite such a negative reaction, we developed several springs and reservoirs on BLM lands totally at our own expense which benefit all wildlife as well as the livestock. We do need the further development of water sources further from the primary riparian areas.

225-3 Cont

(j) Another aspect that the authors neglect to mention is that the matter of AUMs spent on public lands are generally a part of a year round system of livestock grazing that each rancher must have in order to maintain his overall operation. The AUMs in most cases grazed on public lands are merely a part of the year round livestock pasture rotation that is necessary to the successful livestock management and grazing management on a ranch.

(k) An example of faulty economic reasoning is the analysis found at page 4.60 wherein the authors state that by increasing wild life from 27,600 AUMs to 40,000 AUMs would only result in livestock reductions of 9,000 AUMs and that such a loss would only result in $11,500 yearly loss to the local livestock industry. No analysis whatsoever is shown to support such a conclusion. However, assuming that the 9,000 AUMs on BLM land is for a six (6) month period, that would result in a reduction in running capacity of a total of 1500 head of cows. The annual calf crop from those 1500

5.282

head of cows, assuming 100 calves die or not be born, (which is excessive) would be 1400 head of calves; and those 1400 head of calves would have a minimum market value of $450 each, for a minimum total loss to the livestock industry and local economy in cash flow of $630,000.00, not the $11,500.00 set forth in your analysis, a misstatement of $618,500.00.

225-3 Cont

(1) Further, the authors claim that the loss is to the "local livestock industry." Such a statment ignores the fact that this reduction in revenue is a reduction in revenue which the economy of the communities in the Basin as a whole would lose, not just the livestock industry.

4. NO INTRODUCTION OF SUCH ANIMALS AS THE BLACK FOOTED FERRET OR THE ANTELOPE IS WARRANTED.

(a) No objective proof exists that the black footed Ferret was ever present in the DMRA. The proposed "reintroduction" is in fact an introduction of a species which will create more conflicts with multiple use than we now have.

225-4

(b) Antelope would have difficulty dealing with the numerous fences in the DMRA, and further conflict with the elk herds and cattle now grazing on the DMRA. A substantial herd of antelope exists in Antelope Flats and other areas close to the DMRA and have not migrated into the DMRA probably because it is not suitable for their habitat.

5. NO FURTHER ACCESS ROADS SHOULD BE BUILT IN CROUSE/ JACKSON DRAW/DRY HOLLOW ALLOTMENTS.

(a) Access Roads: When new roads are planned on public land they meet with opposition because of environmental, wildlife, archaeological, considerations. We are opposed to any new roads on private land for some of the same reasons. However, because we are talking about private land, these considerations seem insignificant.

225-5

(b) Access roads through private lands, if a need truly exists, should be accomplished by cooperative land exchanges. If that fails then the roads should be made entirely on public land, and pass the test of

225-4 Please refer to our response 214-7 regarding black-footed ferrets; response 176-5 regarding impacts to the local community; and response 225-3 above concerning antelope forage allocations.

225-5 Public access through private lands on Diamond Mountain Plateau to public lands on Diamond Mountain Plateau was an issue identified in the scoping period at the beginning of this planning project. BLM has an obligation to provide the general public with access to public lands. However, acquisition of such access through private lands would only be completed with willing sellers or givers, as outlined in Chapter 2.

public comment before they are built.

225-5 Cont.

(c) No additional public access would be a positive, long term benefit for wildlife species sensitive to human activities in their preferred habitat. The development of further access roads is not needed in the Crouse/Jackson Draw/Dry Hollow areas.

6. THE ALLOTMENT INFORMATION AS TO C.W. McCOY SHEEP COMPANY IS ERRONEOUS IN MANY ASPECTS.

(a) Allotment Information contained in the EIS is erroneous in the following particulars:

(i) On page A8.6 Table A8-1, C. W. McCoy Sheep Company is listed as permittee on Marshall Draw allotment. We have never been the permittee on Marshall Draw.

225-6

(ii) We are listed as permittee on Jackson-Crouse-Dry Hollow allotments number 14812. The current season of use is not correct, our license reads; season of use as 05-05 to 11-10. The current acreage is incorrect; state lands are 1840 acres, instead of 2252 as published. On our Crouse property in the Allen Draw in Daggett County, the land status map shows: Sec. 16 T1S 25E SLM as a full state section. The NE 1/4; S1/2 Sec. 16 T1S 25 E SLM is owned by C. W. McCoy Sheep Co. Inc. since 1956, when it was purchased from DeJournette. This acreage is 480 acres. Taking 480 acres from the published 2252 acres would leave 1772 acres of state land, which is still not correct. On the land status map in Section 36 T1N 23E in Dry Hollow, it shows 160 acres of state land. There is 80 acres of state land in the South 1/2 of the SW 1/4 of Sec. 36 T1N 23E. Adding up Sec. 36 T2N R23E and Sec. 32 T2N R24E and the South 1/2 of Sec. 2 T1N R23E, all of which are in Jackson Draw, would be 1600 acres. That, and the 160 in Crouse and the 80 in Dry Hollow would add up to the 1840 acres that is currently leased from Utah State by C.W. McCoy Sheep Co., Inc. Adding the 480 from Crouse and 80 from Dry Hollow to the published private acres of 6344 would add up to 6904 acres, which is close to what we pay taxes on.

(iii) Our allotments have been monitored on cattle use for 20 years. An actual use study was conducted for

225-6 Referring to Table A8-3, conflict type #1 can occur whether sufficient AUMs are available or not. The Crouse Allotment has sufficient AUMs to meet livestock and wildlife requirements but water sources could be improved to better distribute both.

The paragraph referred to on p. 4.6 was printed in error. Please refer to our responses 52-2 and 104-3.

Corrections as noted have been made to Table A8-1 regarding the Jackson-Crouse-Dry Hollow Allotment.

three years; 1974, 1975 and 1976 to establish percent of use, and carrying capacity for change of use from sheep to cattle. Of these years, 1974 was very dry, 1975 was very wet, and 1976 was very dry.

(iv) On our BLM allotments there are spring developments in the Dead Horse Draw, Whitey Roller Draw, (Crouse) Forkys Draw and Little Hole (Jackson). The two in Crouse were cooperative developments with BLM, DWR, and us . The two in Jackson Draw were constructed by C. W. McCoy prior to 1952, and are filed on by BLM. There are also 8 reservoirs that have been made prior to and after the Taylor Grazing Act, by ourselves.

225-6 Cont.

(v) Our grazing allotments are in excellent condition taking into consideration the severe drought conditions that we have experienced in the last several years. Our private lands have been over utilized by wildlife during this drought to the extreme, because of watering places drying up on adjacent public lands. We must have a wildlife management plan to make our grazing systems work again. Objective wildlife stocking levels as published on Table A2-1 are a good way to start this process.

5.285

7. THE MAJORITY OF RIPARIAN AREAS IN THE DIAMOND MOUNTAIN RESOURCE AREA ARE ON PRIVATE LANDS.

(a) Riparian: The majority of riparian areas in the Diamond Mountain resource area are on private lands. The water on these lands have been developed and filed on for beneficial use in the State of Utah. When these lands were homesteaded by the first settlers the water was the most important consideration. These lands became the most productive lands in these areas and all life depends on, and are drawn to, these lush areas. Riparian, then, is of the utmost importance to the private landowners. Grazing allotments are dependent on riparian areas, and most allotments are used in conjuction with private lands. Plans to improve riparian areas on public land must include input by these landowners and water right holders. Water developments and land treatments to improve distribution of livestock and wildlife are the most effective way to improve riparian areas. Wildlife, also can impact riparian areas because they are present year long, and depend on the water and plants

225-7

225-7 Please refer to Chapter 3, riparian section, where it states most perennial streams, springs, and seeps are on private lands. Also see Chapter 4, under impacts to riparian habitat resources regarding concentrated wildlife use in riparian areas.

225-7 Cont. grown by the water.

8. MANY OF THE SOURCES USED TO COMPILE THE STUDY ARE INAPPROPRIATE.

(a) An examination of the references upon which the authors of the study shows that many of the references are unpublished masters theses, popular press items and at least one statement of a politician speaking before a wildlife group. None of these sources of information should or can be regarded as reliable scholarly sources of information upon which the administration of these public lands should be based, as they are not subjected to any peer review or any other process to guarantee the authenticity of the data or statements made therein.

225-8

CONCLUSION

It is apparent from the written text that the authors have not used proper financial and economic information to value the importance of livestock raising to the economy of the Uintah Basin, nor have they properly evaluated the economic loss caused to the local economy by reduction in livestock AUMs. They have further grossly understated the number of wildlife presently grazing on allotments and appear to recommend increases in wildlife upon these allotments while stating that these allotments are overgrazed near water sources when wildlife grazing is a part of the problem. In addition, the study recommends further public access roads while stating that such roads adversely effect wildlife. The recommendation as to reparian areas are mostly directed to areas of private ownership, which cannot and should not be affected without compensation. Further, the study is not based upon proper data or studies which have any proven basis, but is, in many areas based upon unpublished masters theses, guesses and statements of political candidates. Such erroneous information and reasoning, if retained, will serve as the foundation for improper policy decisions now and in the future, and should be removed from the BLM's analysis altogether. The Bureau of Land Management is a governmental entity and a quasi-judicial body when it makes decisions involving the administration of public lands as to the rights of the users thereof. A study is no better than the information upon which it is based. We have consulted with several range and economic experts who have reviewed these sources and find them to be totally inadequate sources and not

225-8 Please refer to our response 176-6.

having the credibility needed for a study as important as the DMRA-EIS.

Very truly yours,

C. W. McCOY SHEEP COMPANY:

By: Paul W. McCoy
Paul W. McCoy
President

By: John L. McCoy
John L. McCoy
Vice President

cc: Utah Bureau of Land Management
Washington Bureau of Land Management
Honorable Orrin Hatch, U.S. Senate
Honorable Jake Garn, U.S. Senate
Honorable William Orton, U.S. Congressman

DATE: March 30, 1992

TO: Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

FROM: Lynn Siddoway
319 North 850 West
Vernal, Utah 84078

RE: Diamond Mountain Resource Management Plan

This letter is to respond to the proposed Diamond Mountain RMP. I do not mean to be critical of the BLM or BLM employees. I feel that Alternative E, the preferred alternative of the BLM, includes rescourse management methods that are to restrictive on livestock and especially sheep permits. This document presents very emotional issues and in my response I have tried to be constructive. There is not a permittee in the Resource Area that is not affected by this document. I feel that the document is a threat to my total sheep operation, because of the management of the habitat for the reintroduction of wildlife species, raptors and new vehicle recreaction access roads.

I feel that Alternative E should not be adopted in its entirity, but should be intergrated with other Alternatives and in some situations completely rewritten.

I realize that the Team was made up of just people trying to interpret laws and regulations. These interpretations, however, are subject to personal biases.

227-1 The Management Priority Area Concept used by the Team is a difficult concept to follow throughout the proposed RMP. Although the RMP asserts that the use of MPA is in the interest of multiple use, management directives of the BLM, but give emphasis to different resources. The exclusionary effect of an MPA is made clear by the conclusion that only uses compatible with the priority use will be allowed concurrently. The designation "Priority" use violates FLPMA explicit direction and the legislative history shows that Congress rejected the identical concept proposed by the Public Land Law Review Commission.

RESPONSE TO COMMENT LETTER 227 (SIDDOWAY)

227-1 We believe the management priority area concept, as discussed in the Summary section of this document, is compatible with the principles of multiple use. FLPMA states that the "...goals and objectives be established by law as guidelines for public land use planning, and that management be on the basis of multiple use and sustained yield unless otherwise specified by law;...". It goes on to state: "...the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archeological values; that, where appropriate, will preserve and protect certain public lands in this natural condition...". We have made every reasonable effort to provide for the multiple use and enjoyment of public resources within the resource area. However, we have outlined reasonable restrictions in those level 1 and/or 2 lands in those instances where critical resource values have been determined to need protection and/or careful management. In these level 1 and/or 2 lands, allowing uses that are compatible with the resource values that placed the land in these levels, we believe, is consistent with the intent and letter of FLPMA.

Section: Chapter 2 Alternatives

Page: Comments:

2.39 Black-footed Ferret habitat-Alternative E is not acceptable.
Alternative D is preferred. The Sunshine Bench is high on the priority list. The Sunshine Bench is part of the S J Hatch allotmentand is classified as in unsatisfactory range condition. The allotment is classified I.
Managing to improve range conditions and create Black-footed
227-2 Ferret habitat are in direct conflict because of the pratie dog communities. The Sunshine Bench is also used extensively as a livestock driveway. There is a considerable amount of private land near the Sunshine Bench. The small aircraft landing strip on the Sunshine Bench also has a lot of activity around the facility during the spring and fall months.

2.40 Wildlife Transplants-Alternative E is not acceptable. The management plans calls for introduction of Rocky Mountain Bighord Sheep. It also calls for a 10-mile buffer zone around reintroduction sites from domestic sheep. However the 10-milebuffer zone was not documented to any literature. The Desert Bighorn Council did in one of there transcripts recomment a 9-mile buffer,
227-3 however this was not based on research it was just a recommendation. It seems that the size of the buffer zone should be based on topography and be highly dependent on the natural barriers that separate the species. In Nevada Bighors have been successfully reintroduced with a 2-mile barrier. Although, the several times bighorn reintroduction is mentioned in the document only one time does the document describe all the factors that govern successful reintroduction. Because of the serious impact these releases would have on livestock permittee's in these areas, very serious study and consideration should be given to these releases. I feel much more research is needed on the subject, as these releases are extremely expensive and can force me as sheep operator out of business. If Bighorns are to be reintroduced it should be with the smallest buffer zone needed so as not to waste resources and lower the impact on me and other sheep producers.

227-4 Pronghorn Antelope introduction on Diamond Mountain is not acceptable. The RMP does not state how special habitat will be managed. The problems I have experienced within the Bookcliff Resource Area with Antelope I feel like I am supporting all of the Antelope I can afford to. Diamond Mountain is a poor area for introduction because of 1) miles of restrictive fencing, 2) lack of water, 3) vehicle access and 4) illegal hunting.

227-2 Please refer to our responses 90-1, 176-5, 179-3, and 205-5.

227-3 Please refer to our responses179-22.

227-4 Please refer to our response 225-3.

2.41 Lands and Realty - Vehicle Access
The 5 Alternatives are not acceptable. The public vehicle access into the Lambson Draw violate management alternatives of other parts of the RMP for wildlife Management. Increasing vehicle access into tratitionally isolated low human use areas would negatively impact wild life and in particular, elk during the calving season. I have a verbal agreement with the UDWR to not graze the Lambson Draw until after June 10 to allow the
227-5 cow elk to use the area as a calving ground. Public vehicle access into this area would have a very negative impact on 100 head of cow elk.

I believe that public vehicle access for recreational purposes is already in excess on Diamond Mountain. The public access into this area was put high on the priority lise several years ago by a very biased BLM employee. Biases should not be in a scientific document.

2.46 The change of the grazing date from the traditional May 1 to April 1 on winter grazing permits is not acceptable. The critical date for spring grazing on winter grazing permits should not be the same for all permits. Each individual permit has many different variables. To make
227-6 a exact date for removal of all livestock from all permits is not acceptable. This statement fails to recognize vegetation management as the main objective and any management objective should be thought of in terms of the best possible management strategy for that goal.

To put an April 1 date for removal of sheep from a winter sheep permit would have adverse effects on every permittee. Where would these displaced sheep go for one month?

2.116 Table 2-18 Alternative E Special Emphasis Areas
The statement, Do not allow livestock grazing within Sears Canyon except for one day livestock trailing.
227-7 No domestic sheep grazing would be allowed, is not acceptable. The team members are unsure where the boundry for the Browns Park Complex ends and on the maps it is impossible to identify. Until this boundry is clarified all livestock grazing would be iliminated within Sears Canyon.

Section: Chapter 4 Impact Summary

Page: Comments:

227-5 Please refer to our response 12-1.

227-6 Please refer to our response 179-7.

227-7 The restricted use is below or north of the fence in Sears Canyon located at T1N, R24E, Sec. 23 SENW. This area is not part of the UDWR Management Area you are currently authorized to graze in. The area restricted to grazing is the steep canyon proper which presently receives only trailing use.

4.60 Under the heading Cumulative Impacts of Implementing Alternative E the statement:
Increasing vehicle access into traditionally isolated, low human use areas would negatively impact wildlife and, in particular, black bear and mountain lion habitat. although this alternative allows for the most miles of increased vehicle access, seasonal restrictions or designated road limitations would offset these adverse wildlife impacts.
Once these access roads have been built the impact to wildlife is almost permanent. The RMP is not consistant in that some areas it wants to close access and in others it wants to open access. The direct costs of these access roads will be tremendous. The taxpayers money could better be spent on sound management projects.

227-8

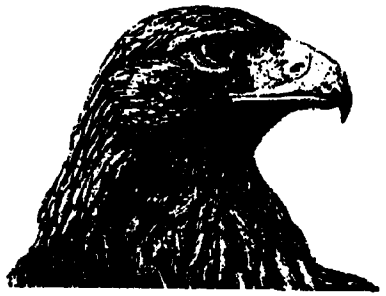
CONCLUSION:

The publicity given the RMP in the local newspaper and on the local radio stations has been a good public relations efforts to let the uninitiated public know what a good job the BLM is doing under difficult conditions. Unfortunately creating this perception seems to be the primary purpose of the BLM today, rather than managing resources with full respect for the right and needs of all affected people under conservations principles and letting the informed public make judgements based on the merits of your on-the-ground performance. At best, the document is ambiguous, at worst deliberately ambiguous and self-serving.

Sincerely,

3/30/92
Sheep Permittee
Member Grazing Advisory Board,
Diamond Mountain Sheep Representative

227-8 We agree with your analysis and have deleted the paragraph. We are attempting to improve the public's access to isolated public lands while maintaining some form of remoteness. In this attempt, foot access only has been proposed for Allen Draw, Hoy Mountain, and portions of Argyle and Nine Mile Canyon where few roads currently exist. Vehicle access has been proposed for Jackson Draw, Lambson Draw, and Warren Draw where road systems are developed and access across through private land is needed.



Land is an organism. When we see land as a community to which we belong, we may begin to use it with love and respect.

There is no other way for land to survive the impact of mechanized man.

Aldo Leopold

UINTAH MOUNTAIN CLUB • P.O. Box 782 • Vernal, Utah 84078

27 March 1992

Ms. Jean Nitschke-Sinclear
Team Leader, Diamond Mountain RMP EIS
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

SUBJECT: Diamond Mountain Resource Management Plan Draft EIS.

Dear Ms. Nitschke-Sinclear,

After thorough review of the Vernal District's draft Environmental Impact Statement for the Diamond Mountain Resource Management Plan, the Uintah Mountain Club would like to submit its comments for the public record.

As the only active conservation group in northeast Utah, we are very conscious of our responsibility to speak out for the land. We are committed to responsible advocacy and dedicated to the preservation and protection of the ecological health and scenic beauty of the area we love. Far from being a "special interest group," we have no special interest other than sound resource management for the benefit of all the citizens of northeast Utah and the shareholders in the public lands across the nation. Although all our members benefit directly or indirectly from the commodity resources of the public lands, together we have put outside thoughts of personal profit and private goals to advocate balance and reason in the management of the public lands that are our common heritage.

It is interesting to note your quote from Leopold's *A Sand County Almanac* on the frontispiece of the draft EIS. This landmark work of conservation literature has profoundly influenced this writer and serves as the guiding "manifesto" of the Uintah Mountain Club. It is the "ecological conscience" --the land ethic-- to which you refer in your draft EIS that we invoke in both public land managers and in the community as a whole. But, as Leopold observed,

No important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections, and convictions.

With this draft EIS, the BLM Vernal District has made an bold start toward balancing the material and spiritual needs of all our citizens. It mirrors the "internal change" that is occurring in our society and appears to signal a new emphasis in your agency on managing the land as an organism.

The draft EIS and your preferred Alternative E is light years ahead of the last resource management plan completed by the Vernal District. However, while Alternative E is a big step in the right direction, there are several ways that it could be improved. Our comments will focus on ways in which the final EIS and your preferred alternative could be made better.

Whether your attempt to balance competing uses of the public lands withstands the onslaught of "one issue" groups will depend upon the professional commitment and collective will of your staff. The true "special interest" groups are easy to spot. Their concern over one issue betrays a lack of awareness of the ecological complexity of the land, a lack of sensitivity toward the spiritual, emotional, and material needs of other public lands users. Land as an organism--the land ethic--takes a back seat to their narrow agenda. We are confident that the Vernal District will maintain a steady course of wise, balanced resource management.

We sincerely appreciate the three years of work that went into this document. Your staff has been very helpful in meeting with our Natural Resources Committee to answer questions and clarify parts of the draft EIS. Your professionalism and dedication are clearly evident in the draft document. We look forward to a good "Final," and hope that you will seriously consider our comments and concerns in formulating the Diamond Mountain Resource Management Plan.

General

In general, this is a very good draft EIS. It is a comprehensive, ambitious, and innovative document that sets a new course toward enlightened public lands management on the Vernal District. The emphasis on riparian preservation and enhancement, rangeland improvement, protection of "special status" wildlife and plants, the introduction of once common indigenous specis, the recovery of endangered species, the acquisition of water rights for instream flow, and the designation of Wild and Scenic rivers is a refreshing departure from previous management direction. The aspects of the draft EIS that we especially like are summarized on page 3 of our comments.

There are, however, several things about the draft that could be improved:

228-1

1-**Lack of spectrum in Management Priority Areas.** There are obvious inequities in Table 2-1 "Management Priority Areas by Alternative" on page 2.15. When three of the alternatives have 0 acres of Level 1 land, one alternative has only 6,100 acres, and the acreage of Level 1 land in a fifth alternative jumps sharply to 96,000 acres, there is not a smooth continuum or spectrum that one expects from an appropriate range of alternatives. Neither is a complete spectrum of Level 2 acreages demonstrated within the various alternatives. There is quite a jump from <1% of lands in Alternative D to 45% in Alternative B. The only other points between <1% and 45% are 6 and 11 percent for Alternatives A and E, respectively.

A middling compromise or "mix" of management strategies would put the Level 1 and 2 acreages in in Alternative E closer to a point halfway between the minimum and maximum acreages described in the other alternatives. This would put Level 1 lands in Alternative E closer to 48,000 acres, and Level 2 lands closer to 150,000 acres (half of Alternative B). After all, if you can find 414,600 acres of land suitable for Levels 1 and 2 designation in Alternative B, you surely should be able to find 207,300 acres of these lands in Alternative E.

228-2

2-**The Ecological Systems Alternative is poorly named.** Alternative B is no more "ecological" than Alternatives A or E, because the concessions you make to wildlife and recreation really have nothing to do with maintaining the ecological health and integrity of the land. The "protection zones" and stipulations you chose for Alternative B management add little if anything to the preservation and maintenance of riparian areas, endangered or special status species, or

228-1 Please refer to our response 103-1.

228-2 Alternative B's overall management theme would maintain or improve the condition of ecological systems. However, it is intended to do so by restricting commodity uses and limiting vegetation manipulation and grazing management. In essence, the alternative would generally let nature take its course with less intensive management and greater restriction to public resource users.

228-2 Cont.

biological diversity. Instead, labelling the alternative which imposes the most stringent and least understood restrictions on the livestock and hydrocarbon resource industries does nothing but give a bad name to ecology. We don't understand the stipulations and restrictions any more than they do! Barring people from the land for no good reason has nothing to do with the wise management of ecological systems.

228-3

3-**The socioeconomic assumptions are simplistic and divisive.** In Chapter 4 your characterization of social categories may "make for ease of analysis," but your assumptions are not helpful in describing the wide range of backgrounds and interests in our community. Can't "young newcomers" be "workers" or "business people"? In your analysis, "young newcomers" appear to be those city-bred busybodies who try to stop growth and development, while local folks, mostly natives, are just trying to scrape a living from the public lands. "Business people" appear to be for anything that brings in the bucks. In fact, the Uintah Mountain Club numbers all these groups among its members, and "where we're coming from" is our desire for balanced management between sometimes competing uses of the public lands. Your characterization reinforces the generalizations and misconceptions in our community concerning where traditional loyalties should lie. Though these loyalties and alliances still persist, we have seen enough exceptions in the last few years--coalitions and community projects--to undermine these comfortable assumptions.

228-4

4-**None of the alternatives gives enough protection to the slickrock between Red Mountain and Highway 191.** This is an area of incredible scenic, recreational, and cultural significance. It contains a beautiful arch, rare in this part of Utah. The rugged topography and diversity of landforms give a sense of solitude, remoteness and wonder to the recreationist. It is an exceptional resource when one considers that this ruggedly beautiful terrain reminiscent of the renowned Escalante canyon country is only fifteen minutes from town. The hiker in the middle of this ten-square-mile area can well imagine himself miles from the nearest road. This sense of insularity is important because one has to drive much further to other areas, with a relatively greater investment in time, to achieve this same sense of wildness and remoteness. In any case, this Navajo sandstone slickrock is great fun for the rambler afoot, and this area of the public lands is a favorite to hikers in our community.

Our advocacy for this area has been demonstrated many times in our letters to the Vernal District (see enclosed letters). In our letter dated March 7, 1991, and with our telephone calls, personal communications, and field trips to Moonshine Arch with BLM staff, we have demonstrated our concern for the proper management of this special area. Yet none of the alternatives in the draft EIS would effectively close the area to OHV use, which has been the single biggest threat to the integrity of the recreational, cultural and aesthetic values found there. The preferred alternative even designates most of the slickrock, including Moonshine Arch, as Level 3 lands! Our message is that this area should be given **special status** in all alternatives. We propose designating this area--extending from Red Mountain to Highway 191--as **Level 1** lands, the area would be managed to preserve, protect, and enhance the exceptional values contained therein (see topo map). Part of the management would be to close all slickrock east of Red Mountain to OHV use. (The jeep trail and some, designated spurs off of that established trail on Red Mountain would be left open to OHV use.)

228-5

5-**None of the alternatives would close the Ashley-Dry Fork area to phosphate development.** There is a glaring absence in the management decision spectrum here! To propose no mineral leasing withdrawals or exclusion of phosphate development in any of the alternatives, even in the *Ecological Systems* alternative, gives a primacy to mineral development in an area with a host of competing, non-commodity values. The area is very important for its aesthetic values, recreation and archaeological potential, and crucial and critical deer and elk winter range. At least a couple of alternatives--B and E--should have emphasized these non-commodity values by recommending full or partial mineral withdrawals on these lands. It is our opinion that the sacrifice of these lands to just another phosphate operation cannot be mitigated. In any case, it is

228-3 Please refer to our response 167-2.

228-4 Please refer to our response 79-2.

228-5 Please refer to our response 61-2.

228-5 Cont. not reasonable to recommend phosphate development in all alternatives. BLM should also note the considerable public opposition that a proposal for phosphate mining has generated in this area.

6-**There is inadequate emphasis on protection for archaeological and paleontological sites.** In all alternatives except Alternative B there is no commitment to
228-6 important cultural and paleogeologic sites (Table 2-13, p. 2.34). Again, we're talking about an inadequate spectrum of management decisions. This does not reflect the regional and national importance of this area and the potential of this area to yield sites of exceptional educational and scientific significance.

7-**No mention is made of the need for enforcement personnel and capabilities in the draft EIS.** Perhaps this is not a topic of discussion for and EIS, but the fact remains that
228-7 only a fraction of the goals and objectives of this plan can be realized without some means of monitoring and enforcement. OHV use is one example where periodic monitoring for compliance and enforcement of restrictions is necessary. Fossil and artifact collection is another. It would have been refreshing to have BLM make a written commitment to monitoring and enforcement in the text of the draft EIS. We urge you make that commitment and to strive to acquire the personnel needed to implement this plan.

The Uintah Mountain Club supports the adoption of **Alternative E** as the best of the alternatives presented in the draft EIS, but we do not support all of its specifics. Alternative E is a pretty good alternative, but could be much better. In addition to the major problems we have identified with the draft EIS, we have identified the following problems with Alternative E. Modifications of your present preferred alternative will produce a more balanced and visionary resource management plan than the current version of Alternative E.

1-**There is not enough Level 1 and 2 acreage in the preferred alternative.** It is difficult for us to believe that within an area boasting some of the richest scenic, cultural, and biological values in the state, that BLM can't find more than 6,100 acres (Level 1) requiring restrictive management nor more than 81,000 acres (Level 2) requiring "careful" management. It is certain that many areas have pre-eminent values, the essence of which should be preserved at the cost of full utilization of other resources.

The Uintah Mountain Club feels that some areas, by their nature, have resource values that are scarce enough, fragile enough, and unique enough to warrant "careful" management in every case.
228-8 In a general way, we have characterized these areas in tabular form on page 6.

We strongly feel that some areas should never be designated less than Level 2 under the Management Priority Area concept. Areas endowed with the resources we have listed on page 6 contain values that should not be jeopardized by less that Level 2 management. In total, they probably represent less than twenty percent of the lands within the Diamond Mountain Resource Area. Yet if the Diamond Mountain RMP is to be an effective guiding document for land management into the next millenium, it must formally recognize and designate those areas that will require special care in management. Land management plans need flexibility. But they need *//*flexibility as well. Otherwise a plan is not a plan, anymore than a budget is a budget if you don't stick to it.

BLM needs to designate more Level 1 and Level 2 lands, and commit itself to managing the resources within them with special care.

2-**There are not enough mineral and agricultural withdrawals in Alternative E.**
228-9 Level 1 and 2 lands will certainly require some protective withdrawals. It is not important that the areas or the final acreage of withdrawals be determined at this time, although BLM will probably want to go ahead and designate some obvious withdrawals in exceptional areas.

228-6 Please refer to our responses 82-16 and 82-17.

228-7 We agree with your concerns for enforcement. You are also correct, the matter of enforcement personnel is not an issue for an RMP, but is an administrative concern.

228-8 Please refer to our response 61-1.

228-9 Thank you for your comments. We believe the amount of land proposed for mineral an agricultural withdrawal is sufficient to protect the critical resource values identified in the proposed plan as needing such protection.

228-9 Cont. We refer to the need for withdrawals in our Table 1. Lands should and could be withdrawn at any time and where appropriate to preserve and protect unique and important resource values. The Diamond Mountain RMP should contain words to that effect.

3-Areas where off-highway vehicle use is excluded or restricted to designated roads and trails comprise only 10% of the resource area. Off-highway vehicles remain one of the single worst agents for the degradation of the public lands, and Alternative E

228-10 would open 90% of the Diamond Mountain Resource Area to no or seasonal restrictions (Allowing driver discretion on the 97,000 acres of land with "existing roads and trails" is tantamount to designating no restrictions.) We prefer that BLM not hold itself to these acreage numbers before a Diamond Mountain Resource Area Travel Plan is developed. We anticipate that more lands may need the "designated roads and trails" restriction than are currently identified in Alternative E.

Lands that we feel should be reasonably closed to OHV use are listed in the right-hand column of the table on page 4 (see item 5)

4-The unroaded slickrock area east of Red Mountain is mislabeled. This ruggedly beautiful area is labeled "Semi-primitive *Motorized*" on the ROS Classes map on page 3.42. This corrugated, incised area of narrow canyons, pour-offs, and ledges can in no way be reasonably

228-11 characterized as motorized. It is in every way best suited for hiking, rock scrambling, climbing, and quiet reflection. In our countless trips to the area we have seldom seen or heard vehicles. (This is not to say that we haven't seen the destruction from the attempts of OHV users to penetrate the area, or the unsightly mess--beer cans, glass, and assorted trash--they almost always leave behind!) But the fact that OHV users *have* used the area should not lead one to the conclusion that it is full of roads, trails or the usual OHV terrain. Neither should the draft EIS imply that OHV use is a frequent and traditional use of the area in a way similar to lands that we all recognize as being favorite OHV playgrounds.

We urge you to change the label on this area with the final revision of the EIS. The change to semi-primitive, *non*-motorized would be the accurate portrayal of ROS class of these lands.

5-There are no VRM Class 1 and few VRM Class 2 areas in Alternative. Perhaps we are not visual resource connoisseurs, but it appears to us that there are plenty of "...natural areas...where landscape modification should be restricted" (VRM Class 1) How about the Wilderness Study Areas? The Red Mountain-Moonshine Arch area? The Upper Green River Scenic

228-12 River? Sears Canyon? It is unacceptable to ask us to believe that you were unable to find any VRM Class 1 areas on 800,000 acres of land in a corner of the state renowned for its scenic beauty.

We protest your assertion on page 3.70 that "There are not Class 1 areas withing the resource area," and we strongly suggest that, at a minimum, you designate the Diamond Breaks and West Cold Springs WSA's and the Red Mountain-Moonshine Arch/Slickrock area VRM Class 1 in the final EIS.

We have provided specific critiques and suggestions for Alternative E in our Tables 1 and 2. The page layout of these Tables corresponds closely to the page layout of Tables 2-13 and 2-18 in the

228-13 draft EIS. However, because we support and wish to improve Alternative E, we depict only a "revised, improved" Alternative E in Table 1. Suggested departures from the current version of Alternative E are shown in *italics*. Explanatory notes are included at these points.

Please refer to these two tables for specific comments on "Areawide Management Decisions" and "Management Prescriptions for Special Emphasis Areas."

5.296

5 228-10 Our analysis reveals that OHV use would be closed, limited yearlong or seasonally on 58 percent of the resource. Please refer to the decision summary for the proposed plan in Chapter 2.

228-11 The ROS classes were established in 1980 and updated in 1990. Please refer to Appendix 5 for the Bureau's ROS class standards. In noting the social setting factor, the semi-primitive motorized class should have low to moderate user contact frequency. Semi-primitive nonmotorized areas should have light user contact ("...6 to 10 parties encountered per day...limited evidence of previous recreation use..."). The Red Mountain area is a highly popular recreation area for OHV users as well as foot hikers. It is the area's popularity and proximity to Vernal that accounts for the current ROS classification. Again refer to our response 79-2 regarding proposed changes to OHV use in the area from the draft document.

228-12 We are basing our VRM classes on the 1979 VRM inventory of the resource area conducted by Phillip E. Flores Associates, Inc., from Denver. This inventory was conducted in accordance with established Bureau standards and criteria.

228-13 Thank you for your extended comments and proposed alternative. We believe your letter covers your major concerns and we have attempted to respond completely to them. However, for the sake of brevity only these tables and alternative are not duplicated in this document; they are available for public review in the Vernal District Office.

ACEC's

We applaud the proposal to create five new Areas of Critical Environmental Concern in the preferred Alternative E. However, we feel that the Middle Green River segment should be included in a Lower and Middle Green River Segments ACEC, as that Special Emphsis Area is depicted in
228-14 Alternative B. We suggest this for two reasons:

1. The riparian values of the Middle Green River segment are accentuated by the predominance of private lands in the area, making the riparian resource on public lands even more crucial to the general management scheme.
2. The habitat value for T and E species is significant. The riverside cottonwoods are important for migrating bald eagles. Endangered fish species also depend upon careful management of the riverine and riparian environs.

It is clear from our analysis that, even though these areas are of "critical environmental concern," Alternative E's Management Priority Area designations of some lands in these areas are inappropriate (see Table 2 in our critique). For example:

The Red Mountain-Dry Fork ACEC would not exclude phosphate mining from areas of critical watershed, crucial wildlife habitat, and exceptional scenic and recreational values. The entire ACEC with the exception of the relict vegetation community on Red Mountain is designated Level 3.

228-15 This designation means that the area "would be open to most activities" but that those activities would only be "constrained somewhat" to accomodate other resource values. But does this make sense? Is this what the community wants?

The community has already spoken loudly and clearly on the issue of phosphate mining in this sensitive area. The Uintah Mountain Club and other groups have shown their concern for the area by formally nominating it as an ACEC, with suggested management guidelines to protect irreplaceable and sensitive resources (see our letters dated 11/2/88 and 2/22/89). And BLM has repeatedly acknowledged the important non-commodity values of the area in correspondence and in personal communication with us. You have heard our earnest pleas to do something to stop the degradation to the slickrock around Moonshine Arch.

BLM has demonstrated the extraordinary sensitivity of the area in the draft EIS. Consider:
Map 3-1 shows the area as a high density archaeological zone.
Map 3-2 shows that it contains an historic trail, the Carter Military Trail.
Map 3-3 shows that it is a high density paleontological zone.
Map 3-5 shows that it is a high priority elk habitat.
Map 3-6 shows that it is crucial mule deer habitat.
Map 3-23 shows that it contains significant riparian areas.
Maps 3-24 and 3-26 show that it has highly erodible soils in a critical watershed.
Map 3-33 shows that it is an area of high visual sensitivity.
The transparent overlays for these maps show a clustering of important resource values in this proposed ACEC. But judging from the MPA designation of these lands, nothing seems to be of "critica environmental concern" in this area. Alternative E does not even specify "careful" (Level 2)management for the ACEC through Level 2 designation of sensitive lands. "Active" management by which potentially damaging activities are "constrained somewhat" (Level 3) just is not sufficient for the Red Mountain-Dry Fork ACEC. BLM needs to go back to the drawing board, and should designate substantially more Level 1 and Level 2 acres in this ACEC.

6

228-14 Our analysis found the river to have critical habitat for endangered animal species. However, because of the limited amount of public lands along the segment (20 percent) and opposition to designation by county governments and the Ute Indian Tribe, the middle segment of the Green River was dropped from further consideration. Please refer to Appendix 7.

228-15 The Red Mountain-Dry Fork ACEC has been modified to exclude phosphate mining between the areas of Ashley Creek Gorge and Dry Fork Creek. Such a modification is consistent with the public's wishes as expressed in the comment letters received. We believe the management levels proposed are consistent with the overall management theme of the proposed plan, adequately protects the critical resource values within this area, and allows the public to use the more abundant resources of this area.

The Uintah Mountain Club has a specific proposal for the Red Mountain-Dry Fork ACEC. We hope that you will see the merits of our suggestions, as they are a logical extension of the comments and suggestions we have made to BLM over the years. In an improved Red Mountain-Dry Fork ACEC, BLM would incorporate the following management decisions:

1-Designate Red Mountain and all slickrock on BLM lands between Red Mountain and Highway 191 as **Level 1.** (see Map 1)

228-15 Cont. 2-Designate lands east of Highway 191 and north of Red Fleet Reservoir, including the Red Fleet formations themselves, as **Level 1.** (see Map 2)

3-Designate lands between the Dry Fork Settlement and the Forest Service boundary, including Alma Taylor Hollow and the Springs, as **Level 1.** (see Map 3)

4-Designate all other lands in the ACEC as **Level 2**, to reflect their sensitive nature and importance to the quality of life in the Vernal area.

5-Leave the jeep trail on **Red Mountain open** to OHV use and designate other, appropriate trails in the area for motorized use. **Close** the slickrock country between Red Mountain and Highway 191 to OHV use.

6-**Withdraw** the area from further mineral leasing.

7-Make the **acquisition** of State section 16 on Red Mountain and other State and private lands adjoining the Red Mountain-Moonshine Arch area the highest priority.

8-Make the acquisition of State and private lands at the mouth of Ashley Gorge a high priority.

9-Establish a network of **hiking and horseback trails** to enhance the recreational potential of this area so close to the community.

10-Establish **interpretive facilities** at cultural, paleontological, and geological sites.

5-298

Wildlife

228-16 We applaud BLM's wildlife initiatives in this draft EIS. Your proposals to introduce bighorn sheep, river otters, black-footed ferrets, and upland game birds are laudable. But we feel that there is room for improvement in Alternative E, and our specific comments are found in Tables 1 and 2.

Wild and Scenic River Status

228-17 A progressive move. Northeastern Utah enters the twentieth century! We totally support your proposed designation under Alternative E.

Riparian Areas

228-18 All riparian areas should be given Level 1 status because of their uniqueness, scarcity, and relative importance in the ecological scheme of things. We are pleased with the new emphasis BLM is placing on riparian areas.

Special Status Plant and Animal Species

228-19 Today's sensitive and Category 2 species are tomorrow's T and E species. All special status species need special protective stipulations and restrictions on potential habitat disturbing activities. Our suggestions are outlined in tabular form (see Tables 1 and 2).

7

228-16 Thank you for your support.

228-17 Again, thanks for your support.

228-18 We believe the critical riparian areas are afforded adequate protection in levels 1 and 2. Those riparian areas within level 3 will be afforded protection and management without adversely restricting uses on surrounding nonriparian areas.

228-19 We believe the proposed decision regarding special status plant species provides the protection needed to enhance the recovery of listed species, and to prevent the need to list category species.

OHV Use

228-20 The draft EIS does not adequately address the issue of mountain bikes. Mountain bike use is growing rapidly and restrictions may soon be needed to protect vegetation, fragile soils, and other resource values. BLM should also consider potential conflicts between mountain bikers and other recreationists. The Vernal District could draw on the experience of other BLM districts to develop a general management direction toward mountain bikes use. Mountain bike restrictions must be considered in the planning process and added to the final EIS/RMP. We feel that most Level 1 lands should be closed to motorized OHV and mountain bike use

Recreation

We oppose developed recreation in the Red Mountain-Moonshine Arch area. This area is better suited to semi-primitive recreation. Trailheads for hiking and OHV use would be appropriate, but on-trail interpretative and directional signing are unnecessary and detract from the sense of remoteness and adventure.

228-21 The Vernal District should preserve all the primitive and semi-primitive, non-motorized lands it has. These represent a small percentage of the Diamond Mountain Resource Area, and they will become more precious and important as time goes on. It makes no sense to change the ROS of a primitive or semi-primitive, non-motorized area. The potential exists to change the character of the area--the solitude, the sense of remoteness, the wildness--far into the future. This would negatively impact the quality of life and the range of recreation opportunities for many public lands users who enjoy the non-motorized experience.

While 94% of lands on the Diamond Mountain Resource Area would be open to motorized recreation use under Alternative E, only 6 % would be free from OHV's. This is an imbalance in the ROS that should and must be corrected!

We strongly urge BLM to preserve all the semi-primitive, non-motorized lands in the resource area by adopting the acreage in Alternative B (see Table 2-13, p. 2.52). We further that it amplify the acreage in these lands by changing the inexplicable designation of the slickrock, "mini-Escalante" lands east of Red Mountain to semi-primitive, non-motorized status. (see map)

Summary

Alternative E is a big step forward in resource management for the Vernal District. There are some inconsistencies in the draft EIS and in Alternative E which should be corrected before the "Final" goes to press. These shortcomings are relatively few, but if they are not corrected they could have a profound influence on the integrity of the public lands in the Diamond Mountain Resource Area over the next 10-15 years. We are aware that increasing the total number of Level 1 and Level 2 acres will trigger other changes as well. But we insist that Alternative E relegates far too much land to MPA designations that don't specify "careful" management by definition. Increasing Level 1 and Level 2 acreage is the right thing to do, even if it means making some substantial--and bothersome--adjustments.

We urge the planning team to consider our comments and suggestions carefully. If implemented, they would not have a significant impact upon either the commercial use of the resource area or the opportunities for those who prefer motorized recreation. We hope that, in the final analysis, you will incorporate many of them into the Diamond Mountain Resource Management Plan.

8

228-20 Thank you for your comments. Recreation trails will be monitored and maintained. Should trails and/or their associated areas shown signed of overuse by OHVs, mountain bikes or foot traffic, corrective actions would be designed and implemented.

228-21 Again, we refer you to Appendix 5 which outlines the criteria used in classifying lands in the Recreation Opportunity Spectrum. Please refer to the proposed decision regarding management of the identified semi-primitive nonmotorized areas of the resource area. We believe we are in agreement with you. Referring to your concerns of OHV use on the Red Mountain slickrock area, please see our response 79-2.

Thank you for all your hard work and attention to our concerns. We look forward to working with you in making the new RMP a success.

Best regards,

Will Durant
Chairman, Natural Resources Committee

March 29, 1992

Jean Sinclear, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Regarding: Diamond Mountain Resource Area Management Plan and Environmental Impact Statement

Dear Team Leader

241-1 We the under signed having had the opportunity to hike in the Mame Hole/Bear Hollow area of Diamond Mountain, respectfully request that nothing be changed by the BLM. If a change must be made the we recommend that plan "C" be followed, resulting in the least change possible.

Respectfully,

1 Benjamin D Hacking
2 Nathaneil jr. Hacking
3 Adrienne J Hacking
4 Samuel B Hacking
5 Joseph D Hacking
6 David L Mugleston
7 Carol Mugleston
8 Spencer Mugleston
9 Lore Mugleston
10 Julie Mugleston
11 Mark Mugleston
12 Brian Mugleston
13 Thomas D Hacking
14
15
16
17
18
19
20

5-301

RESPONSE TO COMMENT LETTER 241 (HACKING & MUGLESTON)

241-1 Thank you for your comment.

ROBERT F. FALLON, JR., M.D., F.A.C.S.
General Surgery
175 North 100 West, Suite 102
Vernal, Utah 84078
(801) 789-0878

March 31, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, UT 84078

Dear Ms. Smalley;

I am writing to comment on the Draft Diamond Mountain Resource Area RMP and EIS.

I have recently moved to Utah, but have lived in rural areas of New Hampshire, Vermont, California, Washington and New York. I am an environmentally conscious outdoorsman who lives in a wood house heated with hydrocarbons, surrounded by a fertilized lawn, that was built in a deer winter range, on a 100 year flood plain. I am a physician who could practice anywhere in the United States, but choose Vernal and North Eastern Utah because of the varied outdoor activities in an area with a reasonably diverse economy.

For these reasons, I support Alternative E as outlined in the RMP/EIS. Alternative E, to my mind, protects all of the resources in the area - the diverse outdoor recreational opportunities, the range and the economically vital extractive activities. It is vital that we utilize available range, water and minerals in a fashion that minimizes "impact" and maximizes long term preservation of the gifts we are guardians of.

243-1 I have not lived here long enough to have in-depth perspective on many specific issues. I do agree with the areas designated as ACEC's. I am concerned about allowing surface mining of phosphates west of the current mine between Red Mountain and Dry Fork. That is both magnificent country and vital game range.

243-2 I agree with the priorities for vehicular and foot access to areas outlined in Table 2-13 page 241.

243-3 I've heard rumors about a new road providing more direct access from Little Hole to Browns Park. Big Mistake. Some things are nice precisely because they are hard to get to, and access (and over utilization) ruins them.

243-4 I had trouble finding specific references in the RMP/EIS, but from my perspective of living in various places, water and raparian zones are vital to the environmental health of an area and these features would be vigorously protected.

Thank you for your efforts. Could you please add me to your mailing list for items relating to the RMP.

Sincerely,

Robert F. Fallon, M.D.

RFF/jre

RESPONSE TO COMMENT LETTER 243 (FALLON)

243-1 Please refer to our response 112-1.

243-2 Thank you for your support.

243-3 No formal proposal has been received regarding a Little Hole to Browns Park all-weather road. When such a proposal is received, a formal environmental assessment will be prepared to discuss and analyze the specifics of such a project.

243-4 Please refer to Table 2-15, for proposed decisions regarding riparian areas (decisions for the proposed plan are offered for comparison in this table). Also refer to Appendix 6 for the Utah State Riparian Area Policy.

Brent B. Hacking
18905 S.E. 43rd Street
Issaquah, Washington, 98027

BBH-05-92 (206) 746-0297 March 28, 1992

Penelope Smalley
Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah, 84078

Subject: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Alternative of Choice: Alternative "C" Forage Production with limitations

Dear Ms. Smalley

As an owner of property in the Mame's Hole-Bear Hollow area I am totally against any development or burning in this area.

244-1 After reviewing and evaluating the alternatives, I could support Alternative "C" with reservation. If you are talking about burning 200 acres of BLM land it would be mostly on the top of the mountains where the conifers and Quaking Aspens trees are located. If you are talking about burning 200 acre of private land then I am definitely not in favor of it.

244-2 The Mame's Hole - Bear Hollow area is currently closed to public deer hunting. Thus helping to preserve nature. We do not want large numbers of people walking over and destroying the plants and land.

As a Civil Engineer I understand what it takes to build a road into an area. My evaluation of what you are proposing in regards to the road and visitor sites in the Mame's Hole - Bear Hollow area is that you will be making an eye sore out of the meadows and the hill sides. In the process of construction you will end up taking out a lot of natural formation, springs, and the best grazing land.

It sounds as though you are planning on putting reservoirs in the tops of the mountains as most of the flat lands are privately owned.

244-3 On the "Grazing Allotments and Major Roads" map it implies the private land is under a BLM Grazing permit number.

RESPONSE TO PUBLIC COMMENT LETTER 244 (Hacking)

244-1 The 200 acres designated in Table A8-4, for the Mame Hole-Bear Hollow Allotment refers to pinyon-juniper proposed to be burned on BLM-administered lands. The reservoirs would be built on public lands also. Any range improvement work would be completed with the knowledge of the involved grazing permittee.

244-2 Please refer to our response 12-1.

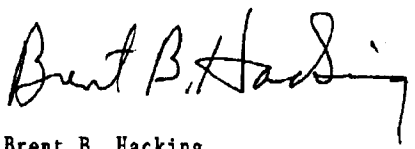
244-3 The Mame Hole-Bear Hollow Allotment is licensed on a percent federal range basis and the private lands within the allotment, unless fenced, are part of the grazing permit agreeing to the season of use designated and the numbers of livestock permitted.

244-3 Cont. As a tax payer I am concerned that we are about to spend a large quantity of money to put a new road through a previously un-disturbed area when their are currently other road ways through the area. Why are we doing and what is the cost?

244-4 The report also seems to favor the recreationalist and sportman e.g. increasing the number of wildlife over cattle. Please be aware that people are still making their living off the Mame's Hole - Bear Hollow private land.

Once again, I would prefer that nothing be done in the Mame's Hole - Bear Hollow area.

Sincerely



Brent B. Hacking

244-4 Thank you for your comment.

6212 So. Orchard
Tacoma, Wa. 98467
March 28, 1992

Jean Sinclear, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Regarding: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Dear Team Leader,

As I have been looking at the Diamond Mountain Resource Management Plan/Environmental Impact Statement (RMP/EIS), I wonder why after all the years that Diamond mountain has been under the control of private ownership, with no adverse effect on the mountain, why it is necessary for the B.L.M to take over control of the area and access it to the public. If history is any indicator as soon as the general public has access to an area that area will soon be ruined, unless all of that area is reguarly policed and maintained.

My main focus of concern is the Mame Hole-Bear Hollow area owned by Grant L. Hacking Family. For Forty-five years I have watched my father very carefully maintain and make improvements to this area. He has added several reservoirs in the valley below Mame Hole and enlarged the ones in Mame Hole and Bear Hollow. these reservoirs are used by cattle that he runs there and by the dear, elk and other wild animals that live in this area. He has put out salt for his cattle which has been used by the wild animals also. As we have hiked in the hills and driven along the county road we have counted an ever increasing number of deer, elk, rabbits, prairie dogs and other wild life. If this work and improvements had not been done by the private landowners, who truly care for the land, the wild life would not have been able to increase.

After I graduated from Uintah High School I had the opportunity to work for the U.S. Forest Service. One of our responsibilities was to go to the various campgrounds and perform maintenance on the facilities. We spent most of that summer repairing and keeping the facilities useable for the public. Some of the maintenance was for winter damage, most was for the use/abuse of the general public. If a road is built into Mame Hole/Bear Hollow and campgrounds constructed they would necessitate a great deal of money to construct them and even more to maintain them. It would also deplete the available grazing land for the cattle and wildlife. If the public has access to these areas they will drive the wildlife, who now co-exist with the cattle, out of their habitat with nowhere to go except into a steadily dwindling accessible area.

During the summer of 1991 we had the opportunity to go to Fantasy Canyon in the Red Wash area. As we were driving along the public access roads to the canyon, many of the once beautiful hillsides were scarred with the ruts of 4-wheel vehicles. These ruts not only detract from the beauty of the area, but also cause erosion, and a destruction of the few native plants that can grow in the area. If Mame Hole and Bear Hollow are opened up to public access, this same wanton destruction will occur in an area, where except for a few judicious improvements, the land is still the same as it has been for centuries.

245-1 My family and I are opposed to any "improvements by BLM" being done to the Mame Hole/Bear Hollow area. We would like to see it left as it is. For over a century the wildlife and cattle have co-existed with an increase in the numbers of wildlife. If "improvements" must be done, those proposed by plan "C" are the only acceptable one's. These "improvements" should only be done after very careful study and consideration of the Mame Hole/Bear Hollow area weather and terrain conditions.

Respectfully yours,

Douglas G. Hacking

245-1 Please refer to our responses 12-1 and 53-1.

JANET T. MILLIKAN

Tues., Mar. 31, 1992

P.S. I am very much opposed to the proposed new Highway which Sen. Bill Orton backs — it duplicates the Colo. Road 50 miles East, + is a waste of Tax Dollars — we don't have enough $ in Utah to maintain our roads as is —

Mr. Ron Trogetad
Diamond Mountain Resource Area Manager
170 South 500 East
Vernal, UT 84078

Re: Diamond Mt. RMP

Dear Mr. Trogetad:

I am an Artist - Painter and Photographer - and avid Flyfisher.

I favor your Alternative B. Alternate E does have some good features.

246-1 I applaud you for opposing bear baiting.

Always, I am ~~appalled~~ appalled at chaining Pygmy Forests -- They are Forests, and just because they are Pygmy, they are no less important -- Pinyon Pine + Juniper grow where they do because the ecosystem is appropriate.

246-2 Cattle, in my opinion do not belong in Forests - Raised from Iowa + Minnesota, so I have a broader viewpoint. We are so used to a cow/cowboy mentality in the West, that we are allowing Tremendous damage to our streams, habitat, etc -- + spending millions of dollars doing this -- many of the big Ranchers, who profit from our Taxpayer dollars are driving Cadillacs in large cities, etc —

Studio
3917 Brighton Point Drive
Salt Lake City, Utah 84121

5.307

RESPONSE TO COMMENT LETTER 246 (MILLIKAN)

246-1 Please refer to our response 114-34.

246-2 Treatment of pinyon-juniper woodlands would be completed to improve the watershed condition, provide additional forage for both wildlife and livestock, and allow for a healthy, vigorous natural vegetation composition, of which pinyon-juniper play an important role.

(2) Mar. 31, 1992

Obviously, cattle will remain in the West. But, please, let's not give them 9,000 more acres. And, if you do insist on this, please do so by fire, a natural phenomena.

246-3 ORV use -- All riparian areas should be closed to ~~-~~ just designated roads, please
ORVs in -- all ACECs + Wild + Scenic Rivers should be closed to mineral development.

246-4 I have flyfished out of Brown's Park, and I am amazed that you would consider allowing mineral entry around there, + the Nine Mile Canyon ACEC ... these areas should be closed to mineral entry. Category 1 + 2 lands should be closed to mineral entry, including Ouray National Wildlife Refuge. Same for Diamond Mountain, where the potential is low, anyway.

246-5 Your Dept. needs to consolidate land holdings on Diamond Mt., so as to retain control -- otherwise, with Checkerboard "Holdings, issues become confused.

If you use Alternative E, please do improve it ~~with~~ along the above lines.

246-6 I support ACEC Recommendations, Wild + Scenic River study for all of the Green River, + no lease mineral recommendation on sensitive lands, + no chaining of Pygmy Forests ——

Yours truly —
Janet T. Milliken

246-3 Please refer to our response 117-3.

246-4 In the proposed plan the areas adjacent to the upper and lower Green River would be recommended for withdrawal from mineral entry. Until the withdrawal is approved in Washington, the ACEC designation along the river would require a plan of operation prior to any surface disturbance greater than 5 acres.

246-5 Thank you for your support.

246-6 Again, thank you for your support.

Ron Trogstad 3/27/92
Diamond Mtn Resource Area Mgr
170 S 500 East
Vernal, Utah 84078

Dear Mr. Trogstad:

247-1 I'm writing to you to express my concern about the pending management decisions on the Diamond Mtn. area. I strongly support alternative B as the option which will most fully protect the valuable wilderness of this region. I would also like to urge the BLM to strongly oppose any bear baiting in this area. It's time our wildlife populations are freed from this senseless barbarism.

247-2 I support the ACEC recommendations and I would also like to see wild and scenic river status for this stretch of the Green River.

Sincerely,

James Kay

RESPONSE TO COMMENT LETTER 247 (KAY)

247-1 Please refer to our response 114-34.

247-2 Thank you for your support.

DUCHESNE COUNTY ROAD DEPT.

P.O. Box 398 Duchesne, Utah 84021 84021
801-738-2488

March 31, 1992

Jean Sinclear
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Dear Ms.Jean Sinclear:

We are writing to you to comment on your Diamond Mountain Resource Area, Resource Management Plan and Environment Impact Statement. There are two areas that are important to the County the first being tar sands and the second sand, gravel, and shale pits.

We have found some discrepancies in the Assumptions on page 4.9 in the section called Tar Sands. The impact to Duchesne County was not expressed well enough, Tar Sands are a valuable resource to Duchesne County and a important product to the PUBLIC. If Duchesne County were allowed to receive tar sands in the Pariette then the County could save $275,000.00 a year or more. It now costs the County $200,000.00 to purchase tar sands from John E. Fausett for one year. It costs us $75,000.00 or more to haul the product after it is crushed, to the job sites. The Fausett pit is in Whiterocks and approximately 26 miles from Roosevelt Utah. The farthest job site has the potential of being a distance of 73 miles from John E. Fausett's Tar Sands Pit. 248-1

In the Alternative E Plan there are no Tar Sands available in the Pariette area. In the Summery of Impacts on page 4.67 it states that:

> Development of tar sands in the Pariette STSA would be precluded under this alternative. This would delay or preclude paving of roads in the area.

The County would like to see a small section opened to tar sands use on the Pariette STSA. We petition the BLM to reconsider and open up a few small test sections. The area we are most interested in is Section 30 T8S R18E SLB&M. The County with the BLM has been on the site, there is an existing road to the site that needs little improvement to access the tar sands. The County Surveyor and County Road Department have prepared a plat with drill hole sections for exploration drilling. The BLM asked us to put off turning in our request for drilling until their

RESPONSE TO COMMENT LETTER 248 (DUCHESNE COUNTY COMMISSION)

248-1 Your concern regarding possible development of tar sands, a leasable mineral, within the Pariette STSA has been clarified. Please refer to Tables 2-15 and 2-16 for proposed decisions involving tar sands in general land within the proposed Pariette ACEC, respectively. Please also refer to Map Packet #8, which portrays the generalized leasing categories for oil, gas and combined hydrocarbon activities. We would consider tar sands development on a site-specific basis, so long as individuals and/or habitat for special status plant species are not adversely affected.

(RMP/EIS) was completed. The County anticipated that the BLM in their Resource Management Plan would take into consideration all of the past work and time the County has put into this site.

248-1

Duchesne County crushes the tar sands and places them on the roads with graders, this has been quite successful for the county and is substantially cheaper than road mix. Paving roads provide safety to the public and helps the environment by reducing dust and erosion on the lands. Road maintenance is minimal after the road is paved thus reducing additional costs to tax payers.

Mineral Materials (shale)

The County depends on the BLM's "Free Use Permits" to place shale on the roads in out of the way areas, private lanes and low impact roads. The County Road Department uses shale as a beginning road base then they use gravel and cover it with tar sands. Having access to more than one shale pit is also important to the county because it cuts down on hauling milage. The Road Department is able to maintain the roads in the areas near each shale pit to a higher standard because of the savings from minimal hauling milage.

248-2

On the Alternative E Map we believe there are too tight of restrictions in the Nine Mile Area. There are few places that the soil is right for shale removal and that have access with minimal damage to the lands. It not only cuts down on hauling costs it also saves the tax payers money to have access to the shale pits. If the County didn't have the shale pits it would cost us an additional $100,000.00 in one year to maintain the roads in the area.

We hope you will consider our needs as you prepare your final Plan. If we can be of any further assistance please let us know. You can call the County Road Department at 738-2468 and Leon Fillingim or Nancy Bird can answer any of your questions or will be happy to assist you in finding your answers.

Board of County Commissioners:
Duchesne County, State of Utah

By. R. L. Reynolds ... Date. Mar. 31, 1992.
Chairman

.....
Member

.....
Member

nh

248-2 Under the proposed plan, we have taken steps to consider the needs of the counties and other mineral material developers. Most restrictive areas in the Myton areas are on lands considered to be Category 2 (open with restrictions). A stated in the document, we recognize that in some instances seasonal restrictions may not be feasible for mineral material development. In those cases, we would consider other development options. Also, under the proposed plan we would consider allowing mineral material development on a site specific basis even in the most highly restricted areas in the resource area.

March 31, 1992

Penelope Smalley, Team Leader RMP/DEIS
Vernal District, BLM-USDI
170 South 500 East

Dear Team Leader:

First, a thank you all for allowing a 90-day comment period, the comments should be more thoughtful and in depth as a result. The usual 30-day agency period is just too short.

For the most part, I'm relying on the special interest groups to respond/comment on the technical ecologically and social-economic discussions and omissions in the DEIS. The volume of material, subjects, and alternatives are just too massive and intimidating for one individual in the general public to handle. However my overall impression of the statement is one of professionalism and quality craftsmanship.

I am just a little confused about the purpose of the Resource Management Plan (RMP) as stated on page 1.1 in the second and fourth paragraphs. The statement in the second paragraph seems to infer that decisions are being made. Then, in the fourth paragraph this statement is made "It is not a activity-specific plan intended to make specific program decisions for all individual resources; rather, it is designed to provide overall multiple-use objectives and management direction"... What I'm hearing is that the RMP is only restating existing generalized public land policy and direction contained in laws, regulations, and BLM manuals and that site-specific day-to-day commercial and non commercial use (and misuse) decisions will continue to be made without public review.

249-1

5.312

RESPONSE TO COMMENT LETTER 249 (YOUNGER)

249-1 As stated in Chapter 1 the Diamond Mountain RMP is designed to give broad, general management for public lands within the resource area. The reasons why an RMP is necessary at this time are also presented. That the RMP is only "...restating existing generalized public land policy and direction..." is not quite accurate.

249-1 Cont.

i think we all know that policy and national guidance (direction) has not been the problem, its been the lack of political will to implement and comply with the national direction at the state and local level. It looks like the current status quo will continue, what has changed by writing a subjective RMP that invites exceptions, modifications and deviations?

Two specific suggestions:

249-2

(1) Enlarge the Glossary Section to include additional technical and subjective words such as:
-Balance (page iii), ecological stability or management policy,
-Irreversible, a political or ecological decision?
and, there are many others,

249-3

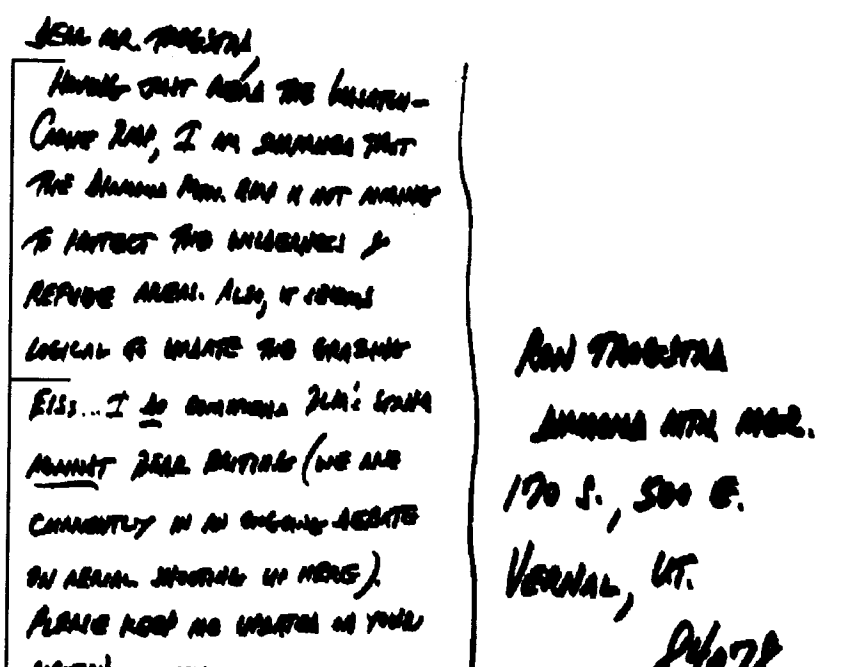
(2) Each item in the Reference Section should be made available for public review in the Office of the State Director and the Vernal District Manager. Now, some may claim that this would be impractical but, to do other wise denies the general public full access to all the materials in the DEIS.

Sincerely,

Ronald J Younger
920 East 1500 South
Bountiful UT 84010-2138

249-2 The Glossary includes those words and phrases used commonly throughout the plan or where a precise meaning is inferred (i.e., carrying capacity). Where no definitions are provided, the commonly accepted dictionary definition is applicable.

249-3 The specific references cited in this plan are available for review at the Vernal District Office (also the office of the Diamond Mountain Resource Area).



Dear Mr. Trogstad
Having just read the Wasatch-
Cache RMP, I am surprised that
the Diamond Mtn. RMP is not naming
to protect the wilderness &
refuge areas. Also, it seems
logical to update the grazing
EIS's...I do commend BLM's
stand against bear baiting (we are
currently in an ongoing debate
on aerial shooting up here).
Please keep me updated on your
position...thx!

MICHAEL A. MARTIN
8081 S. SHORT HILLS DR.
SALT LAKE CITY, UT 84121

Ron Trogstad
Diamond Mtn. RMP.
170 S., 500 E.
Vernal, UT.
84078

250-1

250-2

RESPONSE TO COMMENT LETTER 250 (MARTIN)

For those that can't decipher Mr. Martin's red ink notecard:

"Dear Mr. Trogstad, Having just read the Wasatch-Cache RMP, I am surprised that the Diamond Mountain RMP is not naming to protect the wilderness and? refuge areas. Also, it seems logical to update the grazing EISs...I do commend BLM's stand against bear baiting (we are currently in an ongoing debate on aerial shooting up here). Please keep me updated on your position...thx! M.M."

250-1 Wilderness areas are discussed and analyzed separately in the Utah Wilderness EIS, published in 1990. No new wilderness areas were identified during the scoping period for this project. The RMP would apply to BLM-administered lands only, thus management of refuge areas would not be appropriate in this document.

250-2 Thank you for your comments. Please refer to our response 114-34.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

APR 2 1992

Ref: 8WM-EA

Pentelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Re: Draft - Diamond Mountain Resource Area - Resource Management Plan and Environmental Impact Statement (DEIS)

Dear Ms. Smalley,

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Region VIII office of the Environmental Protection Agency (EPA) has reviewed the DEIS for the above referenced project and offers the following concerns and comments for your consideration as you complete the final Environmental Impact Statement (FEIS).

251-1 The draft plan displays the primary emphasis of management as being livestock grazing and minerals (oil and gas) extraction. It states (page 3.57) that 10% (72,100 acres) of the area is considered highly erodible and 9% (62,750 acres) "....can contribute salt into surface waters in periods of high sediment runoff." These data and maps 3-24, 25 and 26 reflect watershed concerns that should be considered extremely important in the Diamond Mountain area. Even though erosion is considered to be a significant problem in the draft EIS, erosion mitigation appears to have an extremely low priority, as evidenced by plans to not reclaim disturbance in a timely manner (ie. Page 4.59 states "....areas may remain in an early ecological seral stage for the long-term after vegetation is cleared. Wells may produce for five to twenty years before rehabilitation efforts take place"). The Management Plan needs to be revised to place control of existing erosion as a very high priority to protect the basic resource.

251-2 EPA's primary environmental concerns are for surface water quality impacts and impacts to wetlands and riparian areas related to the proposed management practices as well as potential degradation of the quality of ground water from grazing and oil and gas activities. The draft Diamond Mountain EIS and Resource Management Plan combines wetlands and riparian areas into one classification (riparian areas), only 64% of which have been

5-315

RESPONSE TO COMMENT LETTER 251 (ENVIRONMENTAL PROTECTION AGENCY, Dodson)

251-1 In Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives, under water resources, it states: Sediment and salinity production will be reduced on important watersheds and critical soils through intensive management and construction measures to reduce water degradation of the Green and Colorado Rivers. Part of this intensive management is to require oil and gas drilling operators, where needed, to construct erosion control dams on site to mitigate erosion off-site from disturbed areas. In the proposed plan it states that cumulative erosion impacts will be mitigated by range improvements and restricted OHV use. Standard stipulations for oil and gas activities on critical soils include constructing erosion control dams where designated by BLM. Producing wells and their associated access roads may not be reclaimed for up to 20 years. This is for reasons of safety (reduced fire hazard) and very heavy vehicle traffic. Once the well is officially "plugged and abandoned", the well site and access roads are reclaimed.

251-2 Of the riparian areas inventoried, 24% were found to be in an early seral stage and 55% in a mid seral stage. These figures do not equate to 79% in poor condition. The later the seral stage, the more the similarity to the potential natural community for a site. Maximum vegetation diversity occurs frequently below the potential native community, also approximately 18% of the riparian below late seral stage is due to noxious weeds which have invaded otherwise late seral stage riparian conditions. If you equate ecological status to range condition, usually early seral stages equates to poor condition and mid seral stage equates to fair condition, thus the 24% of early seral stage riparian would be in poor condition, not 79%. As stated in Chapter 3 for riparian resources, the riparian inventory continues to be an on-going process and will be completed as funding and priorities permit. As a minimum, BLM will adhere to the guidelines in the Utah State Riparian Policy as shown in Appendix 6. Refer to Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives under the riparian section for a discussion of the improvement strategies. Under Seeps/Springs in Appendix 8, under standard operating procedures for rangeland improvements, water is left at the developed spring source for wildlife purposes. When BLM develops springs, the spring area is fenced from livestock, if necessary. This practice improves riparian vegetation, and a portion of the water is piped off-site to a trough or reservoir providing new riparian and water holes.

inventoried (page 3.47). Of the areas inventoried, 79% are stated as being in poor condition. Even though the introduction to this section stresses the importance of "riparian" areas, it does not provide much emphasis toward inventory, study or

251-2 Cont. correction of the problems plaguing them. A complete inventory of riparian and wetland areas as well as description of their baseline conditions needs to be completed as part of this analysis. To make the desired decisions without this information would be inappropriate. Also, EPA is opposed to the further development of natural springs due to the loss of rare, natural aquatic resources during the process. The practice should be eliminated.

Water quality is a known problem within the basin. Enclosed are two letters from EPA Region VIII to the Utah Department of Health which address the problem and identify several drainages in the Diamond Mountain area which are not within water quality

251-3 compliance standards. As you know, all federal agencies are required by Executive Order 12088 to comply with established state water quality standards. The State of Utah is scheduled to present an attainment plan addressing how it will bring these streams into compliance to EPA Region VIII by April 1, 1992. Also, the EPA is aware of the U.S. Fish and Wildlife Service's related sediment concerns for Mancos shale sedimentation and its potential effect on Threatened and Endangered species.

EPA is concerned that the DEIS does not include an analysis of the serious water quality problems that are resulting from irrigation return flows on the Ashley Creek drainage and the Pariette Wash within the Diamond Mountain RMP area. While these problems may not be the direct result of specific past BLM actions, the document fails to address the impacts, if any, or changes in BLM's actions on these watersheds that could either

251-4 exacerbate or ameliorate these serious water quality conditions. In the lower Ashley Creek system, the concern is with concentrations of selenium, boron, zinc, and uranium which may originate from privately irrigated lands, the Bureau of Reclamation's Jensen Unit and the sewage treatment ponds at Ashley Valley. Without an analysis in the Diamond Mountain EIS, BLM's management of Public Lands for those grazing allotments within the Ashley Creek drainage is inadequate since it fails to assess any contribution the BLM action may have to this significant environmental problem. Within the Pariette Wash ACEC and the Wetlands Grazing Allotment, concentrations of boron are of concern. The Fish And Wildlife Service will continue its contaminant review in the area and will expand its efforts to monitor for uranium in the biota of Pariette Wash. Of particular concern are the proposed new water sources for augmenting cattle use in these two areas. Changes to springs and seeps and new reservoirs need to be assessed for their potential to release naturally occurring background concentrations of the above metals.

251-3 **NOTE--The comment dealing with an "attainment plan" has been replaced by a correction letter dated May 28, 1992, signed by Max H. Dodson, for the Director of the Water Management Division. A copy follows this letter.

Please refer to the Diamond Mountain Resource Management Plan, Management Situation Analysis, located in the Diamond Mountain Resource Area office for an in-depth analysis of specific mandates and authorities, resource allocations, and current management guidelines governing soil and water resources.

In Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives under soil and water management, it states that water is managed to comply with all federal and state laws. Under soils, management practices are designed to meet vegetation standards which will maintain or improve watershed conditions. Also as stated under the heading Water: "Watershed condition shall be maintained or improved by application of Best Management Practices using current Utah State Water Quality Standards for turbidity and total suspended solids." Water quality standards are illustrated in Appendix 9 for major water courses in the resource area with objectives to maintain or improve these areas, consistent with the State of Utah's standards. In Chapter 4 in the assumptions section under soils and water, it states: "Management actions that enhance or protect soil and water resources would be designed with measures that would preserve significant resources in the area." Also as stated: It was assumed that soil resources could be adversely affected two to three years following vegetation treatment activities (i.e., prescribed burns) until vegetation had recovered sufficiently to hold the soil in place. Until sufficient vegetation recovered on the treated site, topsoil could be transported off-site as suspended sediments and/or wind blown dust particles. This was seen as acceptable as the expected long-term benefits of improved watershed condition outweigh the short-term possible loss of the soil resource. Most of the prescribed burning takes place on closed juniper-pinyon and decadent aged sagebrush vegetation types, which are presently in poor watershed conditions.

Existing capabilities to conduct vegetation treatments with an objective to lessen erosion and increase forage production for wildlife and livestock are such that approximately 1,200 acres per year could be accomplished. Most of the treatment in the last 10 years has been prescribed burning of pinyon-juniper stands. See Appendix 8 for proposed range improvement by allotment. The BLM non-point management strategy is incorporated into BLM management plans through mitigating measures identified in project planning and NEPA review (see Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives, water section). In Chapter 1, under Soil, Water, and Air Management,

All alternatives reflect 50,299 AUM "grazing preference" and, except for alternative B, 99% of the land area is proposed to be grazed. A comparison of tables A8-1, A8-2, A8-3 and A8-6 reveals numerous riparian and grazing problems which this plan should remedy. While the DEIS mentions that some grazing was reduced in the past, there is no mention of whether this
251-5 reduction has had a favorable effect on the resources impacted or whether additional reductions or the proposed improved systems would have such an effect. The final EIS must more definitively address the realized effects of past grazing including the effects of reduced grazing implemented in the past. It must also address the specific impacts the proposed 50,299 AUM grazing preference as described in each alternative and the proposed methods, stocking levels and timeframe which would bring the range, riparian and wetland resources to satisfactory condition.

The document does not propose specific standards that the plan will require for planned activities. Baseline data and
251-6 performance standards need to be an integral part of the plan to enable the reader to visualize the potential effects of management activities on the resources.

Table 2-13; Areawide Decisions by Alternative discloses that oil and gas leasing decisions are to be made with this document. EPA Region VIII developed a Scoping Comments Letter for the
251-7 Forest Service's White River National Forest Oil and Gas Leasing EIS. I have enclosed a copy of that letter for your use. It attempts to address some of the key issues of importance to EPA for consideration in the oil and gas leasing EIS process. Based on our current knowledge, we believe the letter is a good summary of the types of issues that should be considered in your final EIS for oil and gas leasing.

Cumulative impacts are broadly addressed. However, for the most part, they do not represent the accumulation of site specific impacts on the environment one would expect in this type
251-8 of analysis. As an example, the cumulative effects attributed to mineral and grazing activity of all alternatives consist primarily of a summary of economic impacts to the local economy due to the implementation of the subject alternative. The cumulative effects analysis should also summarize the site specific impacts of past, current and proposed projects and occurrences upon specific environmental resources, such as water quality, vegetation, wildlife, etc.

Enclosed are our Detailed Comments which address the above concerns in more detail as well as additional comments of importance. Many are concerned with lack of data, apparent inconsistencies in the analysis or indications that known problems are not addressed. The final EIS must address these concerns by providing the necessary data and analysis.

it states: "The best water quality control technology, jointly determined by BLM and the Utah Water Pollution Control Committee, will be applied as needed to meet water quality standards.

251-4 We recognize the water quality problems associated with the Ashley Valley Sewage Treatment facility, of which part is authorized under a right-of-way on BLM-administered lands. An EIS, written by the Bureau of Reclamation, is in progress to evaluate alternatives to correct the problem. Also water quality problems are of concern in the Pariette Wetlands complex. Along with monitoring water quality in the Pariette Wetlands, we are monitoring water quality and sediment loading in the upper drainages of the Pariette watershed as part of the Castle Peak Salinity Control Study initiated in 1991. Included in this study are grazing exclosures built to compare ground cover and sediment loading between grazed and ungrazed areas. Sediment and water samples are taken from reservoirs being built in the drainage. The reservoirs proposed in the Pariette and Castle Peak drainages are to trap sediment occurring from geologic erosion, to better distribute livestock, and to provide more water to wildlife; water being a limiting factor in the desert area. Please refer to Chapter 2, Management Common to the Proposed Plan and All Alternatives under water, and Chapter 3 under water quality. The State of Utah's health and wildlife agencies are aware of the public health problems associated with the Ashley sewage system and have taken every precaution possible in insuring public health, while remedial action is being considered by the interagency team consisting of USF&WS, U.S. Geological Survey, and Bureau of Reclamation representatives.

251-5 Please refer to our response 251-22, below.

251-6 It is understood that current BLM manuals outlining activity plan procedures, their implementation and evaluation standards would be followed in an subsequent activity plan tiered to this RMP.

251-7 Thank you for your information.

251-8 We have strengthened and clarified the cumulative impacts from the proposed plan and each alternative in Chapter 4.

Based on the procedures EPA uses to evaluate the environmental impacts of the proposed action and alternatives and the adequacy of the information in the DEIS, the Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement will be listed in the Federal Register in the category EO-2. This means that the review has identified significant environmental impacts that should be avoided in order to fully protect the environment and that the DEIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require substantial changes to the preferred alternative or the consideration of some other alternative. The deficiencies of data as described above make it infeasible to identify an EPA preferred alternative at this time. Because of the importance of the potential environmental impacts, I suggest that we schedule a meeting to more thoroughly discuss our concerns with this project before you begin work on the final.

Please contact either Wes Wilson (303/293-1439) or Larry Lindner (303/293-1695) of my staff if you have questions concerning these comments.

Sincerely,

Max H. Dodson, Director
Water Management Division

Enclosures: (4) Detailed Comments;
EPA letter dated Jun 2, 1989
EPA letter dated Jan 26,1990
EPA letter dated Nov 1, 1991
Utah Priority Watershed list

cc: Utah Department of Health
U. S. Fish and Wildlife Service

Detailed Comments
Diamond Mountain Resource Area
Area Management Plan and draft EIS

To alleviate the aquatic resource environmental concerns addressed in the letter, the final Resource Management Plan and Environmental Impact Statement should contain:

251-9 anticipated effects and mitigation planned for each alternative on the 304(l) streams identified in the attached EPA letters or the State of Utah action plan of April 1, 1992. This would include analysis of the Diamond Mountain area's current contribution to the problem, if any;

251-10 actions to be taken to meet state water quality standards by projects and programs to be implemented through this Management Plan and EIS;

251-11 the "Best Management Practices" or other techniques that will be required by the final Resource Management Plan to protect the aquatic resource ecosystem from the effects of the projects and programs proposed by the plan. Also, the current DEIS apparently does not require as a standard, any specific Best Management Practices to be used to control non-point source water quality impacts or impose other requirements to control sediment. Utah has adopted and EPA has approved a Non-point Source Management Plan under the Clean Water Act (CWA) Section 319 which should be used in this document as a standard to reduce potential nonpoint impacts. Similarly, the document should identify any watersheds within the Diamond Mountain area identified as priorities for NPS control efforts by the State Nonpoint Source Task Force and describe the management plan to be used for the watershed. Describe the BLM's federal consistency review process under Clean Water Act Section 319(b)(2)(f);

251-12 a discussion on how the BLM is integrating watershed activity planning and implementation with adjacent non-Public Lands;

251-13 how implementation of the Resource Management Plan will deal with potential environmental problems of noxious weed control;

251-14 how oil and gas well development, monitoring and abandonment procedures will protect surface and groundwater and air quality. Potential oil and gas development effects on surface and ground water through underground injection of surplus water and sealing procedures (cement logs) are not adequately addressed in the document. The final EIS should

251-9 Please refer to Chapters 2 and 3 for soil and water resources for an expanded discussion of water quality concerns within the resource area.

251-10 Please refer to our response 251-9. Specific BMPs that will be used to control non-point pollution are the "state of the art" practices for each resource program described in current BLM handbooks and manuals. The Pariette watershed was identified by the State of Utah's Nonpoint Source Task Force as a priority for NPS control. The nonpoint source management plan, which will be used as a standard to reduce potential nonpoint impact, is included in Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives.

251-11 Please refer to our responses 251-9 and 251-10, above.

251-12 Please refer to our responses 251-9 and 251-10, above.

251-13 As stated in Chapter 2 under vegetation, noxious weeds would be controlled under all alternatives with restrictions to protect desired ground cover and water quality. See the Diamond Mountain RMP, Management Situation Analysis, located in the Diamond Mountain Resource Area office. The noxious weed program is addressed in detail in the MSA under "Noxious Weeds or Undesired Plant Species."

251-14 The existing DMRA Management Situation Analysis, an inhouse working document, provides specifics on identification of possible contamination, specific mandates and authorities, interagency planning consistency, and inventory and monitoring information. This document is available for review at the Utah State Office and the Vernal District Office. What is required of operators during oil and gas well development and abandonment procedures (including salt water disposal) in order to protect groundwater is addressed in the following documents: The "Notice to Lessees and Operators of Federal and Indian Oil and Gas Leases Regarding the Disposal of Produced Water", also known as NTL-2B, and proposed "Onshore Oil and Gas Operations: Federal and Indian Oil and Gas Leases: Onshore Oil and Gas Orders Nos. 1 through 7 ("Disposal of Produced Water" which will replace NTL-2B. These documents are described in Appendix 4 as outlining the "minimum requirements for the permitting, drilling, and production of oil and gas wells on Federal mineral estate administered by the Bureau of Land Management.

portray processes and practices which will avoid pollution rather than prescribe a damage control procedure if an incident does occur (page A4.8). Similarly, the document states that "Produced water from oil and gas wells would continue to be disposed of by reinjection or by removal to nonfederal disposal pits" (page 2.12), but doesn't address well capacity or whether this disposal will have cumulative effects on the area's water quality, either on federal or private lands.

251-14 Cont.

- Page i of the introduction states that "It is critical that the reader understand the management priority concept," however, the explanation is not adequate for the average reader to understand how the management priority concept was used to structure each alternative. The management priority concept appears to add the "management level" as a floating variable to the design of alternatives. As an example, reviewing Table 2-13 (Areawide Management Decisions by Alternative), one would anticipate that all major decisions would be apparent. Reviewing the Pariette ACEC (page 2.56) decision discloses that Alternative E is the "Same as Alternative B" which states "Designate 11,600 acres in the Pariette drainage as an ACEC." Comparing the maps for the respective alternatives, however, shows that separate "management levels" are planned with these two alternatives for the same ACEC. The statement "Same as alternative B" is therefore misleading. Due to this and other, similar concerns, this concept made our review more difficult and increased our confusion rather than being helpfull in our understanding the process or decisions made.

251-15

- The use of GIS to accurately ascertain acreage impacts by alternatives should improve the reliability of complex summary information. As discussed above, however, its ability to track complex data may tend to add complexity to the analysis and confusion for the reader.

251-16

- Sediment is identified as a major concern in the Diamond Mountain analysis area. The concept of reducing erosion by restricting OHV use to roads and trails appears legitimate and effective. However, to <u>not</u> mitigate erosion from Oil and Gas leasing by using the erosion "saved" by restricting OHV use will effectively retain the status quo rate of erosion rather than improve upon existing conditions. This seems inappropriate. In this case, a restriction on a presumably discouraged type of impact is proposed as a trade off for allowing an increase on a presumably preferred type of impact. The analysis does not identify any threshold (ie. standard) of an "acceptable" level of sediment nor does it quantify current water quality of the streams in comparison to this threshold or provide an explanation of any increases above "baseline" or why one use is better than another.

251-17

251-15 We apologize for any confusion or misunderstanding you had in understanding the decision matrices. Basically what the decision "same as Alternative B" is saying is that designation of the 11,600 acres at Pariette Wetlands as an ACEC is the same under Alternative B and the proposed plan. The assignment of resource values to a particular management level may indeed be different under the alternative and proposed plan because the overall management objectives are different. Please compare the specific management decisions for each ACEC by proposed plan or alternative in Chapter 2.

251-16 Please refer to our responses 251-1 and 251-3, above.

251-17 A trade-off between erosion saved by restricting OHV use and not mitigating erosion caused by oil and gas activities is not intended. Erosion from oil and gas activities is mitigated by erosion control procedures or restrictions as part of their leases or Applications for Permit to Drill. Although OHV use is restricted in some areas, reclamation and erosion control structures, as part of their authorized use, is not required.

- In discussing "relict vegetation"; protection from wildfire will "....have long term positive impacts on the soil, watershed and vegetation resources...."(page 4.35). When discussing grazing and grass forage production for livestock, "....One benefit derived from juniper and pinon burning is increasing diversity of herbaceous vegetation species....greater ground cover to lessen soil movement" (page 4.31). The similarity and difference between these two statements should be explained.

251-18

- The use of elk and deer as indicator species is ineffective due to the ubiquitous nature of their use of terrain as displayed in table 3-3, page 37.

251-19

- In several sections, the DEIS describes erosion potential as being a major concern. However, when the document addresses oil and gas impacts (the preferred alternative would allow mineral activity on 90% of the land area; page 2.3), it does not discuss grass seeding as a measure to reduce sedimentation until final site reclamation. The text states "Wells may produce for five to twenty years before rehabilitation efforts take place" (page 4.59). Seeding to provide protective cover is a commonly used practice to control erosion and minimize the introduction of noxious weeds during oil and gas operations.

251-20

- Much of the DEIS deals with vegetation management in pinon-juniper stands. Type conversion from pinon-juniper to grass is characterized as being beneficial to wildlife. This statement is not substantiated in the document with data. While this conversion may benefit deer and elk, it may concurrently reduce the area's total biodiversity by eliminating habitat for amphibians, reptiles and other species. The final EIS should look at mosaics with a broad (i.e. landscape) perspective to determine the cumulative effects of specific type conversion projects. Benefits and adverse effects should be determined at this scale. The analysis should fully disclose the impacts of pinon-juniper / grass conversion on biodiversity if it declares it a benefit to wildlife.

251-21

- The analysis reflects that the primary concern and emphasis for the Red Creek ACEC is sediment and streambank damage. It is therefore difficult to understand why even the Level 1 lands are designated for grazing and mining with "minimal restrictions". If this prescription is maintained in the final EIS, it should describe why all the ACEC isn't within Level 1 management (assuming the conditions are similar accross the ACEC) and why Level 1 lands don't need to be closed to use to provide an adequate level of protection.

251-22

- Grazing appears to be the most ubiquitous use of the Diamond Mountain Resource area. All alternatives reflect a 50,299 AUM grazing preference (page 2.45), although alternative B

251-23

251-18 The suppression of wildfires in the "relict areas" are solely to maintain the late to climax vegetation communities, not to have positive impacts on soil or watershed which fire could benefit in the long term. The first sentence on paragraph 2, second column, on p. 4.35 of the draft plan has been deleted.

251-19 Please refer to our responses 6-4 and 6-5.

251-20 In Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives, under leasable minerals, it reads: "Where required, stipulations will be attached to leases to mitigate impacts to sensitive species, cultural areas, and other resources susceptible to impacts from leasing-related activities." Standard Conditions of Approval for the Surface Use Program of the Application for Permit to Drill in areas containing critical soils are: Building erosion control dams located by BLM and seeding unused, disturbed areas on the well pads or access roads no longer needed for operations.

251-21 The positive impacts of pinyon-juniper conversion are stated in the impacts to soil and water and the Vegetation resources in the Impact Analysis, Chapter 4, of the RMP. As stated, there would be long-term benefits to watershed, increased forage for livestock and wildlife, and increased vegetation diversity in mid seral stages of treated closed stands of pinyon-juniper. The references listed in the document are (Severson and Rinne, 1988) and (Wright, Neuen Schwander, Britten, 1979). Treating the maximum possible over the life of the plan, only 2.5% of the total resource area would be treated which is only about 8% of the pinyon-juniper vegetation type in the resource area. Pinyon-juniper comprises about 16% of the resource area. Historically, pinyon-juniper has encroached on adjacent grassland and sagebrush/grassland communities in the west due to fire suppression and past heavy grazing.

251-22 Much of Red Creek sedimentation and streambank damage is caused by geologic erosion, although grazing and mining would be allowed only to maintain or improve ACEC values in the proposed plan.

251-23 Livestock preference in Alternative B which read 50,299 AUMs was in error. Livestock preference has been changed to read 25,007 AUMs to reflect reductions analyzed in Chapter 4. Refer to Appendix 8, for a detailed history of forage allocation. Much of these reductions were made as mitigation for building Flaming Gorge Reservoir and Dam and for wildlife habitat enhancement. Other reductions were made from conversions from sheep to cattle and due to forage allocation problems shown by monitoring over time. Ecological condition ratings are approximate and are used as a tool for evaluating management goals. The goals of increasing forage for wildlife and insuring livestock stocking rates are not above

discusses a potential reduction in grazing (page 4.66). While Alternative B allocates 87% of the Diamond Mountain area to grazing, all other alternatives (including the preferred alternative) allocate 99% (discussion of alternatives in Chapter 2). While there is an indication in the document that grazing was reduced in the past (page 3.23), the reviewer could not find any analysis of whether this reduction has resulted in improved range condition. A summary of this information in the final EIS would ensure correct information is disclosed. A comparison of tables A8-1, A8-2, A8-3, A8-5 and A8-6 was made to try to reconstruct this information. This comparison resulted in the following information:

Forty of the 114 allotments (page 2.9 states there are 108 allotments, but, depending on the table, there are from 108 - 115 allotments listed) are carried in Management Category I, which has the objective of "To implement management actions that will improve existing resource condition and productivity and enhance overall multiple use opportunities."

There are 23 allotments listed as having riparian problems and 15 of these are also listed in Management Category I. All federal agencies, including the Bureau of Land Management, have a particularly strong mission to protect aquatic resources (i.e. riparian and wetland areas).

5.322 251-23 Cont.

There are seven allotments listed in Management Category I that contain 14.7 miles of riparian listed as being in the early seral condition.

These seven allotments have a current livestock preference of 6534 AUM's. They also have 1392 of the original 7926 AUM's suspended in three of the allotments.

Six allotments have riparian difficulties and are listed as having an unsatisfactory present management system, but have no suspended AUM's.

The priority for revising Allotment Management Plans (AMP) is not apparent. Of the 18 AMP's prioritized for revision, 9 are for wildlife and 9 are for riparian and watershed (wetland) concerns. Seventeen allotments listed with either riparian or "livestock preference exceeds vegetation production capability" have no priority for revision.

251-24 Due to the amount of rangeland potentially impacted by grazing under the preferred alternative (99% of the land area) trend information would seem to be a vital and

available forage, have been achieved through a history of reductions in use by livestock. Monitoring data is available to review at the Diamond Mountain Resource Area office.

a. Six of the allotments listed in Table A8-1 are administered by Vernal District, Diamond Mountain Resource Area, but the planning is the responsibility of Colorado BLM as stated at the bottom of the table on p. A8.10.

b. Seven of the 23 allotments having riparian problems consist of springs that need to be fenced or livestock management adjustments needed to improve the spring areas. There are many factors in combination to be considered in the allotment categorization process, refer to Appendix 8, the Allotment Categorization Process. Allotment problems can be improved even though the allotment category is not an "I". There is an on-going program using volunteers to fence spring areas requiring grazing exclusion. Contributions of labor or funds increase priority in scheduling range improvements.

c, d, e. Suspension of livestock AUMs is not always necessary to improve upland and riparian areas. Livestock can be managed using prescribed grazing conducive to maintaining or improving riparian areas. BLM will follow the guidelines of the Utah State Riparian Policy, shown in Appendix 6, until otherwise revised.

f. Eighteen allotments were prioritized for allotment management plan development. Many problems such as over use of spring riparian areas, and forage allocation problems can and are solved in many cases without AMP development.

251-24 Refer to Appendix 8. Some allotments were placed in unsatisfactory condition in error; this has been corrected. In some cases, allotments in unsatisfactory condition are designated as such due to production below potential in providing wildlife habitat. A change in livestock management, in this case, is not necessarily required for improvement (refer to the range monitoring studies). Vegetation trend, actual use/utilization, and climate information were used and will continue to be used to determine if grazing management is meeting allotment objectives. Data in the various tables in Appendix 8 will be used when setting objectives by allotment at the activity plan level.

valuable analysis tool to determine desireable levels of grazing. Considerable data are available in the various tables, however, the reviewer could not determine how they were used to develop future management options or to develop the alternatives. For instance, it would seem that there should be a correlation between range currently in unsatisfactory condition with unsatisfactory present management and the priority list for new or revised allotment management plans. While there is some similarity, there does not seem to be a direct correlation.

251-24 Cont.

The last boxes of Table 2-13 on page 2.46 show that the number of allotments under the "I" management category is 39 for alternative A and 52 for all other alternatives. Does this reflect an increase in management emphasis from the current situation for all action alternatives or does it reflect a degradation of the resource requiring additional management emphasis to obtain improved management? If it is the latter, it would be considered an adverse effect for those alternatives. The context in which Management Level I is used in Table A8.37 (and page 2.9) seems to indicate the term is reflective of range condition being less than it could/should be (i.e. "present ecological condition is unsatisfactory") and that "I" allotments are managed "to improve unsatisfactory conditions."

251-25

The analysis states the overall objective is "to achieve an advanced (late seral) ecological status" and, specifically, "....to achieve 75% or more of the riparian ecosystems are in late seral or potential natural stage by 2007" (page 2.11). To accomplish this objective within the stated 15 years, the final EIS should establish an action plan or other guidance. It would also be appropriate to describe where the BLM's "bring back the natives" program will be implemented.

251-26

- The document uses $9.19 (page 4.23) as the value of forage consumed per AUM. There is no reference as to the origin of this value. Current BLM charge is $1.92 per AUM. The economics of government investment in the Diamond Mountain Resource Management Area is not disclosed. This EIS is not an appropriate forum to deal with the national debate over grazing fees, however, the public investment and anticipated return on that investment is an important consideration for the final decision for the management of this unique area. Costs for improving cattle grazing and ecosystem management should be displayed for comparative purposes. The benefits of multiple use management, using the existing grazing fee and oil and gas leasing structure, should be similarly displayed in order to provide an economic basis for consideration in the selection of the preferred alternative and specific projects.

251-27

- While the cumulative effects analyses describe the potential loss to government receipts for precluded wells under

251-28

251-25 The increase in "I" allotments on Table 2-19 for livestock under the proposed plan is due primarily for the potential for wildlife habitat and riparian improvement. To reach potential, various management practices are proposed in each alternative including rangeland improvements, grazing prescriptions, and livestock reductions. This does reflect an increase in management emphasis from the current situation except in Alternative B which would accomplish goals primarily through livestock reductions and other restrictions.

251-26 Riparian areas are prioritized for improvement in Appendix 8, on Table A8-2.

251-27 Please refer to our comment 104-2. It is BLM policy to conduct a benefit/cost analysis before project investment takes place. The modified socioeconomics section in Chapter 4 presents an estimated benefit/cost analysis for the proposed plan and each alternative.

251-28 We believe the cumulative impact section for the proposed plan and each alternative as presented in this document adequately quantifies the environmental effects.

251-28 Cont. various alternatives, they do not describe the specific (some general discussion) environmental effects in terms of sediment, sage grouse populations, etc.

251-29 - Page 2.17 of the decision summary states the middle and lower sections of the Green River "would be managed so as not to jeopardize their Wild and Scenic River Qualities". However, they are placed in Management Level 3 where "activities can be constrained somewhat." Is this the correct level for the protection needed?

251-30 - Page 2.36 - In the third block under Alternative A, says there are 2,800 acres in level 3. Page 2.16 shows this as level 2. Also, Block 4 under Alternative B shows "173,000 acres in level 3 lands." Page 2.21 shows 155,700 acres.

-Page 4.66 - Alternative E displays the livestock forage assignment as 50,200 instead of 50,299 AUM.

251-29 Under Alternative A, continuation of the current management, level 3 for the middle and lower segments of the Green River is consistent with the overall management objective for the alternative. We believe this management level is consistent with the general management theme for this alternative.

251-30 These corrections have been made.

NOTE: For brevity only the supporting documents referred to in EPA's letter are not duplicated in this document. They are available for public review in the Vernal District Office.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

MAY 2 P '92

Ref: 8WM-HA

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Re: Correction--Comments on Diamond Mountain Resource Area - Resource Management Plan and Environmental Impact Statement (DEIS)

Dear Ms. Smalley:

We would like to make a correction to comments made in our letter to you dated April 2, 1992 pertaining to the DEIS for Diamond Mountain. Please note on page 2 of our comment letter, in the first full paragraph, we mentioned an "attainment plan" which was being developed by the State of Utah to address waters not in compliance with water quality standards. We were in error in referring to an attainment plan--such a plan is not being developed by the State, neither are they under any requirement to develop such a plan at this time.

There is a requirement for the State to identify waters where planning is needed to correct water quality problems. Such a list of waters is discussed as a requirement in Section 303(d) of the Clean Water Act where "total maximum daily loads" (TMDLs) are to be identified for problem waters. This list of waters in need of TMDLs will be available from the State over the next month.

We apologize for the confusion. Please contact either Wes Wilson (303/293-1439) or Larry Lindner (303/293-1695) of my staff if you have questions concerning this matter.

Sincerely,

for Max H. Dodson, Director
Water Management Division

cc: Utah Department of Health
U.S. Fish and Wildlife Service

UINTAH BASIN ARCHEOLOGY CLUB
& THORN STUDIO
18 WEST MAIN STREET
VERNAL UTAH 84078

TO: Bureau of Land Management
170 S 500 E
Vernal Utah 84078

March 29, 1992

Diamond Mountain Resource Management Team

After review the the Draft Diamond Mountain Resource Management Plan, we have some concerns with the proposed preferred alternative in regard to the management of the Red Mountain/Dry Fork ACEC complex.

The first concern involves the leasing of lands for phosphate and potential development. This is inconsistent and in conflict with management of the critical resource values identified that gave this area special recognition.

As you know, the Uintah Basin Archeology Club was a co-signer on the original ACEC designation for the Dry Fork/Red Mountain ACEC complex, at that time called the South Face Footslopes of the Uintah Mountains. We felt there was cause for concern to critical resource values and the ACEC criteria was met affect the following values:

252-1

1. Significant Recreation Values
2. Significant biological diversity
3. Significant archeological sites and traditional cultural values
4. Significant wildlife habitat - critical crucial winter range for deer and elk, and numerous habits for other wildlife species
5. Outstanding scenic vistas
6. Significant historic sties and values
7. Geologically significant diverse rock formations
8. Unique underground aquifer system that supplies Vernal City with culinary water
9 Ranching

We further stated that the primary intent of this ACEC is to protect and preserve the resource values and life style of Ashley Valley Residents and those resources of Critical Environment Concern. A variety of multiple-use activities may take place within this ACEC. These activities, however, must be compatible with the primary management objective of this ACEC, which is to protect and prevent irreparable damage to important historic, cultural, scenic and recreation values, livestock grazing, fish and wildlife resources, and all those special values listed above. Mineral leasing of Phosphate is incompatible and need to be withdrawn for the management focus of ACEC desiguation with those identified values being paramount to the future of the Basin and the quality of life that makes the Basin an exciting and wonderful place to be.

RESPONSE TO COMMENT LETTER 252 (UINTAH BASIN ARCHEOLOGY CLUB, Mantle)

252-1 Please refer to our response 112-1.

252-2 In supporting the economic and cultural lifestyle of the ranching community, we also have some concerns with the proposed reductions of livestock grazing. Part of our reason for the designation of the ACEC was to preserve the resource values and life style of the Ashley Valley Residents and those resources of Critical Environmental Concern. Recognition in preserving this lifestyle needs to be a part of this decision. Proper management practices need to be implemented to protect the riparian, soil, and water resources. Not reductions in livestock numbers.

252-3 We also have problems with acquiring additional public vehicle access that would open 70,700 acres of presently inaccessible land, and could result in wildlife displacement from their preferred habitat within these areas. The opening of these land would also place additional pressure on cultural sites, thus resulting in increased damage. Your impact summary p. 4.69 states that under the preferred alternative "designation of all special emphasis areas as ACECs would increase the recreation management emphasis in these areas, thus providing protection and enhancement of those resources valued by the recreating public preferring more primitive recreational experiences" Recreation management may be viewed as also consisting of constraints from increased recreation use, and not necessarily the promotion of use within an area. Recreation use is increasing in this area, thus requiring a more careful and intensive management emphasis to protect all the values of the area. The opening of presently inaccessible land is in conflict with the intent of the ACEC designation. Recreation is only mix of the multitude of resource values and needs constraint to protect other values.

252-4 Page 4.64 under impact summary shows "accidental disturbance to both cultural and paleontological resource would continue due to surface-disturbing activities." This is unacceptable. National laws and regulations require the protection of these sites. Determination of significance needs to be established before any ground disturbing activities takes place. Accidental disturbance from management in unacceptable. After a careful analysis of the site, and significance determination, the decision to go ahead with a project would not result in accidental disturbance, but a management decision based on significance and the proposed project.

Special recognition of the Ute and traditional uses of the land within the ACEC is commendable. However, in order to protect these uses, and to have the recognition mean anything, all management of the area needs to recognize the impact from conflicting uses. This ties back to the mineral leasing decision for phosphate. You cannot manage for all the critical resource values of the area identified, and yet allow phosphate development to occur; Piller, post, or whatever. These are conflicting uses that cannot be resolved without a deteriorating quality of lifestyle to the Uintah Basin. Benefits from phosphate development could never replace the resource values lost to the future of the Basin.

252-2 We agree that proper management practices need to be implemented to meet resource goals. The proposed plan is to establish livestock preference at existing levels (50,299 AUMs, refer to Table 2-15) Also refer to Table 2-15 under vegetation for a description of forage adjustment criteria/procedures. If indicated by analysis of monitoring data, livestock reductions would be made only after all management options have been exhausted.

252-3 Please refer to our response 13-1. We have identified access needs for foot and vehicle travel. This was an attempt to be sensitive to both wildlife and private land owner needs. We have identified 43,200 acres in the resource area that will remain accessible only by foot travel.

252-4 A cultural clearance will be completed on all areas before surface disturbing activities take place and on all areas identified as having high paleontological potential. However at times these resources can not be detected on the surface and are only discovered after a project has begun. We will do everything we can to keep this problem to a minimum.

We look forward to working with you in the development of the ACEC plan for the Red Mountain/Dry Fork Complex. However, there needs to be a well developed management scenario for this area that clearly spells out the management philosophy, and eliminates incompatible uses: i.e. Phosphate Mineral Leasing and development. These lands need to be withdrawn for the designation and plan for the area to have any meaning.

252-5

Thank you for the opportunity to comment on this draft. Please see the attached copy of the ACEC proposal we were involved with in 1988.

Sue Mantle

Sue Mantle
President
Uintah Basin Archeology Club

252-5 Thank you for your support.

NOTE: For brevity only the supporting documents referred to in UBAC's letter are not duplicated in this document. They are available for public review in the Vernal District Office.

CELSIUS ENERGY COMPANY

79 SOUTH STATE STREET • P. O. BOX 11070 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2600

April 1, 1992

Jean Sinclair
RMP/EIS Team Leader
Bureau of Land Management
170 South 500 East
Vernal, UT 84078

Dear Ms. Sinclair:

Re: Draft Resource Management Plan and Environmental Impact Statement for the Diamond Mountain Resource Area

Celsius Energy Company is an oil and gas exploration and production company that operates in the Rocky Mountain Region. As such, Celsius is concerned about the Bureau of Land Management's Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Diamond Mountain Resource Area. The Diamond Mountain Resource Area in northeastern Utah currently provides a significant portion of the oil and gas production in the State of Utah and any additional constraints on oil and gas development should be carefully scrutinized.

While Celsius recognizes that the Bureau of Land Management (BLM) must balance competing uses of federal lands, the agency must adequately justify its actions in favoring one use over another. For instance, in the Draft Diamond Mountain RMP/EIS the BLM has failed to substantiate the need for increased seasonal restrictions on oil and gas operations. Further, the agency should show that it has chosen the least restrictive alternative to protect the wildlife habitat. Because Alternative E of the Draft RMP/EIS, identified as the Preferred Alternative by the Agency, increases seasonal stipulations, the document should describe the effect of overlapping restrictions. Finally, the BLM has not adequately identified what the Agency considers to be the "adverse impacts" of oil and gas activities. The National Environmental Policy Act requires that potential adverse effects be identified and analyzed along with mitigation measures, if any, which may alter the impact of oil and gas activities.

253-1

253-2

RESPONSE TO COMMENT LETTER 253 (CELSIUS ENERGY COMPANY, Jepperson)

253-1 We have amended several portions of the wildlife section, clarifying the need for the management actions and decisions proposed. In several proposed decisions, the restrictions have been lessened, due largely to public comments, refer to our response 212-2.

253-2 Please refer to Chapter 4 for an analysis of the impacts of energy development as it relates to other resources. We believe the analysis provided in this document adequately identifies and analyzes the potential effects, along with mitigation measures, of oil and gas activities on other resources.

Thank you for your consideration of Celsius' comments on the Draft Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement.

Very truly yours,

Thomas C. Jepperson
Managing Attorney

pf

cc: RMOGA
J. B. Neese

March 31, 1992

Diamond Mountain Draft Resource Management Plan/EIS
Diamond Mountain Resource Area

Jean Sinclair
RMP/EIS Team Leader
Bureau of Land Management
170 South 500 East
Vernal, Utah 84078

Dear Ms. Sinclair:

Texaco Exploration and Production Inc. ("Texaco") has reviewed the Diamond Mountain Draft Resource Management Plan and Environmental Impact Statement (EIS). We offer the following comments:

255-1
- BLM's "Preferred Alternative" (Alternative E), proposes to increase Timing and Controlled Surface Use (CSU) Stipulations by over 200% in Special Emphasis Areas with high oil and gas potential. We find little discussion to justify or provide rationale for these dramatic increases in wildlife seasonal restrictions. Nor is there documentation in either Chapter 3 (Affected Environment) or Chapter 4 (Environmental Consequences) indicating oil and gas activities cause population decreases or other adverse impacts to wildlife.

255-2
- BLM proposes to increase No Surface Occupancy (NSO) acres by 62% in Alternative E for areas with moderate to high oil and gas potential. Where is the justification and rationale for such an increase? In areas with significant potential BLM should explore reasonable mitigation approaches wherever possible, rather than closing off areas to oil and gas exploration.

255-3
- Texaco prefers Alternative D which appears to have the least amount of Timing and CSU restrictions yet adequately addresses environmental concerns. Even this alternative reflects a significant increase in Timing restrictions, but does drop the number of NSO acres in the current management alternative (Alternative A). As a second choice, we recommend adoption of Alternative E.

255-4
- The one area of serious concern to Texaco is the Red Creek Watershed in the Clay Basin-Manilla Area. Already designated as an Area of Critical Environmental Concern (ACEC), this 24,400 acre parcel includes Clay Basin field (now gas storage) as well as potentially prospective areas along the north flank of the Uinta uplift. Severe restrictions might impede development of valuable petroleum resources in the area.

Texaco appreciates the opportunity to comment. Please contact Mr. T. M. Belton if you need further information.

Very truly yours,

E. C. Burritt
Rockies Area Manager

RESPONSE TO COMMENT LETTER 255 (TEXACO, USA, Burritt)

255-1 Please refer to our responses 252-1 and 212-2.

255-2 Please refer to Table 2-15 in this document. You will notice that certain decisions in the proposed plan have been modified to account for mitigation measures and/or increase management flexibility. Please refer to Chapter 3 for information and rationale that lay the ground work for NSO stipulations for certain resource values.

255-3 Thank you for your comment.

255-4 In the proposed plan, approximately 2,500 public acres of the Red Creek Watershed ACEC would be Category 3, open to leasing with no surface occupancy or other major constraints. No public lands within the ACEC would be Category 4, closed to leasing. Based on our analysis, such a designation would preclude approximately .4 of a well on public lands.

Ron Trogstad, Area Manager
Diamond Mountain Resource Area
170 South 500 East
Vernal, Utah 84078

March 29, 1992

Dear Mr. Trogstad:

256-1 I understand BLM has proposed that alternative E of the draft Diamond Mountain EIS and RMP be selected as the best management scheme for the area. Having reviewed the options for management, I recommend otherwise. Alternative B offers much better protection for important archeological resources like Nine Mile, the Browns Park ACECs (which need strong protections) and a vigorous study plan for wild and scenic river designation on the Green.

I support the ban on mineral leasing for sensitive lands that would be better managed without such extractive use and the closure of all riparian areas to ORV use. Just because these machines exist does not warrant their uncontrolled use on public lands of such aesthetic and important wildlife values.

256-2 Alternatives B and E are commendable in that both recommend against bear baiting, a repugnant method of chumming wild bears that has no place in modern hunting. They are commendable in that the endangered ferret would be reintroduced, however the prohibition of livestock in the protected area is too limited in E. Here alternative B is superior, as it is in safeguarding critical winter range for ungulates.

Please enact the strongest protective measures for the Diamond Mountain Resource Area. There are too few chances to do the right thing by such invaluable land.

I'd appreciate your keeping me up to date on this planning effort and entering this letter in the public record. Thank you.

Sincerely,

Margaret Pettis

Margaret Pettis
190 South 100 West
Hyrum, Utah 84319

RESPONSE TO COMMENT LETTER 256 (PETTIS)

256-1 Please refer to our response 61-1 regarding the need for additional highly restricted public lands.

256-2 Thank you for your support, however, please refer to our responses 114-34 and 116-9 regarding bear baiting for clarification on this issue.

Dinaland Snowmobile Club
P. O. Box 1150
Vernal, Utah 84078

April 4, 1992

Study Team:
Diamond Mountain Resource
B.L.M.
170 South 500 East
Vernal, Utah 84078

Dear Team:

Recently I mentioned a need to address snowmobiles specifically in any future management plan. Most all other OHVs are addressed and do fit the general category of OHVs - ORVs. But by themselves, snowmobiles are entirely different and I would hope are not "lumped" into the same category with all others (the same as horses are not lumped in with OHVs).

I note you list mountain biking as being a different classification, but not snowmobiling.

257-1 I'm sure you know that snowmobiles do not ride on nor destroy the ground; that snowmobiles in our area ride above the 8,000 foot level most of the time and do not bother game animals; that their activity takes them to elevations of 12,000 feet; that they are isolated users of vast untrammeled areas and thus don't interfer with most all other winter activities - users of the out-of-doors.

I realize that comment period is over for the Diamond Mountain -- Red Mountain, etc. areas, but want to re-enforce many facts about snowmobiles that usually seem not to come to mind when planning is involved.

thank you.

Sincerely yours,

Don Hatch

Don Hatch
Executive Director

RESPONSE TO COMMENT LETTER 257 (HATCH)

257-1 Thank you for your information.

April 1, 1992

Penelope Smalley, Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Re: Draft Diamond Mountain Resource Area RMP/EIS: BlueRibbon Coalition Comments

Dear Ms. Smalley:

The BlueRibbon Coalition is a nationwide organization representing 500,000 motorized recreationists and resource users. We work with land managers to provide recreation opportunities, preserve resources, and promote cooperation with other public land users. We have many members and member organizations who recreate and use the resources on the Diamond Mountain Resource Area, and are profoundly affected by the proposed management described in Draft Diamond Mountain Resource Area RMP/EIS (Draft Plan).

As Public Lands Director, I have carefully evaluated the Draft Plan. Following are my comments:

258-1 1. The Draft Plan "Purpose and Need" states a goal of "provide opportunity for OHV users" consistent with other resource objectives (page 1.11). Yet in the Recreation Management section of "Common Management" (which describes management common to all alternatives), many important kinds of OHV recreation are omitted from the list (page 2.10), while a full range of non-motorized activities are cited. Correct this list to include: trail motorcycling, dual-purpose motorcycling, all-terrain vehicle riding, and four wheel driving.

258-2 Recreation Management also states in this section that only non-motorized activities will take place in semi-primitive non-motorized areas. These areas must be carefully evaluated to assure that historic motorized recreation is not displaced, nor access through to other areas denied. Some management plans (such as the Challis and Payette National Forest Plans) allow designated route corridors through semi-primitive non-motorized areas, when needed to access adjoining motorized areas. Please consider this modification.

258-3 2. The Decision Summary for Alternative E paints a rosy picture of continued access for OHV recreation (page 2.31). In this alternative (the Selected Alternative), only 6 percent of the resource area would be closed. However, this summary fails to mention current and historic OHV use. In fact, the rest of the document outlines restrictions and closures on the most popular OHV recreation areas. This summary's assessment of OHV recreation opportunities is therefore misleading and needs to be revised.

RESPONSE TO LETTER 258 (BLUE RIBBON COALITION, Cook)

258-1 The phrase "recreation 4-wheeling" has been changed to read "recreation OHV use". Please refer to the Glossary for further clarification.

258-2 Please refer to Appendix 5 for an explanation of what conditions must be present for an area to be designated as a semi-primitive nonmotorized area.

258-3 The discussion about OHV use on page 2.31 of the draft has been modified.

The Decision Summary on the same page, and in many other parts of the Draft Plan, cites "surface disturbing activities and OHV use" and proceeds to outline restrictions. The other
258-4 surface disturbing activities are never specified. The Draft Plan must recognize that all recreational and resource using activities (specifically non-motorized) at sensitive times and places are indeed surface disturbing and subject to closure or restriction.

3. Table 2-13, Page 2.50 describes Areawide Management Decisions by Alternative for OHV Recreation. Alternatives A, B, and E single out OHV recreation for restrictions in black-footed ferret introduction areas. No documentation is presented that describes how OHV use would affect the black-footed ferret.

Table 2-13, Page 2.46 describes Areawide Management Decisions by Alternative for
258-5 Livestock. There is no mention of grazing impacts or restrictions in black-footed ferret introduction areas. Certainly, grazing would potentially impact these areas as much as OHV recreation. Again, no documentation is presented to describe if or what impacts grazing would have.

There is a gross inconsistency in the Draft Plan regarding the management of black footed ferret introduction areas.

4. Table 2-13, Page 2.52, Alternatives B and E contain the following biased statement, "Maintain the character and values of (xxx) acres of identified semi-primitive non-motorized areas (maps referenced) by closing the areas to OHV use and monitoring surface disturbing activities."

This statement implies that the character and values of an area are adversely impacted by OHV recreation. OHV recreationists appreciate the wild, rugged, undisturbed character
258-6 of an area and the solitude that dispersed recreation provides. In addition, they appreciate the challenge of riding a trail, unique to their OHV. An OHV may or may not impact the surface as much as any other activity.

The equation of "solitude" to the absence of vehicles and vehicular noise is subjective. Unfortunately, this subjective opinion has been foisted upon land managers by exclusionary special interest groups.

5. Table 2-14 describes management prescriptions for special emphasis areas by alternative. Alternative A supposedly describes the current management situation. Yet on page 2.71,
258-7 the description for recreation on Red Mountain implies there is only one motorized trail on Red Mountain. The area is currently open and unrestricted, and the alternative should clearly state this.

6. The selected alternative's management prescription for OHV use on Red Mountain fails to recognize the importance of this recreation to the historic use of the area, or the local
258-8 cultural values that have developed through this pattern of access. The alternative has failed to demonstrate a purpose or need for non-motorized trails in the area or exclusive trails for mountain bicycles.

258-4 OHV use is not considered to be a surface disturbing activity in this document. That is why the phrase "surface disturbing activities and OHV use" are often found together in the document. Recreation uses other than OHV are at times limited to protect other resource values if impacts are considered to be significant.

258-5 We discussed domestic livestock and associated impacts to black-footed ferrets and felt there were no significant impacts. We believe grazing is a compatible use with the maintenance of prairie dog colonies, by reducing vegetation and keeping areas open for prairie dog use. Most of the potential black-footed ferret habitat is also located on livestock winter range where grazing impacts to soils and vegetation are minimal. Please refer to Appendix 2 for a presentation of the draft management guidelines for black-footed ferret habitat. These guidelines apply to all potential habitat identified. The "gross inconsistencies" you refer to are the amount of acreage proposed under each alternative. These figures represent what would be managed under each alternative.

258-6 The intent is to maintain the area in a semi-primitive nonmotorized condition. These areas have been established for nonmotorized types of recreation. There are many other similar areas in the resource area that can be accessed and enjoyed by OHV recreationists.

258-7 You are correct in stating that there is more than one trail on Red Mountain. The intent of the statement on page 2.71 of the draft was to formalize the existence of that particular trail. It passes through a relict vegetation area that is proposed for limited OHV use.

258-8 Please refer to our response 10-1.

258-9 7. Although Page 3.34 specifies the estimated amount of OHV use as 31,400 hours, it fails to identify the areas most important to OHV recreation. It does state that, "Presently OHV use on public lands is concentrated near populated areas." Since Red Mountain fits that description, the restrictions proposed will seriously impact OHV opportunity, contrary to the Plan's goals to provide for that opportunity.

In summary, the Draft Plan fails to:

Assess the needs of OHV recreation, in both quantity and quality.

Recognize the importance of OHV recreation to the local community, the local economy, or its importance to visitors.

Recognize the historic use on Red Mountain.

Quantify any impacts of OHV recreation on Red Mountain to justify the proposed restrictions.

Address OHV recreation in an unbiased manner.

Please revise the draft to address these errors and discrepancies. We especially urge that Red Mountain be managed as it is currently: with open and unrestricted access for OHV recreation. Please keep me informed on the progress of your revisions.

Sincerely,

Adena Cook

Adena Cook, Public Lands Director

CC: Randy Beers, Vernal Sports Center
Alice Lemons, Dinaland Snowmobile Club
Don Hatch, Hatch River Expeditions
Rainer Huck, Utah Trail Machine Assn.
Ted Hatch
Dr. Dale C. Larsen

258-9 The 31,400-hour figure does take into account Red Mountain, the Buckskin Hills and other important OHV use areas. We are not proposing to eliminate OHV use on Red Mountain, but control it in some areas to lessen conflicts with other uses. The proposed limitation to designated roads on the southern portion of Red Mountain, known as "the Sand Pockets", was made to protect crucial deer and elk wintering areas was modified to allow unrestricted OHV use in the area a month earlier in the spring. This was done to accommodate OHV users beginning April 1 each year.

Chris M. Hunsley, Manager
Federal Land Programs

1850 Lincoln Street, Suite 404 • Denver, Colorado 80295
Telephone 303/860-0099
FAX 303/860-0310

April 1, 1992

Ms. Jean Sinclair
RMP/EIS Team Leader
Diamond Mountain Resource Area
Bureau of Land Management
170 South 500 East
Vernal, UT 84078

Dear Ms. Sinclair:

On behalf of the Rocky Mountain Oil and Gas Association (RMOGA) and Utah Petroleum Association (UPA), a division of RMOGA, following are comments on the Draft Resource Management Plan (RMP) and Draft Environmental Impact Statement (DEIS) for the Diamond Mountain Resource Area. RMOGA is a trade association with hundreds of members who account for more than 90 percent of the oil and gas exploration, development and transportation activities in the Rocky Mountain West. As such, RMOGA is extremely concerned with the changes in management of the Diamond Mountain Resource Area proposed by the BLM in the Preferred Alternative E. We are dismayed that the BLM would even consider implementing a plan which would impose a 152% increase in seasonal restrictions and a 159% increase in no surface occupancy stipulations in an area which has demonstrated reserves for oil and gas resources.

259-1

We are particularly concerned regarding BLM's proposals to:

- Increase seasonal stipulations in sage grouse nesting habitat by one month from April 1 to June 30 to March 1 to June 30 and the NSO protection zone from 1.5 miles on 57,000 acres to 2 miles on 88,500 acres. (This at a time when many land managers are looking at reducing restrictions in sage grouse areas because they are such an adaptable species and are in no danger of extinction.)

RESPONSE TO COMMENT LETTER 259 (ROCKY MOUNTAIN OIL AND GAS ASSOCIATION, Moseley)

259-1 We agree that additional documentation is needed. We have rewritten portions of Chapter 3's wildlife section to document such a need. Please refer to our response 212-2, which identified those recommendations in the proposed plan which are less restrictive than current management.

- Increase seasonal restrictions around raptor nests by six weeks from February 15 to June 15 to Feb. 1 to July 15 and the NSO protection zone would be increased from .25 mile on 5,500 acres to .50 mile on 19,400 acres.

- Increase seasonal restrictions by six weeks from April 1 to July 15 to February 1 to August 31 and the protection zone has been increased from .25 mile to 1 mile of active peregrine falcons nests.

259-1 Cont. Neither justification nor rationale is furnished in the Draft EIS/RMP to support such dramatic increases in highly restrictive seasonal stipulations in wildlife areas nor for expanding protection zones for raptors or sage grouse leks and nesting areas. The discussion of the *Affected Environment* in Chapter 3 does not contain documentation which shows that current management of oil and gas leasing and operations has resulted in wildlife population decreases or other impacts which would warrant an increase in restrictions. Moreover, the discussion of *Environmental Consequences* in Chapter 4 has clearly failed to document the need for additional wildlife restrictions. The lack of a scientific basis for increased wildlife restrictions constitutes a decisive flaw in the planning document and analysis. In view of the complete lack of data to support these changes, we recommend the BLM consider easing restrictions in favor of reasonable mitigation requirements or, at a maximum, continue its current management in these areas.

It is also problematic that BLM has failed to quantify how the overlap of new seasonal restrictions will impact opportunities to explore for and develop oil and gas resources. According to the DEIS, 36% of the high potential lands are subject to overlapping seasonal restrictions. However, it is virtually impossible to tell from the maps or tables included with the EIS/RMP the extent of these overlapping restrictions and their cumulative impacts on exploration and development opportunities. After several years of analysis, the BLM should be able to quantify this effect and display it adequately on maps.

259-2 We are compelled to point out that it remains BLM policy to utilize the least restrictive stipulation available that will adequately protect the resource or value in question. Hence, BLM must clearly disclose why current management has been deemed inadequate and how it has caused significant deterioration of resource values along with how the increase in stipulations will solve these problems. Only through such disclosure will the BLM clearly show the need for such an enormous increase in restrictions.

While we ardently support the management policy stated on page 2.35 that "*[t]hese restrictions would not apply if animals are not present or if impacts could be mitigated otherwise*", we are alarmed by the elimination of the current policy that seasonal restrictions do not apply to the maintenance and operation of existing programs and facilities within proximity

259-2 In the revised text for Chapter 3, documentation has been provided supporting the premise that special status raptor species habitat has been lost due to surface disturbing activities. The yearlong protection of these nest sites is required by the Endangered Species Act, the Bald Eagle Protection Act (which involves golden eagles), and BLM policy (outlined in BLM Manual 6840). The protection stipulations have been modified to read: "These restrictions would not apply to the maintenance and operation of existing programs and facilities."

of certain raptor nests. Instead, BLM has replaced it with, "*[s]afeguard protection zone year-round from permanent loss of nest site usability due to disturbance from daily activity or routine operations*". While industry obviously does not want to intrude upon nesting raptors or destroy active nesting sites, the BLM must also recognize industry's need to maintain and operate existing programs and facilities regardless of their location. To ignore these requirements would put not only the oil and gas industry, but also the federal government, at significant risk of liability for damages or accidents which would undoubtedly occur as a result of non-management of operations.

259-2 Cont.

We object to BLM's presumption that oil and gas activities will result in unacceptable impacts on the resource values found in sensitive areas. The National Environmental Policy Act, as well as recognized planning procedures, requires that potential effects be identified, quantified and analyzed along with sound mitigation measures which may render a project and its potential effects acceptable. In our view, the DEIS/RMP has failed to adequately comply with this requirement.

259-3

For example, the general assumptions described in Chapter 4 do not address the fact that a major portion of the initial disturbance resulting from well pad and road construction is temporary in nature. If a well is found to be dry, it will be entirely reclaimed in accordance with BLM's requirements. If a well is successful and goes into production, a significant portion of the initial exploratory well location and other disturbed areas will also be reclaimed so that only a very small intrusion is left at the end of the access road, which may be closed to public use. BLM implies that once disturbance occurs, it will remain forever. All general assumptions must consider the implications of total or partial reclamation, particularly in conducting a cumulative impacts analysis.

The BLM indicates in the DEIS/RMP that geophysical exploration would continue apace with the oil and gas development scenarios. However, it is unclear why such activities would be more severely restricted than oil and gas leasing. According to Table 2-13, the BLM intends to restrict geophysical exploration more widely and with additional constraints. Since geophysical activities are subject to a rigorous permitting process and result in very minor, if any at all, impacts, it is our opinion that the entire Resource Area should be open to such activities. However, it is especially important that all high potential lands be kept open. It is unreasonable to close 14,460 acres of high potential lands from geophysical exploration when there are many non-disturbing methods for collecting geophysical data which are capable of maintaining the integrity of sensitive areas.

259-4

We also strongly object to the imposition of no surface occupancy stipulations on 60,776 acres ostensibly to preserve semi-primitive recreation opportunities. It is especially troublesome that the BLM proposes to restrict access to 2,000 acres of high potential lands. It is our belief

259-5

259-3 In desert regions with less than 8 inches a year precipitation, disturbed sites are difficult to revegetate and in some cases reclamation is unsuccessful, thus accelerating erosion over the life of a well. However, rangeland improvements would mitigate these impacts. Refer to Chapter 4, Cumulative Impacts of the Proposed Plan.

259-4 The statement under Alternative E and Alternative B in Table 4-18 of the draft document were incorrect. Under the proposed plan no lands within the Diamond Mountain Resource Management Plan would be closed to all geophysical exploration. However, some areas would be precluded from significant surface disturbing geophysical exploration (such as vibroseis) to protect critical resource values.

259-5 The plan proposes to protect 43,200 acres of lands currently classified as semi-primitive, nonmotorized. This would involve imposing a no surface occupancy stipulation on these lands. Approximately 1,100 acres on the north side of Home Mountain in Clay Basin and 900 acres adjacent to the Green River, north of Sand Wash, are classified as having high potential for oil and gas development. Appendix 5 provides a good explanation of the conditions that must be present on a tract of land to make it eligible for classification as a semi-primitive nonmotorized area. It is BLM's responsibility to provide a wide range of recreational opportunities on public lands for use by a wide variety of users.

259-5 Cont. that existing rules and regulations provide adequate levels of protection to areas considered to have high value for recreation. Through state-of-the-art technology and environmentally sound management practices, the oil and gas industry has demonstrated repeatedly its ability to operate in sensitive recreation areas with minimal effects on other resource values. A perfect case in point in the Petroleum Showcase on the Wasatch-Cache National Forest just north of the Diamond Mountain Resource Area.

259-6 Another item of concern relates to the proposed management of the Upper Green River, the Green River in Browns Park, and along the Lower Green River, between Ouray, Utah, and the Uintah-Carbon County line. None of these rivers are being recommended by BLM for "wild" designation under Alternative E. Rather, they are being proposed for recreational or scenic classifications. Yet, the BLM is proposing to impose management restrictions which exceed those required for Congressionally designated wild rivers. The most restrictive management provided for in the Wild and Scenic Rivers Act is a protective corridor of .25 mile along either side of a designated wild river with numerous provisions for access across the corridor. By imposing no surface occupancy along a line of sight or up to a half-mile along the previously named rivers, the BLM is vastly exceeding the intent of Congress in terms of protection and management of rivers which may be classified as scenic or recreational. We object to this type of management and strongly urge the BLM to reconsider its proposal and impose only those restrictions called for in the Act.

259-7 Finally, Table 4-3 on page 4.14 indicates that implementation of Alternative E would result in a loss of 200 oil and gas jobs with a net loss of 152 jobs. In these troubled economic times, it is the federal government's responsibility to facilitate and encourage economic stability. None of the impacts discussed in the Diamond Mountain DEIS/RMP under any alternative warrant such losses, particularly in view of the lack of discussion of normal and special mitigation measures that are used to reduce or entirely eliminate adverse impacts associated with oil and gas development in all areas. It would also appear that not only will new opportunities to explore for and develop oil and gas resources be diminished due to decreased access and increased operational costs, it appears that valid, existing rights will likely be compromised if BLM's new management proposal is adopted.

We are deeply disturbed with the BLM's evident shift in management objectives in the Diamond Mountain Resource Area, an area which contains existing oil and gas development and significant potential for future development. We strongly recommend that the BLM reevaluate the opportunities and effects associated with Alternative D, maximum mineral opportunities, particularly in terms of available mitigation measures to see if less restrictive management would be feasible and appropriate.

259-6 Both the upper Green River in Browns Park and the lower Green River, between Ouray and the Carbon County line, are being proposed for designation as scenic rivers in the W&SR System. It is our position that the river corridor must, in places, be protected for a distance greater than 1/4 mile. In arid regions, visual intrusions can be seen over greater distances and disturbances, such as roads, well sites and unregulated OHV use would be evident for many years. This does not mean that wells and roads can not be permitted closer to the river than 1/2 mile; but that such activities must not be visible from the river. A crossing point on the upper Green River was identified near Swallow Canyon. The plan has been modified to provide for a crossing near Four Mile Draw on the lower Green River. Both sights have been uses as crossing points. Table A7.4 has been expanded to more adequately explain our rationale for recommending a recreation classification for Argyle Creek.

259-7 This table has been removed from the proposed plan. It was developed using a computer model that on reanalysis was not applicable. Please refer to the modified socioeconomic section in Chapter 4 for a discussion of the socioeconomic impacts from the proposed plan relative to oil and gas activities.

We appreciate this opportunity to provide you with our views and comments. Please do not hesitate to contact me should you wish to discuss these comments in greater detail.

Sincerely,

Claire M. Moseley, Manager
Federal Land Planning

c.c. James M. Parker - BLM State Director
David E. Little - Vernal District Manager
Jim Peacock - UPA

April 6, 1992

Penelope Smalley
Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Utah 84078

Re: Diamond Mountain Resource Area Resource Management Plan and Environmental Impact Statement

Dear Ms. Smalley:

American Rivers, Inc. is the largest national conservation organization dedicated exclusively to the preservation of free-flowing rivers and their environments. Since its founding in 1973 as the American Rivers Conservation Council, American Rivers has worked to protect rivers and streams through the Wild and Scenic Rivers Act and actively helped states and local groups with river conservation efforts. Since 1987, American Rivers has assisted the Bureau of Land Management (BLM) to manage river resources on public lands. American Rivers has reviewed and commented on numerous BLM resource management plans (RMPs) and assisted the agency in developing administrative direction for consideration of potential wild and scenic rivers via the resource management planning process.

In 1992, American Rivers initiated the Project to Protect Aquatic Biodiversity on Federal Lands. The goal of the program is to participate in the resource planning process to ensure that land and resource management plans protect and maintain aquatic species and habitats on federal lands. Our program's objectives coincide with BLM initiatives like Fish and Wildlife 2000 and Bring Back the Natives which advocate watershed scale planning, the preservation of aquatic species, and the restoration of aquatic habitats.

American Rivers has more than 18,000 members, many of whom live near and benefit from the resources of the Diamond Mountain Resource Area (DMRA). We welcome the opportunity to review and comment on the DMRAs draft Resource Management Plan/Environmental Impact Statement.

801 Pennsylvania Ave, S.E.
Suite 400
Washington, DC 20003

I. General Comments

Habitat loss and alteration was the major contributor to the demise of approximately 75% of the 40 North American fish species which have become extinct since 1900. Entire aquatic ecosystems and their unexplored wealth of genetic diversity and biological information are disappearing -- often leaving large gaps in the food chain and fundamentally altering ecosystem function.

The Federal Land Policy and Management Act (1976, 43 U.S.C. 1701 et seq.) requires that federal agencies manage public lands in a manner that will provide good water quality, food and habitat for fish and wildlife. In addition, recent BLM programs like the Riparian-Wetland Initiative for the 1990's and the Special Status Fishes Habitat Management Plan demonstrate the agency's commitment to restoring critical aquatic habitats and maintaining viable aquatic species populations.

The role of the RMP and the responsibilities of resource managers are clearly stated in the BLM Planning Manual:

> How specific aquatic habitats and resources are to be managed is determined through resource management planning. Aquatic resource condition objectives, allowable uses on aquatic habitats, and management prescriptions for aquatic habitats are established in resource management plans.[1]

260-1

The BLM Manual also instructs managers to "determine fisheries related allocations, objectives, and management directions through resource management planning."[2] We base the substance of our comments on the degree to which the draft RMP complies with the direction and guidance of the BLM national office. It is critical that each BLM land unit and planning area use the resource management planning process to construct a sound foundation for the management of aquatic resources on public lands.

II. Riparian Management

The draft RMP cites the current BLM policy of "achieving 75% or more of riparian ecosystems in a proper functioning condition by

260-2

[1] BLM Manual: Aquatic Resource Management. USDI Bureau of Land Management (1991). 6720.13B.

[2] BLM Manual: Aquatic Resource Management. USDI Bureau of Land Management (1991) 6720.05I.

5.343

260-1 We have recommended management decisions in the proposed plan to reintroduce Colorado cutthroat trout to its former habitat. We have also recommended improvements to riparian areas, and if not achieved, the areas could be closed to livestock grazing. These are two examples of proposed decisions we hope will improve the aquatic resources on public lands.

260-2 BLM will comply with the National and Utah State Riparian policies as well as other laws, Executive Order, and Initiatives listed in Chapter 2, as part of Management Guidance Common to the Proposed Plan and the Alternatives, under riparian management.

The 330-foot protection zone starts from wherever the riparian vegetation occurs. This guideline is part of the Utah State Riparian Policy shown on page A6.1 and has been determined adequate in combination with the other guidelines listed, to adequately enhance or maintain riparian values. Please refer to the Management Guidance Common to the Proposed Plan and the Alternatives in Chapter 2 under vegetation resources, it states: "Vegetation resources will be managed according to desired ecological stages or plant communities by allotment at the activity plan level." Refer to Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives under riparian, it states: The overall objective is to achieve an advanced (late climax seral stage) ecological status, except where resource management would require an earlier ecological status for such purposes as vegetation diversity. "Vegetation Resources" includes riparian vegetation. Also see guideline number 4 of the Utah State policy regarding specific objectives and management of riparian at the activity plan level.

1997 (1.12)." Current BLM policy also proposes to: "Protect riparian-wetland areas and associated uplands through proper land management and avoid or mitigate negative impacts [and to a]cquire and expand key [riparian] areas..."[3] American Rivers commends the DMRA proposal to acquire private lands, and to form cooperative management plans in order to ensure riparian protection on lands that are not administered by the BLM. However, American Rivers does not believe Alternative E (the preferred alternative) recognizes the critical importance of riparian areas to a healthy aquatic ecosystem.

Healthy riparian zones provide good water quality; vital habitat for fish and other aquatic species; reduce sediment loads; and increase bank stability. Riparian areas are recognized today as integral components of a biologically functional ecosystem. In fact, the BLM's National Riparian Policy Statement pledges to "ensure that new resource management plans and activity plans, and existing plans when revised recognize the importance of riparian values, and initiate management to maintain, restore, or improve them."[4]

260-2 Cont.

Considering the agency's efforts to identify, protect and maintain riparian areas, it is inexplicable that the DMRA's preferred alternative riparian management plan nearly halves the size of riparian protection areas which already exist under the no-action alternative.[5]

American Rivers strongly urges the DMRA to develop management standards and guidelines for riparian areas based upon site-specific ecological values.[6] The prescription of a single riparian management standard for the entire resource area

---

[3] Riparian-Wetland Initiative for the 1990's. USDI Bureau of Land management (1991).

[4] National Riparian Policy Statement, USDI Bureau of Land Management, 1987.

[5] Alternative E establishes riparian protection zones of 330 feet (RMP 2.18). Alternative A (no-action alternative) delineates riparian protection zones of 600 feet (RMP 2.31).

[6] The National Riparian Policy Statement reads: "Prescribe management for riparian values that is based upon site-specific characteristics and settings."

The National Riparian Policy Statement. USDI Bureau of Land Management (1987).

diminishes the ecological significance of riparian zones. Until ecologically based riparian management standards are developed, perhaps a suitable compromise between alternatives A and E should read:

260-2 Cont.

> A 600 foot protection zone would be established around all riparian areas in the resource area. Surface disturbing activities and livestock grazing would be allowed within 270 feet of this zone if there is absolutely no practical alternative, and within the 330 foot riparian protection zone only if specifically designed to protect and/or enhance the riparian values.

American Rivers commends the Diamond Mountain resource management team for their proposals to collect, compile, and evaluate baseline riparian data to determine the historical, existing and ideal conditions for a healthy riparian area (2.11). However, we are concerned about the riparian grazing standard which is proposed in the draft RMP. It reads: "Where grazing is allowed on riparian areas, the objective is to maintain a minimum herbage stubble height of three inches after livestock grazing...(2.11). American Rivers seriously questions whether the maintenance of three inches of herbage stubble will allow sufficient herbaceous biomass to provide plant vigor, bank stabilization and sediment entrapment. It is improbable that a generic three inch herbage stubble standard will provide the many concomitant benefits of biologically functioning riparian zones, including: water quality; wildlife passage corridors; and diverse channel characteristics which provide cover and habitat for fish production.

260-3

It is the responsibility of the DMRA planning team to ensure the RMP "addresses riparian-wetland needs."[7] A three inch herbage stubble standard does not address the ecological function and role of riparian areas. The fact that riparian areas are not prevalent throughout the planning area makes the management of existing riparian areas that much more important. The final RMP should include a more ecologically responsive management prescription which includes accountability standards, provisions for grazing exclusions in sensitive areas, and fencing. The standards can be fully developed through site specific planning.

The final RMP needs to provide more management direction and/or restrictions based on soil and water related criteria. For instance, what restrictions limit the amount of roading, or the

260-4

[7] Riparian-Wetland Initiative for the 1990's. USDI Bureau of Land Management (1991). p. 16.

260-3 The three-inch herbage height is a minimum and in many cases regrowth would occur after livestock are removed. It is expected that general woody riparian species would not be used heavily with an average of 3 inches of herbaceous stubble height remaining after grazing. Refer to Table 2-15 under riparian, in the proposed plan concerning riparian improvement proposals. Again, please refer to Chapter 2 Management Guidance Common to the Proposed Plan and the Alternatives, under riparian. Details such as accountability standards will be outlined in the RMP's Implementation and Monitoring Plan, developed immediately after approval of the RMP.

260-4 Riparian areas of high recreational use such as the Upper Green River in Browns Park, the Lower Green River between Ouray, Utah, and the Uintah-Carbon County line, Nine Mile Creek, and the Pariette Wetland would be limited to OHV use on designated roads and trails.

260-4 Cont. use of off-highway vehicles (OHVs) in and around riparian areas. Roads and OHV trails carry large amounts of sediment into rivers and streams -- often critically damaging vital aquatic habitats.[8]

III. The Reintroduction of Colorado Cutthroat Trout

American Rivers encourages the DMRA to continue their plans to reintroduce Colorado cutthroat trout to their historic ranges within the resource area. We also encourage the BLM to consider developing cooperative agreements with the Forest Service through Bring Back the Natives, for Colorado cutthroat reintroductions in areas that border the Ashley National Forest (e.g., Argyle and Davenport creeks).

260-5 The BLM Manual insists that individual RMPs develop fish and wildlife habitat management objectives "for habitat maintenance, improvement, and expansion for priority species and habitats." The draft RMP fails to articulate or develop (1) habitat maintenance objectives, (2) habitat improvement objectives for priority species, (3) and habitat expansion objectives. The draft RMP also fails to express any identifiable objectives for the reintroduction of Colorado cutthroat which can be evaluated through monitoring, as is also required by the BLM Manual.[9]

[8] The BLM Manual requires resource managers to:

Identify soil and water management actions necessary to achieve the management objectives. Such direction may include but is not limited to the following:
a. Establish land use restrictions or other protective measures based on soil and water related criteria (e.g., restrictions on ORV use, access or activity limitations in floodplains, municipal watersheds, areas vulnerable to contamination from various sources of pollution, on soils prone to landslides).

BLM Manual: Supplemental Program Guidance for Environmental Resources (1986). 1621.21A.2.a.

[9] BLM Manual section 1622.1.11A.2 reads:

2. Management Objectives. Based on habitat potential and population goals set in coordination with wildlife management agencies, establish objectives for habitat maintenance, improvement, and expansion for priority species and habitats. Express objectives in measurable terms taht can be evaluated through monitoring.

260-5 We agree with your recommendations regarding cooperative agreements with the USF&WS and other organizations and the use of "Bring Back the Natives" program. The management objectives for riparian habitat outlined in Chapter 2 including a seven-step strategy. Current ecological condition for the major riparian areas by allotment have been identified in Appendix 8, with the overall goal of improving these areas to a late climax stage by 1997. Water quality standards are provided in Appendix 9 for major water courses in the resource area with objectives to maintain or improve these areas consistent with the State of Utah's standards. As you suggest, site specific management plans would be developed to show how these objectives would be met. Please refer to Chapter 3, per your suggestion, which provide habitat condition and management objectives for Colorado cutthroat trout. Priority fisheries habitat in this table are those areas that currently support a viable fisheries. Please refer to our responses 260-1 and 2 above concerning livestock management in riparian areas.

We realize that specific management plans will be developed in activity plans, but the BLM Planning Manual requires a much greater degree of specificity and elaboration than is present in the draft RMP.

The RMP should graphically detail (on a map) where the reintroductions are taking place, and describe population goals, priority habitat management areas, habitat expansion probabilities, and habitat improvement objectives.[10]

260-5 Cont.

American Rivers suggests the DMRA planners develop a table similar to Table 3-6 (3.17) and an accompanying map which details the size and scope of the Colorado cutthroat reintroduction areas; the present condition of the habitats in those areas; and what sort of grazing management presently exists. Other basic questions that should be addressed in the final RMP include: Why are the areas described in Table 3-6 priority fisheries habitat? What are the existing habitat conditions of all the reintroduction creeks? What will be done to restore the habitat of degraded streams where reintroductions are planned?

The BLM Manual requires resource planners to use the RMP process as an opportunity to: "Identify public lands where livestock grazing will be excluded considering terrain characteristics, potential of the soil and vegetation,..., the presence of other resources that may require special management or

---

a. Habitat Maintenance. Establish objectives to maintain satisfactory habitat conditions.
b. Habitat Improvement. Establish objectives to improve habitat for priority species.
c. Habitat Expansion. Establish objectives for modifying habitat, where appropriate and consistent with state population goals, so that a particular species or group of species can expand their range to occupy or reoccupy an area where habitat currently is unoccupied.

BLM Manual: Supplemental Program Guidance for Renewable Resources. USDI Bureau of Land Management (1986).

[10] A major shortcoming of the draft RMP is the poor quality of the maps of the resource area. With the exception of the Green River, the draft RMP maps do not detail any rivers or streams.

protection,..."[11] American Rivers submits that Colorado cutthroat reintroduction areas qualify for consideration of grazing closure and exclusion, or at the very least, special management (e.g., fencing). Grazing exclusions in these areas are not unreasonable requests, particularly when the preferred alternative allows for grazing on 701,000 public acres -- fully 99% of the resource area.

260-5 Cont.

It is well-documented that livestock grazing is a major cause of fisheries habitat degradation and destruction. In fact, portions of nearly all the reintroduction streams are identified as having degraded riparian areas due to improper livestock management (A8.18-19). The BLM Manual and the Multiple Uses doctrine compel the DMRA management team to provide a greater degree of planning direction and guidance in the RMP, including grazing closures and exclusions in sensitive areas where Colorado cutthroat are reintroduced.

IV. Management Indicator Species

The draft RMP uses three categories to select management indicator species (MIS): (1) special status animal species, (2) species of economic value, and (3) species with special habitat needs. The draft RMP's definition of what constitutes an appropriate MIS neglects the most critical function of indicator species. MIS are critical to measuring the effect of management practices on species and their habitats. "Indicator" is biologically defined as: "A characteristic of the environment that, when measured, quantifies the magnitude of stress, habitat characteristics, degree of exposure to the stressor, or degree of ecological response to the exposure."[12] The final RMP should note that when utilized and monitored properly, MIS's are crucial in determining the detrimental effect of management activities on terrestrial and aquatic ecosystems.

260-6

There are 36 MIS for at least 13 terrestrial habitat types in the draft RMP. Yet there is not a single aquatic species which acts as a MIS for cold and warm water resources or riverine systems in general (3.7). The lack of indicator species for riverine systems is an oversight that should be remedied in the final RMP. Riverine systems are arguably the most important of all habitat

[11] BLM Manual: Supplemental Program Guidance for Renewable Resources. USDI Bureau of Land Management (1986). 1622.3.31A.1.

[12] Environmental Monitoring and Assessment Program, Ecological Indicators. U.S. EPA, Office of Research and Development (1990).

260-6 We have modified the Management Indicator Species text in Chapter 3 to include: "MIS are critical to measuring the effect of management practices on species and their habitats. When these species are utilized and managed properly, they determine the detrimental effect of management activities on terrestrial and aquatic ecosystems." We have identified macroinvertebrates, the mallard duck, and the river otter as MIS for aquatic habitat, marshes, and lakes. We have also identified special status animal species in Chapter 3 for riparian areas which include Colorado squawfish, humpback and bonytail chub, razorback sucker, and Colorado cutthroat trout. As a result of public comments we have added the Woodhouse toad and leopard frog as MIS for aquatic areas. We agree that monitoring these species is the key in determining trend. We have prioritized monitoring with special status species habitat receiving first priority, followed by riparian and aquatic species habitat.

indicator types; particularly when one considers that two-thirds of federally threatened and/or endangered species are aquatic, or spend part of their lives in the water. In addition, over the past 10 years, 10 North American fishes have gone extinct while endangered terrestrial populations have remained relatively stable.

260-6 Cont.

The BLM has made a commitment to conserving an maintaining aquatic biodiversity on federal lands. We suggest the DMRA inventory a representative variety of habitat types and select as MIS, a broad sampling of aquatic species that are dependent upon the quality and quantity of various habitat types for survival. Resource managers should regularly monitor the quality of the selected aquatic habitats and inventory populations to determine trends. Population trends should be used to locate, adjust, and/or discontinue management practices which degrade aquatic species and habitats.

V. Threatened and Endangered Species Management

5.349

BLM Manual regulations instruct resource managers to:

> a. Determine, to the extent practical, the occurrence and distribution of all T/E [threatened and endangered] species on lands administered by BLM, and evaluate the significance of lands administered by BLM in the conservation of those species.
> b. Identify land administered by BLM that is essential habitat and designated Critical Habitat of T/E species, and prescribe management for the conservation of these habitats in land use plans.
> c. Develop and implement management plans that will ensure the conservation of T/E species and their habitats.[13]

260-7

The draft RMP summarily describes special status aquatic species occurring or having potential within DMRA in Table 3-4 (3.8). It is critical that the planning team use the RMP to develop goals and objectives for the management of endangered aquatic species occurring in the DMRA. As the BLM's Special Status Fishes Habitat Management Plan points out: "The principal planning document for management of sensitive resources is the RMP, with

[13] BLM Manual: Special Status Species Management. USDI Bureau of Land Management (1988), 6840.06A.1.a.

260-7 Please refer to our response 260-5 above. The MFP avoidance areas do not include all the 22 miles of Green River which are habitat for four endangered fish species. The management decisions outlined in the approved RMP will supersede these MFP decisions. Under the proposed plan, BLM would manage the Lower Green River as level 2 (careful management). This area would be open to activities that do not detract from special status fish, bird and plant species or Wild and Scenic river qualities. The middle stretch of the Green River would be managed as level 3 or 4 (depending on the location) with special status habitat and riparian areas protected. We believe the proposed decisions outlined in this document will improve these important areas while providing for multiple use of other resources.

site-specific activity plans then developed for implementing the RMP."[14]

260-7 Cont. The BLM Manual requires that RMPs provide more than a cursory evaluation of threatened and endangered species which might occur within the resource area. There are three federally endangered, and two special status fish species which occur within the DMRA. The draft RMP is woefully inadequate in describing special status aquatic species management plans. The DMRA is required by BLM regulations to (1) conduct habitat condition evaluations on potential T/E aquatic species habitat, (2) inventory the occurrence and distribution of special status species and the aquatic habitats in which they occur, (3) develop management plans to ensure conservation of special status species.

Threatened and endangered species habitats are described as Management Framework Plan (MFP) "avoidance areas" (3.23). Do these avoidance areas include the 22 miles of Green River which are habitat to at least three endangered fish species? Also, will RMP regulations supersede MFP avoidance areas? This is a particularly relevant question because preferred alternative E slates the mid-Green River (below Dinosaur National Monument) for Level 3 and 4 management which would make the area "available for major water development, rights of way, or other authorization with special restrictions (2.55)."

American Rivers strongly urges the DMRA to adopt the ecological systems management plan (Alternative B) for habitats in which special status species might occur. Alternative B subjects special status species potential habitats to Level 1 and 2 management and protects critical habitats from development disturbance.

American Rivers urges the DMRA planners to work cooperatively with the Forest Service, state fish and wildlife agencies, and other state agencies to compile information on endangered aquatic species populations and habitats. While aquatic species may lack the charisma of fur bearing terrestrial animals, it is the responsibility of the DMRA planning team to ensure their continued viability. As the Special Fishes Habitat Management plan makes clear:

> Good land and water management is the key to maintaining diversity of all species which, once lost, can never be recreated. Protection of these special

[14] Special Status Fishes Habitat Management. USDI Bureau of Land Management (1991), p. 22.

260-7 Cont.

status fishes and their habitats constitutes a positive step toward proper stewardship of public lands. It also enables the passing of an undiminished biota to future generations.[15]

VI. Wild and Scenic River Planning Issues

260-8

American Rivers has filed to date six Protests of Resource Management Plans. Each Protest alleged, inter alia, that the individual RMP failed to comply with the Wild and Scenic Rivers Act and explicit agency admin- istrative requiring that BLM study potential wild and scenic rivers and provide interim management prescriptions for those rivers found eligible. On June 4, 1990, the Director agreed that the four RMPs failed to comply with the Wild and Scenic Rivers Act and advised the affected State Directors that additional planning was required to comply with established requirements. One of the other RMPs was subsequently withdrawn and American Rivers entered into a negotiated settlement of the sixth RMP, the Arizona Strip RMP.

Section 5(d) of the Wild and Scenic Rivers Act, 16 U.S.C. section 1271 et seq., requires all federal agencies to consider potential national wild, scenic and recreational river areas in all planning for the use and development of water and related land resources. 16 U.S.C. section 1276(d). The planning responsibility imposed by section 5(d) plainly requires the BLM to assess the values of potential Wild and Scenic Rivers during the preparation of resource management plans pursuant to the FLPMA. Recognizing that responsibility, BLM Manual Section 1623.41A2d identifies wild and scenic river recommendations as a possible determination to be made in such plans.

To provide further guidance for fulfilling BLM's planning responsibilities for potential wild and scenic rivers, the agency's Washington office on July 23, 1987 circulated Instruction Memorandum No. 87-615, containing draft guidelines for identifying, evaluating, and protecting potential wild and scenic rivers on BLM lands. That guidance was promulgated by the Director in final form in Instruction Memorandum No. 87-670 and the attached Guidelines for Fulfilling Requirements of the Wild and Scenic Rivers Act (the "Guidelines"), issued September 8, 1988 and renewed annually. In addition, the Director included a "Wild and Scenic River Act Plan Review Procedures Summary" ("Procedures Summary") with his June 4, 1990 Memorandum to State

[15] Special Status Fishes Management. USDI Bureau of Land Management (1991) p.19.

260-8 An error in Appendix A7.4 has been corrected. This probably led to some confusion about why we recommended a recreation classification for this segment. The outstanding values identified in Table A7.2 for potential ACECs often do not apply to the river corridors being studies for their wild and scenic river values. If the identified ACEC values occur within the river corridors, they were compared to the "Guides for Assessing Outstandingly Remarkable Values" for wild and scenic rivers (identified in Appendix 7) to determine if they should be carried forward as outstandingly remarkable values.

Lears Canyon is a dry wash of approximately 3 miles in length that is subject to flash flooding. After applying the criteria for wild and scenic rivers eligibility, located in Appendix 7, it was determined that it should not be considered further in the wild and scenic river eligibility process.

Based on your comment, the RMP team readdressed the possibility that the federally listed plant species Uinta Basin hookless cactus could occur within or be found close to the identified river corridor. It was determined that this cactus would be found on the bench areas near the Lower Nine Mile segment. This change has been made in Appendix 7, adding botanical values as an outstandingly remarkable value.

Directors concerning the resolution of existing American Rivers' Protests that clarified certain elements of the study process.

260-8 Cont. Under the directions established in the Guidelines, planning for potential wild and scenic rivers on BLM lands follows a relatively straightforward, three-step procedure. Each BLM resource management plan is to:

(1) evaluate the eligibility of potential wild and scenic rivers within its planning area for inclusion in the National Wild and Scenic Rivers System in accordance with the criteria set forth in Section 1(b) of the Wild and Scenic Rivers Act (i.e., whether the river is free-flowing and possesses one or more "outstandingly remarkable" values);

(2) determine the appropriate classification ("wild," "scenic," or "recreational") for rivers found to be eligible;

(3) assess the suitability of such rivers for inclusion in the national rivers system, based upon the public values and uses that would be enhanced or foreclosed by such protection, the degree of public, state and local interest in designation, and practical concerns regarding costs and feasibility of administration.

Guidelines, Section VIII, at 9-12.

Until a final decision is reached by the agency and, for recommended rivers, by Congress, BLM is to protect river resource values and characteristics through specific management prescriptions established in specific or programmatic interim management plans. Guidelines, Section IV.C., at p. 7; Section IX, at p. 20.

VII. Comments Concerning Eligibility

American Rivers commends the planners for evaluating 76 streams and rivers in the DMRA. Such a broad evaluation is consistent with Bureau policy.

The description of Argyle Creek states that the stream has been classified as recreational due to "disturbances along the river corridor." Table A7-4. This description, however, is inadequate to explain why a scenic classification would not be appropriate for the entire 21.5 mile segment or portions of the stream.

We commend the planners for finding 116 miles of the Green River eligible for inclusion in the national rivers system. E.g., Table A7-4. Similarly, American Rivers appreciates the planners documentation of the outstandingly remarkable scenic and cultural values possessed by Nine Mile Creek. Id.

260-8 Cont. American Rivers is concerned, however, that various significant resource values which were addressed in the discussion of Areas of Critical Environmental Concern (ACECs) do not appear in the discussion of potential wild and scenic rivers.

For example, Lears Canyon is described as possessing outstanding biological diversity values, Table A7-2, however, there is no apparent discussion of the potential eligibility as a wild and scenic river of the stream within Lears Canyon.

The description of the botanical values associated with Nine Mile Canyon, Table A7-2, suggests that the stream possesses outstandingly remarkable ecological or botanical values, however, that is not recognized in the discussion of the stream's wild and scenic river eligibility.

VIII. Suitability Assessments

American Rivers is disappointed in the cursory and inadequate discussions of suitability included in the Draft RMP.

For example, there is no meaningful analysis presented in the EIS of the consequences which flow from the decision not to protect the outstandingly remarkable values of free-flowing streams. This omission calls into serious question the validity of any of
260-9 the decisions that a particular river is not suitable. Thus, although the suitability analysis contained in the FEIS addresses the bare form of BLM policy which requires that decisions to recommend or not to recommend inclusion of eligible rivers in the national rivers system be based on extensive analysis, there is inadequate analysis of either the rationale or the consequences of the decisions not to find suitable particular eligible rivers.

The suitability analysis completely fails to explain how the BLM weighed the various factors required to be considered in its decision on suitability.

IX. Management Prescriptions

260-10 The Final RMP should include detailed management prescriptions to protect the resource values of eligible and suitable river segments.

260-9 This section was strengthened in the final document. See the sections entitled "From Management Action for Special Emphasis Areas" contained within the analysis for each resource impacted. Also refer to Appendix 7.

260-10 Wording has been added to the table in Chapter 2 Management Prescriptions for Special Emphasis Areas outlining the management prescriptions that would be followed to protect rivers recommended for designation until such time as action is taken by Congress.

In order to protect the resource values and character of its potential wild and scenic rivers until a decision is reached regarding their designation, BLM's Guidelines require agency planners to establish detailed management prescriptions. The Guidelines state: "... the RMP must prescribe the protection (interim management prescriptions) to be provided for the river and adjacent public land area pending the suitability and, when necessary, subsequent action by the Congress." Guidelines, Section VIII.A.3.a., at p. 11 (emphasis added).

260-10 Cont.

The Guidelines address in detail the scope of management prescriptions that should be adopted:

> Specific management prescriptions for river corridors identified from the NRI list, or otherwise identified for study, should provide protection in the following ways:
>
> 1. Free-flowing values. The free-flowing characteristics of such identified river segments cannot be modified to allow stream impoundments, diversions, channelization, and/or rip-rapping to the extent the BLM is authorized under law.
>
> 2. River values. Outstandingly remarkable values of the identified river segment or area must be protected (subject to valid existing rights) and, to the extent practicable, enhanced.
>
> 3. Classification Impacts. Management and development of the identified river and its corridor cannot be modified, subject to valid existing rights, to the degree that its eligibility or classification would be affected (i.e., its classification cannot be changed from wild to scenic, or scenic to recreational).

Guidelines, IX, B., at 1-20.

The Final RMP should adopt management prescriptions as required by BLM policy.

X. Additional Comments

Only through full documentation of the basis for BLM's findings can the public be assured that the agency has in fact given these streams the consideration mandated by section 5(d) of the Wild and Scenic Rivers Act, and that rivers and streams with potential as additions to the national rivers system have not been rejected on a superficial examination.

The fundamental importance of such documentation is plainly expressed in the Guidelines: "The RMP record of decision (ROD) serves as the release document for river areas, or portions of river areas/segments, determined nonsuitable for WSR river designation." Section VIII.B.1.

Moreover, pursuant to the National Environmental Policy Act (NEPA), the planning documents must assess the potential environmental impacts of any decision not to recommend rivers for inclusion in the national rivers system. In California v. Block, 690 F.2d 753 (9th. Cir. 1982), the United States Court of Appeal for the Ninth Circuit held that the Forest Service is required to prepare a site-specific EIS when it decides in its planning process to release potential wilderness areas for nonwilderness uses. BLM decisions not to recommend designation for potential wild and scenic rivers, like decisions releasing potential wilderness areas, irretrievably commit the resources of such rivers and their adjacent lands, and require similar site-specific environmental analysis. Even where the BLM establishes relatively protective prescriptions for a river area in its RMP, such as an ACEC, the decision not to recommend Wild and Scenic River designation exposes the river to a continued risk of hydroelectric development that may degrade or destroy the river's free-flowing character, and to mineral development that may impair its outstanding natural values.

American Rivers' concern with the depth of the planners' eligibility analysis is not a mere academic concern. In addition to identifying eligible streams, the description of outstandingly remarkable values is a central component of any suitability study. The heart of the suitability determination is a consideration of the characteristics that make a river and its corridor a worthy addition to the national rivers system. Guidelines, section VIII.A.3. That analysis is crippled if the eligibility determination is incomplete. Also, streams not found eligible are subject to management activities which may impair or even preclude their later inclusion in the national rivers system.

We trust these comments assist the planning team complete and improve the RMP. Please do not hesitate to communicate with us if you have any questions concerning our comments on DMRA

fisheries issues and/or wild and scenic planning. American Rivers looks forward to working closely with the Diamond Mountain Resource Area.

Sincerely,

Thomas J. Cassidy, Jr.
General Counsel

Christopher A. Wood
Fisheries Program Coordinator

cc: Jack Williams
Fisheries Program Manager
Bureau of Land Management

March 23, 1992

Penelope Smalley
Team Leader
Bureau of Land Management
Vernal District
170 South 500 East
Vernal, Ut. 84078

TO WHOM IT MAY CONCERN:

I believe in livestock management in all areas.

261-1 I disagree with the proposal to planting wildlife, such as elk, moose, and big horn sheep in the Nine Mile Canyon area:

1. They will always be on the private land,(as the deer and elk that are in the area are already.)

2. The bottom of the canyon is mostly private farm land which the wildlife will want to feed because of the forage of alfalfa hay and grass pastures.

3. The deer and elk already tear down all the fences in the area, that we are constantly repairing.

4. Then we have the public hunting to put up with, the tresspassing, breaking locks and gates, littering, shooting livestock, and tearing up our roads, causing more errosion.

On livestock management in the Devils, Five Mile, and Bull Canyon allotments, the elk are in the area before the livestock are, and are still there after the livestock are pulled off. The Five Mile allotment is continuously used by the wildlife. I believe if these allotments are to have wildlife the the D.W.R. should help maintain all the improvements of fences,water, and roads along with the expense of the permittees. The permittees are the ones who have to maintain

RESPONSE TO COMMENT LETTER 261 (FASSELIN)

261-1 Under the proposed plan, we would authorize the reintroduction of bighorn sheep for the historic habitat in Nine Mile Canyon. Based on those concerns you have addressed, plus the possibilities of disease transmission, we have ranked the Nine Mile Canyon as #4 out of the 5 reintroduction areas for the resource area. Private landowners would be involved in any bighorn sheep reintroductions to help resolve issues prior to any release in Nine Mile Canyon. We are not proposing any elk or moose transplants for the Nine Mile Canyon area, but would allow their numbers to grow from existing herds if forage was available. We would be willing to discuss fence modifications, such as let-down fences, which might reduce the amount of fence repair. Such an option may reduce the impact off big game on fencing in the area. UDWR has provided over half of the seed on the greenwood sale area in the Five Mile allotment, helping improve forage for wildlife and livestock. We have also worked with UDWR to establish wildlife-livestock forage studies on this allotment to monitor use and better manage available forage.

and repair the fences, but the livestock isn't tearing them down, the wildlife is. I also believe that D.W.R. should manage the wildlife and rotate them along with the livestock.

As far as livestock management in these allotments, I feel I have utilized the forage evenly by dispursing livestock over the area.

Sincerely,

G & G Fasselin

G & G Fasselin
Nine Mile Canyon

Utah Wilderness Association

455 East 400 South #306/Salt Lake City,UT 84111/(801)359-1337

March 31, 1992

Ron Trogstad
Diamond Mountain Resource Area Manager
170 South 500 East
Vernal, UT 84078

Dear Mr. Trogstad:

Enclosed are our comments on the Diamond Mountain draft Resource Management Plan. The Diamond Mountain Resource Area contains some of the most important natural terrain in the state even though it is largely roaded. It is winter range for ungulate herds that use the Uintas--Utah's most pristine mountain ecosystem--and contains several miles of the Green River with its attendant wetlands.

The draft RMP contains one critical omission. There is no range of alternatives regarding livestock, all alternatives allocate the same amount of forage to livestock. We recognize the BLM apparently feels that these issues have been adequately addressed in the Ashley Creek and Three Corners grazing EISs and subsequent RPS decisions (page 2.9). We do not concur with this conclusion. Those EISs were completed in 1982 and 1979 respectively. Ten years have passed since that time and the decisions surrounding range and forage allocations need to be reconsidered. FLPMA anticipated that plans would be revised regularly (section 202). Most federal land agency plans are revised on a ten year basis. Thus, omission of this critical issue is inappropriate and casts some doubt on what is a fairly good document.

The significant concern over range allocation aside, the Resource Area has done a commendable job in preparing the RMP. While the proposed action (alternative E), needs important strengthening, it does contain many positive recommendations. Alternative B, with a few modifications, would better represent a comprehensive and balanced alternative for management of the Diamond Mountain Resource Area.

The real test of this RMP will be in its implementation. It can't be considered as a site-specific decision for a whole bunch of projects. Rather, it should be viewed as a guide for managing the Resource Area.

RANGE/VEGETATION

278-1 The omission of livestock forage allocation alternatives has created some problems with the draft RMP. For example, the draft indicates that

100% Recycled Unbleached Paper

RESPONSE TO COMMENT LETTER 278 (UTAH WILDERNESS ASSOCIATION, Macfarlane)

278-1 In Alternative B, livestock closures were recommended on municipal riparian areas, T&E habitat, and bighorn sheep reintroduction areas. Also, to accommodate an increase in wildlife use, livestock reductions would be necessary due to minimal rangeland treatments proposed in this alternative. A 25,292-AUM loss for livestock was analyzed in Chapter 4, but was not shown as an initial reduction on the areawide decision matrix (Table 2-15). This error was corrected and now reads: "Establish livestock grazing preference at 25,007 AUMs."

The other alternatives will remain initially at 50,299 AUMs due to no complete closures to livestock initally, affecting existing use outlined in the proposed plan or Alternatives A, C, and D. Possible reductions to livestock from livestock/wildlife conflicts for forage in crucial wildlife habitat could be mitigated by rangeland treatments and management practices (see Table 2-15 for livestock and vegetation). Any AUM losses to livestock due to negotiation to eliminate domestic sheep from proposed bighorn sheep reintroduction areas in Alternatives A and E would be over time and done voluntarily by grazing operators through change in class of livestock and alternative grazing systems (again, refer to Table 2-15 under livestock).

There has been significant livestock reductions in the past as stated under the "Forage Allocation History" section in Appendix 8. Since 1980, 4,904 livestock AUMs have been reduced. Since 1989, 972 livestock AUMs have been reduced affecting 4 allotments, and significant management changes have been made on 6 allotments. All of these adjustments were made through agreement as part of the 1989 Ashley Creek Range Program Summary. The Ashley Creek and Three Corners Grazing EIS did not clearly analyze the forage needs for objective (desired future) wildlife levels as stated in Chapter 2. As part of the Diamond Mountain RMP, both livestock and wildlife forage needs by alternative, were analyzed and compared to existing forage available by allotment (see Table A2-1).

This analysis has shown us that we are very close to meeting both livestock preference and wildlife proposed increases under Alternative E with range improvement and management practices providing additional forage to fulfill the requirement.

In Alternative B, due to the least amount of range improvements proposed and the largest increase in wildlife AUMs, along with proposing reducing livestock use to accomplish goals in this alternative, livestock preference would be reduced initially to 25,007 AUMs in Alternative B.

livestock forage would be the same for every alternative (page 2.46), yet proposes different areas that would be protected from livestock grazing (page 2.47) and differences in vegetation treatment projects (page 2.58). In an inconsistent twist, the RMP also claims that the alternatives could add or reduce the number of livestock AUMs by varying amounts (pages 4.17, 4.27, 4.38, 4.46 and 4.55).

278-1 Cont.

These inconsistencies need to be rectified. The document recognizes that wildlife forage allocation decisions need to be made (page 2.9). It is impossible to gain a comprehensive or cumulative view of vegetation management issues without analyzing both wildlife and livestock forage allocation.

Since the draft RMP did not include grazing alternatives, it apparently also chose to ignore standards for livestock use and utilization. While the information in Appendix 8 is quite useful, it does not give an overall view of the resource area with respect to livestock grazing. Goals for specific seral conditions could be implemented for various categories of land identified in the alternatives. Another example would be providing utilization standards for riparian areas or uplands (such as a stubble height or utilization percent), and varying those standards based upon the goals and objectives of the different alternatives. This would provide important direction for completing site specific allotment management plans. At the very least, utilization standards would provide management direction until AMPs are updated or completed.

5.360

Such an integrated approach is important. Appendix 8 makes it clear that the allotment categories (C, M, and I) have already been selected. How do these categories relate to the various land allocation and classification scenarios developed in the various alternatives? This rhetorical question raises the concern of having two separate planning processes for the Resource Area, the RMP and the two decade old grazing EISs, that are not well coordinated.

278-2

The RMP proposes several thousand acres of pinyon juniper and/or sagebrush treatments (presumably chainings or fire) under each alternative (page 2.58). However, the RMP does not indicate areas of potential treatment, how those specific areas will be treated or analyze cumulative impacts of those treatments even in a general sense. Range treatments are not benign, they can have tremendous impacts on a variety of resources including nongame song birds, visuals, archaeological sites and sage grouse. The RMP only mentions the assumed positive benefits to livestock, some game species and in some instances, soils and watersheds (NOTE: the benefits and impacts of activities like chaining on soil and watersheds are a matter of considerable dispute in the scientific literature). Without a better analysis of impacts of this type of activity, the RMP fails NEPA's requirements. The type of treatment, burning versus chaining, also has varying ecological as well as social impacts.

278-3

Standards should have been considered for vegetation treatments as well. For example, limiting pinyon juniper clearings to certain sizes and a certain percentage of forest tracts would avoid changes that could negatively affect small birds or mammals by large area type conversions.

General goals for vegetation management are stated under "Vegetation" in Table 2-15. In Chapter 2's management common to the proposed plan and all alternatives, under riparian it states: "Where grazing is allowed on riparian areas, the objective is to maintain a minimum herbage stubble height of 3 inches after livestock grazing to provide sufficient herbaceous biomass to meet requirements of plant vigor, maintenance, bank protection, and sediment entrapment." Also in this chapter, under Vegetation Resources, it states: "Vegetation resources will be managed according to desired ecological stages or plant communities by allotment at the activity plan level."

278-2 Allotment categorization was done during the writing of the Grazing EISs and was also re-evaluated under BLM policy criteria during the present RMP process. The criteria for categorization stays the same by alternative; these are resource potential, resource use conflicts or controversy, opportunity for positive economic return, and present resource condition. These criteria generally stay the same for each alternative but the allocation of resources and methods for managing resources and achieving objectives may be different.

278-3 Vegetation treatment is guided by the statement in Chapter 2 under Vegetation Resources, Management Common to All, as follows: "Vegetation treatment is implemented where plant species diversity, watershed conditions, and forage production are below potential; to achieve a desired ecological stage or plant community; to control noxious weed or insect infestations; or to meet activity plan objectives. Such treatments include mechanical treatments (chaining), chemical treatment (herbicide applications), biological treatments (grazing), prescribed fire, reseeding, and construction of control structures (see Appendix 7). Vegetation treatment projects are subject to NEPA review prior to initiating any action and are guided by the 1991 Bureauwide vegetation treatment EIS." Impact analysis is addressed generally for all vegetation treatment methods in the 1991 "Vegetation Treatment on BLM Lands" EIS. As stated in Appendix 8, "if pinyon/juniper areas will not carry a fire, chaining may be substituted." "Standard Operating Procedures" for chainings are also listed in Appendix 8. Although there may be some insignificant, short-term (1 to 2 years) losses to soil erosion before vegetation establishment, there are significant long-term (15 year plus) benefits such as 344,250 tons of soil remaining on site on 22,950 acres treated in the proposed plan as discussed in the cumultative impacts section of Chapter 4. Other significant benefits discussed in Chapter 4 impact analysis, are increased vegetation diversity and increased forage for wildlife and livestock.

See standards for rangeland improvements in Appendix 8. As stated, design of vegetation treatments relating to effects on wildlife and aesthetics are closely analyzed in cooperation with the Utah Division of Wildlife Resources (UDWR) prior to on-the-ground development.

MINERALS

278-4 The proposed leasing of every acre under every alternative is a major problem in the RMP. While the draft RMP proposes to use the no-surface occupancy (NSO) stipulation is some areas, this stipulation has potential legal limitations and it can be modified after a lease is issued. For example, large tracts of NSO areas with a greater than two mile radius could be construed as denying access to the minerals in the center of an area since directional drilling can only be effective up to about one mile. Under this scenario, the BLM may be legally forced to change the lease stipulations.

BLM has the legal authority and mandate to deny mineral leasing in important areas. The 1920 Mineral Leasing Act and its 1987 amendments make this clear. Leasing every acre is contrary to multiple-use principles embodied in FLPMA. In lieu of multiple-use, the RMP proposes mineral primacy under every alternative. The BLM should change the NSO recommendations in the various alternatives to no lease recommendations to alleviate these problems.

278-5 The areas proposed for level 1 and level 2 management under alternative B should not be leased for oil and gas (phosphate as well) because they include important archaeological sites, other ACECs, wetlands, river corridors, threatened and endangered species sites and wildlife winter range. In addition, all of the Diamond Mountain region between Dinosaur National Monument and the Wyoming border should be closed to leasing. This is critical big game habitat and it is rated as having a low potential for minerals in the RMP.

278-6 Alternative E offers inadequate protection from oil and gas activities. The proposed leasing of the Ouray National Waterfowl Refuge and most of the Nine Mile Canyon ACEC is not in the best interests of those resources. It is impossible to protect significant wetlands while allowing oil and gas development. Of course this raises the question of how the minerals under the Refuge came under the jurisdiction of BLM and not the Fish and Wildlife Service.

278-7 The mineral sections in the RMP do not meet NEPA's mandates for site-specific analysis prior to decision making. There is no quantification of impacts to wildlife from an all out oil and gas leasing program, proposed under alternative E (page 4.54). The one sentence description on page 4.54 gives no idea of the impacts as required by NEPA.

278-8 The foreseeable oil/gas development scenario for the Resource Area (Appendix 4) does not differentiate between alternatives. Is one to assume the various alternatives are no different because all lands will be leased under every alternative? If so, this proves that lease stipulations do not provide more environmental protection if development impacts would be the same under every alternative. BLM inadvertently makes the case that no lease options must be considered for sensitive lands.

Thus, the mineral sections in the RMP are inadequate upon which to base decisions. That contention is supported in a number of legal proceedings such as Conner v. Burford, the Palisades decision, and the Bob Marshal Alliance case. Simply put, the analysis in the RMP is inadequate prior to issuing leases. Post-RMP tiered NEPA documents and attendant decision documents are needed before any leasing can take place.

278-4 A modification to an oil and gas lease stipulation "...is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease,..." (BLM Handbook "Planning for Fluid Mineral Resources, H-1624). While it is true that oil and gas lease stipulation may be modified, "...all circumstances for granting a waiver, exception, or modification must be documented in the plan or plan amendment,..." (Ibid.) According to BLM policy lands may only be closed to leasing in areas "...where it has been determined that other land uses or resource values can not be adequately protected even with the most restrictive lease stipulations and that appropriate protection can only be ensured by closing the lands to leasing,..." (BLM Manual 1624 "Supplemental Program Guidance for Energy and Mineral Resources).

Therefore, if the oil and gas resource is not accessible with current technology then it does not follow that the land should be closed to leasing, especially if the resource is protected using a No Surface Occupancy stipulation. Technology may change over the next 15 year-period which may allow for successful exploration and production in such areas of No Surface Occupancy.

278-5 Thank you for your comments.

278-6 As quoted in Public Land Order 3999:

By virtue of the authority vested in the President and pursuant to Executive Order No. 10355 of May 26, 1952 (17 F.R. 4831) it is ordered as follows:

1. Subject to valid existing rights, the following described lands are hereby withdrawn from all forms of appropriation under the public land laws, including the mining laws (30 U.S.C., Ch 2), but not from leasing under the mineral leasing laws, and are added to and made a part of the Ouray National Wildlife Refuge...

(Refer to the PLO for the specific lands described)

278-7 The text has been modified in Chapter 4 as you suggested.

278-8 The priority management areas maps indicate that management of lands for oil and gas leasing, because of a differing amount and kind of restrictions, would be different under the proposed plan and each alternative. Therefore, the percentage of the total number of forecasted oil and gas wells (in the Reasonable Foreseeable Development, Appendix 4) which would not be drilled under each alternative would also be different. The number of precluded oil and gas wells on moderate to high oil and gas potential lands for the proposed plan or each alternative is: The proposed plan - 19.3 precluded wells; Alternative A - 19 precluded wells; Alternative B - 88 precluded wells; Alternative C - 2.4 precluded

The recommendations for locatable minerals are somewhat confusing. The differences between pages 2.44 and 2.49 for alternative E need to be clarified. Page 2.44 indicates only a tiny percentage of the Resource Area would be withdrawn from mineral entry under alternative E, but page 2.49 indicates more terrain would be withdrawn.

278-9

Alternative B is also confusing. Page 2.20 shows a total of 467,500 acres of surface and subsurface proposed to be closed/restricted from mineral use. However, page 2.44 shows 414,600 acres proposed to be withdrawn. Why is there this inconsistency?

If page 2.44 is accurate, most of the land designated as ACECs and critical wetlands like the Refuge would be open to mineral entry. It makes no environmental sense to allow hardrock mining or exploration in a wetland. Yet, that is precisely where such activity is most likely to occur in this resource area (for example, along the Green River).

The RMP notes in appendix 4 that there is little potential for locatable mineral development in the Resource Area. Given the fact that mineral exploration work associated with mining claims, particularly in wetlands, has disastrous impacts and the fact that BLM's own regulations do not allow for agency oversight on projects less than 5 acres in size, all critical areas on the Resource Area ought to be withdrawn or segregated from mineral entry. Leaving virtually all of the Resource Area open to the the 1872 Mining Law does not meet multiple-use mandates for balanced land management. All it does is allow the public land to be abused in the search for mineral resources that BLM admits are not there.

RECREATION/TRAVEL MANAGEMENT

Extensive development has left little roadless land in the Resource Area. That fact is reflected in the recommendations for small and scattered tracts of semi-primitive non-motorized areas. All the ACECs and critical wildlife habitat should only be open to vehicles on designated roads to

278-10

protect resources such as archaeological sites, frail soils, wetlands, rare plant sites and black-footed ferret habitat. The two small WSAs should be closed to ORV to provide semi-primitive motorized recreation opportunities. No place in the Resource Area should allow cross country travel.

Additionally, redundant low standard roads and trails should be closed and standards (for example, no more than one mile of open road or trail per square mile of land) should be adopted to protect wildlife and provide recreation opportunities for non-motorized users. Alternative E proposes increasing vehicle use that would harm wildlife, in particular cougar and black bear (page 4.60). It is ironic that this alternative proposes additional help for black bears by prohibiting baiting but then allows increased vehicle access.

Research has shown a direct correlation between damage to cultural resources and vehicle access. Thus, vehicle use should be limited to existing high standard roads in the Nine Mile Canyon ACEC. The RMP only proposes a small closure in this area.

wells; and Alternative D - 2.4 precluded wells.

278-9 We have modified the description of restrictions under the proposed plan and for each alternative to clarify these recommendations.

It is important to distinguish between withdrawals and surface use. The planning restrictive levels are not necessarily meant to describe precisely the same lands as those slated for withdrawal.

Designation of ACECs and other critical areas can be an effective management tool since doing so creates areas within which mining plans are rrequired for all locatable activities. Current law, regulations and policy does not allow BLM the discretion to simply close lands to locatable mineral activities. So planning measures, such as ACEC designation, while not closing lands per se, helps allow BLM to more effectively manage resource values sensitive to locatable mineral development.

278-10 You are correct in your statement that there are not many roadless areas remaining in the resource area. That is why we feel it is important to protect those areas that are left. See Table 2-5 for a summary of OHV restrictions. Both WSAs in the resource area are proposed for semi-primitive, nonmotorized use, if the areas are not designated wilderness areas. We will be closing some roads where use will be limited to designated roads yearlong. OHV use in Nine Mile Canyon will be limited to designated roads and trails in the spring and fall of each year. It was felt that additional restrictions would not be necessary to protect cultural resources. Areas will be posted and roads will be identified for travel. This will be necessary to comply with state laws.

The RMP should set a proactive management scenario for the travel plan that will be tiered to it. Proactive management should include a policy of posting areas open, rather than closed (areas are closed unless posted open), and closing areas before problems develop.

278-10 Cont.

SPECIAL MANAGEMENT AREAS

The recommendations for ACECs in alternative B and to a lesser extent, alternative E, are quite good. However, the proposed management of those areas often contradicts the values those ACECs are supposed to protect. Recommendations for better ACEC management are included in other sections of this comment.

278-11

The Wild and Scenic River study recommendations in the RMP need clarification. First, are all the Green River segments being recommended in alternative E (or any other alternative for that matter) as suitable as Scenic and Recreational Rivers? Page 3.62 would seem to indicate this is the case yet Appendix 7 recommends the middle segment as unsuitable. This needs to be clarified as we don't see how BLM is complying with its regulations under the Wild and Scenic Rivers Act and NEPA (see BLM IM 88-670, subsequent updates, and BLM Handbook 1623).

278-12

Second, the lower Green River segment is inappropriately classified. The lower Green River from the Carbon County line to just above Fourmile Wash meets the criteria for a Wild river. The only notable access is the Sand Wash boat ramp, and it is a dirt road. Wild Rivers are "generally inaccessible except by trail" (emphasis added) and this segment meets that definition.

WILDLIFE/RIPARIAN

BLM makes some commendable recommendations in the RMP including the reintroduction of black-footed ferrets and a ban on bear baiting. The proposal for reintroduction of bighorn sheep under alternative B is also of merit. However, adequate analysis to ensure that viable habitat is available should occur before a reintroduction is attempted. There are too many examples of failed bighorn sheep reintroductions where prior analysis could have determined conflicts.

278-13

Unfortunately, too much critical wildlife habitat is available for destructive activities (see other resource sections of this comment). Impacts from livestock grazing are largely ignored because livestock forage allocation has not been considered. Cumulative impacts to wildlife from mineral development are lacking, particularly a worst-case scenario required under NEPA regulations and subsequent court decisions (see also the minerals section).

278-14

Riparian areas do receive considerable discussion in the RMP because of their inordinate value to wildlife and fisheries. Yet, it appears the only protection for riparian areas would occur within special emphasis areas. Even that protection is weak because alternative E allows a loophole as wide as a bulldozer. All riparian areas should receive protective standards

278-15

278-11 Thank you for your support, please refer to our specific response 278-12 below.

278-12 Two Green River segments are recommended in the proposed plan. They are the segments between Little Hole and the Utah-Colorado State Line, and the segment between the public land boundary south of Ouray and the Uintah-Carbon county line, south of Sand Wash. All river segments found eligible and suitable for futher study in our preliminary analysis are recommended for designation in Alternative B. Our analysis showed that there are several access points along both the right and left banks that influenced our recommendation as a scenic rather than wild river.

278-13 We recently agreed to a memorandum of understanding with the National Park Service, Colorado State University, UCWR, and Colorado Division of Wildlife to evaluate habitat for future reintroductions. Habitat models, as well as geographic information system (GIS) technology would be used to evaluate habitat and potential conflicts.

278-14 Please refer to our response 278-7 above and the text changes in Chapter 4.

278-15 All riparian areas on BLM-administered lands within the Diamond Mountain Resource Area will be managed in accordance with the Bureau and Utah State Riparian policies. Refer to Appendix 6.

similar to those located in the special emphasis areas under alterantive B. As it currently stands, the RMP does not meet BLM's own riparian policy and guidelines. (see IM UT 87-261 and Jan. 22, 1987 BLM Riparian Area Management Policy).

278-15 Cont.

LANDS

BLM identifies potential land for transfer or disposal on page 3.21. Is this proposal the same for all alternatives? Some of the land proposed for disposal/exchange contains extremely high public values and does not meet BLM's criteria for disposal (see FLPMA section 203), though exchange with another public entity, state or federal, may be appropriate (FLPMA, sec. 206). In particular, we are concerned about the land on Diamond Mountain with its unmatched wildlife values and the tracts within the Nine Mile Canyon drainage which contain critically important cultural resources.

278-16

SUMMARY

While the draft RMP has many positive points, several questions remain. When finalized, will the RMP be used as guidance for activities and subsequent NEPA documents with public involvement or will it be considered the decision for those site-specific projects? Our experience has been that these large planning documents are considered as site specific NEPA justification for a laundry list of development projects after the ink is dry on the final. An RMP is only the first step. Public involvement in agency decision making tiering from this RMP and site-specific NEPA documentation must continue.

278-17

If you have any questions, please feel free to contact our office. We would also be very willing to engage in a meeting or discussion with you and your staff regarding this RMP prior to the final.

Sincerely,

Gary Macfarlane
Conservation Director

278-16 The lands section of Chapter 3 has been modified for clarity. Please refer to Table 2-15 for the proposed decisions for land tenure adjustments. Please note that the initial acreage figures for the proposed plan and the alternatives differ due to the management of resource values for any particular plan. Criteria for any land ownership adjustments are outlined in Chapter 1.

278-17 Please refer to Chapter 2, Management Guidance Common to the Proposed Plan and the Alternatives, which outlines the criteria to be used for site-specific plans/actions and associated environmental review subsequent to the RMP. Public involvement will be sought and encouraged throughout any such subsequent site-specific analyses, as necessary, as required by NEPA and the Council on Environmental Quality regulations.

☆U.S. GOVERNMENT PRINTING OFFICE: 1993-774-072/88000

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
February 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District

WYOMING

COLORADO

UTAH

MAPS DESIGNED AND EDITED BY BLM VERNAL DISTRICT OFFICE

SECTIONED TOWNSHIP

SCALE 1:250,000

MILES

DIAMOND MOUNTAIN RESOURCE AREA

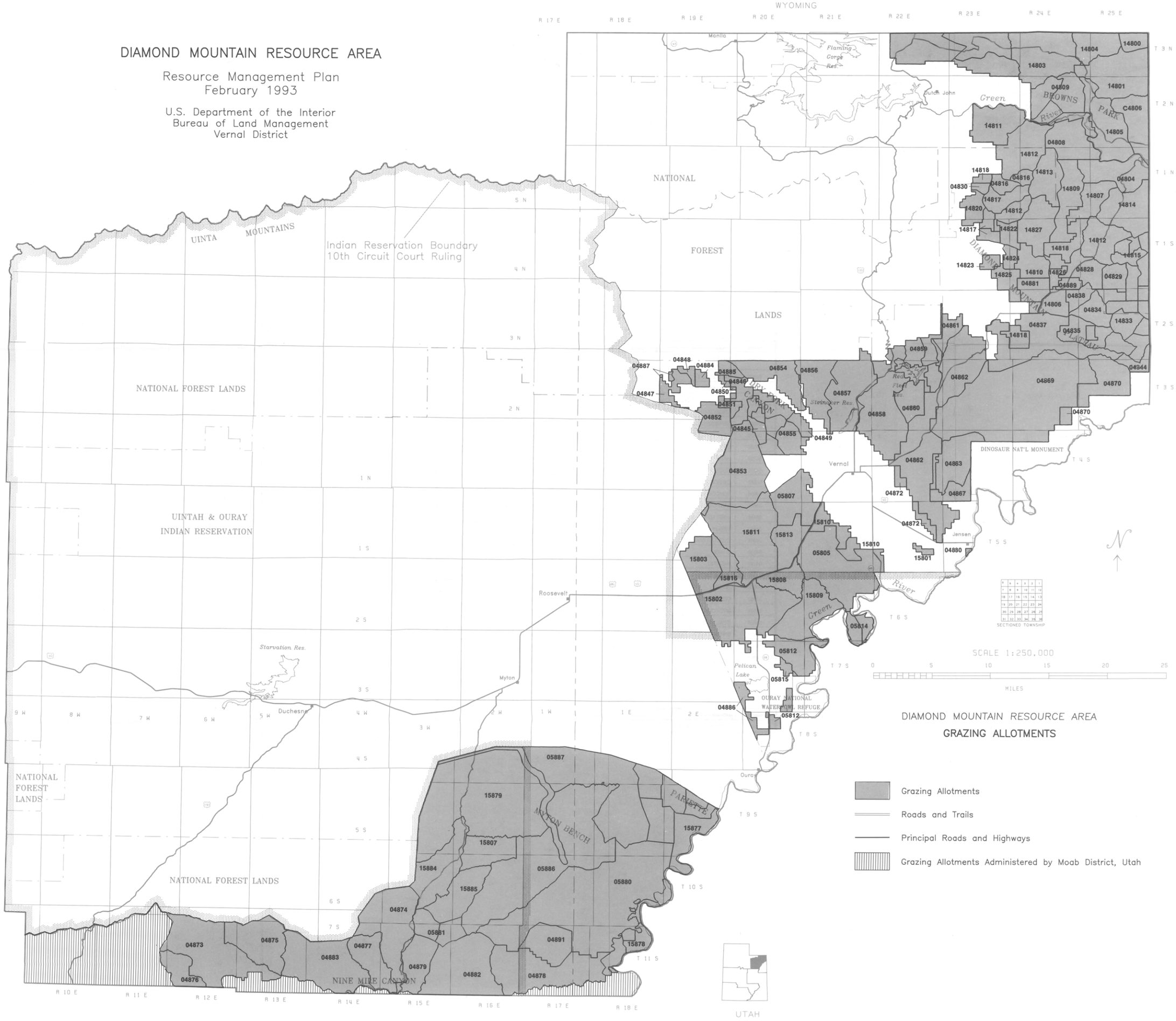
LAND STATUS

- Public Land
- National Forest
- National Parks & Monuments
- National Wildlife Refuge
- Bureau of Reclamation
- Indian Land
- State Land
- Private Land
- Federal Mineral Estate / Non-Federal Surface
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
February 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District



DIAMOND MOUNTAIN *RESOURCE AREA*
GRAZING ALLOTMENTS

- Grazing Allotments
- Roads and Trails
- Principal Roads and Highways
- Grazing Allotments Administered by Moab District, Utah

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
March 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District

WYOMING

COLORADO

UTAH

UINTA MOUNTAINS

NATIONAL FOREST LANDS

UINTAH & OURAY INDIAN RESERVATION

Indian Reservation Boundary
10th Circuit Court Ruling

NATIONAL FOREST LANDS

NATIONAL FOREST LANDS

NATIONAL FOREST LANDS

DINOSAUR NAT'L MONUMENT

Manila

Flaming Gorge Res

Dutch John

Green

Vernal

Jensen

Roosevelt

Myton

Starvation Res

Duchesne

Ouray

Myton Bench

R 17 E R 18 E R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E

T 3 N T 2 N T 1 N T 1 S T 2 S T 3 S T 4 S T 5 S T 6 S T 7 S T 8 S T 9 S T 10 S T 11 S

R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E

SECTIONED TOWNSHIP

SCALE 1:250,000

0 5 10 15 20 25

MILES

DIAMOND MOUNTAIN RESOURCE AREA

PROPOSED PLAN
MANAGEMENT PRIORITY AREAS

Management Goal: Maintain or improve natural resources while managing a combination of varied uses and considering their effects on environmental interrelationships — The Proposed Plan.

- Level 1 — Most Restrictive Management
- Level 2 — Careful Management
- Level 3 — Active Management
- Level 4 — Open Management
- Utility Corridors
- Considered ACECs
- Split Estate Lands
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
February 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District

WYOMING

COLORADO

UTAH

UINTA MOUNTAINS

NATIONAL FOREST LANDS

Indian Reservation Boundary
10th Circuit Court Ruling

UINTAH & OURAY INDIAN RESERVATION

NATIONAL FOREST LANDS

NATIONAL FOREST LANDS

NATIONAL FOREST LANDS

NATIONAL FOREST LANDS

DINOSAUR NAT'L MONUMENT

OURAY NATIONAL WATERFOWL REFUGE

MYTON BENCH

Manila
Flaming Gorge Res
Dutch John
Green River
Vernal
Jensen
Roosevelt
Starvation Res
Myton
Duchesne
Ouray
Pelican Lake
White River

R 17 E R 18 E R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E

T 3 N T 2 N T 1 N T 1 S T 2 S T 3 S T 4 S T 5 S T 6 S T 7 S T 8 S T 9 S T 10 S T 11 S

R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E

SECTIONED TOWNSHIP

SCALE 1:250,000

0 5 10 15 20 25
MILES

DIAMOND MOUNTAIN RESOURCE AREA

MANAGEMENT PRIORITY AREAS — ALTERNATIVE A

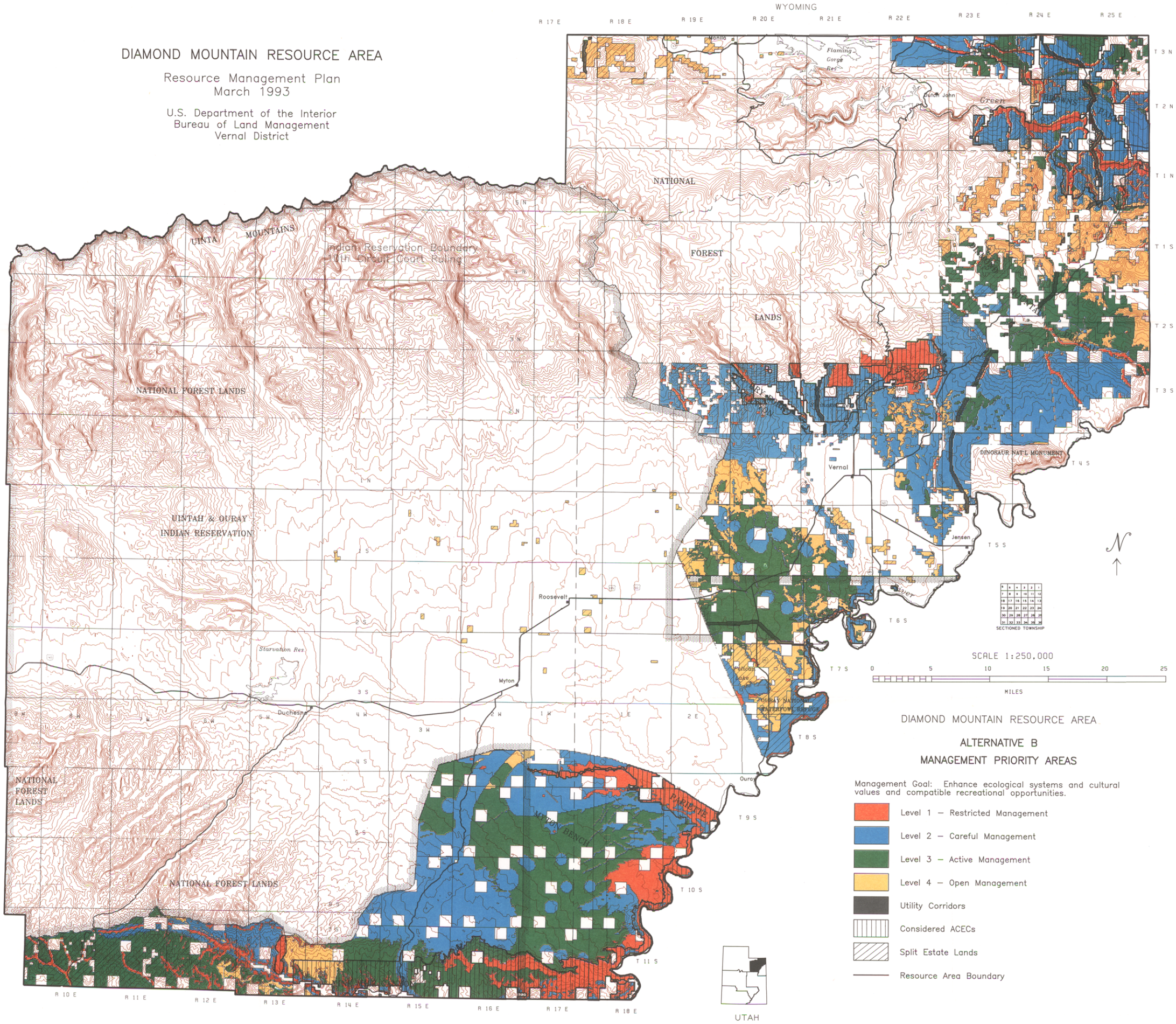
Management Goal: Current Management

- Level 2 — Careful Management
- Level 3 — Active Management
- Level 4 — Open Management
- Utility Corridors
- Considered ACECs
- Split Estate Lands
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
March 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District



DIAMOND MOUNTAIN RESOURCE AREA

ALTERNATIVE B

MANAGEMENT PRIORITY AREAS

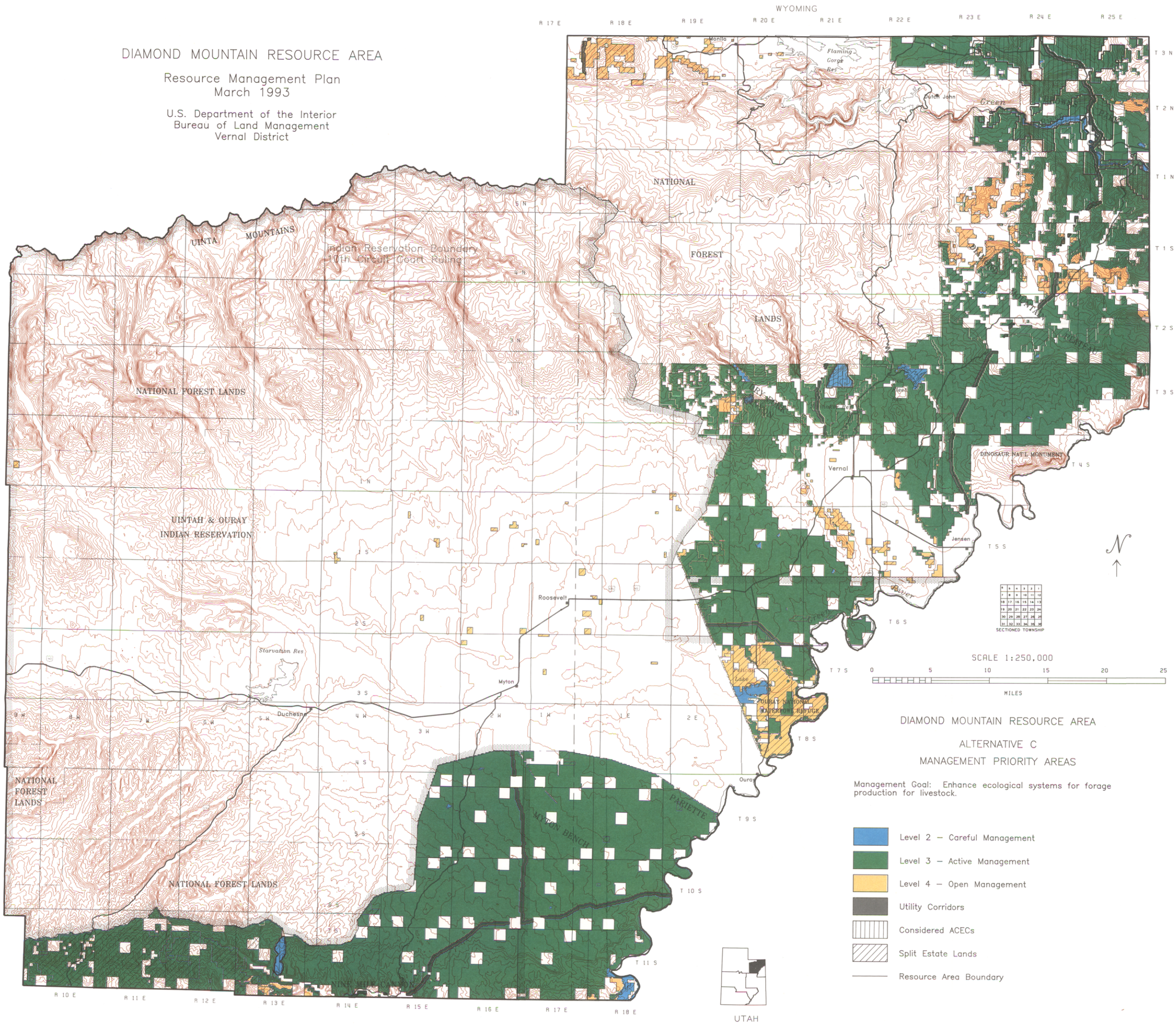
Management Goal: Enhance ecological systems and cultural values and compatible recreational opportunities.

- Level 1 – Restricted Management
- Level 2 – Careful Management
- Level 3 – Active Management
- Level 4 – Open Management
- Utility Corridors
- Considered ACECs
- Split Estate Lands
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
March 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District



DIAMOND MOUNTAIN RESOURCE AREA

ALTERNATIVE C

MANAGEMENT PRIORITY AREAS

Management Goal: Enhance ecological systems for forage production for livestock.

- Level 2 – Careful Management
- Level 3 – Active Management
- Level 4 – Open Management
- Utility Corridors
- Considered ACECs
- Split Estate Lands
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
March 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District

WYOMING

COLORADO

UTAH

Indian Reservation Boundary
With Circuit Court Ruling

SCALE 1:250,000

0 5 10 15 20 25
MILES

SECTIONED TOWNSHIP

DIAMOND MOUNTAIN RESOURCE AREA

MANAGEMENT PRIORITY AREAS — ALTERNATIVE D

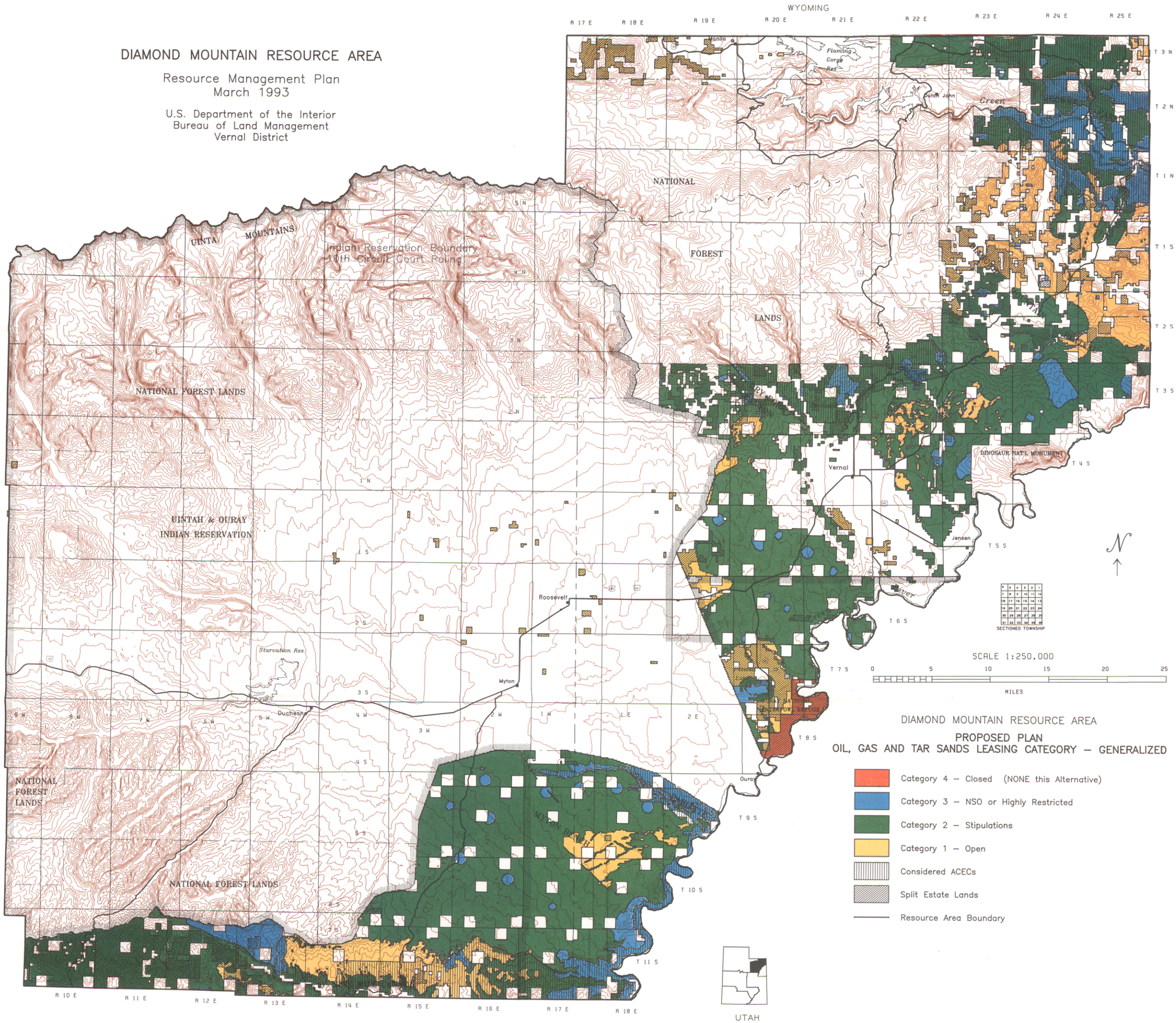
Management Goal: Enhance Opportunities for Mineral Exploration and Development.

- Level 2 — Careful Management
- Level 3 — Active Management
- Level 4 — Open Management
- Utility Corridors
- Considered ACECs
- Split Estate Lands
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
March 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District



SECTIONED TOWNSHIP

SCALE 1:250,000

0 5 10 15 20 25

MILES

DIAMOND MOUNTAIN RESOURCE AREA

PROPOSED PLAN
OIL, GAS AND TAR SANDS LEASING CATEGORY — GENERALIZED

- Category 4 — Closed (NONE this Alternative)
- Category 3 — NSO or Highly Restricted
- Category 2 — Stipulations
- Category 1 — Open
- Considered ACECs
- Split Estate Lands
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
March 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District

WYOMING

COLORADO

UTAH

UINTA MOUNTAINS

NATIONAL FOREST LANDS

UINTAH & OURAY INDIAN RESERVATION

Indian Reservation Boundary
10th Circuit Court Ruling

Manila
Flaming Gorge Res
Dutch John
Green
Vernal
Jensen
Roosevelt
Starvation Res
Myton
Duchesne
Ouray
DINOSAUR NAT'L MONUMENT
Uinta
Lake Fork

R 17 E R 18 E R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E
R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E
T 3 N T 2 N T 1 N T 1 S T 2 S T 3 S T 4 S T 5 S T 6 S T 7 S T 8 S T 9 S T 10 S T 11 S
1 N 2 N 3 N 4 N 5 N 1 W 2 W 3 W 4 W 5 W 6 W 1 E 2 E 1 S 2 S 3 S 4 S 5 S 6 S 7 S 8 S

SECTIONED TOWNSHIP

SCALE 1:250,000

0 5 10 15 20 25
MILES

DIAMOND MOUNTAIN RESOURCE AREA

PROPOSED PLAN
SOLID MINERALS LEASING AND SALES CATEGORY — GENERALIZED

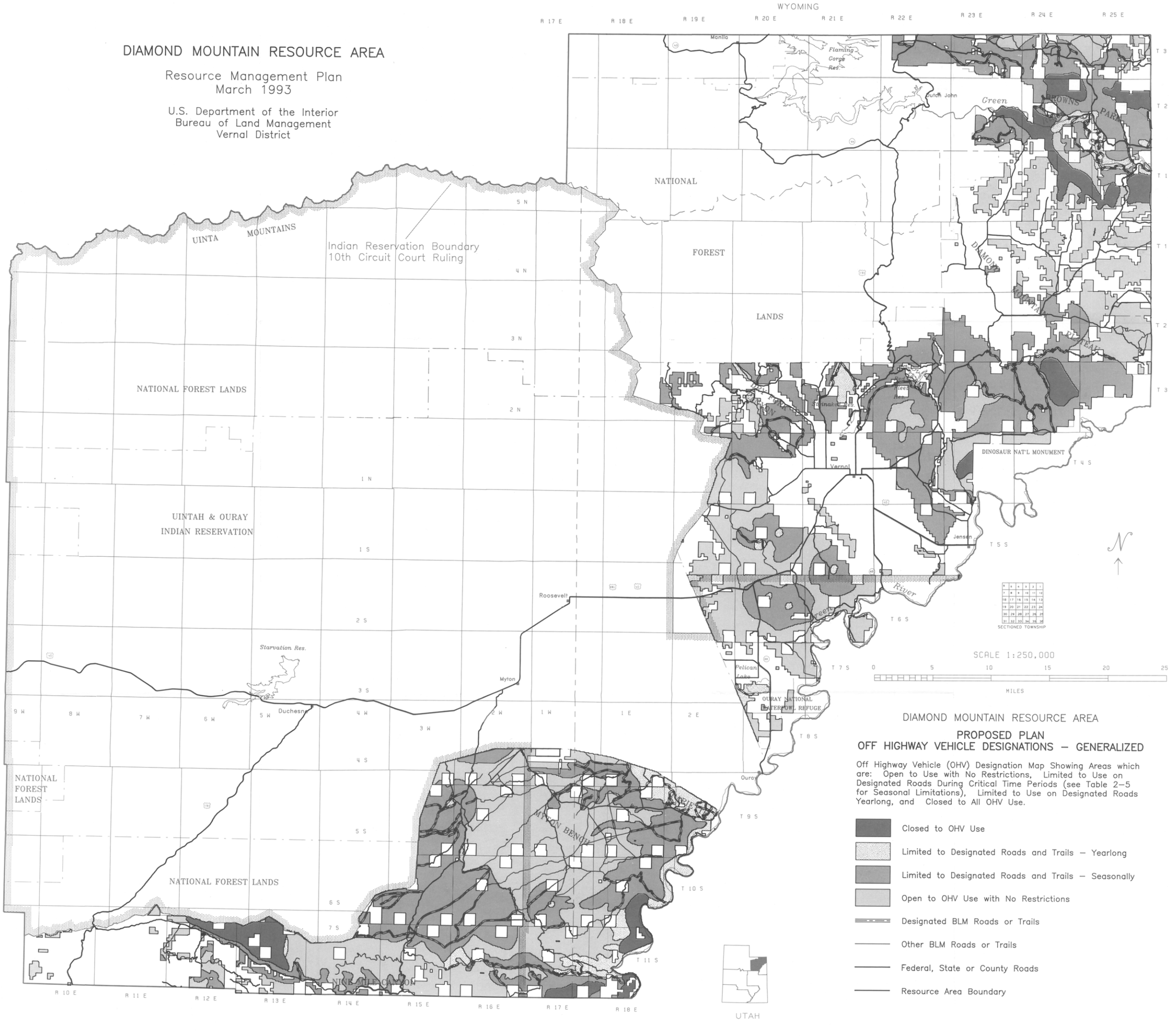
Solid Leasable Minerals Leasing and Sales Category map showing lands that are: 1> Open under standard conditions; 2> Open with stipulations; 3> Open with No Surface Occupancy (NSO) or Highly Restricted by stipulations; or 4> Closed. Note: Tar Sands are included in the Oil and Gas Category Map. Under this RMP, Category 4 and 3 lands may be open to Mineral Material Sales after site specific review.

- Category 4 — Closed
- Category 3 — NSO or Highly Restricted
- Category 2 — Stipulations
- Category 1 — Open
- Considered ACECs
- Split Estate Lands
- Resource Area Boundary

DIAMOND MOUNTAIN RESOURCE AREA

Resource Management Plan
March 1993

U.S. Department of the Interior
Bureau of Land Management
Vernal District



DIAMOND MOUNTAIN RESOURCE AREA

PROPOSED PLAN
OFF HIGHWAY VEHICLE DESIGNATIONS — GENERALIZED

Off Highway Vehicle (OHV) Designation Map Showing Areas which are: Open to Use with No Restrictions, Limited to Use on Designated Roads During Critical Time Periods (see Table 2–5 for Seasonal Limitations), Limited to Use on Designated Roads Yearlong, and Closed to All OHV Use.

- Closed to OHV Use
- Limited to Designated Roads and Trails — Yearlong
- Limited to Designated Roads and Trails — Seasonally
- Open to OHV Use with No Restrictions
- Designated BLM Roads or Trails
- Other BLM Roads or Trails
- Federal, State or County Roads
- Resource Area Boundary