United States Department of the Interior
Bureau of Land Management

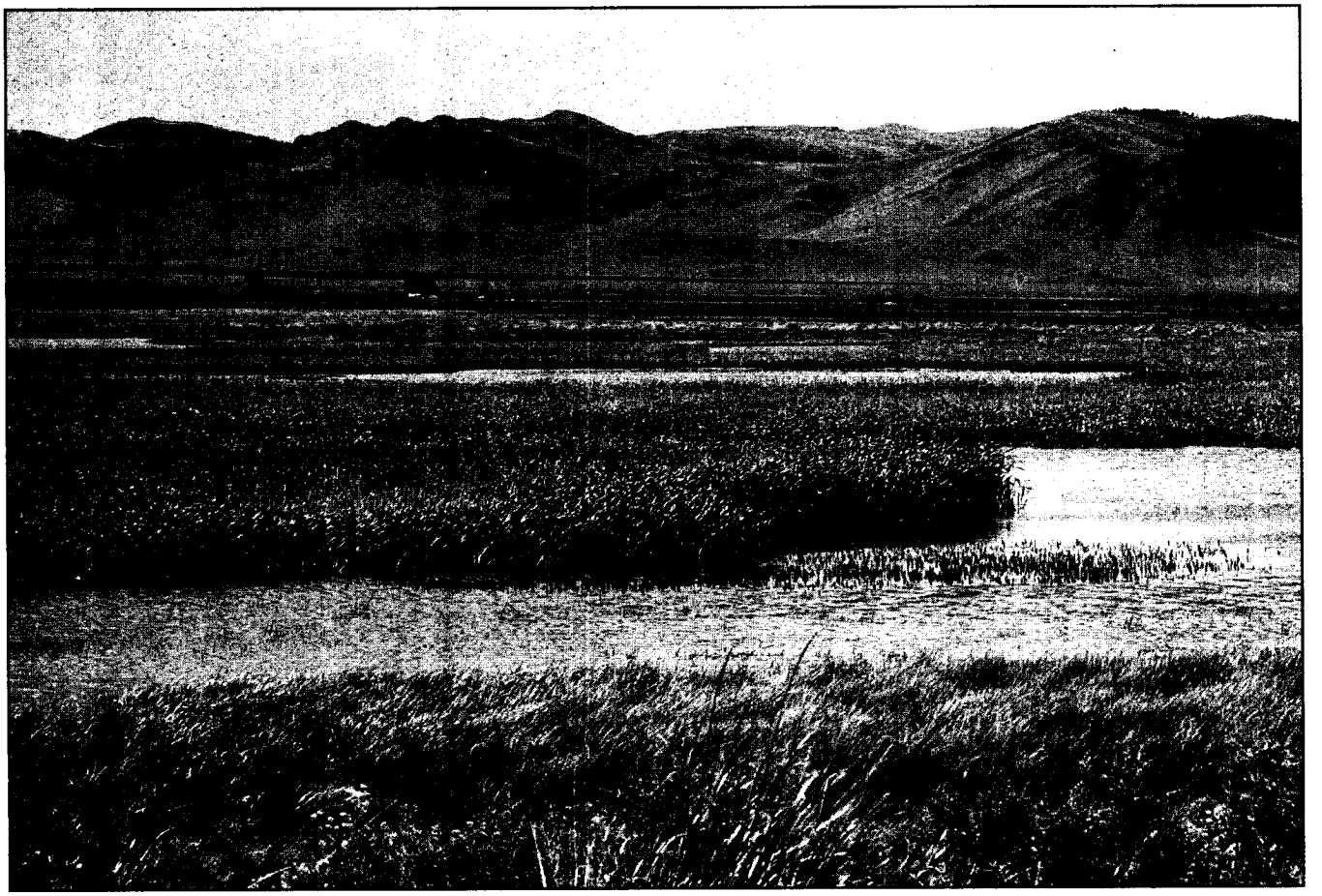
Challis Resource Area
Upper Columbia - Salmon Clearwater Districts
Salmon, Idaho

October 1998

Challis Resource Area

Proposed Resource Management Plan and Final Environmental Impact Statement

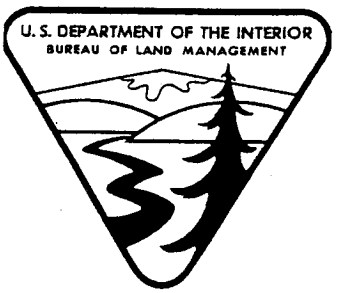
Volume 1 (of 2) - Chapters 1 and 2, Proposed RMP, Glossary, Maps



Chilly Slough Wetland

The BLM Mission Statement

"The Bureau of Land Management sustains the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations."



BLM/ID/PT-96/008+1610-1790, 1998

Challis Resource Area

Proposed Resource Management Plan
and
Final Environmental Impact Statement

October 1998

Prepared by:

United States Department of the Interior
Bureau of Land Management
Idaho State Office
Upper Columbia - Salmon Clearwater Districts
Challis Resource Area
Salmon, Idaho

Trift U. Rennebaum
District Manager

Martha G. Hahn
State Director, Idaho

Challis Resource Area

Resource Management Plan
and
Environmental Impact Statement

Document Status: Draft ( ) Final (X)

Lead Agency: United States Department of the Interior
Bureau of Land Management

Type of Action: Administrative (X) Legislative ( )

Action Location: Challis Resource Area, Upper Columbia - Salmon Clearwater Districts, BLM
Lemhi and Custer Counties, State of Idaho

Abstract: The Challis Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) describes the Bureau of Land Management's proposed plan for managing approximately 792,567 acres of public lands administered by the BLM within the Challis Resource Area. The PRMP/FEIS is based on the Preferred Alternative (Alternative 2) described in the Challis Draft RMP/EIS (BLM, May 1996), as modified in response to public and tribal comments and internal BLM recommendations. It describes changes from and corrections to the Challis Draft RMP/EIS, updates the discussion of the affected environment, provides an analysis of environmental consequences for the Proposed RMP, and records public comments and responses. The PRMP/FEIS incorporates the Draft RMP/EIS by reference and should be used in conjunction with that document.

For Further Information Contact: Kathe Rhodes, Resource Management Plan Coordinator
Bureau of Land Management
Route 2, Box 610
Salmon, Idaho 83467
(208) 756-5440

Review Period: The public review period for the Challis Proposed Resource Management Plan and Final Environmental Impact Statement is 30 calendar days. The 30-day review period shall begin when the Environmental Protection Agency publishes a notice of the filing of the Proposed RMP/Final EIS in the *Federal Register*. Comments, including names and street addresses of respondents, will be available for public review at the above address during regular business hours (7:30 a.m. to 4:15 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Upper Columbia - Salmon Clearwater Districts
Challis Resource Area
Route 2, Box 610
Salmon, Idaho 83467

In Reply Refer To:

1610/1793 (045)

October 1998

Dear Reader:

Enclosed for your information is the Challis Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS). The PRMP/FEIS is a refinement of the Preferred Alternative (Alternative 2) and accompanying environmental consequences discussion contained in the Challis Draft Resource Management Plan and Environmental Impact Statement (BLM, May 1996), with consideration given to public and tribal comments and BLM internal recommendations. In addition to describing the BLM's proposed management of public lands in the Challis Resource Area, the PRMP contains the BLM's proposed amendment of the Little Lost-Birch Creek Management Framework Plan, which would affect management of public lands in the Donkey Hills portion of the Big Butte Resource Area.

The PRMP/FEIS describes changes from and corrections to the Challis Draft RMP/EIS, updates the discussion of the affected environment, provides an analysis of environmental consequences for the Proposed RMP, and records public comments and responses. The PRMP/FEIS restates portions of the Draft RMP and EIS that are critical to understanding the Proposed Plan and its analysis of environmental consequences. Other information included in the Draft RMP/EIS is incorporated by reference into this PRMP/FEIS.

Anyone interested in protesting the PRMP must do so by close of business 30 days after the Notice of Availability is published in the *Federal Register*. See "Protest Procedures" on the following pages for more detailed protest information.

Following the 30-day protest period, the Governor of Idaho's consistency review, resolution of any protests, and review of comments on the FEIS, the RMP will become final. The Record of Decision for the approved Resource Management Plan will then be prepared.

We want to thank the tribes, individuals, groups, and agencies who attended public meetings and who took time to provide either oral or written comments during the last several years.

Sincerely,

Renee Snyder

Renee Snyder,
Area Manager

Protest Procedures

The resource management planning process includes an opportunity for administrative review via a plan protest to the BLM Director if you believe the approval of a proposed RMP or plan amendment would be in error. (See 43 CFR 1610.5-2.) Careful adherence to these guidelines will assist in preparing a protest that will assure the greatest consideration to your point of view.

Only those persons or organizations who participated in our planning process leading to the Challis Proposed RMP and amendment of the Little Lost-Birch Creek MFP may protest. If our records do not indicate that you had any involvement in any stage in the preparation of the Challis Proposed RMP and amendment of the Little Lost-Birch Creek MFP, your protest will be dismissed without further review.

A protesting party may raise only those issues which he or she submitted for the record during the planning process. New issues raised in the protest period should be directed to the Upper Columbia-Salmon Clearwater Districts Manager or the Challis Area Manager for consideration in plan implementation, as potential plan amendments, or as otherwise appropriate.

The period for filing a plan protest begins when the Environmental Protection Agency publishes in the *Federal Register* its Notice of Availability of the final environmental impact statement containing the proposed RMP or amendment. The protest period extends for 30 days. There is no provision for any extension of time. To be considered "timely," your protest must be postmarked no later than the last day of the protest period. Also, although not a requirement, we suggest that you send your protest by certified mail, return receipt requested.

Protests shall be filed with:

Director, Bureau of Land Management
Attention: Ms. Brenda Williams, Protests Coordinator
WO-210/LS-1075
Department of the Interior
Washington, D.C. 20240

The overnight mail address is:

Director, Bureau of Land Management
Attention: Ms. Brenda Williams, Protests Coordinator (WO-210)
1620 L Street, N.W., Room 1075
Washington, D.C. 20036
[phone: 202/452-5110]

To expedite consideration, *in addition to the original* sent by mail or overnight mail, **a copy of the protest** may be sent by

FAX to 202/452-5112; or
E-mail to bhudgens@wo.blm.gov

WO-210 will immediately acknowledge receipt of the protest and FAX/e-mail a copy to the appropriate State Director and the assigned Planning, Assessment, and Community Support (PACS) Field Support Staff.

Protests filed late, or filed with the State Director, or District, Field, or Area Manager, shall be rejected by WO-210.

In order to be considered complete, your protest must contain, at a minimum, the following information:

1. The name, mailing address, telephone number, and interest of the person filing the protest.

2. A statement of the issue or issues being protested.

3. A statement of the part or parts of the Challis Proposed RMP or Little Lost-Birch Creek MFP amendment being protested. To the extent possible, this should be done by reference to specific pages, paragraphs, sections, tables, maps, etc. included in the document.

4. A copy of all documents addressing the issue or issues that you submitted during the planning process or a reference to the date the issue or issues were discussed by you for the record.

5. A concise statement explaining why the BLM State Director's decision is believed to be incorrect. *This is a critical part of your protest.* Take care to document all relevant facts. As much as possible, reference or cite the planning documents, environmental analysis documents, and available planning records, *(i.e.*, meeting minutes or summaries, correspondence, etc.). A protest which merely expresses disagreement with the Idaho State Director's proposed decision, without any data will not provide us with the benefit of your information and insight. In this case, the Director's review will be based on the existing analysis and supporting data.

Proposed RMP/Final EIS: Content and Organization

The Challis Proposed RMP/Final EIS (PRMP/FEIS) is organized into two volumes, as described below. The document is numbered consecutively, with the exception of maps, which have map numbers but no page numbers. A table of contents is included at the beginning of each volume, and an index to the entire PRMP/FEIS is provided at the end of **Volume 2**. The dividers to some sections (Proposed RMP, Proposed RMP Attachments, Maps, Comment Letters and Responses) also contain an abbreviated Table of Contents to those sections.

Volume 1

Summary: Summarizes the following portions of the PRMP/FEIS: the purpose and need for action; issues and management concerns addressed; development of the Proposed RMP; the affected environment; and the environmental consequences, including a comparison of impacts between the Preferred Alternative (Draft RMP) and the Proposed RMP.

Chapter 1 - Introduction: Describes the BLM planning process for developing a resource management plan (RMP) and the purpose of and need for the Challis RMP. Lists individuals who contributed to preparation of the Challis Proposed RMP/Final EIS. Also lists corrections to the Challis Draft RMP/EIS.

Chapter 2 - Alternatives: Describes how the Proposed RMP was developed in response to tribal and public comments and BLM internal recommendations. (**Note:** Tribal and public comments and BLM responses are contained in **Volume 2, *Chapter 5***). Describes the changes between the Draft RMP/EIS - Preferred Alternative (Alternative 2) and the Proposed RMP. Compares the environmental consequences of the Draft RMP - Alternative 2 and the Proposed RMP. Any unavoidable adverse impacts are stated, including irreversible and irretrievable commitments of resources. **Note:** A complete discussion of environmental consequences is provided in **Volume 2, *Chapter 4***.

Proposed Resource Management Plan, and Attachments: Describes in detail the BLM's proposed management of land uses and resources within the Challis Resource Area.

Glossary: Defines acronyms and terms used in the text and appendices which may be unfamiliar or specialized. (Acronyms are also defined with their first usage.)

Maps: All maps referred to in the Challis Proposed RMP/Final EIS are placed in **Volume 1**. Smaller maps (8 1/2 x 11 inches) are numbered in alphabetical order by title and bound in **Volume 1.** Larger maps are folded in a maps pocket at the back of **Volume 1**.

Volume 2

Chapter 3 - Affected Environment: Discusses the existing condition of resources and programs in the Challis Resource Area. The chapter begins with background information on the Resource Area's geography, topography, and climate. Then each resource/program is described in two sections: (1) relevant law, regulation, and policy; and (2) the existing resource condition and trend (including any effects of past or on-going management).

Chapter 4 - Environmental Consequences: Discloses the physical, social, and economic consequences of implementing the Proposed RMP, using the existing condition descriptions from ***Chapter 3*** as a baseline for comparison. Describes the direct, indirect, and cumulative effects of implementing the decisions listed in the Proposed RMP and its attachments (see **Volume 1**).

Chapter 5 - Consultation, Coordination, Consistency, and Comment Letters and Responses: Summarizes the public involvement process since publication of the Draft RMP/EIS, consultation with persons and agencies, and efforts to achieve consistency. Also lists agencies, organizations, and persons to whom a copy of the Proposed RMP/Final EIS will be sent. Describes the process used to evaluate and respond to public comments. Reproduces public comment letters and provides BLM responses.

Appendices: Appendix items contain supplementary information that adds depth to the discussions in **Volumes 1** and **2.**

References: Provides the sources for material cited in the body of the Proposed RMP/Final EIS and appendices.

Index: Provides a listing by page number of various topics of interest in **Volumes 1** and **2**.

Table of Contents - Volume 1

Summary

Chapter 1 - Introduction

Chapter 2 - Proposed RMP

Challis Proposed Resource Management Plan, and Attachments

Attachments to the Challis Proposed Resource Management Plan

Glossary

Maps

Note: Maps 1 through 48 are bound in the back of Volume 1.
Maps A through H are folded and inserted in a maps pocket at the back of Volume 1.

Table of Contents - Volume 2

Chapter 3 - Affected Environment

Chapter 4 - Environmental Consequences

Chapter 5 - Consultation, Coordination, Consistency, and Comments and Responses

Appendices

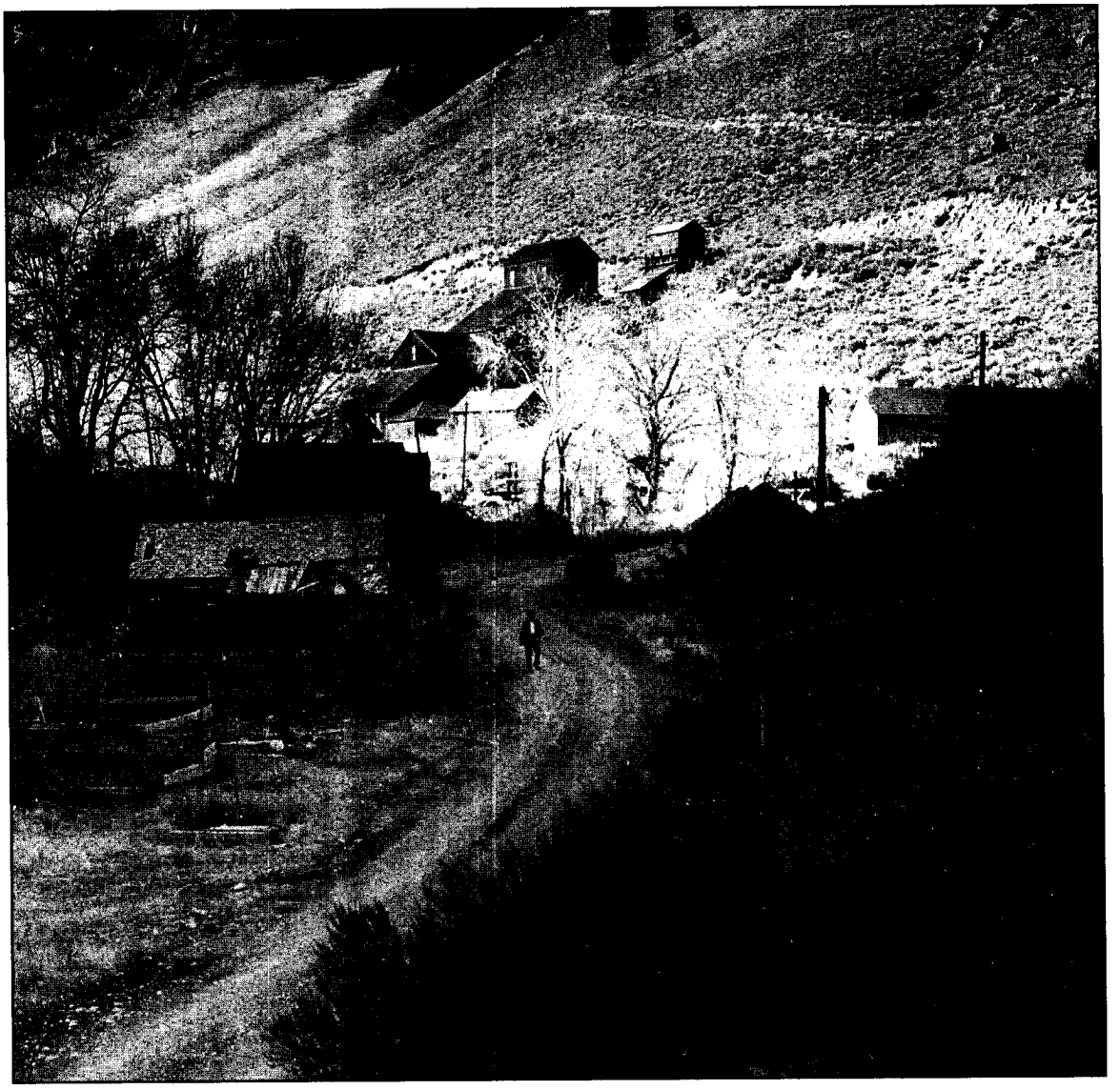
List of Tables - Volumes 1 and 2

Chapter 1

Chapter 3

Chapter 4

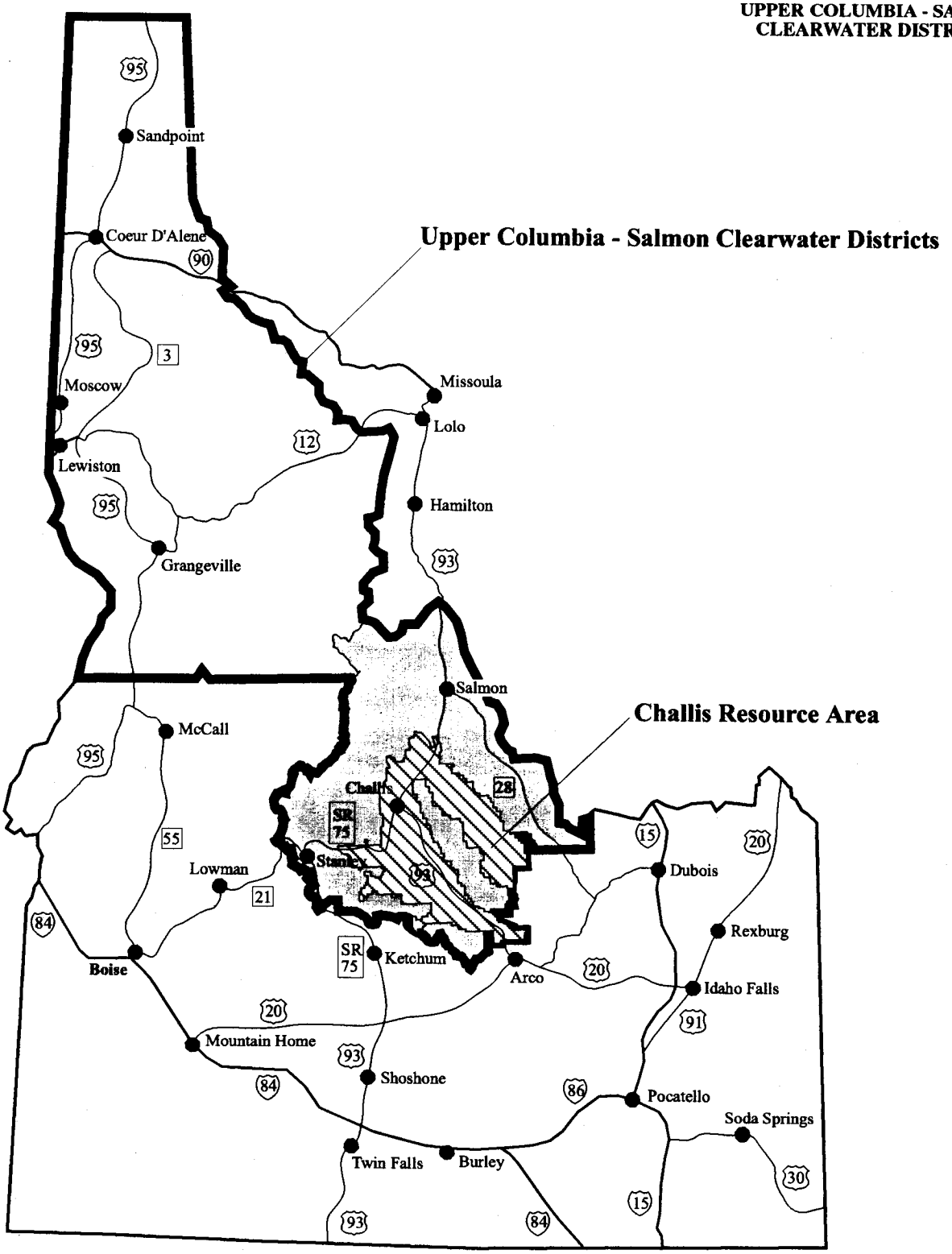
Summary



Bayhorse historic townsite, adjacent to the Challis Resource Area.

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

RMP Purpose, Need, and Implementation.

The Challis Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) describes and analyzes the Bureau of Land Management's proposed resource management of approximately 792,567 acres of BLM public lands administered by the Challis Resource Area, Upper Columbia-Salmon Clearwater Districts in Custer and Lemhi counties, Idaho (see General Location map).

The purpose of the Challis Resource Management Plan (RMP) is to identify resource condition objectives, land use allocations, and management actions and direction necessary to guide resource management on a long term, sustainable basis during the next 15 to 20 years. The resource management decisions recommended in the Proposed RMP (see **Volume** 1) are based upon approved planning criteria and adhere to BLM planning regulations.

The Challis RMP would be implemented following Plan approval, as documented in a Record of Decision. The Challis RMP would replace existing Management Framework Plans (MFPs) for the Challis Resource Area and amend the Little-Lost-Birch Creek MFP used by the Upper Snake River District - BLM; the Challis RMP may also alter decisions or directions contained in other existing BLM decision documents. RMP implementation would occur according to an implementation plan developed following signature of the Record of Decision. Some RMP decisions would require immediate action and be implemented upon signature of the approved RMP. Other Plan decisions would be implemented sometime during the 15 to 20 year life of the RMP. Still other Plan decisions would require action only when (and if) an activity is initiated externally. The approved RMP would be monitored and evaluated on an on-going basis in order to determine the effectiveness of the RMP and the need for maintenance, amendment, or revision as provided for in 43 CFR 1610.4-9 and 1610.5-4 through 5-6.

Issues and Management Concerns.

The PRMP addresses the planning issues and management concerns identified by BLM resource specialists; representatives of organizations, public interest groups, Indian tribes, and Federal, State, and local agencies; and members of the general public. The identified planning issues and related management concerns include the following.

Issues

Range Management - Rangeland management actions affecting forage allocations have the potential for conflict among competing users. Other rangeland issues, such as riparian area grazing and watershed management, have the potential for conflict over the use of resources, as well as conflict with legal requirements such as those contained in the Endangered Species Act and the Clean Water Act. Related management concerns are *Fire Management, Livestock Grazing, Noxious Weed Infestations, Rangeland Vegetation Treatment Projects, Upland Watershed, Wild Horses and Burros,* and *Wildlife Habitat.*

Water Related Resource Management - Important fish habitat for anadromous and resident fish species found in the Challis Resource Area is of concern because of its biological, recreational, traditional cultural, and economic values. Scarcity of some anadromous fish species (Snake River spring-summer chinook salmon, Snake River sockeye salmon, and Snake River steelhead rainbow trout) and resident fish species (bull trout) has resulted in their listing as threatened or endangered under the Endangered Species Act. Recovery strategies for listed species, water quality requirements prescribed by the Clean Water Act, and protection of identified beneficial uses may impact future uses of the public lands. These new emphases have the potential to create substantial public concern about the use of a resource value and possible economic impacts resulting from compliance with legal requirements. Related management concerns include *Fisheries, Floodplain/Wetland Areas, Minimum Streamflow, Riparian Areas,* and *Water Quality.*

Land Tenure and Access - Public and private lands are interspersed within the boundaries of the Challis Resource Area. Geologic landforms in the area, along with the interspersed ownership patterns, have contributed to unauthorized agricultural and occupancy use. Removal of the unauthorized use, land exchanges, or public sales of parcels of land are methods sometimes used to resolve unauthorized use conflicts. In addition, specific parcels of public land may be identified for exchange for private parcels containing important resource values. Such actions can result in public concern relating to the use or preservation of a resource, loss of a resource or environmental value, conflict over the use of resources, and concern over the increase or decrease of the public land base. The related management concern is *Land Tenure and Access.*

Special Management Areas - Special management designations vary according to the resource needs being addressed. Two kinds of special designations are being considered for the Challis RA: (1) additional Areas of Critical Environmental Concern needed to address critical elk and bighorn sheep habitats, cultural resources, sensitive plants, and fish habitat values; and (2) suitability findings which may result in Congressional designation of Wild, Scenic, or Recreational Rivers (as defined by the Wild and Scenic Rivers Act). Designating, or not designating, may lead to substantial public concern over the special management of these resource values. Related management concerns are *Areas of Critical Environmental Concern, Wilderness Study Areas - Management if Released from Wilderness Review,* and *Wild and Scenic Rivers.*

Additional Management Concerns

The following additional management concerns identified during the scoping process are also discussed in the Challis PRMP/FEIS, in order to provide complete disclosure and analysis of resources, programs, and land uses in the Challis Resource Area: *Air Quality, Biological Diversity, Cultural Resources, Forest Resources, Hazardous Materials Management, Minerals, Off-highway Vehicle Use, Paleontological Resources, Recreation Opportunities and Visitor Use, Special Status Species, Transportation, Tribal Treaty Rights,* and *Visual Resources.*

Development of the Proposed RMP.

The Challis Draft RMP/EIS described and analyzed five alternatives in detail, including the "no action" alternative (existing management). Three additional alternatives were considered during Draft RMP development, but eliminated from detailed study.

During the public comment period on the Draft RMP/EIS, the BLM received written comments from Federally recognized tribes, State agencies, various committees, businesses, and organizations, and members of the general public. Based on these written comments and internal BLM recommendations, the BLM revised the Preferred Alternative (Alternative 2) described in the Draft RMP. The BLM considered one additional alternative (no timber harvest) during development of the PRMP, but eliminated this option from detailed study.

The BLM made the following changes to the Preferred Alternative when developing the Proposed RMP:

- Off-highway vehicle use limitations were expanded, in order to reduce the surface disturbance and other impacts of off-road vehicle travel on vegetation, soils, wildlife, cultural, fisheries, and other resources. The PRMP limits OHV use on the entire Resource Area to existing roads, vehicle ways and trails, unless more restrictive area limitations or closures apply.

- Various decisions were revised to (a) clarify the BLM's intent, (b) improve the BLM's ability to measure and implement the actions consistently, and (c) provide an overall increase in protection of upland, riparian, and aquatic habitats.

- Emphasis on watershed assessment as a component of integrated resource activity planning and site-specific project planning was incorporated as a standard operating procedure.

Affected Environment.

This section summarizes the existing condition of the physical, biological, and socioeconomic environment in the Challis Resource Area.

Geography, Topography, and Climate

The steep, incised character of principal drainages in the RA limits human access and influences wildlife and livestock utilization patterns. The general relief of the area varies from nearly flat on the valley floors of major drainages to nearly vertical cliffs on the mountains. Elevations range from about 4,600 feet to 10,100 feet and growing seasons vary from 60 to 100 days. The climate is characterized by abundant sunshine, low humidity, and high evaporation. Average annual precipitation ranges from about 7.5 inches (the lowest in Idaho) at Challis (elevation 5,200 feet) to 25 inches at Jerry Peak (elevation 10,100 feet), with an estimated average of 10 to 15 inches. Drought cycles are typical of the Intermountain West, and can affect the growth and vigor of plants and animals and limit free water availability from surface water sources such as springs,

creeks, and seeps. Average temperatures range from a high of 68 °F in July to a low of 18 °F in January, with extremes from -33 °F to 103 °F.

Affected Resources or Programs

Air Quality: Air quality in the RA is generally believed to be excellent. Air quality degradation occasionally occurs in the RA, but it is usually seasonal, short-term, and localized.

Areas of Critical Environmental Concern/Research Natural Areas (ACECs/RNAs): Eight ACECs totalling approximately 14,021 acres have been designated in the Challis RA to highlight various values and resources for management and protection: unique plant communities, petrified trees, fragile soils, and a bighorn sheep population. These ACECs include approximately 5,975 acres of RNAs designated for study of natural, pristine, or unique characteristics. The ACEC values in all ACECs are in good to excellent condition with stable trend, except for the 896-acre Thousand Springs ACEC, where the ACEC values are in fair condition with upward trend. The Challis PRMP would expand the Thousand Springs ACEC and would designate approximately 73,916 acres in seven additional ACECs, in order to highlight the following resources for management and protection: unique plant communities; fragile soils; a geological area of interest; unique riparian areas; fisheries habitat; roadless, primitive and scenic values; crucial bighorn sheep habitat; crucial elk habitat; and unique cultural resources.

Biological Diversity: Genetic diversity - The Challis RA contains several species or subpopulations of plants, fish, and wildlife which are ecologically or geographically isolated and limited to this general area. These species or subpopulations have a high probability of significant genetic difference from other populations. Species diversity - Data on species diversity are limited to inventories of vertebrate animal and vascular plant species/communities. Virtually no data on invertebrate animals or nonvascular plants are available. From what is known, species diversity appears to be good, and most species have viable populations. Community diversity -The RA contains examples of a variety of biological communities, some with abundant distribution (*e.g.*, sagebrush/grasslands), and others with limited distribution (*e.g.*, riparian areas, wetlands, old growth forest, talus slopes, spring sites). Structural diversity is somewhat limited in the RA, except for forest lands. Landscape/ecosystem diversity - The steep, rugged mountainous terrain and patchy distribution of forested areas among sagebrush/grassland results in significant natural landscape diversity.

Cultural Resources: The Challis RA manages archaeological remains, historic values, and traditional lifeway values important to Native American groups. BLM lands within the RA contain 495 known, recorded cultural resource sites which represent a variety of types and chronological periods. These sites document an almost continuous occupation of the RA from at least 11,000 years ago to the present. The majority of known sites are considered eligible to be listed on the National Register of Historic Places (NRHP), and several sites are listed on the NRHP. Due to various factors such as wind and water erosion, human and animal intrusion, and development and maintenance activities, the trend of cultural site conditions in the RA is considered to be downward.

Economy and Society: The Challis PRMP/FEIS analyzes the impacts of proposed management on two distinct socio-economic regions which lie in proximity to the Challis Resource Area: The Fort Hall Indian Reservation and the Custer-Lemhi counties two-county region. The economy and society of those two regions are summarized below.

Fort Hall Indian Reservation - The 544,000-acre Fort Hall Indian Reservation, home of the Shoshone-Bannock Tribes, is located in southeast Idaho between the cities of Pocatello (pop. 46,080) to the south and Blackfoot (pop. 9,646) to the north. The townsite of Fort Hall (pop. 900) is the only major community within the Reservation. The Reservation is home to 3,035 enrolled members of the Shoshone-Bannock Tribes and 2,079 non-Indians; an additional 493 tribal members live off the Reservation. The Reservation economy is primarily comprised of economic activity related to leasing agricultural land, contracts with the Federal government, grants from Federal, state, and private sectors, and revenue derived from the Bingo Hall and Trading Post complex (grocery store, restaurant, clothing store, gas station, museum). The Reservation economy exhibits unemployment and household poverty levels far greater than the average unemployment and poverty levels for the U.S., Idaho, or four surrounding counties. Given the poverty level of the majority of people living on the Reservation, it is possible that resources hunted for, fished for, or gathered in the Challis Resource Area through the exercise of tribal treaty rights could be an important or essential component of personal subsistence for tribal members. In addition to contributing to tribal members' economic subsistence, resources from the Challis Resource Area have important social and cultural values to the Tribes.

Custer and Lemhi Counties - Custer and Lemhi counties are rural, with population concentrations in and around seven communities. The population for the two-county area is approximately 11,000 persons. The counties are quite distant from major population centers (which are one to three hours drive away) (see General Location Map). Employment and income/earnings information for Custer and Lemhi counties indicates that underemployment and poverty are common in the two-county region, generally due to a lack of full-time, yearlong, and higher-wage employment opportunities. Both counties have over 90% of the land base in public ownership and receive substantial amounts of non-local aid to support expenditures for public goods and services. The two-county region's primary economic sectors are agriculture, mining, government, business associated with visitors to the area ("tourism"), and timber. On a regional basis, the two-county economy is diverse, for four economic sectors each provide one-fourth to one-fifth of the employment and income/earnings opportunities for the region. However, most economic subregions are dependent on only one or two economic sectors for their local economy (except for the Salmon economic subregion, which has a diverse economy). This makes those subregions particularly vulnerable to downward shifts in regional, national, and international economic trends. Except for occasional "boom" or "bust" cycles in the mining industry, the regional economy exhibits only a slow rate of change. The vast majority of respondents to a recent sociological study of the area had the following attitudes regarding resource use in a community: They felt that (a) resources have value when they are used by a society to meet its wants and needs; (b) customary uses (*e.g.,* land use, water use) are either assumed to be rights or have been codified as rights (*e.g.,* through grazing allotments and water allocations); and (c) the local community should be the locus of control for decisions about resource use.

Fire Management: Fire activity due to either unplanned wildfires or prescribed fire has been low, with few acres affected and low fire intensities. As a result, vegetation habitat conditions in the RA are thought to have changed over time. Sagebrush densities on grassland habitats have probably increased, reducing forage quantity and quality. Fire suppression in forested types is thought to have changed species composition and increased ladder fuels, overstocking, stand decadence, and the risk of insect/disease epidemic or stand-replacing fire.

Fisheries: Resident salmonid populations of rainbow trout, westslope cutthroat trout, brook trout, bull trout, kokanee salmon, and mountain whitefish are broadly distributed in the RA, reflect low to moderate abundance, and, depending on the stock or population being considered, indicate either downward or relatively stable population trends. Anadromous fish populations of chinook salmon, sockeye salmon, and steelhead rainbow trout reflect low to very low abundance and show downward population trends. The Snake River sockeye salmon is Federally listed as endangered under the Endangered Species Act. The Snake River spring/summer chinook salmon, Snake River steelhead trout, and bull trout are Federally listed as threatened under the Endangered Species Act. The westslope cutthroat trout, Idaho's State fish, is managed as a sensitive species. Habitat condition ratings for major fisheries streams in the Resource Area are 50% - good, 30% - fair, and 20% - poor. Factors currently limiting resident or anadromous fisheries habitat and production in the RA include (a) fishery losses through unscreened irrigation diversions; (b) dewatering of stream channels for irrigation; (c) riparian systems which are in non-functional or functional-at-risk condition; (d) stream channel alterations; and (e) siltation.

Forest Resources: Forest lands occupy small, scattered portions of the RA and account for only 7.4% (58,461 acres) of BLM administered lands. The majority of forest habitat types are low timber productivity sites (20 to 50 cubic feet/acre/year), and all commercial forest lands (30,987 acres) are in areas which indicate management difficulties, such as fragile sites, problem reforestation sites, or adverse locations. As a result, timber harvesting in the RA utilizes shelterwood marking prescriptions (60% overstory removal) to promote natural regeneration. About 85% of forest lands are dominated by pure stands of Douglas-fir; the remaining 15% of forest land includes lodgepole pine, subalpine fir, Engelmann spruce, whitebark pine, limber pine, Ponderosa pine, quaking aspen, and black cottonwood. About 85% of forest lands are comprised of stands dominated by sawtimber size (10 inches or greater DBH) trees (even structured) in varying age classes (uneven-aged). Overstory Douglas-fir ranges from 100 to 400 years old, with an average of approximately 200 years. An estimated 50% of commercial forest land acres in the RA have old growth characteristics. The greatest forest health problem in the RA is reduced stand vigor because of overstocking as a result of fire suppression since the early 1900s. Currently, there is little demand for either commercial timber or other woodland products from the Challis RA.

Hazardous Materials Management: Of the 130 sites recently inventoried for the presence of hazardous materials, only 2 sites contained hazardous materials (outdated pesticide and contaminated soil at an unauthorized dump; old, unstable dynamite at an abandoned mine site). Those sites have been cleaned up. No designated Superfund sites are located in the RA. Containment of hazardous materials on some private lands within the Resource Area boundary is of concern on some nearby public lands.

Land Tenure and Access: The land ownership pattern is generally private lands at lower elevations and along water courses, BLM lands at mid-elevations, U.S. Forest Service (USFS) lands at higher elevations, and State of Idaho sections intermingled throughout. The BLM authorizes numerous land uses through rights-of-way grants, Recreation and Public Purposes Act leases and patents, various site withdrawals, and easements. Since 1978 only about 1,251 acres of BLM public lands have been acquired or disposed of through land tenure adjustments.

Livestock Grazing: About 97.3% (771,224 acres) of BLM-administered lands in the RA are currently allocated for livestock grazing. Eighty-four (84) livestock operators have permits to graze their livestock on the 62 allotments in the RA. Most livestock use consists of cow-calf operations grazing during the spring or fall (either before or after summer grazing on adjacent National Forests). Current active preference is 51,069 AUMs, and actual use averages 43,769 AUMs per year. Rangeland monitoring indicates management applied up until 1992 did not meet existing land use plan objectives to improve range condition Resource Area-wide, although objectives were met on some allotments. Improved grazing management implemented on 14 allotments since 1993 has resulted in observable improvement in resource conditions on those allotments.

Minerals - Locatable, Saleable, and Leasable: Locatable minerals extracted or identified in the past include tungsten, molybdenum, silver, copper, lead, barite, opaline material, and uranium. Current locatable mineral production is limited to the Thompson Creek molybdenum mine and a small decorative stone operation. Small quantities of saleable minerals (including stream sands and gravels, alluvial fan material, talus material) are sold annually to State and county road departments and independent contractors. There are no known deposits of solid leasable minerals in the RA. Except for a few sites with high potential, most of the RA is zero or low potential for fluid energy (oil, gas, or geothermal) mineral occurrence.

Paleontological Resources: A few fossil-bearing localities have been identified in the RA, including a site with petrified trees. Given the geologic nature of the RA, the potential for discovery of paleontological resources is moderate. Known paleontological resources are in a degraded condition with downward trend, due to erosional processes, fossil collecting, and off-highway vehicle damage.

Recreation Opportunities, Visitor Use, and Off-highway Vehicle Use: Challis RA public lands support numerous recreation uses, including floating, boating, fishing, hunting, camping, hiking, nature study, photography, picnicking, wildlife viewing, backpacking, rockhounding, mountain biking, cross country skiing, and off-highway vehicle (OHV) use. Most of the RA (71%) is open to OHV use without restriction; only about 2% of the RA is "closed" to OHV use. Over 99% of the RA is legally accessible to the public for recreational pursuits. Recreation resources include 19 recreation sites, 3 miles of trails, 64 miles of National Scenic Byway, 141,260 acres of Wilderness Study Areas, almost 100 miles of floatable rivers, and 50 miles of wildlife viewing routes. Most recreation use is concentrated within two Special Recreation Management Areas, one located along the Salmon River, the other at Mackay Reservoir.

Soils: Soils and soil conditions in the RA vary with local geology, topographic relief, climate, and vegetative cover. Most soils are residual - formed in place from weathered sedimentary rock, although some soils are alluvial - deposited by running water. Most soils have the relief and physical properties capable of absorbing nearly all precipitation in the area. However, overland flow and sediment transport into streams are pronounced during periods of intense thunderstorms. Although vegetation is sparse in the RA, the productive capacity ranges from 100 pounds per acre on rough, broken lands to 3,000 pounds per acre on wet meadows. Surface disturbance on some soils types can be sources of accelerated erosion if protective vegetative cover is not maintained.

Transportation: 718 miles of inventoried roads provide physical access to public, State, and private lands throughout the RA. The BLM is responsible for maintaining about 47% of these roads. Many BLM roads are in poor condition due to limited maintenance and use during saturated soil conditions when the roads are most susceptible to damage. About 63% of BLM roads are suitable for two wheel drive vehicles during good weather. Not all BLM roads have legal access for public use: 41 easements on 26 roads are needed. Other transportation facilities include 3 miles of trails, 2 authorized airstrips, and several boat ramps.

Tribal Treaty Rights: The Challis RA is entirely comprised of aboriginal and traditional lands used by the Shoshone-Bannock Tribes that were negotiated in the "Fort Bridger Treaty" of 1868 with the Eastern Band Shoshone and Bannock Tribes. As stated in the Treaty and clarified in *State v. Tinno*, the Tribes retain legal rights to hunt, fish, and gather natural resources in the Challis RA. The Tribes do not depend on commodity resources from the RA for their economic livelihood, but they do rely on BLM public lands for subsistence and cultural purposes. Treaty rights in the Challis RA may also extend to other Federally recognized tribes which have treaty language providing rights to lands in this area. Tribal treaty rights pursued on public lands in the RA include fishing for anadromous and resident game fish species, hunting large and small game, and gathering natural resources for subsistence and medicinal purposes.

Vegetation: Vegetation in the RA has many uses/demands as a resource: forage for livestock, wild horses, and big game; habitat (*e.g.,* cover, nesting areas) for wildlife; watershed and water quality protection; recreation/aesthetics (shade, naturalness); and fisheries habitat (*e.g.,* nutrient input, temperature moderation). At present, these vegetation uses are minimally affected by the invasion and spread of noxious weeds (mostly along road corridors). Upland rangeland vegetation communities are primarily comprised of bluebunch wheatgrass/big sagebrush. Upland forest communities are primarily Douglas-fir. Riparian zones within the RA can generally be identified by the existence of riparian-dependent vegetation such as cottonwoods, willows, sedges, and rushes. Twenty-seven (27) special status plant species are known to occur within or adjacent to the RA, and six more species are suspected to occur. (The Federally endangered plant species Ute ladies'-tresses orchid may occur in the RA, although its presence has not been documented to date.) Thirty-four (34) additional rare and endemic plant species are known to occur within or adjacent to the RA. The uniqueness of vascular flora in the Challis area suggests there may be unique non-vascular flora as well.

Visual Resources: The visual quality of the RA is very high, due to inherent characteristics of the area's landforms, vegetation, and land use patterns, and because there are few visual intrusions.

Some land and resource uses lower the visual quality of the RA, including power lines, gravel pits, unauthorized dumps, casual OHV use, and heavy livestock use. Existing visual resource management (VRM) classifies 42% of the RA as VRM Class IV - Modification (which allows activities which require major modification of the existing landscape), 21.5% as VRM Class III - Partial Retention (which allows activities which would partially retain the existing character of the landscape), and 36.5% as VRM Class I (Preservation) or VRM Class II (Retention) (which would retain the existing character of the landscape).

Water Resources: Recent riparian inventories indicate the condition of riparian areas is approximately 35.8% proper functioning condition, 55.7% functional-at-risk, and 8.5% non-functional. Ground water in the RA is generally believed to be of adequate quantity and good to excellent quality, suitable for all uses needed on a RA-wide basis. Surface waters originating on public lands are used for water-based recreation activities, domestic and agricultural water supplies, and maintenance of cold water fisheries and habitat. The primary water right claims for the BLM are for livestock and wildlife consumption. Most surface water in the RA originates in mountainous areas above the principal drainages and is of high quality near its source. However, depending on local land use, geology, and ground water discharge, water quality in many tributary streams becomes degraded as water travels down the mountains. Watershed erosion susceptibility in the RA is 32% low to slight, 40% moderate, and 28% high to severe.

Wilderness Study Areas: The RA contains seven WSAs totaling 142,260 acres of public lands. Portions of three WSAs (38,930 acres) were recommended by the BLM to Congress as "suitable" for wilderness designation. The values of naturalness, roadlessness, and opportunities for primitive and unconfined recreation which qualified the WSAs for designation have remained relatively unchanged. Authorized uses in WSAs include livestock grazing, off-highway vehicle use on existing roads and trails, and recreation use.

Wild Horses and Burros: The RA no longer contains a Herd Management Area for wild burros. The wild horse herd is managed to maintain 185 animals, with round-ups every other year to reduce the population to that level. The wild horse herd appears healthy and viable, with average herd size increases of 17% annually. Horses gathered during round-up are generally adopted quite readily under the BLM's "Adopt-a-Horse" program.

Wildlife: Populations of elk, mule deer, and antelope are generally stable and sufficiently abundant to be controlled by hunter harvest. Historically, bighorn sheep were abundant throughout most of the RA; however, settlement resulted in severe population decline and complete loss of some populations. The Idaho Department of Fish and Game has reintroduced bighorn sheep to some of their historic ranges and has plans for more reintroductions in the future. Various upland game species are present in the RA, including sage grouse, blue grouse, chukar partridge, mourning doves, and cottontail and pygmy rabbits. The most common waterfowl species are the Canada goose and mallard. Shorebirds include sandpipers, willets, sandhill cranes, long-billed curlews, and others. Several riparian/wetland habitats in the RA provide habitat for waterfowl and shorebirds. Approximately 307 species of vertebrate non-game, furbearing, and predatory wildlife species inhabit the RA. Raptors include golden eagles, prairie falcons, red-tail hawks, goshawks, Cooper's hawks, sharp-shinned hawks, owls, and osprey. Predators/furbearers

include the black bear, mountain lion, coyote, red fox, and bobcat. Three Federally listed threatened or endangered species are present in the RA (peregrine falcon, gray wolf, and bald eagle). One species proposed for listing as threatened is present in the RA (Canada lynx). Thirty-seven (37) species of terrestrial wildlife (mammals, birds, and amphibians) listed as "sensitive" are known to be present in the RA.

Wild and Scenic Rivers: To date, no wild, scenic, or recreational rivers have been designated within the Challis RA. The Challis RA has completed a Wild and Scenic Rivers inventory of 201 river segments, to determine their eligibility for potential inclusion in the National Wild and Scenic River System. Fifty-seven (57) rivers were found eligible for further study. Identified outstandingly remarkable values include the following resources/values: cultural, scenic, recreational, ecological, geological, wildlife, fisheries, other. The Challis Draft RMP/EIS summarizes the BLM's suitability study of these eligible segments, and the Challis PRMP/FEIS presents the BLM's proposed suitability findings.

Environmental Consequences.

The BLM's analysis of impacts indicates Proposed RMP decisions would have the following impacts on resources and land uses in the Challis Resource Area:

- ***Resource Values Maintained:*** PRMP decisions would maintain the following resource values which are already in good condition: air quality; visual quality; unique resource values on approximately 14,290 acres of existing Areas of Critical Environmental Concern (ACECs); primitive values in suitable portions of the Jerry Peak and Burnt Creek WSAs, if released from wilderness review; and wild horse populations.

- ***Protection of Resource Values Increased:*** PRMP decisions would increase the level of consideration and protection provided to known and possible cultural and paleontological resources, biological diversity, special status species, visual resources, unique resource values on about 73,916 acres of new ACECs, and Wild and Scenic Rivers values on 15 segments identified as eligible for further study or suitable for designation.

- ***Resource Conditions Improved:*** PRMP decisions would improve degraded and maintain satisfactory condition riparian and aquatic habitats, with resulting benefits to riparian soils, water quality, fisheries habitat, and riparian-dependent wildlife species. PRMP decisions would also improve the condition of upland vegetation communities, with beneficial impacts to soils, upland watersheds, most wildlife habitats, and wild horse habitat within the Herd Management Area. Decisions related to forest resource management would improve long term sustained productivity and forest health on most sites. Developed recreation opportunities would improve, as would the quality of primitive recreation experiences.

- ***Social and Economic Impacts:*** The availability and quality of trust resources of importance to Federally recognized tribes would improve. The Fort Hall Indian Reservation's economy and society may be positively affected by increased opportunity for tribal members to utilize resources to provide for personal subsistence, to obtain raw materials (to make value-added

products) and to fulfill cultural needs. Within the Custer-Lemhi counties' economy, reductions in some resource and land uses would, over the long term, improve and sustain the condition of resources which support activities related to the regional economy and society. Although the estimated quantitative impacts to the Custer-Lemhi counties' economy would not be significant (less than 1% decrease in sales, earnings, and population), the impacts to individual livestock permittees and subregions dependent on agriculture could be greater, depending on the resource values and conditions within a given allotment.

- ***Land Uses Reduced:*** Off-highway vehicle use limitations would essentially eliminate off-road vehicle travel throughout the Resource Area. PRMP decisions may result in up to a 25% decrease in estimated annual livestock use, depending on permittees' efforts to manage livestock use and distribution. Restrictions on mineral materials sales may limit the availability of new, easily accessible and low cost mineral material sites to meet public demand.

- ***Residual (Unmitigated) Resource Impacts:*** The analysis of environmental consequences indicates that cultural resources loss, disturbance, or damage may still occur in localized areas, due to (a) unauthorized collection and vandalism, or (b) land sales/transfers or surface disturbing activities on sites which were not identified during Class III intensive inventories. Some surface disturbing activities, such as road construction or campground development, would cause an irreversible and irretrievable commitment of the soil resource on a localized basis. Primitive values may decline in some portions of WSAs, if released from wilderness review; this loss of values may be irreversible and irretrievable.

Comparison of the Proposed RMP and the Preferred Alternative.

The Proposed RMP is very similar to the Preferred Alternative (Alternative 2) described and analyzed in the Draft RMP/EIS. However, the PRMP increases the level of protection to aquatic, riparian, and upland resources by limiting off-highway vehicle use to existing roads, vehicle ways, and trails throughout the Resource Area. The PRMP also clarifies numerous decisions, and thereby improves the BLM's ability to implement effective management in order to address resource concerns and improve resource conditions. Finally, the PRMP includes an emphasis on integrated resource activity planning and watershed assessment, in order to ensure that individual project proposals are considered within the context of broader landscapes. As a result of these modifications to the Preferred Alternative, the BLM believes the Proposed RMP would more rapidly and effectively improve resource conditions, while still providing for consumptive resource uses such as timber harvest, minerals exploration and development, and livestock grazing.

[this page is intentionally blank]

Chapter 1
Introduction

Resource Management Plan Description and Implementation.

This document contains a Proposed Resource Management Plan (Proposed RMP or PRMP) for managing public lands within the Challis Resource Area, Bureau of Land Management (BLM) in Idaho, and a Final Environmental Impact Statement (FEIS) which analyzes the impacts of implementing the Proposed RMP. The PRMP/FEIS is based on the Preferred Alternative (Alternative 2) described in the Challis Draft RMP/EIS (USDI - BLM, May 1996), as modified in response to public and tribal comments and internal BLM recommendations. The PRMP/FEIS incorporates the Draft RMP/EIS by reference and should be used in conjunction with that document.

A Resource Management Plan (RMP) is a document which contains a set of comprehensive decisions concerning the use and management of the BLM-administered resources in a specific geographic area during the 15 to 20 year expected life of the RMP. The decisions recommended in this Proposed RMP are based upon approved planning criteria (Challis Draft RMP/EIS, pp. 11-12) and adhere to BLM planning regulations (43 CFR 1600) and National Environmental Policy Act (NEPA) implementing regulations (40 CFR 1500). Three types of decisions are described in the Challis Proposed RMP:

1) **resource condition objectives** - the desired state the BLM would like to achieve for ecological conditions and social/economic values affected by BLM management activities and resource decisions;

2) **land use allocations** - the allowable, limited, or excluded uses for an area and the terms and conditions of such use; and

3) **management actions and direction** - the specific actions the BLM would take to achieve resource condition objectives, land use allocations, or other program or multiple use goals.

The Challis RMP would apply to approximately 792,567 acres of public lands administered by the Challis Resource Area, Upper Columbia - Salmon Clearwater Districts, BLM within Lemhi and Custer counties (see *Map 24: General Location*). The Challis Resource Area (RA) commences on the north at approximately the Hat Creek drainage, and extends southward to include the public lands in the Pahsimeroi Valley, the Big Lost River Valley to Mackay, and the Main and East Fork Salmon River valleys. The planning area is bordered almost exclusively by National Forest system lands.

The Challis RMP would be implemented following Plan approval and signing of a Record of Decision. RMP implementation would occur according to an implementation plan developed following signature of the Record of Decision. Some RMP decisions would require immediate action and be implemented upon signature of the Record of Decision for the approved RMP/FEIS. Other Plan decisions would not require immediate action, but are identified for implementation sometime during the life of the RMP (approximately 15 to 20 years). Still other Plan decisions

would require action only when (and if) an activity is initiated externally. The approved RMP would be monitored and evaluated on an on-going basis in order to determine the effectiveness of the RMP and the need for maintenance, amendment, or revision as provided for in 43 CFR 1610.4-9 and 1610.5-4 through 5-6.

Purpose of and Need for Action.

The purpose of the Challis Resource Management Plan and accompanying Environmental Impact Statement (RMP/EIS) is to identify resource condition objectives, land use allocations, and management actions and direction necessary to guide resource management on a long term, sustainable basis. The RMP is intended to fulfill requirements of Section 202 of the Federal Land Policy and Management Act (FLPMA) of 1976, which specifies the need for a comprehensive land use plan consistent with multiple-use and sustained yield objectives. The RMP/EIS is also intended to fulfill National Environmental Policy Act (NEPA) requirements to disclose and address environmental impacts of proposed major Federal actions through a public participation process and cooperation with other agencies.

The Challis RMP is an administrative action which applies to a specified management area, and is a general management plan rather than a site-specific proposal. It is expected to guide resource management in the Challis Resource Area during the next 15 to 20 years. The Challis RMP will replace the BLM's existing land management guidance for the Challis Resource Area contained in the Ellis-Pahsimeroi Management Framework Plan (MFP) (1982), the Challis MFP (1979), and the Mackay MFP (1983). The Challis RMP will also amend the portions of the Little Lost-Birch Creek MFP (1981) pertaining to management of public lands in the Donkey Hills Area of Critical Environmental Concern (ACEC) which lie within the boundaries of the Big Butte Resource Area. The Challis RMP may alter decisions or directions contained in other existing BLM decision documents.

Planning Record.

The Planning Record for the Challis RMP/EIS contains information pertinent to the planning process, such as documents used to develop the Challis RMP; the Notice of Intent; public and tribal response to scoping and the Draft RMP/EIS; planning criteria approval; records of public meetings; consultation and coordination efforts; and analysis of the management situation (except proprietary information). The Planning Record for the Challis RMP/EIS is available for public review at the Salmon Field Office - BLM, Highway 93 South, Salmon, Idaho.

Preparers.

The Challis PRMP/FEIS was prepared by an interdisciplinary team (ID team) whose members differed somewhat from the ID team who prepared the Challis Draft RMP/EIS (see Draft RMP/EIS, pp. 342-344). A "core team" had primary responsibility for preparing the PRMP/FEIS and was assisted by other members of the ID team. *Table 1-1: List of Preparers* specifies the ID team members who participated in preparation of the Challis PRMP/FEIS.

Three BLM employees provided illustrations for the PRMP/FEIS. **Steve Wright**, archaeologist with the Lemhi Resource Area, Salmon Field Office, prepared the illustrations on the Proposed RMP divider page ("multiple use"), page 106 (aquatic, riparian, and upland habitat areas), p. 207 (wickiup), p. 295 (spotted knapweed, leafy spurge), and p. 347 (lady's shoe). **Eva Teseo**, visual arts specialist with the Idaho State Office - BLM, prepared the illustrations on p. 324 (bald eagle), p. 607 (steelhead trout), and p. 631 (westslope cutthroat trout). **Glenn Elzinga**, forester for the Lemhi and Challis Resource Areas, provided the illustration of wavy leaf thelypody on page 279.

Anna Owsiak of Salmon, Idaho is credited with taking the bighorn sheep photo on page 119 and the elk photo on page 277.

Table 1-1: List of Preparers

Name	Primary RMP/EIS Responsibilities	Related Experience and Academic Credentials
Decision Maker		
Renee Snyder	Overall Management Direction.	BLM - Area Manager (6 years). B.S., Earth Science. 1980. Montana State University.
Core ID Team Members - Primary Preparers		
Kathe Rhodes	RMP Coordinator; ID Team Leader.	BLM - Planning and Envir. Coord./External Affairs (6 years); Chief - Admin. Services (3 yr.); Program/Budget Analyst (3 years).
Craig Nemeth	Technical Coordinator; Livestock Grazing; Wild Horses and Burros; Vegetation; Land Tenure; Fire Management.	BLM - Range Conservationist (20 years). B.S., Forestry. 1972. University of Montana.
Bill Diage	Water Resources (Upland Watershed, Riparian Areas, Floodplain/Wetland Areas, Water Quality, Minimum Streamflow); Soils.	BLM - Rangeland Ecologist (5 years), Soil/Vegetation Survey Party Leader (4 years), Range Conservationist (10 years). B.S., Soil Science. 1979. California Polytechnic State University, San Luis Obispo, CA.
Jerry Gregson	Wildlife; Minerals; Wilderness Study Areas; Areas of Critical Environmental Concern; Biological Diversity.	BLM - Wildlife Biologist (17 years); Range Cons. (2 years). B.S., Wildlife and Range. 1978. Arizona State University.

Name	Primary RMP/EIS Responsibilities	Related Experience and Academic Credentials
Evalyn Bennett	Writer-Editor.	BLM/USFS - Writer/Editor (6 years). U. of MT, U. of CA, U. of KY - Technical Writing (3 years). M.S. Ed., Counseling Psychology. 1986. University of Kentucky. B.A., Sociology. 1983. Dartmouth College.
Kate Forster	Fisheries.	BLM/USFS - Fisheries Biologist (7 years); IDFG - Senior Fisheries Technician (4 years). B.S., Water Resources - Fisheries. 1986. University of Wisconsin - Stevens Point.
Other Contributing ID Team Members		
Russ Riebe	Rangeland Management.	BLM - Rangeland Management Specialist (16 years); USFS - Range Technician (3 years) B.S. Forestry, Range Management. 1979. University of Montana.
Linda Clark	Cultural Resources; Tribal Treaty Rights; Paleontological Resources.	BLM, USFS, Private - Archaeologist (15 years). Master of Arts in Integrated Science (MAIS), Archaeology/Geography/Soil Science. 1988. Oregon State University. B.A., Anthropology. 1983. Eastern Washington University.
Pete Sozzi	Recreation; Wild and Scenic Rivers; Off-highway Vehicle Use; Visual Resources.	BLM - Outdoor Recreation Planner (18 years); Ranger (3 years). National Park Service - Ranger (2 years). B.S., Natural Resources Management. 1975. California Polytechnic State University - San Luis Obispo.
Glenn Elzinga	Forest Resources.	BLM - Forester (7 years); Forestry Technician (2 years). Private - Surveying Tech./Forestry Tech. (5 years). B.S., Forest Management. 1987. University of Maine - Orono.
John Martin	Economics.	USDI (BLM, Minerals Mgmt Service) - Economist (20 years). USDA - Statistician (1 year). M.S., Ag. and Natural Res. Economics. 1974. U. of NV - Reno. B.S., Agricultural Business Management. 1972. California Polytechnic State University.
Gloria Romero	Land Tenure and Access; Realty.	BLM - Realty Specialist (6 years), Range Conservationist (9 years). B.S., Range Management. 1985. New Mexico State University.
Pam Berain	Cartography.	BLM - Cartographic Technician - Mapping/GIS (15 years), Conveyances Clerk (2 years). Undergraduate studies - Earth Science. 1995-present. Boise State University, Boise, Idaho.
Cynthia Weston	Fisheries.	BLM - Fisheries Biologist (5 years). M.S., Biology (Aquatic/Fisheries Biology and Ecology). 1997. Murray State University, Murray, KY. B.S., Biology. 1988. Northland College, Ashland, WI.

Corrections to the Challis Draft RMP/EIS.

This section lists corrections to the Challis Draft RMP/EIS (USDI - BLM, May 1996); all Volume, Chapter, and page number references correspond to the Draft RMP/EIS. This list should be considered an errata sheet to the Draft RMP/EIS. When appropriate, these corrections are also incorporated in the PRMP/FEIS.

Volume 1

Chapter 1

pp. 14-16: Table 1-1 inadvertently omitted reference to the following documents which were used to prepare the Draft RMP/EIS:

"Other Agencies' Plans":
Land and Resource Management Plan for the Salmon National Forest (1988)
Land and Resource Management Plan for the Challis National Forest (1989)
"MOU's, Agreements..."
Procedures for Consultation, Cooperation, and Coordination in Matters Relating to Allotment Management Planning (BLM - Idaho and Idaho Dept. of Agriculture; April 1989)
Idaho State/BLM Exchange Strategy - Direction for a Long-term Cooperative Exchange Program (BLM - Idaho Dept. of Lands; August 1987)

Chapter 3

p. 80: In the first sentence, the date for the most recent Timber Production Capability Classification inventory should read "1984." The correct spelling of the scientific name for Douglas-fir stated in the third line of the "Forest Communities" subsection is "*Pseudotsuga menziesii*."

p. 81: The date of the source for Table 3-4 should be the 1984 Timber Production Capability Classification inventory. The correct spelling of the scientific name for mountain snowberry stated in the second-to-last-line is "*Symphoricarpos oreophilus*."

p. 91: The sixth sentence in paragraph 1 lists an incorrect CFR citation for obtaining public access. The citation should read "43 CFR 2130."

p. 125: The correct legal description for the first entry in Table 3-20 (Road Creek - Road #1902) is T9N, R20E, Sections 1 and 12.

p. 147: On the second line the word "dominant" should be "dominate."

p. 163: Table 3-35 contained an error in how the number of elk were listed. An estimated 350 to 1,550 elk are on public lands from 5/1 to 11/30, and 3,150 to 6,100 elk are on public lands from 12/1 to 4/30.

p. 172: In Table 3-36 under "Category 2 Candidate," the species listed as "North American lynx" should be named "Canada lynx."

p. 174: In the first sentence of paragraph one, Marco Creek (EF-28) was incorrectly listed as an eligible stream. Marco Creek is not free-flowing, and is therefore not eligible as a Wild and Scenic River (Challis Resource Area National Wild and Scenic Rivers Eligibility Report; March 1993, p. 19). The number of eligible segments should be "five" and the phrase "(Marco Creek (EF-28)," should be deleted.

p. 175: Table 3-37 incorrectly lists "EF-28 Marco Creek" under the column heading "East Fork Salmon R. Drainage" - Marco Creek is not an eligible stream (delete this entry).

Chapter 4

p. 184a, Alternative 2, #11: The word "cottonwood" should be hyphenated "cotton-wood."

p. 185a, Alternative 2, #14: The acreage should be "28,826" acres, not "228,826" acres.

p. 202a, Alternative 2, #19: The correct mileage for the physical road closure of the Devil's Canyon Road is 1/2-mile, not one mile (see Volume 2, Management Concern: Cultural Resource Management, Goal 1, #13, Alternative 2, p. 437a) .

p. 220b, Alternative 5, #24: The cross reference in parentheses should read "(see Roads and Transportation, #19 above)."

p. 244a, Alternative 2, #2 and 5: These analysis statements should be revised to say that no surface occupancy stipulations would apply to anadromous fish and bull trout watersheds (see Volume 2, Management Concern: Oil, Gas, Geothermal, Leasable and Saleable Minerals, Goal 1, #7, Alternative 2, p. 422a).

p. 246a, Alternative 2, #11: The analysis should be revised to say that suitable WSAs released from wilderness review would be recommended for withdrawal from locatable mineral entry (see Volume 2, Management Concern: Oil, Gas, Geothermal, Leasable and Saleable Minerals, Goal 3, #3, Alternative 2, p. 424a).

p. 253: Table 4-18 should be revised as follows, to be consistent with corrections to Management Concern: Oil, Gas, Geothermal, Leasable and Saleable Minerals, Goal 1, #4, Goal 2, #6, and Goal 3, #3 (see Volume 2 corrections below, pp. 421a/b, 423a/b, and 424a/b): Under "Oil, Gas, Geothermal" closures, add "WSAs - 140,260 acres - all alternatives" and revise the acreage totals; under "Non-energy Leasing" add "WSAs - 140,260 acres - all alternatives" and revise the acreage totals; under "Locatable Minerals" replace WSAs - 140,260 acres with "0" acres, all alternatives, and revise the acreage totals.

Chapter 5

p. 343: Table 5-1 - the related experience discussion for Frank Bird should be corrected to read "OR/WY/AK Fish & Game" rather than "OR/WA/ID Fish & Game"

Volume 2

p. 384a/b, #13, Alternatives 1-5: The reader should be referred to the riparian area management described in Management Concern: Oil, Gas.... Goal 2, #8, rather than Goal 2, #9 (see p. 424a).

p. 394a, Lake Creek (EF-13): Add fisheries as an OR value.

p. 394a/b, Alternatives 1-5, Marco Creek (EF-28): Delete these decisions, since Marco Creek is not free-flowing and is therefore not an eligible river.

p. 402b, #3, Alternative 5: Alternative 5 management should be revised to say "The Malm Gulch/Germer Basin ACEC would be closed to OHV use," to be consistent with Management Concern: Off-highway Vehicle Use, Goal 1, #2, p. 433b.

pp. 404a/b, Summit Creek ACEC, #2: To be consistent with Management Concern: Off-highway Vehicle Use, Goal 1, #2 (pp. 433a/b), Alternative 2 should read: "Motorized travel would be restricted to the Howe-May Road and the area south of the existing campground road," Alternative 3 should read: "Motorized travel would be restricted to the Howe-May Road," and Alternative 5 should read: "Same as Alternative 3."

p. 414, #10, Alternative 2: The word "seedings" should be replaced with the word "seedlings."

p. 414a, Alternative 1, #14: Existing management should be described as "Firewood cutting permits would be issued."

p. 421a/b, Alternatives 1-5, Goal 1, #4: The first sentence in parentheses should be corrected to read "Currently, all WSAs are closed to oil, gas, and geothermal leasing."

p. 423a/b, Alternatives 1-5, Goal 2, #6: Revise the sentence in parentheses to read: "Currently, all WSAs are closed to non-energy minerals leasing." Alternative 2: revise to say "... nonsuitable WSAs would be opened to non-energy minerals leasing, subject to standard stipulations."

p. 424a/b, Alternatives 1-5, Goal 3, #3: Revise the sentence in parentheses to read: "Currently, all WSAs are open to locatable mineral entry, subject to restrictions defined in the Interim Management Policy and Guidelines for Lands Under Wilderness Review (BLM 1995: 36-38);...."

p. 433a/b: #1, Alternatives 1 and 5: The beginning of the first sentence should be corrected to read "Except for the specific areas listed in #2 through 10 and #12 below...."

p. 433b, #2: Correct Alternatives 1, 2, 3, and 5 as stated below, to be consistent with management stated elsewhere in the Draft RMP (Volume 2):

Alternative 1: Add the following OHV management for existing ACECs: "The Antelope Flat, Cronk's Canyon, East Fork Salmon River Bench, Peck's Canyon, and Thousand Springs ACECs would be open to motorized vehicle use. Motorized vehicle use in the Lake Creek ACEC would be limited to existing roads and vehicle ways. Motorized vehicle travel in the Summit Creek ACEC would be limited to the existing Howe-May road, the Summit Creek campground, and areas outside the exclosure."

Alternative 2: Add the following: "In the Herd Creek Watershed ACEC, the existing trail above Herd Lake would be closed to all motorized vehicle use. In the remainder of the area, motorized vehicle use would be limited to existing roads and vehicle ways."

Alternative 3: Strike the action as written. Alternative 3 should read as follows: "Same as Alternative 2, except (a) the Birch Creek ACEC would not be designated; the Birch Creek area would be open to motorized vehicle use yearlong; (b) in the Herd Creek Watershed ACEC the existing trail above Herd Lake would be maintained for motorized vehicle use if the suitable portions of the Jerry Peak WSA are released from wilderness review; and (c) motorized travel in the Summit Creek ACEC would be restricted to the Howe-May road."

Alternative 5: Add "l) Antelope Flat ACEC" to the list of ACECs which would be closed to OHV use. Also add "In the Herd Creek Watershed ACEC, the existing trail above Herd Lake would be closed to all motorized vehicle use. In the remainder of the area, motorized vehicle use would be limited to existing roads and vehicle ways."

p. 435, #9, Alternative 5: add reference to the Malm Gulch/Germer Basin ACEC as follows: "... which overlap areas closed to OHV use (*Malm Gulch/Germer Basin*, Pennal Gulch, and Birch Creek ACECs) would be "closed" to OHV use."

p. 496 (Attachment 15): In (c), "90% angle" should be corrected to read "90 degree angle."

p. 502 (Attachment 20): In the third sentence describing level 4 maintenance, "double land" should be corrected to read "double lane."

Volume 3

Appendices

pp. 544-545: Revise the acreage for three allotments to read as follows: Warm Springs Allotment - 60,173 acres; San Felipe Allotment - 81,600 acres; and Thousand Springs Allotment - 5,670 acres.

References

p. 598: The correct spelling for the author listed as "Meyers, L.H." (two bibliographic citations) is "Myers, L.H."

Maps

Map 4 (ACECs - Alternative 1): Omits a 53-acre tract of public land in the Thousand Springs ACEC on the south side of the Trail Creek Road. This error was not corrected in the PRMP/FEIS on Map 3-1: Existing ACECs, because the tract would be difficult to view on that scale of map due to its size and location.

Map 33 - OHV Use, Alternative 5: The entire Malm Gulch/Germer Basin ACEC (see Map 7) should be cross-hatched as "closed." (The portion of the ACEC within the Upper Salmon River SRMA is incorrectly shaded as "limited to existing roads and vehicle ways yearlong.) (See Draft RMP, p. 433b, Alternative 5, #2.)

Map H: Does not reflect updated range condition data for the San Felipe and Warm Springs Allotments which were displayed in Table 3-10 and Appendix F (see PRMP, Map F: Range Condition). ***Note:*** *Map F in the PRMP reflects this more recent range condition data.*

Map K: The suitability classification of Big Lost River "A" (BL-17) should be labeled as "Scenic," rather than "Recreational" (see PRMP, Map H: Wild and Scenic River Suitability Findings).

[this page is intentionally blank]

Chapter 2
Proposed RMP

Wild Horses on BLM Public Lands

Proposed RMP Development.

BLM resource specialists; representatives of organizations, public interest groups, Indian tribes, and Federal, State, and local agencies; and members of the general public identified the following planning issues and management concerns during scoping for the Challis RMP/EIS:

Issues

Range Management - Rangeland management actions affecting forage allocations have the potential for conflict among competing users. Other rangeland issues, such as riparian area grazing and watershed management, have the potential for conflict over the use of resources, as well as conflict with legal requirements such as those contained in the Endangered Species Act and the Clean Water Act. Related management concerns are *Fire Management, Livestock Grazing, Noxious Weed Infestations, Rangeland Vegetation Treatment Projects, Upland Watershed, Wild Horses and Burros,* and *Wildlife Habitat.*

Water Related Resource Management - Important fish habitat for anadromous and resident fish species found in the Challis Resource Area is of concern because of its biological, recreational, traditional cultural, and economic values. Scarcity of some anadromous fish species (Snake River spring-summer chinook salmon, Snake River sockeye salmon, and Snake River steelhead rainbow trout) and resident fish species (bull trout) has resulted in their listing as threatened or endangered under the Endangered Species Act. Recovery strategies for listed species, water quality requirements prescribed by the Clean Water Act, and protection of identified beneficial uses may impact future uses of the public lands. These new emphases have the potential to create substantial public concern about the use of a resource value and possible economic impacts resulting from compliance with legal requirements. Related management concerns include *Fisheries, Floodplain/Wetland Areas, Minimum Streamflow, Riparian Areas,* and *Water Quality.*

Land Tenure and Access - Public and private lands are interspersed within the boundaries of the Challis Resource Area. Geologic landforms in the area, along with the interspersed ownership patterns, have contributed to unauthorized agricultural and occupancy use. Removal of the unauthorized use, land exchanges, or public sales of parcels of land are methods sometimes used to resolve unauthorized use conflicts. In addition, specific parcels of public land may be identified for exchange for private parcels containing important resource values. Such actions can result in public concern relating to the use or preservation of a resource, loss of a resource or environmental value, conflict over the use of resources, and concern over the increase or decrease of the public land base. The related management concern is *Land Tenure and Access.*

Special Management Areas - Special management designations vary according to the resource needs being addressed. Two kinds of special designations are being considered for the Challis RA: (1) additional Areas of Critical Environmental Concern needed to address

critical elk and bighorn sheep habitats, cultural resources, sensitive plants, and fish habitat values; and (2) suitability findings which may result in Congressional designation of Wild, Scenic, or Recreational Rivers (as defined by the Wild and Scenic Rivers Act). Designating, or not designating, may lead to substantial public concern over the special management of these resource values. Related management concerns are *Areas of Critical Environmental Concern*, *Wilderness Study Areas - Management if Released from Wilderness Review*, and *Wild and Scenic Rivers*.

Additional Management Concerns

The following additional management concerns identified during the scoping process are also discussed in the Challis PRMP/FEIS, in order to provide complete disclosure and analysis of resources, programs, and land uses in the Challis Resource Area: *Air Quality, Biological Diversity, Cultural Resources, Forest Resources, Hazardous Materials Management, Minerals, Off-highway Vehicle Use, Paleontological Resources, Recreation Opportunities and Visitor Use, Special Status Species, Transportation, Tribal Treaty Rights,* and *Visual Resources*.

The Challis Draft RMP/EIS described and analyzed five alternative Resource Management Plans (including the option of no action) which addressed the identified planning issues and management concerns (see Draft RMP/EIS, Volume 2). Three additional alternatives were considered during Draft RMP development, but eliminated from detailed study (see Draft RMP/EIS, p. 23).

During the public comment period for the Draft RMP/EIS, the BLM received written comments from Federally recognized tribes, State agencies, various committees, businesses, and organizations, and members of the general public (see PRMP/FEIS, Volume 2, Chapter 5). Based on these written comments and internal BLM recommendations, the BLM revised the Preferred Alternative (Alternative 2) described in the Draft RMP/EIS. The BLM considered one additional alternative (no timber harvest) during development of the PRMP, but eliminated this option from detailed study.

The BLM made the following changes to the Preferred Alternative when developing the Proposed RMP:

- Off-highway vehicle use limitations were expanded, in order to reduce the surface disturbance and other impacts of off-road vehicle travel on vegetation, soils, wildlife, cultural, fisheries, and other resources. The PRMP limits OHV use on the entire Resource Area to existing roads, vehicle ways and trails, unless more restrictive area limitations or closures apply.

- Various decisions were revised to (a) clarify the BLM's intent, (b) improve the BLM's ability to measure and implement the actions consistently, and (c) provide an overall increase in protection of upland, riparian, and aquatic habitats.

- Emphasis on watershed assessment as a component of integrated resource activity planning and site-specific project planning was incorporated as a standard operating procedure.

Amendment of the Little Lost - Birch Creek MFP.

The Challis Proposed RMP proposes to designate approximately 4,714 acres managed by the Big Butte Resource Area - BLM as part of the Donkey Hills Area of Critical Environmental Concern (ACEC). ACEC designation can only be pursued during the land use planning process, and proposed designations must be evaluated through an environmental impact statement (EIS). For this reason, the Challis PRMP/FEIS discusses (1) how proposed designation of the Donkey Hills ACEC would amend the current land use plan for the 4,714-acre affected area; and (2) the expected environmental consequences of ACEC designation in the affected area.

The acreage proposed as part of the Donkey Hills ACEC lies adjacent to the Challis Resource Area in T10N, R25E (see *Map 4: ACECs - General Location* and *Map 8: ACECs - Summit Creek ACEC/RNA and Donkey Hills ACEC*). The resources and land uses on these 4,714 acres are presently managed according to the Little Lost-Birch Creek Management Framework Plan (MFP) (USDI-BLM June, 1981). If designated as an ACEC, the 4,714-acre portion of the Big Butte RA would continue to be managed according to the Little Lost-Birch Creek MFP, *except* the decisions stated in the PRMP, ACECs - Donkey Hills ACEC, #6-12, pp. 32-33 would amend the Little Lost-Birch Creek MFP.

Affected Environment: Several resources are present and several land uses are allowed within the proposed ACEC designation area in the Big Butte Resource Area. According to information provided by the Big Butte Resource Area (USDI-BLM January 29, 1996), the Donkey Hills area is crucial big game winter range. Logging in the Donkey Hills area is deferred, because helicopter logging is currently not economically feasible and conventional logging methods would produce adverse impacts on the steep terrain. The affected area contains approximately 886 acres of productive forest land; the principal tree species is Douglas-fir. Most of the forest land is on slopes ranging from 40 to 60 percent, which limits logging opportunities by conventional methods (Lowe; personal communication March 1, 1996, and memorandum March 5, 1996). Livestock grazing is permitted in the area, but livestock use is light because of slope considerations and a lack of water. The area is open to off-highway vehicle use yearlong; however, OHV use in the area is light and only about half of OHV visits in the area are for off-road use (Boggs, personal communication, February 1, 1996). The area is open to minerals exploration and development, but minerals potential is low (Horsburgh, personal communication, Feb. 15, 1996). Fire suppression strategy is to aggressively suppress all wildfires (Martin, G. personal communication, Feb. 16, 1996). Land exchanges to acquire State-owned sections in the Little Lost Valley are a priority.

Environmental Consequences: Designating the ACEC for elk habitat values would ensure that elk habitat values are a priority consideration in land use decisions. Changing the OHV use designation from "open" yearlong to a seasonal (winter) closure and yearlong limitation to existing roads and vehicle ways would have the impacts stated below; however, these impacts are likely to be minor, since the area has historically received very little off-road or on-road vehicle use.

(a) Seasonal OHV use limitations would reduce the potential for disturbance of wintering big game animals and adverse effects from stress.

(b) Seasonal and yearlong OHV limitations may affect OHV use for recreational purposes and OHV use to access public lands for forest management, livestock management, and minerals exploration and development.

No other impacts to livestock management or minerals exploration and development would be expected. Logging in the Big Butte portion of the ACEC would continue to be deferred. Should helicopter logging become economically feasible, timber harvest stipulations would help maintain big game cover values, but put some constraints on harvest methods. Continued livestock use should not conflict with the maintenance of ACEC values, since livestock use is light. Full suppression of wildfires and general guidance for wildfire suppression tactics would help ensure maintenance of forage and cover values on big game winter habitat.

Comparison of the Proposed RMP and Preferred Alternative.

The Proposed RMP is very similar to the Preferred Alternative (Alternative 2) described and analyzed in the Draft RMP/EIS. However, the PRMP increases the level of protection to aquatic, riparian, and upland resources by limiting off-highway vehicle use to existing roads, vehicle ways, and trails throughout the Resource Area. The PRMP also clarifies numerous decisions, and thereby improves the BLM's ability to implement effective management in order to address resource concerns and improve resource conditions. Finally, the PRMP includes an emphasis on integrated resource activity planning and watershed assessment, in order to ensure that individual project proposals are considered within the context of broader landscapes. As a result of these modifications to the Preferred Alternative, the BLM believes the Proposed RMP would more rapidly and effectively improve resource conditions, while still providing for consumptive resource uses such as timber harvest, minerals exploration and development, and livestock grazing.

The following paragraphs summarize the environmental consequences of implementing the Proposed RMP. These impacts may be compared with the Summary of Environmental Consequences and Comparison of Alternatives stated in the Draft RMP/EIS (see Draft RMP/EIS, pp. 25-42).

The BLM's analysis of impacts indicates Proposed RMP decisions would have the following impacts on resources and land uses in the Challis Resource Area:

- ***Resource Values Maintained:*** PRMP decisions would maintain the following resource values which are already in good condition: Air quality; visual quality; unique resource values on approximately 14,290 acres of existing Areas of Critical Environmental Concern (ACECs); primitive values in suitable portions of the Jerry Peak and Burnt Creek WSAs, if released from wilderness review; and wild horse populations.

- ***Protection of Resource Values Increased:*** PRMP decisions would increase the level of consideration and protection provided to known and possible cultural and paleontological resources, biological diversity, special status species, visual resources, unique resource values on about 73,916 acres of new ACECs, and Wild and Scenic Rivers values on 15 segments identified as eligible for further study or suitable for designation.

- ***Resource Conditions Improved:*** PRMP decisions would improve degraded and maintain satisfactory condition riparian and aquatic habitats, with resulting benefits to riparian soils, water quality, fisheries habitat, and riparian-dependent wildlife species. PRMP decisions would also improve the condition of upland vegetation communities, with beneficial impacts to soils, upland watersheds, most wildlife habitats, and wild horse habitat within the Herd Management Area. Decisions related to forest resource management would improve long term sustained productivity and forest health on most sites. Developed recreation opportunities would improve, as would the quality of primitive recreation experiences.

- ***Social and Economic Impacts:*** The availability and quality of trust resources of importance to Federally recognized tribes would improve. The Fort Hall Indian Reservation's economy and society may be positively affected by increased opportunity for tribal members to utilize resources to provide for personal subsistence, to obtain raw materials (to make value-added products) and to fulfill cultural needs. Within the Custer-Lemhi counties' economy, reductions in some resource and land uses would, over the long term, improve and sustain the condition of resources which support activities related to the regional economy and society. Although the estimated quantitative impacts to the Custer-Lemhi counties' economy would not be significant (less than 1% decrease in sales, earnings, and population), the impacts to individual livestock permittees and subregions dependent on agriculture could be greater, depending on the resource values and conditions within a given allotment.

- ***Land Uses Reduced:*** Off-highway vehicle use limitations would essentially eliminate off-road vehicle travel throughout the Resource Area. PRMP decisions may result in up to a 25% decrease in estimated annual livestock use, depending on permittees' efforts to manage livestock use and distribution. Restrictions on mineral materials sales may limit the availability of new, easily accessible and low cost mineral material sites to meet public demand.

- ***Residual (Unmitigated) Resource Impacts:*** The analysis of environmental consequences indicates that cultural resources loss, disturbance, or damage may still occur in localized areas, due to (a) unauthorized collection and vandalism, or (b) land sales/transfers or surface disturbing activities on sites which were not identified during Class III intensive inventories. Some surface disturbing activities, such as road construction or campground development, would cause an irreversible and irretrievable commitment of the soil resource on a localized basis. Primitive values may decline in some portions of WSAs, if released from wilderness review; this loss of values may be irreversible and irretrievable.

Challis Proposed Resource Management Plan.

The following two sections contain the Challis Proposed Resource Management Plan and Attachments. The PRMP identifies the BLM's proposed resource condition objectives, land use allocations, and management actions and direction for guiding resource management of public lands within the Challis Resource Area during the next 15 to 20 years.

[this page is intentionally blank]

Challis Proposed Resource Management Plan

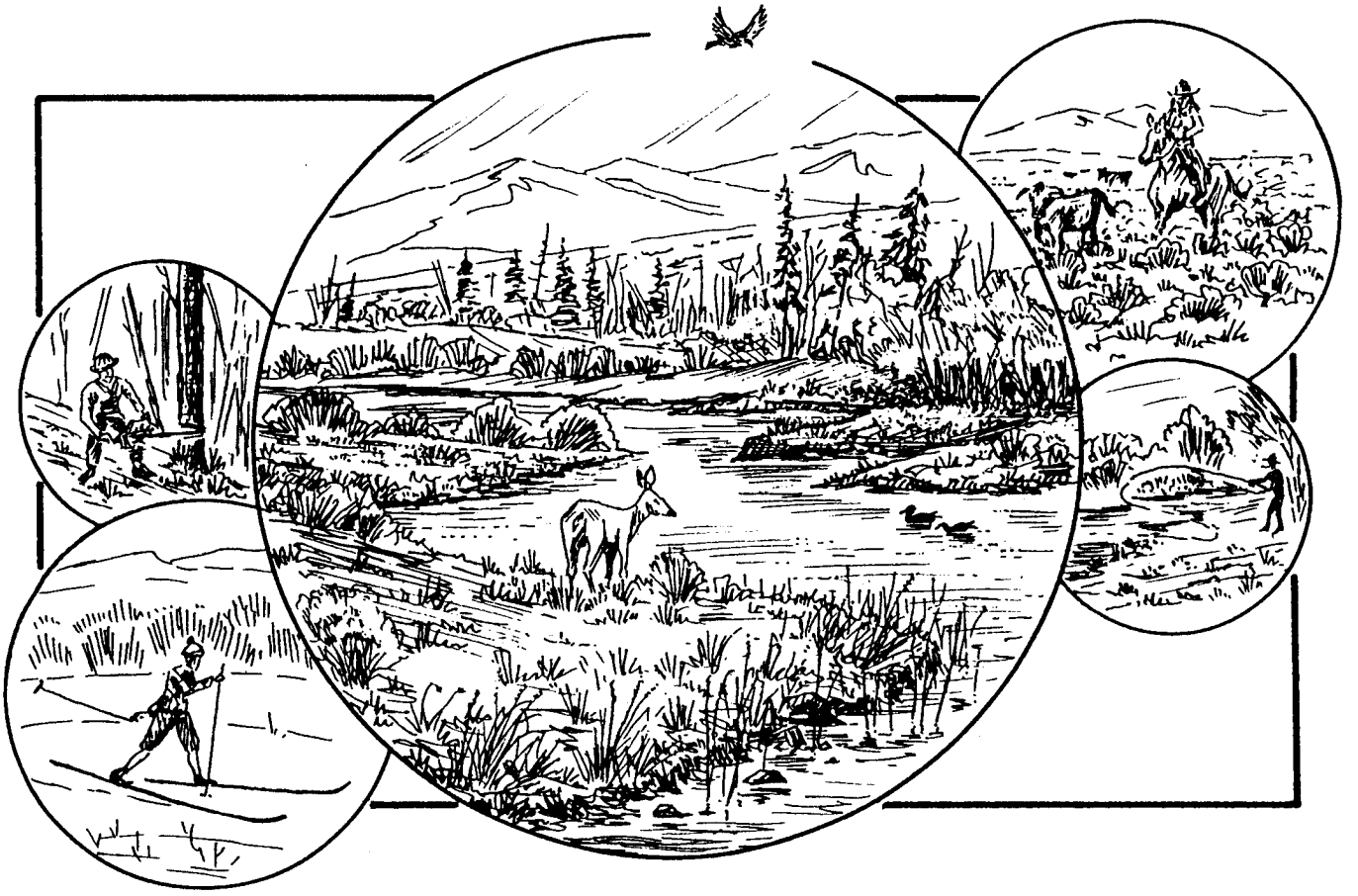


Table of Contents: Challis Proposed RMP

Challis Proposed RMP

Air Quality

Goal 1: Prevent deterioration of air quality by BLM authorized actions within the Challis Resource Area (RA).

Rationale: Under the Clean Air Act (as amended in 1977), BLM-administered lands were classified Class II. This classification allows moderate deterioration of air quality with moderate, well controlled population and industrial growth.

1. Mitigation to minimize air quality degradation would be incorporated into project proposals as necessary.

2. Air quality monitoring may be implemented by the BLM where necessary.

3. Burn plans which include incident and cumulative air quality considerations would be developed for all prescribed burn treatments.

4. The BLM would not authorize activities which would be likely to adversely affect the Class II classification of public lands within the Challis RA, or the Class I designations of the Yellowstone or Grand Teton National Parks or the Selway-Bitterroot, Sawtooth, Craters of the Moon, or Red Rock Lakes Wilderness Areas.

Areas of Critical Environmental Concern/Research Natural Areas

Goal 1: Maintain and protect important biological, cultural, scenic, and other natural systems or processes by highlighting management of areas containing these resources.

Rationale: The Federal Land Policy and Management Act directs the BLM to "protect and prevent irreparable damage to important historic, cultural, scenic, fish, and wildlife resources or other natural systems or processes, and to protect life and safety from natural hazards" through designation of Areas of Critical Environmental Concern (ACECs).

Management Decisions Common to All ACECs:

1. Require plans of operation for development of any new or existing mining claims.

2. Review any new right-of-way application to see if the proposal would negatively affect the values for which the area was designated. If so, deny the application.

3. Tracts of public land within an ACEC, if identified as available for disposal, may be exchanged for private or State lands within or adjacent to the ACEC, provided the acquired lands are of equal or greater benefit to the integrity and management of the associated ACEC.

4. Develop a land use activity plan to manage ACEC values in coordination with other resource uses and values in the ACEC, unless management would be addressed through an existing activity plan (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103).

5. Encourage studies and research, if consistent with protection of ACEC values.

6. Manage other land uses within the ACEC to reduce or eliminate negative impacts to ACEC values.

For additional decisions regarding management of ACECs/RNAs, ***also see*** Minerals, Goal 1, #5, Goal 2, #4, and Goal 3, #4 (pp. 64-66).

Additional Management Decisions, by ACEC:

Antelope Flat ACEC/RNA

Values: Unusual plant communities.

Relevance and Importance: The plant communities occurring on the Antelope Flat area are uncommon, occurring only in east central Idaho.

1. Retain designation of 588 acres as an Area of Critical Environmental Concern (ACEC) and Research Natural Area (RNA) (see *Map 5: ACECs - Antelope Flat ACEC/ RNA*).

2. Limit motorized vehicle use to existing roads and vehicle ways.

Birch Creek ACEC

Values: Crucial winter range and lambing habitat for bighorn sheep. Rare plants.

Relevance and Importance: The area provides crucial habitat for a remnant herd of approximately 50 bighorn sheep. The area is vulnerable to adverse change due to mineral development, human disturbance from motorized vehicle use, and competition with livestock for forage. Two populations of wavy leaf thelypody, a special status plant species, and one population of Lemhi milkvetch, another rare species, have been found in the area.

1. Designate 8,649 acres as an ACEC (see *Map 6: ACECs - Birch Creek ACEC*).

2. Motorized vehicle use would be prohibited during the winter/spring period between December 16 and April 30, inclusive, and limited to existing roads, vehicle ways, and trails between May 1 and December 15, inclusive.

3. Manage bighorn sheep habitat in the Birch Creek area as described in Wildlife Habitat, Goal 1, #6, p. 95.

4. Pursue acquisition of State lands within the ACEC.

5. Monitor rare plant populations.

Cronk's Canyon ACEC/RNA

Values: Relict bighorn sheep population; pristine natural plant communities.

Relevance and Importance: Yearlong habitat for a small relict bighorn sheep population. Since topographic constraints have precluded livestock use on a portion of the area, this area represents pre-grazing vegetative conditions and functions as an important comparison site.

1. Retain designation of 1,496 acres as an ACEC, of which 366 acres would be managed as an RNA (see *Map 7: ACECs - Cronk's Canyon ACEC/RNA and Dry Gulch ACEC/RNA*).

2. Continue to close the ACEC/RNA to livestock grazing.

3. Monitor plant communities.

4. Continue to close 314 acres of forest land to woodland product sales.

5. Limit motorized vehicle use to existing roads and vehicle ways.

Donkey Hills ACEC

Values: Crucial elk habitat.

Relevance and Importance: Winter range and calving habitat for 850 elk. Regionally significant hunting opportunities. Habitat essential to long term survival and viability of elk populations from several regional IDFG hunt units.

1. Designate 29,706 acres as an ACEC, including approximately 4,714 acres in the Big Butte Resource Area - BLM (see *Map 8: ACECs - Summit Creek ACEC/RNA and Donkey Hills ACEC*).

Donkey Hills ACEC Management Applying to the Designated Acreage ***in the Challis Resource Area***

2. Prohibit motorized vehicle use in the Donkey Hills ACEC during the winter/spring period between December 16 and April 30, inclusive, and limit motorized vehicle use to existing roads, vehicle ways, and trails between May 1 and December 15, inclusive. Accommodate access to private lands in the ACEC. See *Map 33: OHV Use.*

3. Consult the IDFG and appropriate Federally recognized tribes about stipulations to protect elk habitat quality prior to authorization of any actions that may affect elk habitat. Timber would be harvested in accordance with the following stipulations, to protect elk habitat quality: (a) timber would be removed by helicopter or cable logging to existing roads only - no new roads would be constructed, (b) Douglas-fir would be harvested by shelterwood or group selection cuts only, (c) clearcuts in lodgepole pine would be 10 acres or smaller, and (d) a 200-foot uncut buffer zone would be left around the edges of all harvest units. Uncut buffer zones may be harvested when cut units have regenerated sufficiently to meet elk habitat requirements.

4. Pursue acquisition of State and private lands in the ACEC, with emphasis on land exchanges and cooperative efforts with conservation organizations such as the Rocky Mountain Elk Foundation.

5. Manage elk habitat in the Donkey Hills area as specified in Wildlife Habitat, Goal 1, #6, p. 95.

Donkey Hills ACEC Management Applying to the Designated Acreage ***in the Big Butte Resource Area (Upper Snake River District - BLM) Note: Actions #6 through 12 would amend the Little Lost-Birch Creek MFP (USDI - BLM 1981).***

6. Designate approximately 4,714 acres currently managed by the Big Butte Resource Area - BLM as part of the Donkey Hills ACEC (see *Map 8: ACECs - Summit Creek ACEC/RNA and Donkey Hills ACEC*).

7. Implement management decisions common to all areas designated as ACECs (see pp. 29-30).

8. Aggressively suppress all wildfires in the Donkey Hills area to meet allowable burn acreage as follows: No fires larger than 200 acres based on values at risk. Resource advisors would be consulted on all wildfires. Design wildfire suppression tactics to minimize (a) impacts to visual, vegetative, and other resource values, and (b) expenditures of public funds.

9. Prohibit motorized vehicle travel from December 16 through April 30, and limit motorized vehicle travel the remainder of the year to existing roads and vehicle ways. Temporary exceptions to this limitation (*e.g.*, travel off-road to retrieve downed big game, cut firewood, access a campsite, park, turn around, pass another vehicle, or for emergency purposes) would be authorized as specified in Off-highway Vehicle Use, Goal 1, #1b and 1c (p. 69).

10. Participate with Challis Resource Area staff in development of a joint land use activity plan to manage elk habitat values in coordination with other resource uses and values in the ACEC (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103).

11. Pursue acquisition of State and private lands in the ACEC, with emphasis on land exchanges and cooperative efforts with conservation organizations such as the Rocky Mountain Elk Foundation.

12. Continue to defer timber harvest in the Donkey Hills area because conventional logging is not possible, due to the terrain (adverse impacts on resource values), and helicopter logging is economically unfeasible. Should timber harvest by helicopter logging become economically feasible, apply the following stipulations to protect elk habitat quality: (a) timber would be removed by helicopter logging to existing roads only - no new roads would be constructed; (b) Douglas-fir would be harvested by shelterwood or group selection cuts only; (c) clearcuts in lodgepole pine would be 10 acres or smaller; and (d) a 200-foot uncut buffer zone would be left around the edges of all harvest units.

Dry Gulch ACEC/RNA

Values: Unusual plant communities; several rare plant populations.

Relevance and Importance: This area contains the most northern known populations of three rare Challis endemic plant species. Protecting populations on the fringe of the species' distribution is important in protecting the genetic diversity of the species.

1. Designate 539 acres as an ACEC/RNA (see *Map 7: ACECs - Cronk's Canyon ACEC/RNA and Dry Gulch ACEC/RNA*).

2. Fence and maintain the northwestern spring as a natural spring (undeveloped) .

3. Maintain current slope conditions in habitat areas of sensitive plant species.

4. Limit motorized vehicle use to the existing boundary roads.

5. Monitor plant populations.

East Fork Salmon River Bench ACEC/RNA

Values: Remnant pristine vegetation.

Relevance and Importance: Although this site is small, it has a variety of plant communities in pristine condition. Livestock have been precluded from using this area because of topographic constraints. Thus, this area represents pre-grazing condition and functions as an important comparison site.

1. Retain designation of 78 acres as an ACEC/RNA (see *Map 9: ACECs - East Fork Salmon River Bench ACEC/RNA*).

2. Continue to close the area to livestock grazing.

3. Monitor plant communities.

4. Close the ACEC/RNA to motorized vehicle use.

Herd Creek Watershed ACEC/RNA

Values: Riparian recovery and demonstration area; presence of rare plants; variety of high elevation range and forest plant communities; known spawning and rearing habitat for special status steelhead trout, bull trout, and chinook salmon; roadless/primitive and scenic values.

Relevance and Importance: Approximately one mile of public land on lower Herd Creek has been fenced since 1980 as a recovery, demonstration, and control area for riparian management. Three populations of wavy leaf thelypody are known to occur in the Herd Creek watershed, the most southern edge of the species' range. The peripheral location and the range of occupied habitats make this an important area to protect and manage for the species' genetic diversity. The upper Lake Creek area also contains most of the forest habitat types common to central Idaho, as well as several range site types. A diversity of aspect and elevations within a small area create a diversity of communities, thus capturing a representation of much of the biodiversity of the Resource Area. Herd Creek is designated critical habitat for chinook salmon and important habitat for bull trout. Historically, the stream contributed more than 30% of the East Fork Salmon River's production of chinook salmon. The watershed is a wilderness study area (the Jerry Peak WSA) because of its naturalness, roadlessness, and outstanding scenic values.

1. Designate 17,943 acres as an ACEC, of which 1,055 acres would be retained as an RNA (formerly known as the Lake Creek ACEC/RNA) (see *Map 10: ACECs - Herd Creek Watershed ACEC/RNA*).

2. Maintain the existing riparian exclosure on lower Herd Creek and explore options for enlarging the exclosure.

3. Improve riparian areas along Lake Creek to proper functioning condition within 5 years (see *Attachment 1*, pp. 101-102).

4. Maintain current slope conditions in habitat areas of the wavy leaf thelypody.

5. Monitor high elevation range and forest plant communities in the upper Lake Creek area.

6. Continue to withdraw 57 acres of suitable commercial forest land in the upper Lake Creek area (T9N, R20E) from the commercial timber base. Also see management of the Jerry Peak WSA, if released from wilderness review, described in Forest Resources, Goal 1, #23, p. 52.

7. Continue to close 948 acres of forest land in the upper Lake Creek area (T9N, R20E) to woodland product sales.

8. Manage the Herd Creek watershed to reduce sediment delivery to spawning areas along Herd Creek and the East Fork Salmon River.

9. Designate the existing trail below Herd Lake and road above Herd Lake "closed" to motorized vehicle use; maintain these routes as trails for non-motorized use only. Limit motorized vehicle use in the remainder of the Herd Creek Watershed ACEC/RNA to existing roads and vehicle ways (see *Map 33: OHV Use*).

Lone Bird ACEC

Values: Numerous and unique cultural resources. Rare plants.

Relevance and Importance: The area contains a number of prehistoric sites, identified quarry sites, and excellent flakable material. Many of the prehistoric sites have evidence of deeply stratified cultural deposits and several are listed on the National Register of Historic Places. The prehistoric sites are threatened by intensive erosion, vandalism, and destructive casual use. The area is also of local and regional significance to the Shoshone-Bannock Tribes for its socio-cultural values. One population of wavy leaf thelypody, a special status plant species, and populations of two other Challis endemic plant species are found in the area.

1. Designate 9,969 acres as an ACEC (see *Map 11: ACECs - Lone Bird ACEC*).

2. Retain the existing road closure and physically close the existing road from the NE 1/4, NE 1/4 Section 13, T12N R19E to the NW 1/4, SE 1/4 Section 19, T12N R20E to prevent unauthorized use. The remainder of the ACEC would also be signed and closed to motorized vehicle use.

3. Develop management to protect cultural values.

4. Monitor populations of rare plants.

5. Close the Lone Bird ACEC to rockhounding, collection of mineral materials, and mineral material sales.

Malm Gulch/Germer Basin ACEC/RNA

Values: Concentration of rare plants; unusual plant communities; petrified forest; fragile soils.

Relevance and Importance: The Malm Gulch/Germer Basin area contains a high concentration of rare Challis endemic plant species. The paleontological values are regionally unique. Most of the area contains fragile soils that require special management consideration.

1. Retain designation of 7,823 acres as an ACEC, of which 2,643 acres would be retained as an RNA (see *Map 12: ACECs - Malm Gulch/Germer Basin ACEC/RNA*).

2. Continue to close the area to livestock grazing, except for a semi-annual one-day trailing permit.

3. Monitor wild horse use in Malm Gulch, and remove wild horses as necessary to protect the fragile watershed.

4. To reduce the hazard of erosion, limit motorized vehicle use in the ACEC to the existing road from Highway 93 to a point of closure in the NW 1/4 of Section 28, T12N, R19E.

5. Continue to withdraw 270 acres of commercial forest land from the commercial timber base.

6. Continue to close 1,136 acres of non-commercial forest land to woodland product sales.

7. Close the area to rockhounding, collection of mineral materials, and mineral material sales.

8. Monitor plant communities.

9. Provide a wayside along Highway 93 to interpret paleontological values and promote their preservation. Protect significant paleontological localities by not identifying their specific location or otherwise promoting public use of the resource.

Peck's Canyon ACEC/RNA

Values: Excellent condition plant communities.

Relevance and Importance: The area contains a large mountain mahogany stand in excellent condition. Due to the steep topography of the area, most of the other plant communities in this ACEC are also in excellent condition.

1. Retain designation of 782 acres as an ACEC/RNA (see *Map 13: ACECs - Peck's Canyon ACEC/RNA*).

2. Completely inventory the ACEC for rare plants.

3. Monitor plant communities.

4. Limit motorized vehicle use to existing roads and vehicle ways.

Pennal Gulch ACEC

Values: Rare plants; unique riparian area; unique and representative vegetation.

Relevance and Importance: Populations of the wavy leaf thelypody in the Pennal Gulch area are representative of those found in the north central portion of the species' range. The Pennal Gulch area contains four known population areas of this species, and habitat for additional populations. An unusual cottonwood community with a unique understory composition is present along a portion of the drainage channel. The area also contains many of the Challis endemic sensitive plant species, typical Challis area plant communities, and unusual associations containing rare plant species.

1. Designate 5,832 acres as an ACEC (see *Map 14: ACECs - Pennal Gulch ACEC*).

2. Limit motorized vehicle use to the existing road.

3. Monitor populations of rare plants.

Sand Hollow ACEC/RNA

Values: Fragile watershed, rare plant populations; geological area of interest.

Relevance and Importance: Soils in the Sand Hollow area are fragile and require special management consideration. The area contains a concentration of Challis endemic rare plant species. At the upper end of the Sand Hollow area are the Paint Pots, a regionally significant area that provides excellent representation of the Challis volcanics.

1. Designate 3,332 acres as an ACEC/RNA (see *Map 15: ACECs - Sand Hollow ACEC/RNA*).

2. Monitor populations of rare plants.

3. Continue to close the Sand Hollow watershed to livestock grazing and motorized vehicle use (see *Map 27: Grazing Closures* and *Map 33: OHV Use*).

4. Monitor wild horse use in the Sand Hollow watershed, and remove wild horses as necessary to protect the fragile watershed.

Summit Creek ACEC/RNA

Values: Unique wetland system, rare plants, special recreation values.

Relevance and Importance: This wetland system contains unique plant communities and associated rare species. The alkaline primrose, a special status plant species, is found in only two other locations administered by the Challis and Lemhi Resource Areas. Other plant species on the site are very rare within Idaho. The site also has values for waterfowl, fishing, and recreation. As the oldest riparian exclosure in the Resource Area, the Summit Creek RNA is of important scientific value. The site has served as a research site for several studies.

1. Retain designation of 304 acres as an ACEC, of which 230 acres would be an RNA (see *Map 8: ACECs - Summit Creek ACEC/RNA and Donkey Hills ACEC*).

2. Limit motorized vehicle use in the Summit Creek ACEC/RNA to the Howe-May road, the area south of the existing campground road, and the access route to Barney Hot Springs.

3. To mitigate impacts on special status plant species, move the Summit Creek campground facilities to the southwest side of the existing campground road. The creek and riparian area would be fenced and closed to camping and vehicle traffic, and signs would explain the reasons for the closures.

4. Encourage continued use of the area for research.

5. Develop an interpretive display identifying the unique values of the area to recreationists and explaining restrictions on use.

6. Close the ACEC to livestock grazing, and maintain fencing to exclude livestock.

7. Maintain or increase the size of occupied population areas of the five known special status plant species. Monitor populations.

8. Continue to allow noxious weed control in and around the exclosure area. Any weed control program would be done in a manner that would protect rare plant species.

Thousand Springs ACEC/RNA

Values: Unique wetland ecosystem; high value for waterfowl.

Relevance and Importance: This wetland system is unique in its plant communities, hydrology, and the habitat associated with these features. It contains regionally significant waterfowl values.

1. Retain designation of 843 acres as an ACEC, of which 233 acres would be an RNA. The isolated tract on the south side of the Trail Creek Road (53 acres) would no longer be part of the ACEC and would be identified for potential exchange for lands with comparable resource values that would enhance the integrity of the ACEC. Designate an additional 322 acres of recently acquired lands as part of the ACEC, for a total of 1,165 acres in the ACEC. (See *Map 16: ACECs - Thousand Springs ACEC*/RNA).

2. Monitor plant communities.

3. Continue to manage the ACEC in accordance with the current Chilly Slough Wetland Conservation Project Plan (see *Attachment 11,* p. 144) and the current Thousand Springs/ Chilly Slough HMP. These plans may be updated or revised as necessary (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103). Adjacent private lands with wetland values may be acquired from willing sellers, if available.

4. Livestock use may be authorized after resource objectives have been met, if agreed upon by all members of the Chilly Slough Working Group (see *Attachment 11,* p. 144). Fences would be built in cooperation with adjacent private landowners, to control livestock use on all areas of the ACEC.

5. Condemnation authority would not be used to acquire access across private lands to any part of the ACEC.

6. Limit motorized vehicle travel to existing (and newly constructed, if applicable) roads, vehicle ways, trails, and parking areas (see *Glossary*: existing roads, vehicle ways, and trails, p. 172).

For additional decisions regarding management of the Chilly Slough Wetlands Conservation Project Area, ***also see*** Recreation Opportunities and Visitor Use, Goal 1, #16, p. 76.

Biological Diversity

Goal 1: Maintain functional and repair non-functional ecological systems and processes to ensure continued sustained production of ecosystem products and values such as forage, timber, clean water, and wildlife and fisheries habitat.

Rationale: The long term ability of the ecosystem to provide products for human use and enjoyment requires maintenance of biological diversity at several scales: genetic, species, community, and landscape (see *Glossary*: biological diversity, p. 168). Management decisions to improve range and riparian condition are critical to the genetic, species, and community components of this goal, but are not reiterated here (see actions listed under the following sections of the PRMP: Fisheries, Floodplain/Wetland Areas, Livestock Grazing, Rangeland Vegetation Treatment Projects, Riparian Areas, Special Status Species, Upland Watershed, Water Quality, Wildlife Habitat). Pattern and processes at scales higher than communities (watershed, mountain ranges, regions) affect the dispersal, migration, and long term viability of organisms and the long term sustainable functioning of the natural ecosystem.

1. Include an analysis of direct, indirect, and cumulative effects to biodiversity as part of project and activity planning. The assessment would include, but is not limited to, the following: special status species; unusual or unique plant associations; potential natural, pristine, or good condition communities; important habitat for wildlife; and unique and important landscape patterns. Diversity would be assessed at the species, community, and landscape levels. Incorporate additional guidance as it becomes available.

2. Participate in the BLM's neotropical migratory bird project.

3. Assess patterns of diversity for wide-ranging species (*e.g.*, wolves, bald eagles, golden eagles, goshawks, black bear, elk) in the Resource Area's ecosystems by identifying and mapping (a) areas of fragmented habitat, barriers, and important dispersal corridors, (b) areas of non-fragmented blocks of important habitat, and (c) areas affected by landscape level processes (*e.g.*, fire, insect infestations, blow-downs). (See *Glossary* definitions: barrier, dispersal corridor, fragmented, landscape level processes; pp. 167, 170, 173, 175.)

4. Identify key ecosystem indicator species (see *Glossary*, p. 175) that require ecosystem level management.

5. During activity planning (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103), develop (a) ecosystem and biodiversity objectives, and (b) management strategies to meet the requirements for key ecosystem indicator species.

6. Develop cooperative projects with agencies and private landowners to assess and manage diversity at the landscape level across agency boundaries. Pursue partnerships with adjacent Federal agencies to develop regional goals for biodiversity management.

For additional RMP decisions regarding management of unique or representative biological resources, ***also see*** Areas of Critical Environmental Concern, Goal 1, pp. 29-39.

Cultural Resources

Goal 1: Identify and manage cultural resources for a variety of values, including information potential, public values, and conservation.

Rationale: Cultural resource management responds directly to the National Historic Preservation Act of 1966, as amended, the Archaeological Resources Protection Act of 1979, as amended, and in general to the Federal Land Policy and Management Act. The BLM's **Adventures in the Past** initiative (1990) (see *Glossary*, p. 166) promotes the preservation of public land resources and encourages scientific study through research projects which have management benefits.

1. Within two years develop a cultural resource overview of all cultural resources identified within the Challis Resource Area.

2. When conducting a watershed assessment or when developing or revising activity plans (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103), fully integrate cultural resources by (a) taking into consideration the effects of all management actions within that planning area on cultural resources; and (b) providing opportunities to manage cultural resources independent from non-cultural resource related activities.

3. Provide a level of inventory which is commensurate with the level of activities/impacts that result from activity or project planning.

4. Continue monitoring and management of cultural resources. Update site information on those sites recorded prior to development of the IMACS (Intermountain Antiquities Computer System) survey form.

5. Conduct data recovery or stabilization at critically threatened sites (in imminent danger of destruction or damage) of high scientific value.

6. Retain public lands containing cultural resources eligible to be listed in, or listed in, the National Register of Historic Places (NRHP) (see *Glossary*, p. 176) on a case-by-case basis.
7. Continue the current use allocation of the Doublesprings Area for scientific use.

8. Close the Lone Bird ACEC to rockhounding, mineral material collection, and mineral material sales.

9. Manage OHV use as follows, in order to protect cultural resources (see *Map 33: OHV Use*):

   (a) Close the Lone Bird ACEC to motorized vehicle use. Physically close the existing road in the Lone Bird ACEC from the NE 1/4, NE 1/4, Section 13, T12N R19E to the NW 1/4, SE 1/4, Section 19, T12N R20E to prevent unauthorized use. (See *Map 11: ACECs - Lone Bird ACEC.*)

(b) Physically close approximately 1/2-mile of the Devil Canyon Road to help prevent vandalism of cultural resources.

(c) To protect cultural resources and for safety reasons, limit motorized vehicle travel on the Shay Line Trestle to vehicles with a 50-inch wheel base or less and weighing 1,500 pounds or less.

(d) Limit motorized vehicle use in the Antelope Flat area to existing roads and vehicle ways yearlong.

10. Conduct a minimum of 500 acres of Class III non-project intensive inventory (see *Glossary*: cultural resource inventory classes, p. 169) annually in areas with high potential for cultural resources.

11. Prepare a patrol and surveillance plan within one year of RMP approval, for monitoring and law enforcement purposes.

12. Areas of known concentrations of human burials would be closed to livestock grazing, withdrawn from locatable mineral entry and mineral material disposal, and stipulated no surface occupancy for the purposes of energy and non-energy leasing. All areas containing Native American burial areas would be retained in public ownership.

13. Conduct a comprehensive study of rock art locations, including completion of data records, scale drawings, photographs, and descriptions.

14. Develop management practices to protect cultural values in the Lone Bird area.

Goal 2: Increase public awareness, understanding, and appreciation of the significance and value of cultural resources.

Rationale: Public education and outreach promoting sound cultural resource management and protection will help decrease instances of vandalism as well as enhance public access to cultural resources. Public awareness activities are required through amendment to the Archaeological Resources Protection Act of 1979.

1. Manage interpretive efforts consistent with State and Federal law, protecting cultural resources from adverse impacts associated with interpretive sites and providing for data recovery.

2. Develop interpretive materials for cultural resources including, but not limited to, the following: Shay Line Trestle, Crystal Townsite, Challis Bison Jump, and Salmon River sites.

3. Participate in the BLM's Heritage Education program (see *Glossary*, p. 174).

4. Participate in Adventures in the Past (see *Glossary*, p. 166) initiatives to increase public awareness of the significance of and need to protect cultural resources located on public lands.

Goal 3: Identify and manage cultural resources with high Native American traditional cultural value.

Rationale: The BLM provides for management of cultural resources in consultation with Native American groups. The National Environmental Policy Act, the Federal Land Policy and Management Act, the American Indian Religious Freedom Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act (see *Appendix E, Item 1*, pp. 638-643) provide legal requirements for coordination with Native American groups and regarding cultural resources management.

1. Coordinate with appropriate Native American groups on cultural resource values.

2. Conduct and complete an ethnographic inventory project by FY 2005 to document current and historic traditional cultural use by Native American groups.

Fire Management

Goal 1: Protect human life, property, and valuable resources from wildfire, and reduce the impacts of suppression activities. Use prescribed fire to protect property and valuable resources, improve range and timber resource conditions, and perpetuate the natural ecosystem.

Rationale: Wildfire can be a threat or a tool, depending on the potential for effects on human life, property, and resources. Unless carefully managed, suppression activities can cause greater and longer-lasting impacts on life, property, and resources than fire. Fire management guidance is provided in an annual fire management activity plan.

1. Provide initial attack and full suppression of natural and human-caused wildfires to protect life, property, and high value resources in the areas identified on *Map 23: Fire Control.*

2. Develop activity plans (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103) to direct fire suppression on a site-specific basis within the conditional suppression areas identified on *Map 23: Fire Control.* In the absence of an activity plan, provide initial attack and full suppression of natural and human-caused wildfires occurring within conditional suppression areas.

3. Design wildfire suppression tactics to minimize (a) impacts to visual, vegetative, and other resource values, and (b) expenditures of public funds.

4. Fully suppress all wildfires within mountain mahogany vegetation types to retain important bighorn sheep and other wildlife habitat. The areas supporting large blocks of this vegetation type are included as full suppression areas on *Map 23: Fire Control.*

5. When conducting fire management planning, or suppressing, controlling, or otherwise managing a wildfire or prescribed fire, design fuel treatment and fire suppression/control strategies, practices, and activities to accomplish the following objectives:

   (a) ensure progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149);

   (b) be in accordance with fire management-related SOPs (see *Attachment 5*, pp. 107-112) and suppression/rehabilitation specifications (see *Attachment 9*, pp. 124-134);

   (c) protect natural resources, consistent with other decisions in this RMP, by adhering to the following:

      (1) use motorized fire fighting equipment in accordance with the decisions listed in OHV Use, Goal 1, #1a and b, and #2-7, pp. 69-71, to the extent possible. As noted in OHV Use, Goal 1, #1c, temporary exceptions to the listed OHV limitations and closures may be granted.

      (2) in Special Management Areas (see *Glossary*, pp 182-183), in areas of fragile soils, on slopes greater than 35%, and on slopes adjacent to (within 1/8-mile of) water courses, limit the use of heavy equipment in construction of fire lines to protection of property and facilities, important wildlife habitat, known cultural/historic resources, and high value timber.

      (3) avoid retardant applications and fuel storage within 1/8-mile of riparian areas or within designated recreation sites.

      (4) do not use tractors or other heavy motorized equipment within riparian habitats.

   Under situations threatening life or property, these restrictions may be lifted by the authorized officer.

6. Fire management actions would be in accordance with "Minimum Impact Suppression Tactics" (USDA Forest Service - Northern Region 1993, or as revised) or similar fire suppression guidance (see *Attachment 9: Fire Suppression and Rehabilitation Specifications*, pp. 124-134). Locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of riparian areas (as defined in *Attachment 4,* pp. 105-106), unless a review and recommendation is made by a qualified resource advisor assigned to the incident. If the site of incident activity is located within riparian habitats (as defined in *Attachment 4)*, fire activities should not hinder progress toward attaining desired riparian and aquatic habitat conditions (see *Attachment 15*, p. 149). During pre-suppression planning, utilize an ID team to predetermine suitable incident base and helibase locations sufficient to support major incidents.

7. Within conditional suppression areas, determine where resource management objectives would be met through the use of prescribed fire to enhance ecosystem health and function and biodiversity. Develop activity plans and fire prescriptions for these areas through an ID team planning process (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans,* pp. 103). For prescribed fire proposals in areas where cheatgrass invasion is potentially high, the ID team would physically examine the site to specifically analyze the risk of cheatgrass invasion prior to finalizing the project proposal.

8. Whenever riparian habitats within areas defined in *Attachment 4* (pp. 105-106) are significantly damaged by wildfire or prescribed burning, form an emergency ID team to develop a rehabilitation plan that will ensure progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149, and ensure that the fire rehabilitation specifications listed in *Attachment 9*, pp. 124-134, are followed. Address all other fire rehabilitation on a case-by-case basis (also see Upland Watershed, Goal 1, #8, p. 88).

Fisheries

Goal 1: Ensure a natural abundance and diversity of aquatic habitats to support fisheries resources in a healthy and productive condition, to provide the continued opportunity for nonconsumptive and consumptive uses, and to ensure the viability of these species.

Rationale: The BLM is responsible for management of fish habitat on the Challis Resource Area's public lands to ensure that self-sustaining, healthy populations can be maintained. The Salmon BLM's *Fish and Wildlife 2000 Plan* (1993) provides guidance for management of fish habitat.

Management Decisions Common to All Fisheries Resources:

1. The following would be priority fish species (see *Glossary*, p. 179):

Anadromous Fish Species:

Chinook Salmon	*(Oncorhynchus tshawytscha)*
Sockeye Salmon	*(Oncorhynchus nerka)*
Steelhead Rainbow Trout	*(Oncorhynchus mykiss)*

Resident Fish Species:

Bull Trout	*(Salvelinus confluentus)*
Westslope Cutthroat Trout	*(Oncorhynchus clarki lewisii)*
Brook Trout	*(Salvelinus fontinalis)*
Rainbow Trout	*(Oncorhynchus mykiss)*
Mountain Whitefish	*(Prosopium williamsoni)*

2. Define crucial habitats for priority fish species to include migration, spawning, rearing, and overwintering habitats.

3. Identify and monitor crucial habitats and determine distribution of priority fish species within the RA, with special emphasis on drainages within watersheds currently sustaining special status fish populations.

4. (a) For all fish-bearing streams (see *Map 2: Anadromous and Resident Fisheries Occupied Habitat*), develop management strategies and objectives through the ID team process, to maintain satisfactory condition aquatic and riparian habitats and improve 90% of nonfunctional and functional-at-risk condition aquatic and riparian habitats within riparian areas defined in *Attachment 4*, pp. 105-106 (also see *Attachment 1: Riparian-Wetland Area Function Classification*, pp. 101-102).

   (b) Develop strategies, through the ID team process, to meet or exceed the minimum riparian and aquatic habitat conditions described in *Attachment 15,* p. 149.

5. Authorize population enhancement activities for priority fish species through introduction of hatchery-reared fish, only when it can be documented that the population levels and the genetic integrity of endemic wild anadromous stocks or other resident fish populations will not be adversely impacted.

6. Provide opportunity and support to the IDFG, NMFS, USFWS, USFS, BPA, appropriate Federally recognized tribes, and other partners for the cooperative management of anadromous and resident fish resources in order to promote fisheries opportunities on BLM-administered public lands, while ensuring protection of priority salmonid fish resources.

7. Maintain a "no net loss" of salmon, steelhead trout, and bull trout habitat by limiting land exchanges of salmon, steelhead trout, and bull trout habitat to like habitat of equal or greater values. Riparian, wetland, and floodplain habitat could be exchanged, but only for areas containing riparian, wetland, or floodplain habitat with equal or greater values for recreation, access, wildlife, fisheries, and biodiversity. Such exchanges would have to balance similar resource values for each individual exchange, although both tracts of land would not have to be within the boundaries of the Challis Resource Area. Where possible, land exchanges would be made to facilitate recovery of threatened or endangered species.

8. Maintain the existing riparian habitat protective exclosures on Burnt Creek, Herd Creek, Road Creek, and Corral Basin Creek as reference areas to monitor and evaluate aquatic habitat conditions.

9. Where feasible on BLM public lands, within 7 years eliminate or modify natural or artificial barriers to upstream and downstream movement of priority fish species, where it will not impact other authorized or licensed uses (ditches or diversions).

10. In cooperation with the IDFG, seek adequate streamflows for channel maintenance and to sustain riparian habitat and priority fish populations on BLM-administered streams (see Minimum Streamflow, Goal 1, p. 67).

11. On a case-by-case basis, coordinate with appropriate Federally recognized tribes on fisheries management actions that may affect tribal treaty rights. Give priority consideration in the development of activity plans and improvement projects to provide benefits to fish species traditionally used for subsistence and non-subsistence purposes by Native American groups under treaty.

Management Decisions Common to Anadromous Fisheries Resources:

12. In cooperation with appropriate parties, inventory anadromous fish habitat on a watershed basis and determine current distribution of anadromous fish species within RA public lands. Watersheds include the East Fork Salmon River and its tributaries Herd Creek, Road Creek, and Big Boulder Creek; the Pahsimeroi River; and the Main Salmon River and its tributaries Morgan, Squaw, Cow, Bayhorse, Thompson, and Challis creeks.

13. Cooperate with the IDFG and appropriate Federally recognized tribes to reduce juvenile anadromous fish mortality due to stream diversion actions (also see Floodplain/Wetland Areas, Goal 2, #4, p. 48). Priority streams include the Main Salmon River, East Fork Salmon River, and the following creeks: Bayhorse, Challis, Eddy, Garden, Cow, Little Morgan, Lyon, McDonald, McKim, Morgan, Squaw, Fox, Thompson, Herd, Lake, and Road.

Management Decisions Common to Resident Fisheries Resources:

14. Within 7 years, develop and implement an activity plan for maintaining and enhancing fisheries habitat along the Big Lost River within the 5.7 miles of public lands extending from the USFS boundary downstream (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103).

15. In cooperation with the IDFG and appropriate Federally recognized tribes, evaluate the potential for re-introducing beaver into historic ranges to promote fish habitat; re-introduce beaver where appropriate (see Wildlife Habitat, Goal 4, p. 98).

16. In cooperation with appropriate parties, inventory bull trout and westslope cutthroat trout habitat on a watershed basis and determine the current distribution of bull trout and westslope cutthroat trout within RA public lands.

For additional RMP decisions which relate to fisheries habitat protection and/or management, ***also see*** Minerals, Goal 1, #6, Goal 2, #6, and Goal 3, #5 (pp. 64 and 66); *Attachment 5: Standard Operating Procedures*, pp. 107-112; and *Attachment 8: Design Specifications*, pp. 120-123.

Floodplain/Wetland Areas

Goal 1: Maintain or improve the unique resource values of wetland and floodplain areas.

Rationale: Non-riverine wetland areas in the Resource Area are rare, limited to Summit Creek, Thousand Springs, and smaller spring-related wetlands. These areas provide important habitat for wildlife and unusual plants and plant communities.

1. Continue to implement the Chilly Slough wetland conservation project, as described in *Attachment 11: Summary of the Chilly Slough Wetland Conservation Project*, p. 144. (Also see Land Tenure and Access, Goal 1, #6, p. 54.)

2. Move the Summit Creek Campground campsites from the riparian area to the southwest side of the existing campground road to reduce impacts to wetland and rare plant values (see Special Status Species, Goal 2, p. 83).

3. Actions which would have direct or indirect adverse effects on floodplains or wetlands would not be authorized, in accordance with applicable Executive Orders.

4. Retain public lands under BLM administration unless the receiving parties agree to continue to maintain or to restore (if degraded) and permanently maintain floodplain and wetland functions.

Goal 2: Prevent loss of the resource values of springs and seeps which may occur through dewatering by spring development or trampling damage by livestock.

Rationale: Upland wetland sites provide valuable habitat for wildlife, fish, and plants, and help maintain secure and stable water supplies.

1. Waterholes developed from springs or seeps would normally be converted to headbox/pipeline/trough developments when reconstructed, rather than maintained as waterholes, unless constrained by other resource values. No new waterholes would be developed by blasting or excavation of springs or seeps.

2. New springs and seeps would be developed through headbox/pipeline construction and engineered to maintain water at the spring site (see *Attachment 8: Design Specifications* - Rangeland Improvement, #4 and 8, p. 123). Only those spring sources with an excess of water, as evidenced by surface flow from the site, would be developed. Moist sites, without water flowing from the site, would not be developed to extract water from the site.

3. Consistent with Idaho water laws, the BLM would take those actions necessary to protect Federal water interests on public lands. As much as possible, water being put to beneficial use on BLM lands would not be allowed to be licensed by private claimants.

4. New rights-of-way for water to be diverted from public land by a private claimant would only be granted if (a) the diversion facility is controllable, measurable, and/or designed to divert, at most, that amount of water permitted in the water right, and (b) the diversion would have no significant impact on existing resource values, and (c) granting the right-of-way would not adversely affect achievement of riparian management or aquatic objectives, and (d) when appropriate, the diversion facility is designed and constructed in accordance with the latest fish screening and bypass criteria. When renewing existing rights-of-way for water diversion, stipulate the renewed right-of-way to achieve (a), (b), (c) and (d) above, to the extent possible.

Forest Resources

Goal 1: Maintain the sustainable productivity of forest land by managing forests with an ecosystem approach.

Rationale: Recent emphasis in BLM policy is to manage forests as functional ecosystems that provide a sustained yield of ecosystem products such as clean water and wildlife habitat, as well as a sustained yield of forest products. FLPMA requires "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations." The BLM Public Domain Forest Policy Statement requires the BLM to "manage to maintain desired forest ecosystems."

1. Intensively manage 23,578 acres of commercial forest lands for multiple uses such as timber production, fish and wildlife habitat, and water quality enhancement (see *Map C: Suitable Commercial Timberlands*). Timber harvested per decade in the Challis Resource Area would not exceed the sustained yield average of 6.60 million board feet (MMBF).

   Continue to withdraw the following suitable commercial forest lands from the commercial timber base:

   (a) 57 acres in the upper Lake Creek area (T9N, R20E within the Herd Creek Watershed ACEC/RNA); and

   (b) 270 acres in the Malm Gulch/Germer Basin ACEC.

   In addition, withdraw the following suitable commercial forest lands from the commercial timber base:

   (a) 6,209 acres in existing Wilderness Study Areas (**Note:** about 2,787 acres in the suitable portions of the Jerry Peak WSA would continue to be withdrawn from the commercial timber base if the WSA is released from wilderness review (see Forest Resources, Goal 1, #23, p. 52)); and

   (b) about 980 acres in small, isolated forest stands (see Forest Resources, Goal 1, #22, p. 52).

2. Conduct an intensive forest inventory within 10 years; include old growth timber stands in this inventory. Adjust the maximum sustained yield harvest per decade based on growth and yield data resulting from this inventory.

3. Manage 22,205 acres of woodland for forest ecosystem values, wood products, and recreational uses (see *Map D: Forest Lands).* Continue to close the following areas to woodland product sales (see Glossary, p. 188):

   (a) 948 acres of forest land in the upper Lake Creek area of the Herd Creek Watershed ACEC/RNA (T9N, R20E);

   (b) 1,136 acres of non-commercial forest land in the Malm Gulch/Germer Basin ACEC;

   (c) 314 acres of forest land in the Cronk's Canyon ACEC; and

   (d) 9,769 acres of forest land in existing WSAs (includes 3,560 acres of woodland and 6,209 acres of commercial forest land). **Note:** Woodlands would be open to forest management, including woodland product sales, in any WSAs which are released from wilderness review, except where the ACEC closure stated in (a) above would apply.

4. All forest management planning and projects would be designed and analyzed by an interdisciplinary team.

5. Lodgepole pine stands would be harvested primarily by clearcutting. Clearcuts would be limited to 40 acres, except in the Donkey Hills ACEC, where clearcuts in lodgepole pine stands would be limited to 10 acres (see ACECs, Donkey Hills ACEC, #3, p. 32). Clearcuts would also be irregularly shaped to minimize wildlife escape distances and blend into the surrounding landscape.

6. Restrict clearcutting in Douglas-fir types as follows: (a) The need for and size limits of clearcuts for fire salvage would be analyzed by an interdisciplinary team; otherwise, (b) clearcuts would be limited to 10 acres, irregularly shaped to minimize wildlife escape distances and blend into the surrounding landscape, and only allowed for the purpose of controlling dwarf mistletoe infections and insect infestations or for other (non-fire) salvage purposes.

7. In Douglas-fir stands, design timber marking prescriptions to establish or enhance natural regeneration.

8. Natural regeneration would be the primary method of reforestation, except where an area has been heavily affected or depleted by insects, disease, fire, or other natural catastrophes.

9. Artificial regeneration would be completed with seedlings appropriate by seed zone, species, and elevation of site. Plantings would use genetically diverse stock.

10. If natural regeneration does not occur within five years after harvest in clearcut areas and within 15 years after harvest in shelterwood cut areas, priority would be given to artificial reforestation of these areas rather than timber sale preparation elsewhere.

11. Consider the needs of appropriate Federally recognized tribes for non-commercial use of forest products as provided by treaty.

12. All harvest units susceptible to livestock damage would be protected by grazing closures, fencing, or comparable measures until regeneration is established at proper stocking levels.

13. Firewood cutting permits would be issued, with the following exceptions:

    (a) No firewood cutting (see *Glossary*, p. 172) would be allowed in riparian areas (see *Glossary*, p. 180). Exceptions would be considered through the ID team process as part of special vegetation management projects designed to encourage sprouting and regeneration of cottonwood/aspen stands.

    (b) Firewood cutting and firewood gathering (see *Glossary*, p. 172) would be prohibited within designated recreation sites.

    (c) Firewood cutting permits for standing trees would be denied within SRMAs, except where tree cutting meets the objectives stated in Forest Resources, #24, p. 52. Firewood gathering within SRMAs would be limited to dead-and-down material.

14. Forest stand management treatments would be timed to maximize the productivity of the timber resource, while promoting forest stand structure and diversity typical of all seral stages for the managed habitat type on a drainage basis.

15. Maintain all stream beds, springs, bogs, and streamside vegetation in an as near-natural state as possible. Timber harvest activities would not occur within riparian areas (as defined in *Attachment 4*, pp. 105-106, except as stated below. Logging or road construction activities would only be considered within riparian areas to (a) provide for necessary road crossings; (b) remove (via cable logging methods) or reduce insect or disease risk to the timber stand; or (c) skid timber on at least 12 inches of snow cover.

16. An additional 50-foot modified activity strip would be established along perennial streams to supplement the no activity buffer described in #15 above. Heavy equipment would be excluded from this 50-foot wide area, but timber may be removed by cable. Exceptions may be designed by an interdisciplinary team.

17. Seasonal harvest restrictions and road closures would be imposed to protect soils, watershed, and wildlife values during critical periods.

18. Consult the IDFG and appropriate Federally recognized tribes about stipulations to protect elk habitat quality in the Donkey Hills area, prior to authorization of any actions that may affect elk habitat. Harvest timber in accordance with the following stipulations, to protect elk habitat quality: (a) timber would be removed by helicopter or cable logging to existing roads only - no new roads would be constructed, (b) Douglas-fir would be harvested by shelterwood or group selection cuts only, (c) clearcuts in lodgepole pine would be 10 acres or smaller, and (d) a 200 foot uncut buffer zone would be left around the edges of all harvest units. Uncut buffer zones may be harvested when cut units have regenerated sufficiently to meet elk habitat requirements.

19. Allow logging on the Willow Creek Summit elk winter ranges, in accordance with the Willow Creek Summit elk HMP. Manage harvest to protect elk habitat quality. Coordinate design with the IDFG and appropriate Federally recognized tribes.

20. Allow only helicopter logging in the Lone Pine Peak area (see *Map C: Suitable Commercial Timberlands*), to protect watershed resources in Lone Pine Creek and retain the visual characteristics of the area.

21. Commercial timber harvest practices on BLM lands would exceed standards contained in applicable State approved BMPs for timber harvest.

22. Remove forty-one (41) small forest stands totalling about 980 acres (primarily old growth) from the commercial timber base to maintain wildlife cover in open areas (see *Map C: Suitable Commercial Timberlands*).

23. If released from wilderness review, WSAs would be open to forest management, including commercial timber harvest, with the following limitations and exceptions on commercial timber harvest: (a) In the nonsuitable portions of the Jerry Peak and Corral-Horse Basin WSAs, timber stands more than 1/2-mile from roads existing at the time of RMP approval (see *Glossary*: "road," p. 181 and "existing roads, vehicle ways, and trails," p. 172) would be available for harvest by helicopter logging only. (b) Suitable portions of the Jerry Peak WSA if released from wilderness review would remain closed to timber harvest to maintain old growth forest values and biodiversity associated with large undisturbed tracts of forest land.

24. Tree cutting (see *Glossary*, p. 184) in riparian areas would be allowed only to restore degraded riparian conditions resulting from catastrophic events, to meet aquatic resource objectives, or for safety hazard reduction.

For additional RMP decisions regarding management of forest resources, ***also see*** "General" SOPs listed in *Attachment 5*, p. 107 and forest management-related design specifications listed in *Attachment 8*, pp. 120-123.

Hazardous Materials Management

Goal 1: Prevent the occurrence of hazardous materials/waste incidents on public lands. Minimize the human health threat and the risk to natural resources from hazardous materials contamination through access control, hazardous materials removal, containment, and remediation actions. Ensure protection of human health and the environment when using or transporting hazardous materials/wastes on public lands. Minimize wastes and prevent pollution generated on or released on public lands and BLM facilities.

Rationale: By law, the Bureau of Land Management must protect its employees, public health, and resources from contamination by hazardous materials.

1. No public lands would be leased or permitted for the storage, treatment, or disposal of hazardous waste, nor would public lands be leased for purposes of sanitary landfills. Lands may be sold or exchanged for these purposes under an appropriate lands action.

2. Eliminate the use or transportation of hazardous materials or toxic substances on public lands where feasible. Assess risks of authorized use through project and activity planning and modify actions to eliminate or reduce risk to acceptable levels.

3. Increase education and law enforcement actions in order to reduce illegal disposal of hazardous wastes on public lands.

4. Inventory abandoned mine sites, lease and permit sites, rights-of-way, and any other activities that may have produced a hazardous materials incident on public lands. As time and budget allow, prioritize and investigate sites potentially containing hazardous materials.

5. Develop special stipulations as part of permits, leases, or actions in order to safeguard human health and prevent environmental damage.

For additional RMP decisions regarding management of hazardous materials, ***also see*** *Attachment 5: Standard Operating Procedures* - Hazardous Materials, p. 108.

Land Tenure and Access

Goal 1: Retain lands with significant resource values in public ownership. Seek to acquire additional lands having high public values, through lands actions such as exchange, donation, or willing-seller purchase.

Rationale: As described in FLPMA, Section 102(a)(1), it is the policy of the United States that the public lands be retained in Federal ownership, unless it is determined that disposal of a particular parcel will serve the national interest.

1. Retain approximately 729,500 acres of BLM lands within the Management Areas (see *Glossary,* p. 176) shown on *Map A: Adjustment/Management Areas* in public ownership

for the long term.

2. Priorities for land tenure adjustments would be the following: acquire lands with high resource values; consolidate public lands; resolve unauthorized use conflicts; provide for tribal treaty uses; pursue public access; and facilitate threatened/endangered species recovery.

3. Riparian, wetland, and floodplain habitat could be exchanged, but only for areas containing riparian, wetland, or floodplain habitat with equal or greater values for recreation, access, wildlife, fisheries, and biodiversity. Such exchanges would have to balance similar resource values for each individual exchange, although both tracts of land would not have to be within the boundaries of the Challis Resource Area. Where possible, land exchanges would be made to facilitate recovery of threatened or endangered species.

4. Lands acquired for special values, such as unique or fragile resources, would be retained in Federal ownership and managed to maintain or improve those special values for which they were acquired.

5. Retain the BLM adjustment parcel located at T14N, R22E, Sec. 21, S1/2NE, NESE (see *Map A: Adjustment/Management Areas*) in public ownership, unless exchanged for equivalent resource value Pahsimeroi River frontage.

6. Approximately 12,315 acres of BLM land have been identified for potential disposal only in exchange for private parcels located within the Chilly Slough Wetland Conservation Project area (see *Map 18: Chilly Slough Wetland Conservation Project Area and Map A: Adjustment/Management Areas).* An additional 2,962 acres would be available for either Chilly Slough or State of Idaho exchange only. Note: The exchange restrictions described herein do not apply to lands under existing agricultural or occupancy trespass or lands listed as sale parcels in *Attachment 17*, p. 151.

7. Public river frontage along the Main Salmon River and the East Fork Salmon River can be offered for disposal, provided that additional lands with greater or equal resource values (*e.g.*, river frontage, public access and associated riparian values) are acquired concurrently on a case-by-case basis. Tracts meeting the definition of omitted lands and unsurveyed islands (see *Glossary*, pp. 178 and 185) would not be subject to this requirement. If opportunities arise, enhance public access through acquisition of additional lands.

8. Retain in public ownership all areas containing Native American burial areas (see Cultural Resources, Goal 1, #12, p. 42).

9. Retain public lands containing cultural resources eligible to be listed in, or listed in, the National Register of Historic Places (NRHP) (see *Glossary*, p. 176) on a case-by-case basis.

10. Prior to any land tenure adjustments, consult appropriate Federally recognized tribes to ensure protection of tribal treaty rights.

11. Retain public lands containing significant paleontological resources on a case-by-case basis.

12. Retain public lands under BLM administration unless the receiving parties agree to continue to maintain or to restore (if degraded) and permanently maintain floodplain and wetland functions.

13. Pursue acquisition of State and private lands in the Donkey Hills ACEC, with emphasis on land exchanges and cooperative efforts with conservation organizations such as the Rocky Mountain Elk Foundation.

14. Pursue acquisition of State lands within the Birch Creek ACEC.

Goal 2: Identify BLM public lands which may be available for disposal to achieve purposes such as (a) consolidating public lands to enhance management capability, (b) allowing agricultural entry, or (c) meeting other important public objectives.

Rationale: Consolidated land patterns would provide better land management and administration for both public and private landowners. FLPMA allows for sale or other disposal of public lands when specific criteria are met, including identification of those lands during the land use planning process.

1. Offer sufficient public lands for sale or exchange to mitigate loss of tax revenue to Custer or Lemhi counties that may occur as a result of BLM acquisitions of private land needed to meet important public resource objectives.

2. Only the BLM tracts within the adjustment areas shown on *Map A: Adjustment/ Management Areas* (approximately 63,075 acres) would be made available for disposal under the Federal Land Policy and Management Act (FLPMA), except as follows: A parcel of land which is at issue in a long-standing water rights trespass situation may be considered for exchange only as a possible resolution to the water rights trespass issue, regardless of whether the parcel is located in an adjustment area or a management area, subject to all other land tenure adjustment requirements contained elsewhere in this PRMP. (See *Glossary:* Adjustment Area; disposal tracts, pp. 166 and 170).

3. Within the adjustment areas shown on *Map A: Adjustment/Management Areas*, a total of about 4,805.84 acres would be considered for sale under the following FLPMA authorities (see *Attachment 17*, p. 151):

   (a) Approximately 3,324.63 acres would be considered for sale, because they are difficult and uneconomical to manage (FLPMA, Section 203(a)(1)).

   (b) Approximately 1,481.21 acres would be considered for sale, because they meet public objectives such as community expansion and economic development (FLPMA Section 203(a)(3)).

4. Desert Land Entry applications would not be considered on lands determined to be nonsuitable for agricultural purposes. Lands suitable for transfer under agricultural authority must meet the following criteria (Desert Land Act of 1877) and be within the adjustment areas identified on *Map A: Adjustment/Management Areas*:

   (a) suitable soils for agricultural development (NRCS classification - 40% class III soils or better for each 40 acre parcel) (see *Glossary*: soil capability classes, p. 182);

   (b) slopes less than 20%; and

   (c) elevation less than 6,300 feet above sea level.

5. Riparian areas, floodplains, and wetlands transferred out of public ownership would contain covenant language in the deed to protect the wetland resource values from degradation.

6. Proposals for disposal of tracts within the adjustment areas (see *Map A: Adjustment/Management Areas*) would be considered through the NEPA and ID team planning process.

7. Approximately 36, 915 acres of the 63,075 acres shown as adjustment areas on *Map A: Adjustment/Management Areas* would be available for exchange only with the State of Idaho for State managed lands

8. Tracts of public land within an ACEC may be exchanged for private or State lands within or adjacent to the ACEC, provided that the acquired lands are of equal or greater benefit to the integrity and management of the associated ACEC.

9. Prior to lease renewal, the BLM would offer to the State of Idaho, for sale or exchange, the tracts of land currently leased to the State of Idaho, Bureau of Aeronautics, for the May and Twin Bridges airports. The sale or exchange would contain covenant language that would require the tracts to continue to be used as public airstrips. The Twin Bridges airport (about 60 acres) is located in T7N, R20E, Sec. 9 SW^4 and Sec. 17 NE^4. The May Airport (about 125 acres) is located in T15N, R22E, portions of Sec. 19, 20, and 29.

10. Public lands within an existing WSA which are identified as adjustment areas for potential disposal (see *Map A: Adjustment/Management Areas*) would be available for potential disposal only if the WSA is released from wilderness review.

11. The isolated tract on the south side of the Trail Creek Road (53 acres) which is proposed for removal from the Thousand Springs ACEC/RNA (see ACECs - Thousand Springs ACEC, #1, p. 39) would be identified for potential exchange for lands with comparable resource values that would enhance the integrity of the Thousand Springs ACEC.

Goal 3: Consider public needs for use authorizations, such as rights-of-way, leases, permits, and withdrawals.

Rationale: Required by law, regulations, and policy.

1. Except for restrictions in WSAs (see Goal 3, #2 below), allow rights-of-way in Special Management Areas (SMAs) (see *Glossary*, p. 182) only if it can be demonstrated that there would be no negative effect on the special values for which the SMA was designated. All other BLM lands would be considered for rights-of-way through site-specific analysis. No right-of-way leases, permits, or easements would be authorized in riparian areas (as defined in *Attachment 4*, pp. 105-106), that would hinder attainment of the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149).

2. Rights-of-way would be excluded from existing WSAs. Rights-of-way in WSAs released from wilderness review would be considered under normal BLM procedures.

3. Continue to authorize the following communications sites (see *Map 19: Communication Sites*): Willow Creek Summit, Challis, Saturday Mountain, Poverty Flat, Summit Creek, Mackay AT&T. Evaluate future proposals for communication site authorization on a case-by-case basis.

4. (a) Pursue recommendations for release of Federal Energy Regulatory Commission (FERC) withdrawals as needed. Manage areas released from FERC withdrawal consistent with other decisions in this RMP.

   (b) Consider applications for FERC projects on a case-by-case basis. Approval of hydropower rights-of-way would be contingent upon maintenance of sufficient instream flows to ensure progress toward desired riparian and aquatic habitat conditions (see *Attachment 15*, p. 149). Locate any new hydropower facilities associated with the right-of-way outside of riparian areas (as defined in *Attachment 4* (see pp. 105-106).

5. No new short term permits or long term leases would be issued for the following actions: (a) new public waste disposal sites; (b) new or existing private waste disposal sites; and (c) sites for storage or disposal of hazardous material. Accommodate public demand for these types of sites through the sale tracts shown in Land Tenure, Goal 2, #3, p. 55.

6. Lands currently under lease as a landfill would be sold, exchanged, or otherwise conveyed to Custer County or another qualified entity. An additional 280 acres of BLM lands adjacent to the existing landfill site would be considered for conveyance to Custer County as landfill expansion.

7. Prior to approval of any public demand land uses, consult appropriate Federally recognized tribes to ensure protection of tribal treaty rights.

8. New rights-of-way for water to be diverted from public land by a private claimant would only be granted if (a) the diversion facility is controllable, measurable, and/or designed to divert, at most, that amount of water permitted in the water right, and (b) the diversion would have no significant impact on existing resource values, and (c) granting the right-

of-way would not adversely affect achievement of riparian management or aquatic objectives, and (d) when appropriate, the diversion facility is designed and constructed in accordance with the latest fish screening and bypass criteria. When renewing existing rights-of-way for water diversion, stipulate the renewed right-of-way to achieve (a), (b), (c) and (d) above, to the extent possible.

Goal 4: Eliminate unauthorized use of public lands.

Rationale: Required by law, regulations, and policy.

1. Resolve long term agricultural or occupancy trespass through termination or through authorization by lease, sale, or exchange where such actions would meet other important public objectives. Terminate and rehabilitate new trespasses. Short term permits may be used to authorize agricultural or occupancy trespass while resolution is being pursued.

2. Unauthorized uses which are terminated and involved ground-disturbing activities would be seeded with an appropriate seed mix within 8 months (see *Attachment 8: Design Specifications*, "General," #2-4, pp. 120-121). Cost for reclamation of intentional trespass would be incurred by the violator.

Goal 5: Improve management of the public lands through increased access for public enjoyment, administrative needs, and pursuit of tribal treaty rights.

Rationale: Legal access across private, State, and other Federal lands is often necessary for management of public lands, and Section 205 of FLPMA authorizes the acquisition of access where necessary to better manage public lands.

1. Attempt to acquire legal access through purchase, exchange, or donation as follows:

   (a) non-motorized, legal, public access to McDonald Creek, Fox Creek, Pine Creek, and Twin Bridges Creek;

   (b) motorized, legal, public access to Mill Creek, Big Creek, the Donkey Hills, and Meadow Creek in the Pahsimeroi Valley;

   (c) legal, public access in French Creek, Sullivan Creek, Allison Creek, Centennial Flat, and Lyon Creek and nonmotorized legal, public access in Cow Creek;

   (d) legal, public access to Bady Creek/Harry Canyon and Navarre Creek; and

   (e) the easements shown in *Attachment 22*, p. 158 would be pursued to ensure public access to BLM roads.

2. Maintain or improve public access to public lands through covenant language in all land tenure adjustments.

Livestock Grazing

Goal 1: Manage livestock grazing levels in line with the long term capacity of the land, considering multiple use and climatic variability, to maintain, improve, or make significant progress toward improving ecological condition as follows: Increase the percent of stream riparian/wetland areas in proper functioning condition (as defined in *Attachment 1: Riparian-Wetland Area Function Classification*, pp. 101-102) from 35.8% (based on the most recent riparian functionality assessments) to 75% within 5 years. Increase rangelands in the late seral to Potential Natural Community (PNC) stage from 37.1% (based on the most recent range inventories) to 40% by 2009. Reduce the percentage of public rangelands in the early seral stage from 16.2% (based on the most recent range inventories) to 10% by 2009.

Rationale: Managing livestock grazing levels in line with the long term capability of the land is in accordance with FLPMA, Sec. 103 (c). The ecological condition goals are from *The State of the Public Rangelands 1990, The Range of Our Vision* (BLM 1990).

1. Manage livestock grazing activities to ensure achievement and maintenance of, or significant progress toward achieving, fundamentals of rangeland health, and standards for rangeland health and guidelines for livestock grazing management (per 43 CFR 4180).

2. Continue existing livestock grazing preference allocations of 51,069 AUMs for the short term. Conduct vegetative monitoring (*e.g.,* utilization pattern mapping (UPM), ecological site inventory (ESI)) to determine appropriate long term stocking levels. Initial priority would be to establish stocking rates for the following allotments: Burnt Creek, Bear Creek, Bayhorse, Countyline, Dry Creek, Herd Creek, Lower Goldburg, Sage Creek, Mountain Springs (San Felipe), Upper Pahsimeroi, and Warm Springs.

3. Approximately 771,224 acres (97.3% of the Resource Area) would continue to be open to managed livestock grazing.

   (a) The following areas would continue to be closed to livestock grazing::

Cronk's Canyon Bighorn Sheep Pasture	1,496 acres
Morgan Creek Bighorn Sheep Pasture	3,642 acres
Bruno Creek Allotment (mining)	2,378 acres
Sand Hollow Area (watershed)	3,332 acres
Malm Gulch Area (watershed)	9,136 acres
East Fork Salmon River Bench (ACEC)	78 acres
Summit Creek exclosure (plants)	305 acres
Total:	20,367 acres

   (b) In addition, close the south half of the Highway Allotment (976 acres) to livestock grazing (see Livestock Grazing, Goal 1, #12, p. 61). (Also see *Map 27: Grazing Closures.*)

4. Revise existing Allotment Management Plans (AMPs) as needed, through completion of a watershed assessment and development of an Integrated Resource Activity Plan (IRAP) (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103). For allotments without an existing AMP, consider livestock grazing management in the development of IRAPs for geographical areas which include those allotments. Priority would be given to those watersheds with special status fish species concerns, as shown in Fisheries, Goal 1, p. 45. Criteria for grazing riparian areas would be included: see Riparian Areas, Goal 1, #4 - 7, pp. 79-80; *Attachment 3: Component Practices for Grazing Management in Lieu of BMPs,* p. 104; and Fisheries, Goal 1, #4, p. 46.

5. Plan, design, and manage land use activities, including grazing management actions and range improvement projects, located on the (a) Morgan Creek, Cronk's Canyon, East Fork Salmon River, and Birch Creek/Mud Springs Gulch bighorn sheep winter ranges (see *Map 17: Bighorn Sheep Winter Ranges*) or the (b) Willow Creek Summit or Donkey Hills elk winter ranges (see *Map 21: Elk Winter Ranges and Donkey Hills Calving Area*) to ensure the continued viability of bighorn sheep and elk populations dependent on these key habitat areas. Fully analyze any potential for adverse effects on the viability of bighorn sheep or elk populations in appropriate site-specific NEPA documentation.

6. Develop vegetative monitoring to measure site-specific objectives. Prioritize monitoring of I category allotments (see *Glossary* definition: allotment categorization, p. 166). Use *Minimum Monitoring Standards* and other approved methods. Emphasize monitoring of perennial riparian systems with high potential for improvement. Climatic monitoring would consist of primarily National Oceanographic and Atmospheric Administration (NOAA) and remote area weather station (RAWS) site data. Base use adjustments on monitoring results.

7. Use the following utilization criteria (see *Glossary*: utilization; utilization criteria, p. 185) on key areas of upland sites (where an ID team has determined the key area and key species) to determine the proper time to move livestock to the next pasture in a grazing system or from the allotment:

Season of Use[1]	Key Species Agsp[2]	All Other Key Species
Early: Prior to Boot	50%	50%
Critical: Boot to Flowering	40%[3]	50%
Late: After Flowering	60%	50%
Dormant: Dormant/winter	60%	60%

[1]See *Glossary* definition: season of use, p. 181.
[2]Agsp-*Agropyron spicatum*, bluebunch wheatgrass.
[3]On sites where an ID team has determined that the health and vigor of bluebunch wheatgrass are less than satisfactory, a lower utilization level or one or more years of rest would be initiated.

Knowledgeable and reasonable practices (see *Glossary*, p. 175) other than the utilization levels listed above (*e.g.,* alternative stubble height criteria) may be used to determine the timing of livestock movements. Any alternative utilization levels other than those listed

above would be based on the following: (a) current scientific literature or other applicable study results which document the biological effects of the alternative levels of use on the key species; (b) the recommendations of an interdisciplinary team responsible for reviewing, interpreting and documenting the scientific literature or study results; and (c) a site-specific environmental assessment to document how the alternative criteria would help meet resource objectives.

8. Manage livestock grazing to ensure progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149). See the stubble height criteria, bank shearing criteria, and knowledgeable and reasonable practices described in Riparian Areas, Goal 1, #4-7 (see pp. 79-80).

9. Continue existing management (including periodic grazing) of the Anderson Ranch riparian pasture to ensure progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149). Develop riparian pastures and riparian study exclosures throughout the RA where an ID team identifies the opportunity.

10. Manage rangeland sites for late seral or Potential Natural Community to meet the objectives stated in Goal 1, unless an ID team determines during activity planning that some other Desired Plant Community would better achieve multiple use and meet the goals of rangeland health. Indicators of rangeland health would include (a) soil stability and watershed function, (b) distribution of nutrients and energy, (c) recovery mechanisms, and (d) riparian functioning condition.

11. In all fish-bearing streams, design grazing practices to be consistent with attainment of or progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149). When necessary, locate livestock handling and management facilities and activities outside riparian areas (see Upland Watershed, Goal 1, #2, p. 87).

12. Combine or split allotments as needed, to provide increased management flexibility in meeting riparian and upland objectives. For highway safety reasons, combine the north half of the Highway Allotment with the Little Morgan Creek Allotment and close the south half of the Highway Allotment.

13. Grazing privileges that are lost, retired, relinquished, canceled, or have base property sold without transfer would have attached AUMs held for watershed protection and wildlife habitat until allotment vegetative objectives are reached. Once vegetative objectives are reached, these AUMs would remain unallocated to any particular livestock permittee, but may be used to provide short term (less than three years) flexibility to permittees for vegetation treatments or other management actions affecting their base permit.

14. Manage all watersheds in the Resource Area to achieve 70% vegetative cover on uplands as measured prior to grazing, or, for sites not capable of achieving 70% cover, 90% of cover achievable under Potential Natural Community.

15. Coordinate with appropriate Federally recognized tribes on range practices and management that may affect pursuit of tribal treaty rights.

16. Allocate nonuse AUMs to watershed protection, wildlife habitat, plant maintenance, and improvement of ecological condition to meet related allotment objectives. Nonuse AUMs may be authorized for temporary nonrenewable use after an ID team has determined that related allotment objectives are being met.

17. Exclude livestock from the portions of developed recreation sites (see *Glossary*, p. 170) which receive intensive use and are listed below, as well as appropriate portions of recreation sites developed in the future.

    Mackay Reservoir
    Pinto Creek Recreation Site (Garden Creek)
    Upper East Fork Campground (Little Boulder Creek)
    Jimmy Smith Lake Campground
    East Fork Recreation Site
    Summit Creek Recreation Site
    Bayhorse Creek Recreation Site
    Deadman Hole Recreation Site
    Wood Creek Recreation Site (Dugway)
    Round Valley Recreation Site (Challis Bridge)
    Morgan Creek Recreation Site
    Herd Lake Campground
    Herd Lake Overlook
    Bison Jump Recreation Site
    Cottonwood Recreation Site

18. Exclude livestock from areas of known human burial concentrations.

Goal 2: Improve livestock distribution to meet resource management objectives and improve overall range conditions.

Rationale: Managing livestock movements is necessary to achieve RMP and activity plan objectives.

1. Continue to require permittees to maintain range improvements (to current BLM standards) that are under cooperative agreement or permit. Livestock would not be allowed in a pasture until range improvements under cooperative agreement or permit are functional and properly maintained. The BLM would continue to maintain exclosures as needed.

2. Prescribed burns and seedings would be done to promote a variety of resource objectives, including ecosystem health and diversity. See Rangeland Vegetation Treatment Projects, Goal 1, #2 (p. 73) for further criteria.

3. Use land treatments, range improvements, and improved grazing management as tools to achieve multiple resource objectives. Evaluate existing seedings for re-treatment before any new seedings are done within a given allotment. Authorize permanent increases in livestock preference as a result of range improvement projects only after an ID team has performed an allotment analysis and determined that resource management objectives for the allotment have been met.

4. Continue to use allotment categorizations (see *Glossary,* p. 166) to help establish priority for rangeland monitoring and installation of range improvements. See *Appendix F, Item 1: Allotment Summary*, pp. 644-645.

For additional decisions regarding management of livestock grazing, ***also see*** applicable standard operating procedures in *Attachment 5* (pp. 107-112) and applicable design specifications in *Attachment 8* (pp. 120-123).

Minerals

Management Decisions Which Apply to Development of All Types of Minerals: (see *Glossary*: Leasable Minerals, p. 175, Locatable Minerals, p. 176, and Saleable Minerals, p. 181)

1. Apply "minerals" design specifications (*Attachment 8,* p. 122) and "general" standard operating procedures (*Attachment 5,* p. 107) as appropriate.

2. Areas of known concentrations of human burials would be withdrawn from locatable mineral entry and mineral material disposal, and stipulated no surface occupancy for the purposes of energy and non-energy mineral leasing (see Cultural Resources, Goal 1, #12, p. 42).

3. Coordinate and consult with appropriate Federally recognized tribes on proposed mineral developments which may affect Indian trust resources and pursuit of tribal treaty rights.

4. Wild and Scenic River segments which are found suitable or have a suitability finding deferred until a later coordinated suitability study (see WSR, pp. 98-100) would be open to mineral development (energy mineral development would be subject to standard stipulations -- see Goal 1, "Note" below), if consistent with the maintenance of WSR values (see WSR, Goal 1, #1, p. 98) and management of mineral development in riparian areas (see Minerals, Goal 1, #6, Goal 2, #6 and Goal 3, #5, pp. 64 and 66).

Goal 1: Manage the Federal mineral estate in the Resource Area for oil, gas, and geothermal exploration and development, while minimizing adverse impacts to other resource values (see *Glossary*: leasable minerals, p. 175).

Rationale: Federal regulations provide for management of leasing and development to prevent unnecessary adverse effects on other resource values.

Note: The following phrases have specific meanings where they are used in decisions in this section:

Subject to standard lease stipulations - Some or all of the 10 lease stipulations listed in *Attachment 10*, pp. 135-143 (including the no surface occupancy (NSO) stipulation - #3) **may** be applied on a case-by-case basis when

an Application for Permit to Drill (APD) is received by the BLM from a company intending to conduct exploratory drilling.

Subject to the no surface occupancy (NSO) stipulation - In addition to other standard lease stipulations, the special no surface occupancy stipulation listed in *Attachment 10* (Stipulation 3, p. 138) **may** be applied to APDs on a site-specific basis on areas less than 40 acres in size or 1/4-mile in width to protect important resource values.

Mandatory no surface occupancy stipulation - In addition to other standard lease stipulations, the special no surface occupancy stipulation listed in *Attachment 10* (Stipulation 3, p. 138) **would apply, without exception,** to that portion of the lease area which overlaps the area identified in the management decision.

1. Approximately 650,856 acres (82.1% of the Challis Resource Area) would be open for oil, gas, and geothermal leasing, with discretionary or mandatory lease stipulations to protect resource values as shown in #3-7 below (see *Attachment 10: Leasable Minerals Stipulations,* pp. 135-143).

2. The existing campgrounds and recreation sites listed in *Attachment 21*, pp. 156-157 (1,450.76 acres) and existing WSAs (140,260 acres), unless released from wilderness review (see Goal 1, #4 below), would continue to be closed to oil, gas, and geothermal energy development.

3. Special Recreation Management Areas (SRMAs) (see *Map 40: SRMAs*) would be open to oil, gas, and geothermal leasing, subject to the no surface occupancy stipulation to protect recreational and scenic values (see *Attachment 10*, Stipulation 3, p. 138).

4. If released from wilderness review, suitable WSAs (38,930 acres) would be open to oil, gas, and geothermal leasing, subject to the no surface occupancy stipulation; nonsuitable WSAs (101,330 acres) would be open to oil, gas, and geothermal leasing, subject to standard stipulations (see *Map 42: WSAs*). (Currently, all WSAs are closed to oil, gas, and geothermal leasing.)

5. ACECs (88,206 acres) (see *Map 4: ACECs - General Location*) would be open to oil, gas, and geothermal leasing, subject to standard stipulations to protect resource values.

6. In riparian areas not within fish-bearing streams, oil, gas, and geothermal lease activities would be reviewed and modified on a case-by-case basis to protect riparian and aquatic habitats. A mandatory NSO stipulation would apply to energy mineral leases on riparian areas in salmon, steelhead trout, and bull trout watersheds. Energy mineral activities in riparian areas along all fish-bearing streams would be designed, constructed, and operated so as not to hinder attainment of the riparian and aquatic habitat conditions described in *Attachment 15*, p. 149.

Goal 2: Provide saleable and non-energy leasable minerals to meet local demand, while minimizing adverse impacts to other resource values (see *Glossary*: saleable minerals, p. 181; leasable minerals, p. 175).

Rationale: Federal law allows for sale, lease, and some free use of certain mineral materials to meet local needs, subject to applicable regulations.

Note: The following phrases have specific meanings where they are used in decisions in this section:

Subject to standard lease stipulations - Some or all of the 10 lease stipulations listed in *Attachment 10,* pp. 135-143 (including the no surface occupancy stipulation - #3) **may** be applied to non-energy mineral leases on a case-by-case basis to protect important resource values.

Mandatory no surface occupancy stipulation - In addition to other standard lease stipulations, the no surface occupancy stipulation listed in *Attachment 10* (Stipulation 3, p. 138) **would apply, without exception,** to that portion of the non-energy mineral lease area which overlaps the area identified in the management decision.

1. Approximately 632,284 acres of public lands (79.8% of the RA) would be open to mineral materials disposal. Approximately 650,856 acres of public lands (82.1% of the RA) would be open to non-energy mineral leasing, with discretionary or mandatory lease stipulations for protection of other resource values.

2. The campgrounds and recreation sites listed in *Attachment 21*, pp. 156-157 (1,450.76 acres) and existing WSAs (140,260 acres), unless released from wilderness review (see Goal 2, #5 below), would continue to be closed to mineral materials disposal and non-energy mineral leasing.

3. Mineral material disposals and leasing of non-energy minerals would be allowed in SRMAs when the actions are determined through the ID team and NEPA process to be consistent with maintenance of Special Management Area values. To maintain recreational and scenic values in the Upper Salmon River and Upper Big Lost River SRMAs, mineral material disposals and non-energy leasing would be limited to existing sites and sites not visible from the Salmon River or upper Big Lost River or the following roads: Trail Creek Road, East Fork Road, Highway 75, and Highway 93 South, unless a site-specific scenic quality assessment determines there would be no significant impact to SRMA resources (see *Map 40: SRMAs*).

4. Mineral material disposals and non-energy mineral leasing would be allowed in ACECs when the actions are determined through the ID team and NEPA process to be consistent with maintenance of ACEC values. The Lone Bird and Malm Gulch/Germer Basin ACECs (17,792 acres) would be closed to rockhounding, collection of mineral materials, and mineral material sales (see *Map 11: ACECs - Lone Bird ACEC* and *Map 12: ACECs - Malm Gulch/Germer Basin ACEC*).

5. If released from wilderness review, suitable WSAs (up to 38,930 acres) would remain closed to non-energy minerals leasing and mineral material sales; nonsuitable WSAs would be opened to mineral material sales and non-energy minerals leasing, subject to standard stipulations. (Currently, all WSAs are closed to non-energy minerals leasing and mineral material sales.)

6. In riparian areas not within fish-bearing streams, mineral material and non-energy leasing activities would be reviewed and modified on a case-by-case basis to protect riparian and aquatic habitats. Riparian areas in salmon, steelhead trout, and bull trout watersheds would be closed to mineral material sale and extraction and non-energy leasing, and ancillary mineral facilities would not be permitted. Mineral material and non-energy leasing activities in fish-bearing streams outside salmon, steelhead trout, and bull trout watersheds would be designed, constructed and operated so as not to hinder attainment of the riparian and aquatic habitat conditions described in *Attachment 15*, p. 149.

Goal 3: Maintain the availability of public lands for locatable mineral exploration and development (see *Glossary*: locatable minerals, p. 176). Minimize adverse effects of locatable mineral development activity on other resources.

Rationale: It is Federal policy to allow development of Federal mineral resources and promote reclamation of disturbed lands. Mineral exploration and development are a statutory right on unappropriated and unreserved public lands, except where specifically withdrawn from mineral entry under Secretarial or Congressional authority.

1. Approximately 791,116 acres of the Federal mineral estate in the Resource Area (99.8%) would be open to locatable mineral entry.

2. The campgrounds and recreation sites listed in *Attachment 21,* pp. 156-157 (1,450.76 acres) would continue to be withdrawn from locatable mineral entry.

3. If released from wilderness review, suitable WSAs (38,930 acres) would be recommended for withdrawal from locatable mineral entry to maintain primitive values; nonsuitable WSAs (101,330 acres) would be open to locatable mineral development. (Currently, all WSAs are open to locatable mineral entry, subject to restrictions defined in the Interim Management Policy and Guidelines for Lands Under Wilderness Review (BLM 1995: 36-38).)

4. ACECs would be open to locatable mineral entry, subject to approval of a plan of operations (see *Map 4: ACECs - General Location*).

5. Locatable mineral activities in riparian areas not within fish-bearing streams would be reviewed and modified on a case-by-case basis to protect riparian and aquatic habitats. Locatable mineral activities in riparian areas along fish-bearing streams would be designed, constructed, and operated so as not to hinder attainment of the riparian and aquatic habitat conditions described in *Attachment 15*, p. 149.

Minimum Streamflow

Goal 1: Maintain riparian areas, improve fish migration, decrease fish mortality, provide for recreational opportunities, and maintain aesthetics by facilitating the acquisition of minimum streamflows.

Rationale: Dewatering of streams has the potential to negate riparian and aquatic habitat improvement efforts. Lack of water also creates a problem for fish migration, recreational pursuits, and aesthetics.

1. The BLM would support those activities designed to acquire minimum streamflows crossing and benefitting BLM lands.

2. Pursue applications to the Idaho Water Resources Board for adequate minimum streamflows at the rate of at least one per year to protect riparian and fisheries habitat and recreation opportunities, following procedures and the list of streams shown in *Attachment 14: Procedures for Minimum Streamflow Application*, p. 148.

Noxious Weed Infestations

Goal 1: Reduce potential for new infestations of noxious weeds (see *Glossary*, p. 177).

Rationale: Prevention of weed infestations is generally more effective than eradication of established populations.

1. Seed used for revegetation projects on BLM public lands would be certified weed-free for Idaho, Montana, Oregon, and Utah noxious weeds.

2. Feeding of commercial stock or wildlife with hay may be allowed on BLM lands after review by an ID team. The feeding permit holder would be required to feed only certified weed-free hay and to eliminate any new weed infestation which may result from this feeding. Incidental livestock feeding with hay would not require an ID team review, but certified weed-free hay would be required.

Goal 2: Develop an active weed inventory program by training public land users and BLM personnel in weed identification.

Rationale: Infestations are most effectively treated when small and isolated, but such populations are difficult to locate.

1. Coordinate with Federal, State, and local agencies and private landowners in the identification of weed treatment areas.

2. Provide training for BLM personnel on weed identification, habitats, and life cycles, and the importance of noxious weed inventories.

3. Utilize the presence of public land users (*e.g.*, permittees, recreationists, hunters) for weed inventory by developing a "weed watch" program.

Goal 3: Control expanding populations, reduce large infestations, and eliminate small populations of noxious weeds that threaten or impact other resources.

Rationale: Weed infestations reduce the value of the public lands for forage production, recreation, biodiversity, and wildlife. Infestations on public lands are a threat to adjacent property. Idaho's noxious weed law requires property owners to control noxious weed infestations on their lands.

1. Treat noxious weed infestations at the rate of about 150 acres per year utilizing integrated pest management (see *Glossary*, p. 174). Recognizing the contribution to biodiversity of native poisonous plants, control of native poisonous plants would be considered on a case-by-case basis through the ID team planning process.

2. Set priority control areas using the following criteria: (a) target species is a non-native noxious weed, and (b) target population is small and isolated. Treatment of native invasive plant species (*e.g.*, larkspur) would be a lower priority.

3. Chemical treatments on BLM public lands would be applied or supervised by personnel certified as pesticide applicators by the State of Idaho or the BLM.

4. Explore integrated pest management options for populations that are difficult to treat through conventional (herbicide) treatment (large populations, populations in sensitive areas, remote populations).

5. Monitor the effectiveness of noxious weed treatment on an annual basis.

6. Sensitive areas (recreation sites, areas within 30 feet of perennial or intermittent water, and areas of human concentration or habitation) would be treated initially with non-chemical alternatives. Chemical treatments may be applied if non-chemical alternatives provide inadequate control.

7. Applicants for rights-of-way, other land use authorizations, and recreation permits on BLM public lands would be responsible for noxious weed prevention and control as a condition of the right-of-way, land use authorization, or permit (see *Attachment 5: Standard Operating Procedures* - Land Tenure and Access, #9, p. 110).

For additional RMP decisions regarding management of noxious weeds, ***also see*** *Attachment 5: Standard Operating Procedures* - Noxious Weeds, pp. 110-111.

Off-highway Vehicle Use

Goal 1: Provide opportunities for off-highway vehicle (OHV) use (see *Glossary*, p. 178), while limiting OHV use in areas where that use would cause degradation to other resources' values.

Rationale: Federal regulations require the BLM to designate all public lands as either open, limited, or closed to off-highway vehicle use (see *Glossary*: off-highway vehicle use designations, p. 178).

1. (a) Unless an area has an expanded limitation or is designated as "closed" to OHV use (see Goal 1, #2-7 below), off-highway vehicle (OHV) use throughout the Challis Resource Area would be designated as "limited" to existing roads, vehicle ways, and trails yearlong (see *Glossary*: "existing roads, vehicle ways, and trails," p. 172 and "off-highway vehicle use designations," p. 178; also see *Map 33: OHV Use*). **(Note:** Any newly constructed road, trail, or parking area authorized by the BLM during the life of the RMP would be considered an "existing" road or trail.)

   (b) Except for in existing WSAs (see Goal 1, #3a below), all OHV limitations within the Resource Area (Goal 1, #1, 2b, 3c, 4, and 6) would allow motorized vehicle travel away from existing roads, vehicle ways, and trails under the following circumstances:

      (1) within 1/4 mile of existing roads, vehicle ways, and trails to retrieve downed big game;
      (2) within 100 feet of existing roads, vehicle ways, and trails for direct access to campsites or to cut firewood;
      (3) immediately adjacent to roads, vehicle ways, and trails for purposes such as parking, turning around, or passing another vehicle; and
      (4) if the vehicle weighs 1,500 pounds or less GVW and is traveling on at least six inches of continuous snow cover.

   (c) Except for in existing WSAs (see Goal 1, #3a below), temporary exceptions would be authorized to the limitations and closures listed in Goal 1, #1-7 for

      (1) any military, fire, emergency, or law enforcement vehicle while it is being used for emergency purposes,
      (2) any vehicle in official use, and
      (3) any vehicle whose use is expressly authorized in writing by the authorized officer.

2. The following OHV closures or limitations for the protection of ACEC values would be exceptions to the RA-wide limitation described in Goal 1, #1 above:

   (a) These ACECs would be designated "closed" to OHV use:

      (1) Lone Bird ACEC (also see ACECs, Lone Bird ACEC, #2, p. 35)
      (2) East Fork Salmon River Bench ACEC
      (3) Sand Hollow ACEC

(b) These ACECs would be designated "limited" to OHV use, with "limitations" described in (1) through (4) below (see *Map 33: OHV Use*) (**Note:** the provisions of #1(b) and (c) above would apply):

(1) *Malm Gulch/Germer Basin ACEC:* To reduce the hazard of erosion, motorized vehicle use in the Malm Gulch/Germer Basin ACEC would be limited to the existing road from Highway 93 to a point of closure in the NW 1/4, Section 28, T12N, R19E. See *Map 12: ACECs - Malm Gulch/Germer Basin ACEC.*

(2) *Summit Creek ACEC:* Motorized travel in the Summit Creek ACEC would be limited to the Howe-May Road, the area south of the existing campground road, and the access route to Barney Hot Springs. See *Map 8: ACECs - Summit Creek ACEC/RNA and Donkey Hills ACEC.*

(3) *Herd Creek Watershed ACEC:* The existing trail below Herd Lake and road above Herd Lake would be designated "closed" to OHV use and maintained as trails for non-motorized use only. Motorized vehicle use in the remainder of the Herd Creek Watershed ACEC would be limited to existing roads and vehicle ways. See *Map 10: ACECs - Herd Creek Watershed ACEC/RNA.*

(4) *Birch Creek ACEC; Donkey Hills ACEC*: Motorized vehicle travel in the Birch Creek ACEC and Donkey Hills ACEC would be prohibited during the winter/spring period between December 16 and April 30, inclusive, and limited to existing roads, vehicle ways and trails between May 1 and December 15, inclusive. (**Note:** Access to private lands in the Donkey Hills ACEC would be accommodated.) See *Map 6: ACECs - Birch Creek ACEC* and *Map 8: ACECs - Summit Creek ACEC/RNA and Donkey Hills ACEC.*

3. The following OHV closures or limitations in WSAs and WSAs if released from wilderness review would be exceptions to the RA-wide limitation described in Goal 1, #1 above (see *Map 33: OHV Use* and *Map 42: Wilderness Study Areas.*):

(a) <u>*Designated WSAs:*</u> Except for the road closures stated below, OHV use in WSAs would be limited to roads, vehicle ways, and trails that were identified in the Idaho Intensive Wilderness Final Inventory (November 1980).

(1) In the Burnt Creek WSA the Dry Creek Road would be closed to motorized vehicle use in the N 1/2, Sec. 1, T9N, R24E for safety reasons and to maintain primitive values (see *Map 44: WSAs - Burnt Creek WSA*).

(2) In the Jerry Peak WSA, the existing trail below Herd Lake and road above Herd Lake would be closed to motorized vehicle use to maintain primitive values, and maintained as trails for non-motorized use only (see *Map 47: WSAs - Jerry Peak and Corral-Horse Basin WSAs*).

Any non-emergency motorized vehicle use off of existing roads, vehicle ways, and trails in a WSA must (a) be specifically authorized by the BLM prior to use and (b) satisfy nonimpairment criteria (Interim Management Policy for Lands Under

Wilderness Review, Manual H-8550-1 (7/95), page 15).

(b) *WSAs if Released:* Except for the road closures stated below, OHV use in WSAs if released from wilderness review would be limited to roads, vehicle ways, and trails that were identified in the Idaho Intensive Wilderness Final Inventory (November 1980).

(1) In the Burnt Creek WSA the Dry Creek Road would be closed to motorized vehicle use in the N 1/2, Sec. 1, T9N, R24E for safety reasons and to maintain primitive values (see *Map 44: WSAs - Burnt Creek WSA*).

(2) In the Jerry Peak WSA, the existing trail below Herd Lake and road above Herd Lake would be closed to motorized vehicle use to maintain primitive values, and maintained as trails for non-motorized use only (see *Map 47: WSAs - Jerry Peak and Corral-Horse Basin WSAs*).

(**Note:** The provisions stated in Goal 1, #1(b) and (c) above would apply in WSAs if released from wilderness review.)

4. OHV use in the following areas would be designated as "limited" to protect wildlife values, with the limitations as follows: Motorized vehicle travel would be prohibited during the winter/spring period between December 16 and April 30, inclusive. Motorized vehicle travel would be restricted to existing roads, vehicle ways, and trails between May 1 and December 15, inclusive. See *Map 33: OHV Use.*

(a) Old Stage Road
(b) Carlson Hills (4,200 acres)
(c) Willow Creek Summit elk winter range
(d) Donkey Hills ACEC
(e) Birch Creek ACEC
(f) Second Spring Basin

5. The Lone Bird ACEC and the upper 1/2-mile of Devil Canyon Road would be designated as "closed" to OHV use yearlong to protect cultural resources. Physically close the upper 1/2-mile of Devil Canyon Road. Physically close the existing road in the Lone Bird ACEC from the NE 1/4, NE 1/4, Section 13, T12N, R19E to the NW 1/4, SE 1/4, Section 19, T12N, R20E to prevent unauthorized use. (See *Map 33: OHV Use* and *Map 11: ACECs - Lone Bird ACEC.*)

6. The Bluett Creek Road, French Creek Road, and Shay Line Trestle would be designated as "limited" to motorized vehicle use based on vehicle size: allow motorized vehicles weighing 1,500 pounds or less and 50 inches in width or narrower (see *Map 33: OHV Use).*

7. Prohibit organized OHV events in wild horse winter ranges (see *Map 48: Wild Horses*).

Paleontological Resources

Goal 1: Identify and manage paleontological resources for scientific research and educational and recreational use.

Rationale: The BLM is required to protect paleontological resources under the Federal Land Policy and Management Act and the National Environmental Policy Act.

1. Manage paleontological resources to protect specimens and maintain or enhance sites or areas for their scientific and educational values. Formally inventory paleontological resources to document the variety, significance, and potential of values. Identify and consider paleontological resource concerns when conducting a watershed assessment or when developing or revising activity plans (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103). Focus the paleontological resources program on identification, preservation, mitigation, and public awareness.

2. Promote research under permit to document localities and their significance.

3. Retain public lands containing significant paleontological resources on a case-by-case basis.

4. Implement protective measures at significant paleontological localities that are threatened.

5. Continue to manage the Malm Gulch/Germer Basin ACEC for paleontological values (see ACECs - Malm Gulch/Germer Basin ACEC, p. 36 and *Map 12: ACECs - Malm Gulch/ Germer Basin ACEC*).

6. Protect significant paleontological localities by not identifying their specific location or otherwise promoting public use of the resource.

Rangeland Vegetation Treatment Projects

Goal 1: Design rangeland vegetation treatment projects (burns, seedings, etc.) to achieve specific activity planning objectives, reduce impacts to other resources, and increase long term cost-effectiveness.

Rationale: Properly designed rangeland vegetation treatments will meet multiple-use management objectives and provide multiple-use benefits. Vegetation treatments are one of the most expensive and time-consuming types of range improvement projects to implement. Cost-effectiveness, potential adverse effects on other resources, and short project life-span make treatment projects highly controversial. Procedures are proposed to address these concerns.

1. Priority and need for proposed rangeland vegetation treatment projects would be evaluated by an interdisciplinary planning team.

2. Objectives and design requirements for rangeland vegetation treatment projects would normally be established by an ID team during development or revision of activity plans. However, for vegetation treatment projects proposed in areas managed under existing activity plans that lack vegetation treatment project objectives, these objectives would be developed as part of vegetation treatment project planning. For vegetation treatments proposed in areas where cheatgrass invasion is potentially high, an ID team would physically examine the site to specifically analyze the risk of cheatgrass invasion prior to finalizing the project proposal.

3. Proposed vegetation treatment projects would be designed by an interdisciplinary planning team and coordinated with the IDFG. Notification of the proposed project would be provided to the IDFG one year in advance of implementation, as required by the current IDFG/BLM MOU.

4. Determine specific establishment success standards for vegetation treatments (*e.g.*, vigor; productivity standards) during project planning. Standards would be met before grazing is allowed in the treated area.

5. Reduce livestock use on the allotment while the vegetation treatment is being established, proportionate to the amount of suitable acres removed from use during establishment.

6. To assure a long term return on the investment, a post-treatment management plan for the treated area which includes appropriate utilization levels and plant composition would be approved before the treatment is conducted.

7. Post-treatment increases in allotment preference may be authorized if allotment objectives have been met on the remainder of the allotment, as determined by an ID team through allotment analysis. Permanent increases in livestock preference resulting from vegetation treatments would be based on the increase in forage production and changes in plant composition, as measured by pre- and post-treatment production studies.

Recreation Opportunities and Visitor Use

Goal 1: Protect the unique recreation values of the following areas:

1. Upper Salmon River SRMA
2. Upper Big Lost River SRMA
3. Mackay Reservoir SRMA
4. sites along Highway 93

Rationale: The Main Salmon River and East Fork Salmon River attract and concentrate substantial numbers of recreationists. The BLM's Idaho Recreation 2000 Plan (May, 1989) calls for special management of the **Upper Salmon River**. The outstanding opportunities for river recreation, ease of access, international name recognition, and proximity of the area to other prominent recreation centers logically points toward increased popularity.

The **Upper Big Lost River** recreational use situation mirrors the Upper Salmon River situation, on a smaller scale. Current and projected recreation popularity warrant special management for the area. The Big Lost River corridor has become a major travel route connecting Highway 93 and the Ketchum and Sun Valley, Idaho area.

Highway 93 (between Challis and Mackay) is a major route into the Upper Salmon River country as well as the Sun Valley area. Numerous recreationists travel the route for the scenery and wildlife-viewing opportunities. Recreation and interpretive facilities along this route are inadequate to accommodate current numbers of travelers.

Management Decisions Common to All SRMAs:

1. Manage the BLM tracts adjacent to Mackay Reservoir and along the Main Salmon River and the East Fork Salmon River as Special Recreation Management Areas (SRMAs). Designate the BLM tracts along the upper Big Lost River from the Forest Service boundary to the Bartlett bridge as an SRMA (see *Map 40: SRMAs*).

2. Developed recreation sites within the SRMAs would include the Cottonwood, Deadman Hole, Bayhorse, Eastfork, Mackay, Garden Creek, and Little Boulder campgrounds. Recreation sites located on public lands, but managed by the IDFG, would include the Ellis and Deer Gulch campgrounds. No semi-developed recreation sites would be provided in the SRMAs.

3. Manage casual use areas as follows:

   (a) Improve facilities in existing casual use areas in riparian zones to provide developed day use areas in riparian zones (not including campgrounds) as follows: up to 4 along the Salmon River and up to 2 along the Big Lost River. All other casual use areas in riparian zones would be closed to motorized vehicle use and rehabilitated within five years.

   (b) Pullout areas and trails could be provided to allow for continued access to the Salmon River and Big Lost River.

(c) Non-riparian casual use areas would be developed into day-use areas or closed on a case-by-case basis in accordance with the corresponding activity plan.

4. Provide at least vault toilets and stabilized parking areas at Jimmy Smith Lake Trailhead, Dugway (Wood Creek Recreation Site), and Challis Bridge (Round Valley Recreation Site).

5. Wherever feasible, incorporate river access facilities for floatboating and fishing into new and existing day-use and campground developments.

6. Provide trash disposal facilities as necessary. Where no trash disposal facilities are provided, people would be required to pack out their own trash. Follow approved methods for waste disposal shown in *Attachment 19,* p. 154.

7. Recreation facilities within SRMAs would be designed to blend with the existing scenery to reduce visual impacts.

8. Exclude livestock from the portions of developed recreation sites (see *Glossary*, p. 170) which receive intensive use and are listed below, as well as appropriate portions of recreation sites developed in the future.

   Mackay Reservoir
   Pinto Creek Recreation Site (Garden Creek)
   Upper East Fork Campground (Little Boulder Creek)
   Jimmy Smith Lake Campground
   East Fork Recreation Site
   Summit Creek Recreation Site
   Bayhorse Creek Recreation Site
   Deadman Hole Recreation Site
   Wood Creek Recreation Site (Dugway)
   Round Valley Recreation Site (Challis Bridge)
   Morgan Creek Recreation Site
   Herd Lake Campground
   Herd Lake Overlook
   Bison Jump Recreation Site
   Cottonwood Recreation Site

9. (a) Prohibit firewood cutting and firewood gathering within designated recreation sites (see *Glossary*: firewood cutting, firewood gathering, p. 172).

   (b) Firewood cutting permits for standing trees would be denied within SRMAs, except where tree cutting (see *Glossary*, p. 184 meets the objectives stated in Forest Resources, Goal 1, #24, p. 52. Firewood gathering within SRMAs would be limited to dead-and-down material.

Also see Forest Resources, Goal 1, #13, p. 51.

10. Limit motorized vehicle travel within SRMAs to existing roads, vehicle ways, and trails, unless additional closures or limitations apply (see OHV Use, Goal 1, #1-7, pp. 68-71; *Glossary*: off-highway vehicle use designations, p. 178; and *Map 40: SRMAs.*)

11. Minerals activities in campgrounds, recreation sites, and SRMAs would be allowed or restricted as shown in Minerals, Goal 1, #2 and 3, Goal 2, #2 and 3, and Goal 3, #2 (see pp. 64-66).

Management Applying to the Recreation Area(s) Indicated in Each Decision:

12. Revise the existing Upper Salmon River Recreation Area Management Plan (RAMP) within three years, reflecting the addition of the East Fork Salmon River tracts (see *Map 40: SRMAs* and *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103).

13. Management of the Upper Salmon River SRMA would be coordinated with the U. S. Forest Service, the State of Idaho, Custer County, and adjacent private landowners.

14. The Upper Big Lost River SRMA would be managed according to an activity plan developed within two years to emphasize developed camping and river recreation. The activity plan would be completed before any site planning. (See *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103.)

15. Revise the existing Mackay Reservoir RAMP within four years (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103).

16. Develop facilities, including interpretive displays, in the Chilly Slough Wetlands Conservation Project area to enhance recreational opportunities for wildlife watching, photography, fishing, and hunting. Design facilities to minimize impacts to wetland and wildlife values and otherwise be compatible with wetland and wildlife objectives developed for the project area. (See *Attachment 11: Summary of the Chilly Slough Wetland Conservation Project*, p. 144)

Goal 2: Provide a variety of interpretive services which highlight the natural, cultural, and historical features of the Challis Resource Area.

Rationale: Interpretation enhances the quality of recreation opportunities provided on public lands.

1. Develop a comprehensive interpretive plan for the three SRMAs. Interpretive media such as brochures, maps, pamphlets, guidebooks, etc. would be designed and developed to enhance the recreational experience of the public. In addition, materials for self-guided tours of historic areas, geology and natural history kiosks, evening presentations in campgrounds, etc, would be considered in the interpretive plan.

2. Interpretive needs within the SRMAs would be met primarily through interpretive waysides and roadside signing.

3. Coordinate interpretive efforts in the BLM-managed portion of the Land of the Yankee Fork Historic Area with the Idaho Department of Parks and Recreation and the U. S. Forest Service. The BLM would consider staffing assistance at the Land of the Yankee Fork visitor center.

4. Consider the Whiskey Springs site for an interpretive wayside to emphasize the area's wildlife values.

5. Opportunities for wildlife viewing would be enhanced primarily along the roads and highways within the SRMAs.

6. Prohibit all non-interpretive signing (*e.g.,* advertising, political signs, etc.) on public lands.

7. Provide a public viewing area for wild horse observations.

For RMP management decisions relating to public awareness of cultural resources, ***also see*** Cultural Resources, Goal 2, #1-4, pp. 42-43.

Goal 3: Provide recreation opportunities for the remainder of the Resource Area not included in an SRMA, including areas specifically for unstructured outdoor experiences, trails (*e.g.*, hiking, horseback riding, bicycling), recreational mineral collecting, and OHV use.

Rationale: The BLM manual requires the establishment of Extensive Recreation Management Areas (ERMAs) during the RMP process.

1. Those portions of the RA not designated as an SRMA would be managed as the Challis Extensive Recreation Management Area (ERMA) (see *Map 40: SRMAs*).

2. Complete a comprehensive inventory of use patterns, demands, and impacts within the ERMA within 10 years. Whenever feasible, this inventory would be conducted as a cooperative effort between the BLM and the adjoining National Forests.

3. Continue to provide day-use facilities at Herd Lake Overlook and Summit Creek. Provide semi-developed recreation sites at Summit Creek (see ACECs, Summit Creek ACEC, #3, p. 38), First Creek Crossing, and Big Creek. Close the Upper Lake Creek campground and maintain the existing road above Herd Lake as a non-motorized trail only (see OHV Use, Goal 1, #3(a)(2) and 3(b)(2), pp. 70-71).

4. Within ten years develop an activity management plan for backcountry use to address the various dispersed recreation opportunities (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103). If possible, develop this plan in cooperation with the adjoining National Forests.

5. Develop and maintain one new backcountry trail in the ERMA within 10 years, primarily for use by mountain bikers and horseback riders.

Goal 4: Enhance recreational opportunities through designation of additional existing roads into the BLM National Backcountry Byways program.

Rationale: The BLM Manual requires that Backcountry Byways be addressed through the planning process.

1. Recommend a loop drive for inclusion in the National Backcountry Byways system: Wild Horse Backcountry Byway. The route would go over Spar Canyon Road, along Highway 93 from the end of Spar Canyon Road to the Dry Gulch Road, continue on Dry Gulch Road to Walker Way, follow Walker Way and Road Creek to the East Fork Road, and the East Fork Road back to Spar Canyon. Also study the following roads for inclusion in the National Backcountry Byways system: Double Springs Road, Garden Creek Road, Morgan Creek Road, and Trail Creek Road.

Goal 5: Examine the potential for significant caves in the Resource Area. Protect significant caves via the activity plan process.

Rationale: Legal and manual guidance require that caves be addressed in the planning process and important cave resources be protected.

1. In cooperation with local and regional caving groups, conduct an intensive Resource Area-wide inventory of existing caves, determine the significance of identified caves, and recommend protective measures.

Riparian Areas

Goal 1: Manage stream riparian areas to maintain or achieve proper functioning condition (see *Attachment 1: Riparian-Wetland Area Function Classification*, pp. 101-102) to ensure desired functions, improve water quality, prevent and minimize flood and sediment damage, and establish conditions which support attainment of healthy and productive aquatic habitat. Maintain proper functioning condition stream riparian areas (currently 35.8%, based on the most recent riparian functionality assessments) and restore functional-at-risk and non-functional stream riparian areas so that 75 percent or more of stream riparian areas are in proper functioning condition or making progress toward proper functioning condition within five years. Maintain proper functioning condition stream riparian areas and restore functional-at-risk and non-functional stream riparian areas so that 90 percent of riparian areas on fish-bearing streams are in proper functioning condition or making progress toward proper functioning condition by 2010.

Rationale: Required by the Clean Water Act and BLM policy.

1. All new Challis Resource Area activity plans, agreements, or other resource planning documents proposing or modifying resource management actions would incorporate knowledgeable and reasonable practices (see *Glossary*, p. 175) to maintain water quality, support beneficial uses, and restore and maintain riparian areas. When appropriate, follow *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103. The approach described in *Attachment 12: Procedure for Nonpoint Source Consistency Review* (pp. 145-146) would be utilized in these documents to ensure consistency and compliance with the Idaho Nonpoint Source Management Program.

2. Review existing activity plans and revise them as appropriate, in order to address riparian concerns within the Resource Area (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103). Priority for activity plan review and revision would be given to those watersheds with special status fish species concerns.

3. An ID team would select a riparian monitoring site within each pasture containing a perennial stream or appropriate portion of an intermittent stream, to measure progress toward meeting riparian objectives.

4. Knowledgeable and reasonable practices (see *Glossary*, p. 175) to manage livestock grazing would be used to improve riparian areas and meet resource objectives on perennial and intermittent streams. The herbaceous stubble height and bank shearing standards listed in #5 and 6 below would be the primary knowledgeable and reasonable practices used to manage livestock on most streams. When appropriate and available, alternative knowledgeable and reasonable practices may be implemented in lieu of the standards in #5 and 6 below, provided that the alternative practices are based on the following: (1) current scientific literature or other applicable study results which substantiate that riparian improvement would result from implementing the practice(s); (2) the recommendations of an ID team responsible for reviewing, interpreting, and documenting the scientific literature or study results upon which the knowledgeable and reasonable practice is based; and (3) completion of an environmental assessment documenting how the knowledgeable and reasonable practice would meet riparian resource objectives.

5. Use the following herbaceous stubble height criteria to manage livestock grazing in riparian areas on all perennial and appropriate portions of intermittent streams, in order to make progress toward achieving and maintaining proper functioning condition.

   (a) Manage livestock use on streams in either proper functioning condition or functional-at-risk condition with an upward trend (see *Attachment 1: Riparian-Wetland Area Function Classification,* pp. 101-102) to maintain a minimum four-inch median stubble height during the scheduled grazing period.

   (b) Manage livestock use on streams in either functional-at-risk condition with a static or downward trend or nonfunctional condition (see *Attachment 1: Riparian-Wetland Area Function Classification*, pp. 101-102) to maintain a minimum six-inch median stubble height during the scheduled grazing period.

   (c) Stubble height criteria may be less than stated in #5a and 5b above in pastures used prior to July 10 if an ID team determines that sufficient regrowth is expected to meet the criteria by the end of the growing season. In pastures used after July 10, remove livestock from perennial and appropriate portions of intermittent stream riparian areas prior to exceeding the applied stubble height criteria. (See *Attachment 3: Component Practices for Grazing Management in Lieu of BMPs*, p. 104)

6. Use the following bank-shearing criteria to manage livestock grazing in riparian areas on all perennial and appropriate portions of intermittent streams, in order to make progress toward achieving and maintaining proper functioning condition.

   (a) On streams which are occupied habitat for special status fish species, manage livestock so that no more than 10% of the streambank is sheared by livestock hoof action.

   (b) On perennial streams and appropriate portions of intermittent streams which are not occupied habitat for special status fish species, manage livestock so that no more than 20% of the streambank is sheared by livestock hoof action.

   These standards for bank shearing may be altered on a case-by-case basis when a watershed or site-specific assessment conducted by an ID team indicates alternative conditions are more appropriate. Rationale for changes to the bank shearing standard must be properly documented.

7. Manage livestock grazing in riparian areas according to the decisions stated in Riparian Areas, Goal 1, #4-6 above. Periodically evaluate riparian habitat condition. Implement further adjustments in livestock use and management (*e.g.*, rest, reduced livestock numbers, changed season of use) if trend or other monitoring data indicate riparian improvement is not sufficient to meet riparian resource objectives.

8. Continue existing management (including periodic grazing) of the Anderson Ranch riparian pasture to ensure progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149).

9. Develop riparian pastures and riparian study exclosures throughout the Resource Area where an ID team identifies the opportunity.

10. Elicit support and cooperation to develop an allotment-scale grazing management demonstration project on a perennial watershed.

11. To restore degraded riparian/aquatic habitat conditions, technical approaches for riparian/-aquatic improvement (*e.g.,* plantings, structures) (see *Glossary*, p. 184) may be implemented on sites that are not responding, and are not expected to respond, to proper grazing management.

12. Roads would not be constructed in riparian zones, except for stream crossing needs and recreation site development. Roads constructed would, as a minimum, meet all standards listed in Transportation, Goal 1, #9, p. 85.

For additional RMP decisions regarding management of resources and land uses in riparian areas, ***also see*** Forest Resources, Goal 1, #13, 15, 16, 17, and 24 (pp. 51-52), Livestock Grazing, Goal 1, #4, 6, and 11 (pp. 60-61); Minerals, Goal 1, #6, Goal 2, #6, and Goal 3, #5 (pp. 64 and 66); and Recreation Opportunities and Visitor Use, Goal 1 (pp. 74-76).

Goal 2: Increase knowledge and understanding of riparian resources to improve the effectiveness of riparian management.

Rationale: Information on trend and condition for many streams in the Resource Area is lacking. BLM policy requires information on riparian condition and trend to be obtained.

1. Determine which perennial streams currently support State designated and BLM identified beneficial uses, through riparian status inventory and stream function assessment (see *Attachment 23: Beneficial Use Classifications for Drainage Segments,* pp. 159-163).

2. Maintain existing riparian exclosures to provide reference areas for management assessment. Continue to monitor changes within the exclosures.

3. To determine riparian potential, within 10 years establish and monitor fenced riparian study areas on perennial stream segments as described in *Attachment 13: Riparian Study Area Development,* p. 147. Establish a riparian study exclosure on each riparian site type comprising at least 10% of the riparian area in each principal drainage shown on *Map 25: Geography and Principal Drainage Basins*. Use these exclosures to collect baseline riparian information which can be applied to like site types within the drainage. Establish additional exclosures within a drainage as needed to help resolve resource conflicts.

Goal 3: Manage for a "no net loss" of riparian and floodplain habitat.

Rationale: Riparian areas, as one of the most desirable and valuable areas on the landscape, are often the site of inadvertent trespass. Loss of these areas in the resolution of trespass cases incrementally erodes the amount of this habitat type in public ownership. Such a loss represents lost opportunities for wildlife, recreation, fisheries, and biodiversity.

1. Follow a "no net loss" policy of like riparian values (*e.g.* cottonwood galleries, forest wetlands, perennial streams) and floodplain habitat on individual exchanges when conducting land tenure adjustments (see Land Tenure and Access, Goal 1, #3, p. 54).

Goal 4: Increase public awareness of the value of good condition, functional riparian and wetland areas.

Rationale: Many persons do not understand the functional value of a good condition riparian area. Required by the BLM's *Riparian-Wetland Initiative for the 1990's* (September 1991).

1. Initiate public education efforts to improve public understanding of, and appreciation for, riparian and wetland areas.

2. Riparian demonstration areas, exclosures, and other study sites would be showcased and used for educational and scientific purposes.

3. Provide interpretive facilities at the Chilly Slough wetland to highlight wetland values. Design recreational facilities developed at the Chilly Slough wetland to minimize impacts to wetland values (also see Recreation Opportunities and Visitor Use, Goal 1, #16, p. 76).

Special Status Species

**Note: This section primarily discusses special status plant and animal species. Special status fish species are also discussed under Fisheries, Goal 1,* pp. 45-47.

Goal 1: Increase the knowledge of the distribution and abundance of special status species (see *Glossary*, p. 183) in the Challis Resource Area.

Rationale: The distribution and abundance of rare species in the Resource Area is poorly known.

1. Conduct field inventories for special status plant species at the rate of about 3,000 acres per year.

2. Conduct annual interagency surveys of wintering bald eagles.

3. At least once every five years, inventory cliff sites for possible use by endangered peregrine falcons.

4. Conduct field inventories for special status animal species at the rate of about 4,000 acres per year.

5. Within five years, develop species data files for sensitive amphibians, reptiles, insects, and non-vascular plants (based on literature searches and expert input) that may potentially occur in the Resource Area. Within ten years, conduct field inventories of these species' potential habitats.

Goal 2: Maintain populations of special status species and/or their habitat over the range of natural distribution and habitat conditions. Eliminate the need for listing of sensitive and candidate species and contribute to recovery of listed species by increasing the number or size of populations or by removing threats to species and their habitats.

Rationale: BLM policy is to manage special status species to maintain viable populations, to manage sensitive and candidate species in a manner that eliminates the need for listing under the Endangered Species Act, and to manage listed species for recovery.

1. Include a site-specific field assessment of special status plant, animal, and fish species as part of the assessment of all authorized actions.

2. Activity planning, project implementation, and settlements of unauthorized use would promote mitigation of adverse effects on special status species. Where adverse effects cannot be mitigated (other than for Federally listed threatened or endangered species), the cumulative effects of such actions would be monitored and assessed.

3. As additional information on amphibians, reptiles, invertebrates, and non-vascular plants becomes available, include analysis of these life forms when assessing the effects of authorized actions.

4. Develop BLM Species Management Plans or other types of conservation plans for special status plant species within 5 years. Strategies would be developed to (a) maintain or increase the population size of all known populations of the alkaline primrose; and (b) maintain habitat for at least 70% of the populations of the wavy leaf thelypody in the Resource Area. Coordinate with the USFWS to determine which populations of wavy leaf thelypody can be impacted without threat to the species.

5. Within 10 years, develop BLM Species Management Plans or other types of conservation plans for at least five of the species inventoried under Special Status Species, Goal 1, #4 and 5 above.

6. Develop cost-share partnerships with academic institutions and conservation groups to promote population recovery, management, and study of all special status species.

For additional RMP decisions regarding management of special status species, ***also see*** ACECs - "Management Common to All ACECs" and Dry Gulch, Herd Creek Watershed, Malm Gulch/Germer Basin, Pennal Gulch, Sand Hollow, and Summit Creek ACECs, pp. 29-30 and 33-39; and "General" standard operating procedures #3-5 (*Attachment 5: SOPs*, p. 107).

Transportation

Goal 1: Consistent with other resource objectives and values, provide an adequate road and trail system on the Challis Resource Area's public lands to (a) satisfy the public need for recreation, commodity production, access, and safety, and (b) facilitate management of BLM resources and programs.

Rationale: An adequate road and trail system is needed to meet public demand for access and use of the public lands. BLM roads and trails provide the final link in the network of interstate, state, and county roads developed to meet public transportation needs.

1. Within five years, develop a transportation plan for the Resource Area using an ID team planning process (see *Glossary,* p. 174) to identify (a) roads or trails which are extraneous and could be closed; (b) roads needing improvement to meet public safety, recreation, resource and program management, public access, and commodity production needs; (c) guidance for maintenance; (d) miles of roads or trails which may need to be constructed; and (e) other transportation management guidance which may be necessary. See *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103.

2. Through the ID team planning process, a long term road maintenance plan which includes the level and frequency of maintenance for each BLM road and trail (see *Map 22: Existing Maintained Roads*) would be developed, reviewed, and modified as needed (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103). BLM guidance which sets criteria for road maintenance levels would be followed (see *Attachment 20,* p. 155). The road maintenance plan would be reviewed annually by appropriate staff specialists and modified as necessary to avoid conflicts with special status species, cultural resources, and other resources.

3. Unless modified by the road maintenance plan described in Goal 1, #2 above, the BLM roads and trails currently identified for Level 3 maintenance (see *Map 35: Road and Trail Maintenance Priorities*) would receive regular maintenance as needed. All other roads and trails would be maintained as described in Goal 1, #4 and 5 below.

4. In order to limit unnecessary surface disturbance and maintain primitive values, BLM roads and trails identified for Level 2 maintenance would only receive maintenance work as needed to (a) ensure public safety, (b) repair resource damage caused by high runoff events, or (c) control erosion at drainage crossings.

5. BLM roads and trails identified for Level 1 maintenance would only be maintained to provide access for emergency cases, such as a large wildfire.

6. No new roads would be constructed in riparian areas, except for stream crossing needs and recreation site development.

7. All future roads, stock trails, and recreational trails would be located, designed, constructed, and drainage-controlled so that erosion on the roadbed and cut and fill slopes would not hinder progress toward supporting water quality beneficial uses or attaining riparian management objectives (see Upland Watershed, Goal 1, #10, p. 88).

8. Existing roads would be inventoried and, on a case-by-case basis, modified, relocated, or closed and rehabilitated to meet water quality standards and support State designated and BLM identified beneficial uses (see *Attachment 23*, pp. 159-163) of adjacent streams, beginning with those streams containing salmon, steelhead trout, or bull trout habitat.

9. BLM roads and trails would be constructed and maintained to (a) meet or exceed State approved BMPs for road construction and maintenance, (b) ensure progress toward the riparian and aquatic habitat conditions described in *Attachment 15,* p. 149 and (c) follow "General" design specification #1 (see *Attachment 8*, p. 120).

For additional decisions relating to transportation and access, ***also see*** the following sections of the PRMP: Forest Resources, Goal 1, #15, 16, 17, 18, 23, pp. 51-52; Hazardous Materials Management, Goal 1, #2, p. 53; Land Tenure and Access, Goal 5, #1 and 2, p. 58; OHV Use, Goal 1, #1-7, pp. 69-71; Recreation Opportunities and Visitor Use, Goal 4, #1, p. 78; and Design Specifications - "General" #1 and "Forest Management - Road Construction" (*Attachment 8*, pp. 120 and 122).

Tribal Treaty Rights

Goal 1: Identify and consider Native American issues and concerns in order to accommodate treaty and other legal rights of appropriate Native American groups in the multiple-use management of public lands.

Rationale: The Federal government has a trust responsibility to Native American tribes in the management of public lands as provided for through various negotiated treaties. Several laws, including FLPMA, require the BLM to coordinate with Federally recognized Indian tribes about impacts to Indian trust resources which may result from BLM plans, projects, programs, or activities.

1. Notify and consult appropriate Native American tribes to ensure that all anticipated effects to Indian trust resources are addressed in the planning, decision, and operational documents prepared for each proposed BLM action. Consultation and coordination would be conducted on a government-to-government basis with Federally recognized tribes. Types of proposed actions which would require consultation would include, but not be limited to, range practices and management, wildlife habitat management, fisheries habitat management, land tenure actions or permits, forest resources management, and minerals exploration or development. In some cases, give priority consideration to enhancement of resources used by Native American tribes under treaty.

   The following RMP management decisions relate to tribal treaty rights because they either (a) specifically discuss management of trust resources to facilitate pursuit of tribal treaty rights or (b) provide for consultation with Federally recognized tribes regarding management of various trust resources, such as wildlife and fish.

   Fisheries: Goal 1, #6, 11, 13, and 15, pp. 46-47.

   Forest Resources: Goal 1, #11, 18 and 19, pp. 51-52.

   Land Tenure: Goal 1, #2 and 10, p. 54; Goal 3, #7, p. 57; and Goal 5 statement, p. 58.

   Livestock Grazing: Goal 1, #15, p. 61.

   Minerals: "Decisions Which Apply to All Types of Mineral Development," #3, p. 63.

   Wildlife Habitat: Goal 2, # 10, p. 97; and Goal 4, #1, p. 98.

Upland Watershed

Goal 1: Restore and rehabilitate upland watersheds found to be in unsatisfactory condition, and maintain satisfactory condition watersheds (see *Glossary* definition: watershed condition class, p. 186).

Rationale: Poor condition upland watersheds contribute to non-functional and functional-at-risk riparian systems and the loss of the soil resource base, do not sustain beneficial physical and ecological processes, and lack functioning recovery systems. Management of watersheds to reduce soil erosion and sediment delivery protects beneficial uses of water and the soil resource base on which all vegetation resources rely. The Clean Water Act requires management of watersheds to protect beneficial uses of water. Upland watershed management is also a BLM policy requirement.

1. Consider the effects of resource use timing and intensity on soil compaction, erosion, and microbiotic soil crusts before new soil disturbing actions (including changes in livestock grazing) are authorized.

2. Where practicable, avoid areas with soils at risk of compaction when designing and planning for activities that concentrate use.

3. Manage all watersheds in the Resource Area to achieve 70% vegetative cover on upland sites as measured prior to grazing, or, for sites not capable of achieving 70% cover, 90% of cover achievable under Potential Natural Community.

4. Additional forage available as a result of seedings, burns, range improvements or projects, etc. would not be allocated on a permanent basis for livestock use (but rather used for watershed protection and other multiple use purposes) until resource management objectives for the allotment are met, as determined by an ID team through allotment analysis. Permanent increases in livestock preference resulting from vegetation treatments would be based on the increase in forage production and changes in plant composition, as measured by pre- and post-treatment production studies.

5. Grazing privileges that are lost, retired, relinquished, canceled, or have base property sold without transfer would have attached AUMs held for watershed protection and wildlife habitat until allotment vegetative objectives are reached. Once vegetative objectives are reached, these AUMs would remain unallocated to any particular livestock permittee, but may be used to provide short term (less than three years) flexibility to permittees for vegetation treatments or other management actions affecting their base permit.

6. Allocate nonuse AUMs to watershed protection, wildlife habitat, plant maintenance, and improvement of ecological condition to meet related allotment objectives. Nonuse AUMs may be authorized for temporary nonrenewable use after an ID team has determined that related allotment objectives are being met.

7. Manage the Garden Creek watershed (Challis municipal water supply) to maintain water quality in Garden Creek.

8. Burned areas and areas disturbed during wildfire suppression may be rehabilitated to meet multiple use objectives when the erosion hazard is high, natural revegetation potential is low, and alternative management practices alone would not facilitate stabilization in a timely manner. An interdisciplinary team would evaluate the need for the project, develop rehabilitation objectives, and design the project. (Also see Fire Management, Goal 1, #8, p. 45.)

9. Artificially stabilize headcuts when it has been determined that alternative management practices alone will not facilitate stabilization in a timely manner and are preventing attainment of desired riparian and aquatic habitat conditions (see *Attachment 15*, p. 149).

10. Manage erosion from mines, roads, and surface disturbing activities to meet State water quality standards, support beneficial uses, and ensure progress toward desired riparian and aquatic habitat conditions (see *Attachment 15*, p. 149 and Water Quality, Goal 1, #1-7, p. 90).

11. Allow only helicopter logging in the Lone Pine Peak area (see *Map C: Suitable Commercial Timberlands*), to protect watershed resources in Lone Pine Creek.

For additional RMP decisions relating to management of upland watersheds, ***also see*** ACECs - Malm Gulch/Germer Basin and Sand Hollow ACECs, pp. 36-38; OHV Use, Goal 1, #1-7, pp. 69-71; *Attachment 5: SOPs* (pp. 107-112); and *Attachment 8: Design Specifications* (pp. 120-123).

Visual Resources

Goal 1: Maintain or enhance the visual quality of the Resource Area, and prioritize the areas where greater and lesser consideration would be given to surface disturbing activities.

Rationale: Consideration of visual quality and the establishment of Visual Resource Management (VRM) areas is required by law and BLM policy.

1. Manage visual resources according to the VRM classes shown on *Map 41: Visual Resource Management* (see Glossary: Visual resource management classes, pp. 185-186). Surface disturbing activities would not exceed the allowable visual intrusion for a given area. Where feasible, additional design techniques would be employed to help projects blend into the scenery.

   (a) Approximately 142,260 acres would be managed under the provisions of Visual Management Class I.

   (b) Approximately 557,665 acres would be managed under the provisions of Visual Management Class II.

(c) Approximately 92,641 acres would be managed under the provisions of Visual Management Class III.

(d) Zero acres would be managed under the provisions of Visual Management Class IV.

2. Under the following circumstances, an ID team would consider, and recommend if appropriate, the use of visual simulations and the latest visual design techniques to assess visual quality and visual impacts and ensure that the current VRM Class is maintained or enhanced:

   (a) project scoping for proposed surface-disturbing projects anywhere in the RA; and
   (b) project scoping for all proposed actions within a VRM Class I area, a VRM Class II area; or an SRMA.

3. Within five years, develop a model of visual appeal for landscape features within the SRMAs (see *Map 40: SRMAs*).

4. In VRM Class I and II areas and anywhere within an SRMA, on-site visual quality control assessments would occur as part of project planning and implementation.

5. Manage existing WSAs under VRM Class I. The visual quality of WSAs released from wilderness review would be managed under the visual management class of adjacent BLM public lands (see *Map 41: VRM* and *Map 42: WSAs*). Where more than one VRM class lies adjacent to a WSA, an ID team would decide the VRM class of the released WSA.

6. Allow only helicopter logging in the Lone Pine Peak area (see *Map C: Suitable Commercial Timberlands*), to retain the visual characteristics of the area and protect watershed resources in Lone Pine Creek.

7. Allow mineral material disposals and non-energy leasing in SRMAs when the actions are determined through the ID team process to be consistent with maintenance of Special Management Area values. To maintain recreational and scenic values in the Upper Salmon River and Upper Big Lost River SRMAs, limit mineral material disposals and non-energy leasing to existing sites and sites not visible from the Salmon River or upper Big Lost River or the following roads: Trail Creek Road, East Fork Road, Highway 75, and Highway 93 South, unless a site-specific scenic quality assessment determines there would be no significant impact to SRMA resources (see *Map 40: SRMAs*).

Water Quality

Goal 1: On perennial streams, improve water quality to fully support those beneficial uses which are not supported, are threatened, or are only partially supported. Maintain fully supported beneficial use status where it exists.

Rationale: Required by the Clean Water Act.

1. Determine which perennial streams currently support State designated and BLM identified beneficial uses, through riparian status inventory and stream function assessment (see *Attachment 23: Beneficial Use Classifications for Drainage Segments,* pp. 159-163).

2. Design and conduct land and resource management activities to maintain or improve water quality and support State designated and BLM identified beneficial uses (see *Attachment 23*, pp. 159-163). As necessary, incorporate guidelines for controlling sediment discharge into water bodies into all BLM authorized actions.

3. All BLM authorized actions would meet or exceed State approved BMPs for water quality, to ensure that activities maintain existing good water quality and improve impaired water quality. Utilize the approach described in *Attachment 12* (pp. 145-146) to monitor water quality and ensure consistency and compliance with the Idaho Nonpoint Source Management Program.

4. Water quality would be a management priority and receive special consideration on State identified water quality limited stream segments (see *Glossary*, p. 186 and *Attachment 23: Beneficial Use Classifications for Drainage Segments,* pp. 159-163).

5. All future roads, stock trails, and recreational trails would be located, designed, constructed, and drainage controlled so that erosion on the roadbed and cut and fill slopes would not hinder progress toward supporting water quality beneficial uses or attaining riparian management objectives (see Upland Watershed, Goal 1, #10, p. 88).

6. Existing roads would be inventoried and, on a case-by-case basis, modified, relocated, or closed and rehabilitated to meet water quality standards and support State designated and BLM identified beneficial uses (see *Attachment 23*, pp. 159-163) of adjacent streams, beginning with those streams containing salmon, steelhead trout, or bull trout habitat.

7. Until BMPs for livestock grazing are developed, use the procedures shown in *Attachment 3: Component Practices for Grazing Management in Lieu of BMPs,* p. 104.

For additional RMP decisions relating to water quality, ***also see*** Forest Resources, Goal 1, pp. 49-52; Livestock Grazing, Goal 1, #4, p. 60; Minerals, Goal 1, #6, Goal 2, #6, and Goal 3, #5, pp. 64 and 66; Riparian Areas, Goal 1, pp. 79-81; Upland Watershed, Goal 1, pp. 87-88; *Attachment 5: SOPs* - Noxious Weeds, pp. 110-111; and *Attachment 8: Design Specifications*, pp. 120-123

Wilderness Study Areas - Management if Released from Wilderness Review

Goal 1: Manage Wilderness Study Areas (WSAs) released by Congress from wilderness review for existing values and uses, such as primitive and unconfined recreation, opportunities for solitude, naturalness, roadlessness, livestock grazing, forest resources, and biodiversity.

Rationale: WSAs currently managed under the BLM's *Interim Management Policy and Guidelines for Lands under Wilderness Review* (July 5, 1995) may potentially be released by Congress for other multiple-use management purposes.

1. Unless released by Congress from wilderness review, WSAs would continue to be managed in accordance with (a) the BLM's *Interim Management Policy and Guidelines for Lands Under Wilderness Review* (1995) and (b) the 1982 Challis, 1986 Big Lost-Pahsimeroi, and 1989 Statewide Small WSA Plan Amendments. Existing WSAs (see *Map 42: WSAs*) and their acreages recommended by the BLM as suitable or nonsuitable for wilderness inclusion are:

Jerry Peak West	13,530 acres nonsuitable
Jerry Peak	26,750 acres suitable 19,400 acres nonsuitable
Burnt Creek	8,300 acres suitable 16,680 acres nonsuitable
Goldburg	3,290 acres nonsuitable
Borah Peak	3,880 acres suitable
Corral-Horse Basin	46,500 acres nonsuitable
Boulder Creek	1,930 acres nonsuitable

   Also see *Map 43: WSAs - Goldburg WSA; Map 44: WSAs - Burnt Creek WSA*; *Map 45: WSAs - Borah Peak WSA; Map 46: WSAs - Jerry Peak West and Boulder Creek WSAs*; and *Map 47: WSAs - Jerry Peak and Corral-Horse Basin WSAs.*

2. If released from wilderness review, resource objectives would be identified during activity planning (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103) to provide for development of range improvement projects, grazing management, primitive recreation, and biodiversity in the WSAs. Other resource values would be managed as described below.

3. The following OHV closures or limitations in WSAs and WSAs if released from wilderness review would be exceptions to the RA-wide limitation described in OHV Use, Goal 1, #1, p. 69 (see *Map 33: OHV Use* and *Map 42: Wilderness Study Areas.*):

(a) *Designated WSAs:* Except for the road closures stated below, OHV use in WSAs would be limited to roads, vehicle ways, and trails that were identified in the Idaho Intensive Wilderness Final Inventory (November 1980).

(1) In the Burnt Creek WSA the Dry Creek Road would be closed to motorized vehicle use in the N 1/2, Sec. 1, T9N, R24E for safety reasons and to maintain primitive values (see *Map 44: WSAs - Burnt Creek WSA*).

(2) In the Jerry Peak WSA, the existing trail below Herd Lake and road above Herd Lake would be closed to motorized vehicle use to maintain primitive values, and maintained as trails for non-motorized use only (see *Map 47: WSAs - Jerry Peak and Corral-Horse Basin WSAs*).

Any non-emergency motorized vehicle use off of existing roads, vehicle ways, and trails in a WSA must (a) be specifically authorized by the BLM prior to use and (b) satisfy nonimpairment criteria (Interim Management Policy for Lands Under Wilderness Review, Manual H-8550-1 (7/95), page 15).

(b) *WSAs if Released:* Except for the road closures stated below, OHV use in WSAs if released from wilderness review would be limited to roads, vehicle ways, and trails that were identified in the Idaho Intensive Wilderness Final Inventory (November 1980).

(1) In the Burnt Creek WSA the Dry Creek Road would be closed to motorized vehicle use in the N 1/2, Sec. 1, T9N, R24E for safety reasons and to maintain primitive values (see *Map 44: WSAs - Burnt Creek WSA*).

(2) In the Jerry Peak WSA, the existing trail below Herd Lake and road above Herd Lake would be closed to motorized vehicle use to maintain primitive values, and maintained as trails for non-motorized use only (see *Map 47: WSAs - Jerry Peak and Corral-Horse Basin WSAs*).

(**Note:** The provisions stated in OHV Use, Goal 1, #1(b) and (c) (p. 69) would apply in WSAs if released from wilderness review.)

4. No new roads would be constructed in the Jerry Peak, Jerry Peak West, Corral-Horse Basin, and Burnt Creek WSAs if released from wilderness review, except where such construction is necessary to develop mineral or timber resources (as described in #5 and 7 below), and where construction is consistent with other resource management objectives. (See *Map 44: WSAs - Burnt Creek WSA, Map 46: WSAs - Jerry Peak West and Boulder Creek WSAs*, and *Map 47: Jerry Peak and Corral-Horse Basin WSAs.*)

5. If released from wilderness review, WSAs would be open to forest management, including commercial timber harvest, with the following limitations and exceptions on commercial timber harvest: (a) In the nonsuitable portions of the Jerry Peak and Corral-Horse Basin WSAs, timber stands more than 1/2-mile from roads existing at the time of RMP approval (see *Glossary*: "road," p. 181 and "existing roads, vehicle ways, and trails," p. 172) would be available for harvest by helicopter logging only. (b) Suitable portions of the

Jerry Peak WSA if released from wilderness review would remain closed to timber harvest to maintain old growth forest values and biodiversity associated with large undisturbed tracts of forest land. (See *Map C: Suitable Commercial Timberlands* and *Map 47: WSAs - Jerry Peak and Corral-Horse Basin WSAs.*)

6. Mineral development in WSAs released from wilderness review would be allowed or restricted as described in Minerals, Goal 1, #4, Goal 2, #5, and Goal 3, #3 (see pp. 64 and 66).

7. Existing WSAs would be managed under VRM Class I. The visual quality of WSAs released from wilderness review would be managed under the visual resource management class of adjacent BLM public lands. Where more than one VRM class lies adjacent to a WSA, an ID team would decide the VRM class of the released WSA.

8. Public lands within an existing WSA which are identified as adjustment areas for potential disposal (see *Map A: Adjustment/Management Areas*) would be available for potential disposal only if the WSA is released from wilderness review.

Wild Horses and Burros

Goal 1: Maintain a viable population (see *Glossary*, p. 185) of wild horses so as to achieve a thriving natural ecological balance in the Herd Management Area.

Rationale: Required by the Wild Horse and Burro Act.

1. Manage the wild horse herd for an appropriate management level (see *Glossary*, p. 167) of 185 animals in accordance with the 1985 U. S. District Court Consent Judgement and the current activity plan for the wild horse Herd Management Area. The herd would vary from 185 to about 253 animals between roundups. Adjust horse numbers to a lower level if monitoring data show that the current appropriate management level is causing unacceptable levels of resource degradation (see *Map 48: Wild Horses*).

2. Evaluate new/existing fences on a case-by-case basis to provide for wild horse movement.

3. Monitor wild horse use of the Malm Gulch and Sand Hollow areas, and remove wild horses as necessary to protect fragile watersheds.

4. No portion of the Challis Resource Area would be designated as a Wild Burro Management Area. Remove any burros released in the future.

5. Prohibit organized OHV events in wild horse winter ranges. (See OHV Use, Goal 1, pp. 69-71 for other actions relating to OHV use in the wild horse Herd Management Area.)

6. Provide a public viewing area for wild horse observations.

7. Adjust wild horse management to ensure progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149).

For additional RMP decisions relating to wild horse management, ***also see*** *Attachment 5: Standard Operating Procedures* - Wild Horses, pp. 111-112.

Wildlife Habitat

Goal 1: *Big Game.* Maintain habitat for elk, deer, antelope, and bighorn sheep populations consistent with Idaho Department of Fish and Game (IDFG) management objectives stated in the IDFG *Strategic Plans for Big Game Management, 1991-1995.*

Rationale: IDFG management plans call for stabilizing big game numbers at 1991 levels. BLM policy requires wildlife forage and habitat allocations and consistency with State and local plans, to the extent feasible.

1. Provide forage and habitat for 1991 stable big game populations (see ***Chapter 3*** - Wildlife: *Table 3-35: Estimated Big Game Numbers and Season of Use*, p. 316).

2. Coordinate with the IDFG during preparation and update of their five-year strategic plans for big game. As necessary, provide comments on population objectives. The IDFG would be encouraged to keep big game numbers at 1991 levels unless habitat data show that numbers need to be adjusted to avoid conflict with other resource uses.

3. Except where otherwise noted in the RMP (*e.g.,* Wildlife Habitat, Goal 1, #6, p. 95), where conflicts between livestock and big game populations for available forage and habitat are identified, resolve conflicts on a case-by-case basis in consultation with the IDFG and other interested publics.

4. Monitor key habitat sites to ensure that big game populations do not exceed proper levels or damage important habitat components. Design monitoring to determine whether big game are adversely affecting progress toward the riparian and aquatic habitat conditions described in *Attachment 15* (see p. 149).

5. The following areas would be priority areas for big game habitat monitoring (additional monitoring studies would be established as needed):

Donkey Hills	(elk, deer)
Birch Creek/Mud Springs Gulch	(bighorn sheep)
Morgan Creek	(bighorn sheep)
East Fork	(bighorn sheep)
Navarre Creek to Grant Creek	(elk, deer)
Willow Creek Summit	(elk)
Riparian Habitats	(moose, elk)

6. Plan, design, and manage land use activities, including grazing management actions and range improvement projects, located on the (a) Morgan Creek, Cronk's Canyon, East Fork Salmon River, and Birch Creek/Mud Springs Gulch bighorn sheep winter ranges (see *Map 17: Bighorn Sheep Winter Ranges*) or the (b) Willow Creek Summit or Donkey Hills elk winter ranges (see *Map 21: Elk Winter Ranges and Donkey Hills Calving Area*) to ensure the continued viability of bighorn sheep and elk populations dependent on these key habitat areas. Fully analyze any potential for adverse effects on the viability of bighorn sheep or elk populations in appropriate site-specific NEPA documentation.

For additional RMP decisions relating to big game habitat management, ***also see*** ACECs - Birch Creek and Donkey Hills ACECs, pp. 30-33, and Forest Resources, Goal 1, #18 and 19, p. 52.

Goal 2: *General.* Sustain diverse and abundant wildlife populations (game and nongame), consistent with IDFG management objectives and BLM policy directives, by improving wildlife habitat currently in unsatisfactory condition, and maintaining habitat currently in satisfactory condition.

Rationale: The BLM is responsible for management of wildlife habitat on the Resource Area's public lands. BLM policy requires management for self-sustaining populations and a natural abundance and diversity of wildlife.

1. Continue ongoing inventories and monitoring studies on key wildlife habitats and populations. Establish nongame bird studies in each major habitat type. (Also see Wildlife Habitat, Goal 1, #5 (p. 94) and Goal 3, #2 (p. 97)).

2. Continue to develop and maintain wildlife habitat improvement projects (*e.g.,* wildlife water developments, fence modification projects, exclosures, prescribed burns), except where projects would adversely affect salmon, steelhead trout, or bull trout habitats or other important resource values.

3. Continue to implement, and revise as appropriate, the Willow Creek Summit, East Fork Salmon River, and Chilly Slough Habitat Management Plans (HMPs) (see *Attachment 2: Procedures Used When Developing or Revising Activity Plans*, p. 103).

4. Continue routine coordination procedures with the Animal and Plant Health Inspection Service (APHIS) on matters concerning animal damage control (ADC). Annually review the ADC cooperative agreement to determine the need for modification.

5. Implement efforts to acquire tracts of high value wildlife habitat (*e.g.*, key big game winter ranges, high value wetland-riparian habitats) as opportunities arise.

6. Designate OHV use in the following areas as "limited" to protect wildlife values, with the limitations as follows: Prohibit motorized vehicle travel during the winter/spring period between December 16 and April 30, inclusive. Restrict motorized vehicle travel to existing roads, vehicle ways, and trails between May 1 and December 15, inclusive. (Also see OHV Use, Goal 1, #1, p. 69 and *Map 33: OHV Use*).

    a) Carlson Hills (4,200 acres)
    b) Willow Creek Summit elk winter range
    c) Donkey Hills ACEC

d) Birch Creek ACEC
e) Old Stage Road
f) Second Spring Basin

7. Desired Plant Communities (DPC) for meeting wildlife habitat objectives on rangeland sites would be those which produce maximum amounts of forage and natural cover (see Livestock Grazing, Goal 1, #10, p. 61).

8. In the following wildlife habitat areas, unless NEPA analysis and consultation with the IDFG determine that restrictions on a permitted activity are not necessary, BLM permitted activities (other than permitted livestock use, unless restricted elsewhere) would be (1) restricted to prevent disturbance during the specified crucial periods, and (2) designed to eliminate adverse effects (in consultation with the IDFG and other interested publics):

Habitat Area	Restricted Period
Big Game Winter Ranges	11/15-4/30
Elk Calving Areas	4/30-6/30
Active Raptor Nest Sites	
Golden Eagle	3/15-7/15
Boreal Owl	2/1-6/30
Long-eared Owl	3/15-6/30
Great-Grey Owl	3/1-7/15
Buteo Hawk	5/1-7/31
Cooper's Hawk	4/1-7/15
Goshawk	3/1-8/30
Sage Grouse Strutting Grounds	3/1-5/15
Sage Grouse Nesting/Brood-rearing Areas	4/15-6/30
Antelope Fawning Concentration Areas	5/1-6/30

9. Implement the Salmon BLM's Fish and Wildlife 2000 Plan (1993) as follows:

(a) Improve habitat quality for big game and upland game within 15 years on approximately 90,000 acres by (1) developing new wildlife watering sources at appropriate locations, (2) modifying livestock fences as necessary to conform with BLM design standards, and (3) using prescribed fire or other types of vegetative treatment to increase forage quality and availability on big game ranges.

(b) Inventory commercial timber stands for raptor nest sites and update existing raptor cliff nesting site inventories within 15 years.

(c) Provide water for wildlife between June 1 and October 15 (at those key livestock water troughs where the need for wildlife water is identified) by implementing a coordinated program with the IDFG and affected livestock operators.

(d) Improve osprey habitat to support 5 breeding pairs by installing nesting platforms along the Salmon River corridor within 10 years.

(e) To minimize disturbance of wildlife during crucial winter periods, seasonal occupancy stipulations (as described in *Attachment 10: Leasable Minerals Stipulations,* Stipulations #1 and 2, pp. 136-138) may apply to energy mineral leases and applications for permits to drill on approximately 550,000 acres of big game winter ranges.

(f) The following areas would be a priority for wildlife habitat activity planning: elk habitat in the Donkey Hills, bighorn sheep habitat in the East Fork Salmon River, Birch Creek, Morgan Creek, and Cronk's Canyon areas, and wetland habitat in Chilly Slough. See *Map 17: Bighorn Sheep Winter Ranges*, *Map 21: Elk Winter Ranges and Donkey Hills Calving Area*, and *Map 18: Chilly Slough Wetland Conservation Project Area.*

10. On a case-by-case basis, coordinate with appropriate Federally recognized tribes on wildlife habitat management actions that may affect tribal treaty rights. In addition, when developing management plans and improvement projects, give priority consideration to provide benefits to wildlife species traditionally used for subsistence and non-subsistence purposes by Native American groups under treaty.

11. Withdraw forty-one (41) small forest stands totalling about 980 acres (primarily old growth) from the commercial timber base to maintain wildlife cover in open areas (see *Map C: Suitable Commercial Timberlands*). Also see Forest Resources, Goal 1, #23, p. 52 for forest management to maintain old growth forest values for wildlife.

For additional RMP decisions which manage and protect habitat for wildlife, ***also see*** ACECs - "Management Decisions Common to All ACECs" and Birch Creek, Cronk's Canyon, Donkey Hills, Summit Creek, and Thousand Springs ACECs (see pp. 29-33 and 38-39) and Biological Diversity, Goal 1, #1-6, p. 40.

Goal 3: *Riparian Wildlife Habitat.* Improve riparian and wetland areas to provide quality habitat for all riparian-dependent wildlife species.

Rationale: The BLM is responsible for managing wetland-riparian areas to protect, maintain, and enhance their unique characteristics. More species of wildlife (game, nongame, threatened, endangered, and sensitive species) depend on wetland-riparian habitat than on any other single habitat type.

1. Develop riparian pastures and riparian study exclosures throughout the Resource Area where an ID team identifies the opportunity.

2. Continue ongoing riparian inventories and monitoring studies and implement additional inventories and studies as needed.

3. Implement the riparian portion of the Salmon BLM's Fish and Wildlife 2000 Plan (1993) as follows:

   (a) Improve 75 percent of riparian habitat (as defined in the *Glossary*, p. 180) to "proper functioning condition" (see *Attachment 1: Riparian-Wetland Area Function Classification*, pp. 101-102). This would be accomplished through a coordinated ID team process to implement the riparian objectives and management decisions described under Fisheries (pp. 45-47), Livestock Grazing (pp. 59-63), and Riparian Areas (pp.

79-82).

(b) Continue to implement the Chilly Slough wetland conservation project, as described in *Attachment 11: Summary of the Chilly Slough Wetland Conservation Project*, p. 144). (Also see Land Tenure and Access, Goal 1, #6, p. 54.)

(c) Construct nest boxes, nest platforms, nesting islands, and fences, as appropriate, to increase waterfowl production on Herd Lake, Summit Reservoir, Chilly Slough, and the Main Salmon River. Design and implement management strategies on these key wetland sites and other riparian sites to increase residual vegetation for waterfowl nesting cover and improve nongame wildlife habitat.

Goal 4: Re-establish bighorn sheep and other native wildlife species in unoccupied habitats, consistent with IDFG management plan goals.

Rationale: The IDFG bighorn sheep management plan calls for reintroduction of bighorn sheep into several areas. It is BLM policy that reintroduction of native wildlife species may be considered when sponsored by the State wildlife agency.

1. Reintroductions of native wildlife may be considered when proposed. Prior to reintroduction, resolve conflicts with other resource uses (if determined to exist) through an interdisciplinary team and NEPA process in consultation with the IDFG, appropriate Federally recognized tribes, and other interested parties. (Also see *Attachment 7: 1998 Revised Guidelines for Domestic Sheep and Goat Management in Native Wild Sheep Habitats*, pp. 117-119.)

Wild and Scenic Rivers

Goal 1: Identify rivers which are suitable for inclusion in the National Wild and Scenic River System (see *Attachment 18: Wild and Scenic Rivers Study*, pp. 152-153) and prescribe appropriate management.

Rationale: Required by the Wild and Scenic Rivers Act (P.L. 90-542, as amended) and BLM policy.

1. (a) Public land uses within Wild and Scenic River (WSR) corridors of river segments which are found suitable or are eligible for further study, with a suitability finding deferred until a later coordinated study (see *Map H: Wild and Scenic River Suitability Findings* and #2-5 below), would be managed to maintain the level of development that resulted in the segments' tentative classifications, to ensure non-degradation of outstandingly remarkable (OR) values, and to protect free-flowing characteristics; other PRMP actions would also apply, if consistent with the provisions listed above.

(b) River segments which are either found suitable or eligible for further coordinated study in this PRMP, but later released by Congress from WSR review, would be managed in accordance with other applicable sections of the PRMP.

2. The following river segments are eligible for further study, with suitability findings deferred until a coordinated river study with the State of Idaho and the USFS is completed. Pending completion of that study, manage these segments as stated in #1a above.

East Fork Salmon River "A" (EF-01a)
OR values: Scenic, Recreational, Fisheries
Classification: Recreational

East Fork Salmon River "B" (EF-01b)
OR values: Scenic, Recreational, Fisheries
Classification: Recreational

Main Salmon River (MS-01)
OR values: Recreational, Fisheries, Geological
Classification: Recreational

Cow Creek (MS-04)
OR values: Fisheries
Classification: Wild

Thompson Creek (MS-33)
OR values: Fisheries
Classification: Recreational

Squaw Creek (MS-37)
OR values: - Fisheries
Classification: Recreational

Bayhorse Creek (MS-46)
OR values: Fisheries
Classification: Recreational

Pahsimeroi River "A" (P-27)
OR values: Scenic, Recreational, Fisheries, Cultural
Classification: Scenic

Mahogany Creek (P-29)
OR values: Scenic, Recreational, Fisheries
Classification: Scenic

3. The following river segment is eligible for further study, with a suitability finding deferred until a coordinated river study with the Upper Snake River District BLM is completed. Pending completion of that study, manage this segment as stated in #1a above.

Summit Creek (LL-01)
OR values: Recreational, Ecological
Classification: Recreational

4. The following river segments are found suitable. Manage as specified below (in addition to the management outlined in #1a above).

Big Lost River "A" (BL-17)
OR values: Scenic, Recreational, Geological, Cultural, Ecological, Other
Classification: Scenic

Suitable with a Scenic classification - only the 7.3 mile segment including the portion of Big Lost River "A" above T8N, R21E, Section 30 NENWSENW and the North Fork Big Lost River. Any plans developed for the affected area would include, as a priority, maintenance and enhancement of the outstandingly remarkable cottonwood gallery forest.

Herd Creek (EF-12)
OR values: Fisheries, Cultural
Classification: Recreational

5. The following river segments are found suitable only as part of a system of river segments. Manage as stated in #1a above.

East Fork Big Lost River (BL-15)
OR values: Scenic, Recreational
Classification: Recreational

Suitable with a Recreational classification, only as part of a system including the Big Lost River "A" - BL-17 (and the North Fork Big Lost River - see #4 above).

Dry Creek (LL-03)
OR values: Scenic, Recreational
Classification: Recreational

Suitable with a Recreational classification, only as part of a system including USFS lands.

West Fork Morgan Creek (MS-67)
OR values: Fisheries, Cultural
Classification: Recreational

Suitable with a Recreational classification, only as part of a system including USFS lands.

Attachments to the Challis Proposed RMP

Attachment 1: Riparian-Wetland Area Function Classification

Note: The primary source for this discussion of riparian-wetland area condition classes is the USDI-BLM Riparian Area Management Technical Report 1737-9 (1993): *Process for Assessing Proper Functioning Condition.*

RMP objectives for the improvement of riparian-wetland areas are based on functional condition classes. By BLM definition, functional condition classes for riparian and wetland areas include the following: *proper functioning, functional at-risk,* and *non-functional.* The functioning condition of a riparian-wetland area results from the interaction among the geology, soil, water, and vegetation in the area. Classification is determined by evaluating the condition of certain physical and biological attributes through an interdisciplinary team assessment process. These attributes are important indicators of overall system function. The capability and potential of the stream and the associated riparian area are key assessments in determining the functionality of a riparian area. All streams do not have the same capabilities or potential to achieve a certain functioning condition. Capability and potential are considered when placing a riparian area in one of the following three categories:

Proper Functioning - Riparian areas in this class are functioning properly when adequate vegetation, land form, or large woody debris are present to dissipate stream energy, attenuate high water flows, filter sediment, capture bedload material, develop and maintain floodplains, provide forage for grazing animals, improve water retention and water quality, recharge ground water, stabilize streambanks, reduce erosion, provide fish and wildlife habitat, and support biodiversity. Proper functioning riparian areas have several key physical and biological attributes:

1) Geomorphological attributes include one or more of the following:

   a) Bank stability - Vegetation, rock, cobble or woody debris are adequate to protect the stream channel and streambank from the erosive forces of water.

   b) Well-developed floodplains are adjacent to non-incised channels.

   c) Incised channels have developed a floodplain stabilized by desirable riparian vegetation.

   d) Channel geometry allows bankfull discharge which results in floodplain activation on a regular basis (*e.g.*, 2 to 3 year flow event).

2) Vegetation attributes

   a) Herbaceous canopy is dominated by hydric herbaceous species with soil-binding root systems (such as sedge and rush species) which are exhibiting high vigor.

   b) If woody species are present, the age class distribution includes replacement stock (seedlings and saplings).

3) Watershed attributes

   a) Watershed attributes reduce the potential for high flow events and maintain adequate levels of summer and winter base flows. A fully functional watershed would have plant communities exhibiting vegetative and litter cover necessary to reduce surface flows and provide for infiltration within the capability of the site.

Functional At-risk - Includes riparian or wetland systems that are functioning to dissipate stream energy without deterioration, but lack some of the important attributes of properly functioning systems. They are susceptible to degradation because of the sensitivity of the system to high runoff events, or because desirable attributes are lacking or may not be sustained in the long term. For example, functional at-risk systems may have the following physical and biological attributes:

1) Geomorphology - Channels with well developed floodplains, or incised channels with stable or developing floodplains that are at risk because of channel type, erodible soils, unacceptable bank stability, or downstream channel characteristics such as headcuts.

2) Vegetation - Bank stabilizing vegetation is not dominant. Woody riparian species age class distributions may be inadequate to maintain plant populations. Herbaceous plant communities may lack adequate amounts of deeply-rooted vegetation to stabilize banks, filter sediment, and develop and maintain floodplains.

3) Watershed - Degraded watershed condition or inadequate vegetative and litter cover increases the likelihood of damaging high flows from precipitation events or spring thawing.

Non-functional - Includes riparian or wetland systems that are not functioning as described above, or may be showing evidence of further deterioration because the required physical and biological attributes are inadequate.

1) Geomorphology - Incised channel with limited or no floodplain development.

2) Vegetation - Desirable vegetative species are not present in the required amounts, leaving banks unprotected.

3) Watershed - Degraded watershed condition, inadequate vegetative and litter cover, or existing rills and gullies increase the likelihood of damaging high flows from precipitation events or spring thawing.

Attachment 2: Procedures Used When Developing or Revising Activity Plans

The following procedures would be used when developing or revising activity plans, such as Allotment Management Plans (AMPs), wild horse Herd Management Area Plans (HMAPs), wildlife Habitat Management Plans (HMPs), Integrated Resource Activity Plans (IRAPs) and other activity plans:

* Assemble an interdisciplinary team to participate throughout the process.
* Define the planning area boundary.
* Conduct a watershed assessment, or review and update, as necessary, existing watershed assessments.
* Identify resource values present throughout the area - not just those affected.
* Address data needs - existing data and data gaps.
* Identify opportunities, problems, and constraints within the planning area.
* Identify resource objectives.
* Identify strategies to meet resource objectives. Provide rationale and document how the strategies will meet the objectives.
* Identify schedule of implementation, necessary projects, support services needs.
* Develop effectiveness monitoring plan.
* Define methodologies for amending strategies.

Attachment 3: Component Practices for Grazing Management in Lieu of BMPs

In order to achieve the goal of obtaining properly functioning riparian zones, a certain amount of standing vegetation stubble is required during the scheduled grazing period. This stubble should be at least 4 inches in height on riparian areas in proper functioning condition or functional-at-risk condition with upward trend, and at least 6 inches in height on riparian areas in functional-at-risk condition with downward trend or non-functional condition (see Riparian Areas, Goal 1, #5, p. 80).

The following guidelines are intended to provide an approximate relationship for use in comparing traditional utilization levels with expected grazing period four to six inch stubble height residuals. These seasonal utilization levels are approximate, dependent on annual climatic conditions and grass species, and most appropriate for riparian grasses similar in general growth form to *Poa pratensis, Agrostis stolonifera*, and *Deschampsia cespitosa*. Stubble height versus percent utilization relationships for these riparian grasses, as well as *Carex spp.* and *Juncus spp.*, are referenced in Kinney and Clary, 1994, *A Photographic Utilization Guide for Key Riparian Graminoids,* USFS Intermountain Research Station. The required four to six inch stubble height on these palatable riparian grasses is generally expected to be achieved through the following seasonal utilization standards and management practices from Clary and Webster (1989) recommended for pastures with good to high ecological status riparian areas:

1. On pastures grazed in the spring only, utilization of streamside herbaceous forage should be limited to about 65%, and livestock should be removed by July 10 to allow for regrowth. On lower elevation ranges the appropriate spring removal date may be substantially earlier.

2. Streamside utilization of herbaceous forage in summer-grazed pastures should not exceed 40 to 50%.

3. Fall use of streamside vegetation should not exceed about 30% with four to six inches of stubble remaining, as noted above.

4. Season-long grazing should be limited to situations such as riparian pastures, where animal use and distribution can be carefully controlled and stubble height requirements can be met.

5. Special situations, such as critical fisheries habitats or easily eroded streambanks, may require stubble heights greater than six inches.

The above recommendations are for riparian zones in good to high ecological status. In degraded riparian areas, complete rest from livestock grazing may be needed to initiate recovery. Once recovery to mid to late seral status has occurred, rotation management systems may allow riparian zones to remain in good condition, provided all livestock are removed after the grazing period.

Case-by-case grazing management practices compatible with those outlined by Clary and Webster (1989) would be applied and BMPs developed in accordance with the *Idaho Agricultural Pollution Abatement Plan* (Idaho Dept. of Health and Welfare *et al* 1993) for allotments which contain riparian habitat. Woody vegetation use requirements would also be developed as needed.

Attachment 4: Riparian Habitat Area Width Delineation in Streams or Other Waterbodies

Riparian habitat delineations would be applied to four stream or water body categories (see below) where riparian-dependent resources receive primary emphasis and management activities are subject to specific standards or guidelines. The delineated areas include riparian corridors, wetlands, and other areas where proper ecological function is crucial to maintenance of the aquatic system. These riparian habitat delineations would apply until (a) a watershed assessment is completed by an ID team or (b) a site-specific analysis of each action is conducted and described by an ID team, and the rationale for any riparian area width delineation modification is completed.

Category 1 (fish bearing streams): Riparian habitat width for perennial fish-bearing streams or perennial portions of intermittent fish-bearing streams in forested systems consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet, including both sides of the stream channel), whichever is greatest. **Riparian habitat width for perennial fish-bearing streams or perennial portions of intermittent fish-bearing streams in non-forested rangeland systems is the 100-year floodplain.**

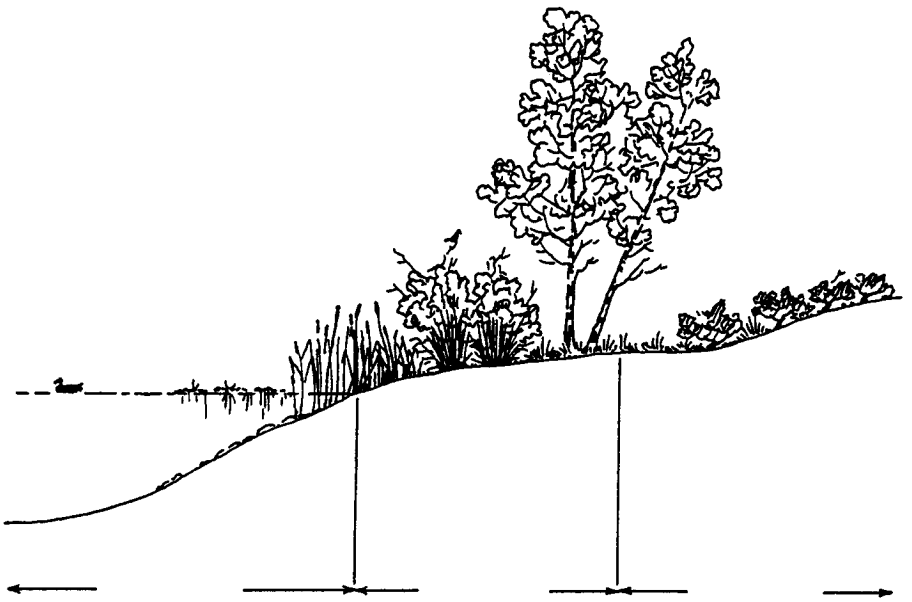
Category 2 (non-fish bearing streams): Riparian habitat width for perennial non-fish-bearing streams in forested systems consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance (300 feet, including both sides of the stream channel), whichever is greatest. **Riparian habitat width for perennial non-fish-bearing streams in non-forested rangeland systems is the 100-year floodplain.**

Category 3 (ponds, lakes, reservoirs, and wetlands greater than 1 acre): Consists of the entire body of water or wetland area, extending to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs, or from the edge of the wetland, pond or lake, whichever is greatest.

Category 4 (wetlands less than 1 acre, landslides, and landslide prone areas): This category includes features with high variability in size and site-specific characteristics. At a minimum the riparian widths must include:

a. the extent of landslides and landslide-prone areas;
b. for key watersheds, the area from the edges of the wetland, landslide, or landslide-prone area to a distance equal to the height of one site-potential tree, or 100 feet slope distance, whichever is greatest; and
c. for watersheds not identified as key watersheds, the area from the edges of the wetland, landslide, or landslide-prone area to a distance equal to the height of one-half site-potential tree, or 50 feet slope distance, whichever is greatest.

(Note: Refer to the *Environmental Assessment for the Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California* (USDA-Forest Service and USDI-BLM 1995) for a more detailed discussion of riparian habitat area delineations.)



The width of the delineated riparian habitat area generally includes both the riparian habitat area itself and the aquatic habitat area adjacent to it. Portions of the adjacent upland habitat area may also be included, depending on the influence the uplands may exert on the riparian and aquatic habitats.

Attachment 5: Standard Operating Procedures

General

1. A watershed assessment would be completed in the following situations: (a) prior to any activity which is determined by an ID team to have the potential for substantial watershed-level effects, (b) prior to development or revision of activity plans, or (c) as otherwise needed to enhance resource and program management within a specified watershed.

2. An interdisciplinary team (see *Glossary*, p. 174) will be used to plan and design activities and projects and help resolve conflicts between competing resource values.

3. A site-specific field assessment for threatened, endangered, and sensitive plant, animal and fish species will be completed as part of the assessment of the effects of all authorized actions. Assessments will be completed or reviewed by botanists, wildlife biologists, and fisheries biologists.

4. Projects will be planned and designed to reduce or eliminate impacts to special status species populations.

5. Case-by-case conferencing and consultation will be conducted with the U.S. Fish and Wildlife Service and (or) the National Marine Fisheries Service for actions that may affect threatened, endangered, and other special status plant, animal, or fish species, as required by the Endangered Species Act.

6. Burn plans which include incident and cumulative air quality considerations will be developed for all prescribed burn treatments.

7. All road construction will be in compliance with the road standards set forth in BLM Manual Section 9113.

8. All noxious weed treatment will be done in conformance with the Northwest Area Noxious Weed Control Program EIS, including preparation of a pesticide use proposal and a site-specific environmental assessment. All application of restricted-use pesticides will be done under supervision of a certified pesticide specialist.

Cultural Resources

1. The BLM will make a reasonable and good faith effort to identify and evaluate historic properties as mandated by Federal historic preservation legislation. Intensive Class III cultural resource inventories as specified in BLM Manual Section 8111 will be conducted for all surface-disturbing project activities or the sale or transfer of lands from Federal ownership. Additional review and consultation with the State Historic Preservation Officer (SHPO) may identify other activities with the potential to affect cultural resources, thus requiring inventory.

The BLM will consult with the SHPO and the Advisory Council on Historic Preservation prior to implementing BLM actions, in accordance with regulatory guidance or by specific agreement. BLM actions will be designed to have no adverse effects on historic properties through the use of avoidance, data recovery, and project abandonment.

Hazardous Materials

1. All hazardous materials incidents on public lands will be handled as outlined in the Idaho BLM Contingency Plan for Hazardous Materials Incidents (January 1997, or as updated) or other appropriate guidance.

2. All actions authorizing the use of hazardous materials will comply with Federal and State regulations.

3. BLM personnel will receive the following hazardous materials awareness training: (a) Education in accordance with the BLM Hazardous Waste Site Operation Hazwopper Health and Safety Program will be conducted annually. (b) All employees will receive a minimum 8 hour hazardous material awareness training annually. Employees that have field-oriented positions will receive a 24 hour training course. Hazardous materials coordinators will receive 40 hours of training, along with an annual 8 hour refresher training. (Hazardous materials coordinators typically receive extensive additional training.) (c) All pesticide applicators for the BLM will be certified by the state and BLM.

4. The following process will be followed upon encountering a suspected hazardous material incident:

   (a) The initial response will be access control, notification of appropriate authorities, and limited securing and investigation of the suspected site.

   (b) After identification of the site as potentially containing hazardous materials, access control, and preliminary investigation, implement the BLM's Cooperative Agreement with the State of Idaho Department of Environmental Quality (DEQ). This Cooperative Agreement provides for assistance to the BLM in sampling and identifying the hazardous material, investigating the site further, and approving contractor removal or remediation work plans.

   (c) Upon determining the need to remove or remediate site contaminants, implement the Statewide Hazardous Waste Removal Contract (1992, or as updated). This contract provides for a contractor with ready-response capability to remove or remediate any hazardous material from the site.

Land Tenure and Access

1. The BLM will cooperate with local (city and county) governments to identify public lands which might provide for orderly community expansion or for other public purposes. Public lands identified for these uses will be retained until the city or county either develops a planned use, or it is identified for a more important use by the BLM.

2. Lands will be acquired, sold, or exchanged in accordance with FLPMA and other applicable Federal laws and regulations to provide for more efficient management of the public lands and to accomplish management objectives developed in approved land use plans. Land use plans must be explicit as to which FLPMA Section 203 criterion is met for each tract identified for sale. However, disposal action is discretionary and is neither required nor mandatory.

3. Public lands will be managed for the protection and enhancement of known habitat for State and Federal sensitive, threatened, or endangered plant and animal species.

4. All public lands proposed for disposal will be inventoried in accordance with the current memorandum of understanding between the BLM, the State Historic Preservation Officer, and the Advisory Council on Historic Preservation. Lands with sites eligible for the National Register of Historic Places will not be disposed of without a finding of no adverse effects (36 CFR 800.9 (c)).

5. Private inholdings which are acquired within Wilderness Study Areas (WSAs) will be managed consistent with the BLM's Interim Management Policy for Lands Under Wilderness Review until Congress designates them or decides they are unsuitable. Disposal of public lands within WSAs is prohibited. If Congress decides they are unsuitable, they will be managed in accordance with this RMP.

6. Consistency will be maintained with county zoning regulations, other State and Federal agency land use plans, and treaties covering ceded lands pursuant to Department of the Interior regulations and BLM policy, "so long as the guidance and resource management plans are also consistent with the purposes, policies and programs of Federal laws and regulations applicable to public land..." (43 CFR 1610.3-2).

7. Areas of known geological structures or areas containing high potential for mineral development will normally be retained in public ownership. Exchange of subsurface estates, when it is in the government's interest, is encouraged.

8. Available BLM resources should first be directed to the management and enhancement of identified Management Areas (see *Glossary*, p. 176). Lesser priority should be given to the management and enhancement of identified Adjustment Areas (see *Glossary*, p. 166 and *Map A: Adjustment/Management Areas*). (See Land Tenure and Access, Goals 1 and 2, pp. 53-56 for descriptions of areas proposed as Management Areas and Adjustment Areas.)

9. All land use authorizations (*e.g.*, permits, leases, rights-of-way) will contain standard stipulations as applicable.

Minerals

1. Oil and gas leasing and development will be managed under regulations found in 43 CFR 3100.

2. Geothermal leasing and development will be managed under regulations found in 43 CFR 3200.

3. Non-energy minerals will be managed under regulations found in 43 CFR 3500.

4. Mineral material disposals will be managed under regulations found in 43 CFR 3600.

5. Locatable minerals will be managed under regulations found in 43 CFR 3800.

6. A plan of operations will be required when an operation will disturb more than five acres in any calendar year, or for any level of activity exceeding casual use in the following special category lands:

   (a) Areas designated for potential addition to or which are an actual component of the Wild and Scenic Rivers System.

   (b) Designated Areas of Critical Environmental Concern.

   (c) Areas designated as part of the National Wilderness Preservation System and administered by the BLM.

   (d) Areas designated as "closed" to off-road vehicle use.

Noxious Weeds

The following standard operating procedures from the *Final Environmental Impact Statement, Vegetation Treatment on BLM Lands in Thirteen Western States* (BLM 1991) will be followed:

1. Use only the 21 herbicides approved for use. Two specific herbicides, Amitrole and Dalapon, are rejected for use on public lands.

2. All seed purchased for reseeding will be tested for purity and noxious weeds.

3. BLM Manual 9014 will be followed when using biological controls.

4. As part of site-specific analysis and preliminary planning of weed management and vegetation treatment, a field survey will be completed which includes assessment of riparian values, special status species, wildlife use, cultural resources, associated plant species, and other values that may be affected by treatment.

5. A NEPA analysis will be conducted for treatment proposals.

6. Projects which may affect cultural resources will be subject to standard cultural surveys and site clearances.

7. Herbicide treatment in recreation areas will occur before or after maximum use periods. Treatment sites will be posted.

8. Projects that may affect threatened or endangered species will be subject to Section 7 consultation with the USFWS and (or) NMFS.

9. If herbicides are used, those with minimum toxicity to fish and wildlife will be selected. Protective buffer areas will be provided along riparian and dry water courses.

Paleontological Resources

1. A professional paleontologist will be consulted upon identification of paleontological resources within the area of affect of a BLM-permitted or initiated action.

Wilderness Study Areas

1. Until released by Congress, Wilderness Study Areas (WSAs) will continue to be managed in accordance with the BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review (H-8550-1; 7/5/95).

2. WSAs designated as wilderness will be withdrawn from all forms of mineral entry and the general land laws.

Wild Horses and Burros

1. Gathering will take place in the fall, after major foaling has occurred and when air temperatures are lower, reducing stress on the animals.

2. Pasture and allotment boundary fences between the capture site and animals to be captured will be rolled out of the way or completely removed prior to moving horses through the area.

3. If helicopters are used in the capture process, only experienced pilots authorized by the Office of Aircraft Services will be utilized.

4. A qualified veterinarian will be on-site at all times during the capture and animal processing process.

5. Removal of excess animals will be in accordance with Federal regulations regarding the Wild Horse and Burro Act of 1971 and State of Idaho estray and humane animal treatment laws.

6. Humane disposal of sick, lame, or old animals will be accomplished by shooting by authorized BLM employees or drugging by a qualified veterinarian using only injectable barbiturates.

7. The BLM will cooperate with the State of Idaho during gatherings. A State brand inspector will be contacted prior to gatherings, and all branded horses gathered will be turned over to the brand inspector in accordance with State estray laws.

8. If it becomes necessary to hold animals in the capture facility for any period of time, such as overnight, adequate water and feed will be made available.

Wildlife

1. Perceived conflicts between big game and livestock for forage and habitat will be studied according to the Policy Statement and Memorandum of Understanding (MOU) between the IDFG, BLM and USFS (see *Attachment 6,* pp. 113-116), as long as the MOU remains in effect.

2. BLM guidelines for domestic sheep and goat management in native wild sheep habitats (see *Attachment 7,* pp. 117-119) will be implemented as part of the RMP.

3. Wildlife escape devices will be installed and maintained in all water troughs.

Wild and Scenic Rivers

1. Management activities on public lands adjacent to a designated Wild and Scenic River will be managed to protect the outstandingly remarkable values for which the Wild and Scenic River was designated.

Attachment 6: IDFG/USFS/BLM Elk Policy Statement and Memorandum of Understanding

Policy Statement

This policy statement addresses the complex issue of perceived conflicts between wild ungulate and domestic livestock use of public rangelands. Riparian areas in particular have been the focus of the controversy, but the issue is not restricted to those areas. Misinformation, livestock use, recent drought conditions, and increasing wild ungulate numbers, particularly elk, are generally responsible for these perceptions. The various agencies are committed, by law, to the enhancement, protection, and proper management of public rangeland resources.

Little or no scientifically collected data exist to support claims that wild ungulates have had or are having a detrimental impact on areas of concern. In the past, efforts to determine the extent of the conflict, or even to determine if a conflict exists, have been fragmented, incomplete, or unsuccessful. These efforts indicate the need for a unified approach to study the problem on areas of concern.

Through a Memorandum of Understanding, the agencies will implement an interdisciplinary approach to define problems on a case-by-case basis and, if necessary, to determine actual use by both wild and domestic ungulates through a monitoring program. Before monitoring results are presented publicly or used to determine specific courses of management action, interagency concurrence shall be required on (1) the adequacy of data collected through the monitoring program, and (2) the conclusions arrived at from the analysis of monitoring data.

Public demand currently exists to maintain or increase all wild ungulate populations for both consumptive and nonconsumptive recreational uses. We will stress to concerned parties and the public that our first priority is to properly manage the vegetative resource. Multiple-use management of public lands must reflect changing demands for recreation, wildlife habitat, livestock grazing, and various other uses.

It shall be the policy of the undersigned agencies to:

1. Recognize and stress that proper management of the vegetative resource takes priority over competing demands for that resource.

2. Define or evaluate perceived conflicts on a case-by-case basis.

3. Utilize interdisciplinary teams to establish procedures for collection of monitoring data relevant to rangeland conflicts.

4. Utilize interdisciplinary/interagency teams to analyze and evaluate monitoring data.

5. Define the problem and resolve it through proper management practices.

6. Publicly present the results, recommendations, or decisions based on the monitoring data only upon the mutual concurrence of all of the undersigned agencies.

Signed by the following agency representatives:

Jerry Conley, Director, Idaho Department of Fish and Game (September 3, 1991)

Gray F. Reynolds, Regional Forester, USDA, Forest Service - Region 4 (October 9, 1991)

Pieter J. Van Zanden, Associate State Director, USDI, Bureau of Land Management - Idaho (October 26, 1991)

* * * * * * *

Memorandum of Understanding

Idaho Department of Fish and Game, Region 7
USDA Forest Service, Challis and Salmon National Forests
USDI Bureau of Land Management, Salmon District

This Memorandum of Understanding is entered into by and between the Idaho Department of Fish and Game, Region 7, hereinafter referred to as the Department, the Forest Service, USDA, Salmon and Challis National Forests, hereinafter referred to as the Forest Service, and the Bureau of Land Management, USDI, Salmon District, hereinafter referred to as the Bureau.

WHEREAS, The Department has been created under the laws of the State of Idaho to provide for the protection, preservation, and management of wildlife and fish populations within the State, and

WHEREAS, The Forest Service is authorized by acts of Congress and by regulations issued by the Secretary of Agriculture to manage fish and wildlife habitat on the National Forest system lands, and

WHEREAS, The Bureau is authorized by acts of Congress and by regulations issued by the Secretary of the Interior to manage fish and wildlife habitat on the public lands, and

WHEREAS, it is the mutual desire of the Department, the Forest Service, and the Bureau to work together for the common purpose of developing, maintaining, and managing all resources on lands administered by the National Forests and the Bureau for the best interests of the people of Idaho and of the United States.

NOW THEREFORE, in consideration of the above premises, it is mutually agreed and understood by the Bureau, the Department, and the Forest Service that:

Monitoring efforts for rangeland conflicts will be sufficient to determine utilization levels by both wildlife and livestock, and done consistently and uniformly between agencies.

Monitoring studies relevant to rangeland conflicts will be designed to identify the primary source of impacts and obtain necessary data in a systematic and defendable manner.

The aforementioned studies will be mutually done at one of three levels of intensity, determined by primary objectives, the resource values of the area in question, the degree and kind of conflict perceived to be occurring, and the amount of controversy surrounding the subject area.

The first level of monitoring intensity used to detect conflicts between wild ungulates and livestock shall involve one of the following two methods: (1) The utilization pattern mapping method may be used, before and after livestock grazing has occurred, if an entire area or watershed has been identified as the area of concern. (2) The utilization transect method may be used if the area of concern is site-specific and can be adequately sampled by a transect. Riparian zones or vegetative manipulation projects are examples of site-specific areas where utilization transects are applicable.

The height-weight method to determine percent utilization shall be used on utilization transects. Utilization cages and/or a utilization gauge (Aldon, E.F. and R.E. Francis. 1984. A modified utilization gauge for western range grasses. USDA Forest & Range Res. Sta. Res. note RM-438) will be used to establish height-weight relationships for key forage species.

The second level of monitoring intensity will require use of the paired-plot utilization method. Paired plot utilization cages are placed and clipped: (1) before the livestock use an area; (2) after the livestock use an area; and (3) at the end of the growing season. This method can be used in combination with utilization pattern mapping.

The third and more intensive level of monitoring will require both the use of exclosures and the paired plot utilization method. An area fenced to exclude both wild and domestic ungulates would be constructed within a larger livestock exclosure. Wild ungulates would not be prevented from using the livestock exclosure, but would be unable to use the innermost exclosure. Use within these exclosures could then be compared to each other and to areas outside the exclosures that are used by both wild and domestic ungulates.

Whenever possible and funding is available the utility establishing exclosures constructed as described above can be useful even when not used in conjunction with any level of monitoring. An ocular reconnaissance of the exclosed areas can often reveal even to the casual observer whether or not a conflict exists.

Permanent photo plots shall also be established at monitoring sites. Depending on the level of significance determined via level one, either the second or third level of monitoring will be done.

The significance of ungulate use under the first, second, or third level of monitoring will be determined by the interagency team.

Conclusions derived from monitoring data will have the concurrence of all agencies before being presented publicly. Problems identified in this manner would then be resolved through a change in resource management practices.

Interdisciplinary teams will be formed to collect, analyze and evaluate data on each area of concern. The teams will include a wildlife biologist, land manager, and range conservationist, at a minimum. Additional specialists or private individuals may be included on this team as deemed appropriate by the land manager.

An interdisciplinary/interagency core team will also be created to establish monitoring procedures as needed, and to review the work of site-specific teams in order to ensure that policies and monitoring procedures are being followed uniformly. The core team shall, at a minimum, consist of one wildlife biologist, one range conservationist, and one land manager with decision-making ability. The core team shall also include at least one representative from each agency.

Signed by the following agency representatives:

Gary Power, Regional Supervisor, Idaho Department of Fish and Game (September 9, 1991)

Ronald Johnson, [for] Forest Supervisor, USDA Forest Service, Challis National Forest (September 13, 1991)

John Burns, Forest Supervisor, USDA Forest Service, Salmon National Forest (September 16, 1991)

Roy Jackson, District Manager, Bureau of Land Management, Salmon District (September 12, 1991)

Attachment 7: 1998 Revised Guidelines for Domestic Sheep and Goat Management in Native Wild Sheep Habitats

Note: These guidelines for domestic sheep and goat management in native wild sheep habitats were included as Attachment 1 to BLM Instruction Memorandum No. 98-140 (July 10, 1998). The 1998 revised guidelines were developed following a review of the 1992 Guidelines for Domestic Sheep Management in Bighorn Sheep Habitats (Instruction Memorandum 92-264) in June 1997, and a follow-up meeting of bighorn and domestic sheep specialists in April 1998. Instruction Memorandum 98-140 states that these revised guidelines "should be followed whenever reintroductions, transplants, or augmentations of wild sheep populations, or proposed changes in a livestock grazing permit on BLM administered lands are being considered...."

* * * * * * *

The Bureau of Land Management desires progressive native wild sheep management compatible with appropriate grazing on public lands by domestic sheep and free-ranging goats.

It is recognized by State and Federal agencies, native wild sheep organizations, and the domestic sheep industry that:

- There are some disease agents that occur in both domestic sheep and goats and native wild sheep. There is evidence that if native wild and domestic sheep are allowed to be in close contact, health problems and die offs may occur. Some disease agents may be transmitted between both species. There is evidence indicating that some disease agents could be transmitted between domestic goats and native wild sheep;

- There are native wild sheep die-offs that occur with no apparent relationship to contact with domestic sheep or goats;

- The above observations are both valid and not mutually exclusive;

- Bacterial pneumonias are not the only diseases of concern, although perhaps they are the most catastrophic;

- The risks of disease transmission are often unknown; they may, however, be site-specific; and

- Reasonable efforts must be made by domestic sheep and goat permittees and wildlife and land management agencies to minimize the risk of disease transmission, and to optimize preventive medical and management procedures, to ensure healthy populations of native wild sheep and domestic sheep and goats.

In recognition of the above factors, the guidelines set forth below should be followed in current and future native wild/domestic sheep and goat use areas unless a specific cooperative agreement that includes the State wildlife management agency, the BLM and the livestock permit holder is in place. When such agreement is in place, the agencies and the livestock permit holder will be held harmless in the event of disease impacting either native wild sheep or domestic sheep and

goats.

1. State wildlife and Federal land management agencies, native wild sheep interest groups, and domestic sheep and goat industry cooperation and consultation are necessary to maintain and/or expand native wild sheep numbers. When agency and industry agreement has been reached to maintain and/or expand native wild sheep numbers, the agencies and the domestic sheep industry will be held harmless in the event of disease impacting either native wild sheep or domestic sheep and goats.

2. Domestic sheep or goat grazing and trailing should be discouraged in the vicinity of native wild sheep ranges.

3. Native wild sheep and domestic sheep or goats should be spatially separated to reduce the potential of interspecies contact.

4. In reviewing new domestic sheep or goat grazing permit applications or proposed conversions of cattle permits to sheep or goat permits in areas with established native wild sheep populations, buffer strips surrounding native wild sheep habitat should be developed, except where topographic features or other barriers minimize physical contact between native wild sheep and domestic sheep and goats. Buffer strips could range up to 13.5 kilometers (9 miles) or as developed through a cooperative agreement to minimize contact between native wild sheep and domestic sheep and goats, depending upon local conditions and management options.

5. Domestic sheep and goats should be closely managed and carefully herded where necessary to prevent them from straying into native wild sheep areas.

6. Trailing of domestic sheep or goats near or through occupied native wild sheep ranges may be permitted when safeguards can be implemented to adequately prevent physical contact between native wild sheep and domestic sheep or goats. BLM must conduct on-site use compliance during trailing to ensure safeguards are observed.

7. Cooperative efforts should be undertaken to quickly notify the permittee and appropriate agency to remove any stray domestic sheep or goats or wild sheep in areas that would allow contact between domestic sheep or goats and native wild sheep.

8. Unless a cooperative agreement has been reached to the contrary, native wild sheep should only be reintroduced into areas where domestic sheep or goat grazing is not permitted.

9. Extraordinary precautions will be followed to protect special status subspecies, e.g., federally listed threatened, endangered, proposed and candidate subspecies, State listed subspecies and BLM sensitive subspecies.

10. For desert bighorn sheep, (*Ovis canadensis nelsoni, O.c. mexicana*, and *O.c. cremnobates*), the following additional guidelines are recommended:

a. No domestic sheep or goat grazing should be allowed within buffer strips less than 13.5 kilometers (9 miles) surrounding desert bighorn habitat, except where topographic features or other barriers prevent physical contact.

b. Domestic sheep or goats trailed and grazed outside the 13.5 kilometers (9 mile) buffer and in the vicinity of desert bighorn ranges should be closely managed and carefully herded.

c. Unless a cooperative agreement has been reached to the contrary, domestic sheep or goats should be trucked rather than trailed, when trailing would bring domestic sheep or goats closer than 13.5 kilometers (9 miles) to occupied desert bighorn sheep ranges, especially when domestic ewes or nannies are in estrus.

11. These guidelines will be reviewed at least every 5 years by a work group comprised of representatives from the domestic sheep and goat industry, State wildlife agencies, BLM and native wild sheep organizations.

Photo by Anna Owsiak, Salmon, Idaho

Attachment 8: Design Specifications

General (Apply to All Resources and Programs)

1. BLM roads would be constructed and maintained to meet or exceed State approved BMPs for road construction and maintenance. Any road construction or maintenance would ensure progress toward desired riparian and aquatic habitat conditions (see *Attachment 15, p.* 149) and would include the following specifications for each existing or planned road:

   (a) Roads and landings would be minimized in salmon, steelhead trout, and bull trout watershed riparian habitats.

   (b) Watershed assessment would be completed prior to construction of new roads or landings in salmon, steelhead trout, or bull trout watershed riparian habitats.

   (c) Road management objectives would be established for each road, including (1) preparation of road design criteria, elements, and standards that govern construction and reconstruction, and (2) operation and maintenance criteria that govern road operation, maintenance, and management.

   (d) Road surface sloping and drainage patterns would minimize sediment delivery from the road surface to streams.

   (e) Road management would minimize disruption of hydrologic flow paths.

   (f) Sidecasting would be restricted.

   (g) Road and drainage features that pose a substantial risk in a priority reconstruction would be reconstructed based on real or anticipated impacts to high ecological value riparian resources.

   (h) Roads not needed for future management would be closed and stabilized, or obliterated and stabilized.

   (i) New and existing culverts, bridges, and other stream crossings determined to pose a substantial risk to riparian and aquatic habitat conditions would be designed or improved to accommodate a 100 year flood, including associated bedload and debris.

   (j) Fish passage would be provided for and maintained at all road crossings of existing and potential fish-bearing streams.

2. All ground disturbing activities undertaken by the BLM would include the following:

   (a) Heavy equipment would be cleaned on-site after working in an area infested with noxious

weeds or cheatgrass.

(b) Ground disturbance would be minimized.

(c) If determined by an ID team to be necessary for resource protection, disturbed areas would be seeded during the spring or fall immediately after construction (within 8 months).

(d) The area would be monitored for two years after disturbance to identify any infestations of noxious weeds. These would be treated within 12 months.

3. Seedings would include a variety of forb and grass species, and shrub species if appropriate, to meet project objectives. Native species would be emphasized and included in all seed mixes. However, at the recommendation of an ID team, non-native species may be included to enhance the establishment of native species, when rapid watershed protection is required, or when native species are unavailable in sufficient quantities.

4. Only native material (*e.g.,* native seed and willow shoots) would be used to revegetate riparian areas.

5. Ground disturbing treatments for noxious weeds would be seeded as soon as possible (within 8 months) with a competitive native seed mix. At the recommendation of an ID team, non-native species may be included (except in riparian areas) if site characteristics are unfavorable to expect reasonable success from native species, to enhance the establishment of native species, or when immediate watershed protection is required.

Forest Management: Timber Harvesting and Silvicultural Treatments

1. Tractor skidding would be restricted to slopes of 45 percent or less in the volcanic, granitic, and sedimentary land types. Skidding on quartzite soils would be allowed on slopes up to 55 percent. One exception to the 45 percent restriction would be on small areas of convex slopes adjacent to roads within 20 feet of the subgrade. Some limited skidding activity on slopes up to 60 percent would be allowed in these areas.

2. All slash treatments would require piling or lop and scatter to a depth of less than 18 inches. All burning of slash would be conducted by BLM personnel in conformance with State air quality guidelines. No slash piling or burning would be allowed within riparian or aquatic habitats.

3. All skid trails with exposed soils subject to erosion would be crossdrained with the construction of water bars upon completion of skidding operations.

4. At least three nonhazardous snags per acre would be left in shelterwood harvest units for nongame wildlife use. In the absence of sufficient numbers of nonhazardous snags, some large culls would be substituted.

Forest Management: Road Construction and Rehabilitation

1. Culverts, dips, and other water diversion structures would be designed to minimize stream sedimentation and maximize fish passage (see "General" design specification #1, p. 120).

2. No road construction would be allowed when the soil surface layer is saturated. Areas within salmon, steelhead trout, and bull trout watersheds which display unstable soils would be avoided in road construction.

3. All newly constructed haul roads and trails would be closed within 2 years following logging operations, with closure structures being permanent, designed to eliminate vehicular traffic through the area, and designed to channel overland water flow off of roads and skid trails.

4. Where slash is windrowed along newly constructed roads, breaks would be established at a minimum of 200 feet along windrows to facilitate wildlife passage.

Minerals

1. Mine structures, support facilities, and roads would be located outside riparian areas in salmon, steelhead trout, and bull trout watersheds, unless no reasonable alternative exists. If no alternative exists, impacts to riparian and aquatic habitats would be reduced to the extent feasible. All surface disturbance would be reclaimed. Solid and sanitary mining waste facilities in riparian areas in salmon, steelhead trout, and bull trout watersheds would be prohibited. If no practical alternatives exist, other types of mineral development facilities may be located in riparian areas in salmon, steelhead trout, and bull trout watersheds with the following constraints: (a) analyze waste material using the best conventional sampling methods and analytic techniques to determine its chemical and physical stability; (b) locate and design facilities to ensure mass stability and prevent release of toxic materials; (c) monitor facilities to confirm predictions of chemical and physical stability, and make adjustments to operations as needed; (d) reclaim waste facilities to assure chemical and physical stability; and (e) require reclamation bonds adequate to ensure long term chemical and physical stability of mine waste facilities.

Rangeland Improvement

1. Roads or trails to new rangeland improvement projects would not be constructed. Existing roads and trails would be used whenever possible.

2. All vegetative manipulation projects would be allowed a one-year review period by the IDFG prior to on-the-ground work. Vegetative manipulations would be done in an irregular pattern creating more edge effect, with islands of vegetation left for wildlife cover. The following design standards would apply to vegetation treatments on antelope or sage grouse winter ranges and sage grouse strutting grounds:

(a) Treated areas would be laid out in strips no more than 100 feet wide. Untreated areas between strips would be a minimum of 100 feet wide.

(b) Spraying with herbicide would be done by helicopter or with ground equipment to provide precise control of the area sprayed. To control drift, spray would only be applied when wind velocity is less than 6 miles per hour.

(c) Spray projects would be designed to avoid loss of native forbs or any riparian vegetation along perennial and intermittent streams by establishing a buffer strip equal to the 100 year floodplain or 330 feet on both sides of the stream, whichever is greater.

3. Fence construction in identified wildlife use areas would conform to guidelines set forth in BLM Manual Section 1741. Fences constructed in wild horse areas would have enough contrast to make them visible to wild horses. Let-down fences would be considered in areas of wildlife migration. Proposed fence lines would not be bladed or scraped. Barbed-wire fences would normally consist of only three wires. Fences may consist of four wires (at BLM Manual Section 1741 standard heights) where it is demonstrated that three wire fence provides insufficient control to meet management objectives. Fences adjacent to riparian areas or small study sites may be as restrictive as necessary to protect resource values.

4. Riparian and wetland areas around reservoirs and spring developments normally would be fenced to prevent livestock impacts. Troughs would be located outside of the riparian zone. Existing springs would be fenced when reconstructed. All new spring developments would require shut-off floats. Seeps and springs would not be developed into waterholes.

5. Providing off-site water (such as a pipeline and trough system) would be the preferred method of providing water to livestock. Water gaps may be used if they do not hinder attainment of desired riparian and aquatic habitat conditions (see *Attachment 15*, p. 149).

6. Utilization pattern mapping would be used to locate potential sites for range improvements.

7. Within a given watershed, restrict vegetation conversion by mechanical and/or prescribed fire treatment within one mile of perennial streams to less than 20 percent of the area in any one year.

8. Spring and seep developments would be designed to maintain existing riparian vegetation (*i.e.*, adequate water would be left naturally flowing to support existing riparian vegetation).

Attachment 9: Fire Suppression and Rehabilitation Specifications

Follow *Minimum Impact Suppression Tactics Guidelines* (USDA Forest Service - Northern Region, 1993, or as revised) (see pages 99-107), or similar fire suppression and rehabilitation guidance. **Note:** Although *Minimum Impact Suppression Tactics Guidelines* is designed for "suppression action on wildfires located in wilderness, proposed wilderness or other lands with similar land management objectives," these "light on the land" guidelines would be applied to wildfires on all Challis Resource Area public lands, even lands without wilderness character or land management objectives.

Also incorporate the following actions.

1. Design fuel treatment and fire suppression strategies, practices, and actions so as not to hinder attainment of riparian management objectives, and to minimize disturbance of riparian ground cover and vegetation. Strategies should recognize the role of fire in ecosystem function and identify those instances where fire suppression or fuel management actions could perpetuate or be damaging to long-term ecosystem function; salmon, steelhead trout, or bull trout populations; or designated critical habitat.

2. Locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of riparian areas (as identified in *Attachment 4,* pp. 105-106. If the only suitable location for such activities is within these areas, an exemption may be granted following a review and recommendation by a resource advisor. The advisor will prescribe the location, use conditions, and rehabilitation requirements, with avoidance of adverse effects to salmon, steelhead trout, and bull trout a primary goal. Use an interdisciplinary team, including a fishery biologist, to predetermine incident base and helibase locations during presuppression planning, with avoidance of potential adverse effects to salmon, steelhead trout, and bull trout as a primary goal.

3. Avoid delivery of chemical retardant, foam, or additives to surface waters. An exception may be warranted in situations where overriding immediate safety imperatives exist, or, following a review and recommendation by a resource advisor and a fishery biologist, when the action agency determines an escaped fire would cause more long-term damage to salmon, steelhead trout, or bull trout habitats than chemical delivery to surface waters.

4. Design prescribed burn projects and prescriptions to contribute to the attainment of riparian management objectives.

5. Immediately establish an emergency team to develop a rehabilitation treatment plan to attain riparian management objectives and avoid adverse effects on salmon, steelhead trout, and bull trout whenever riparian areas within salmon, steelhead trout, or bull trout watersheds are significantly damaged by (a) a wildfire or a prescribed fire burning out of prescription or (b) fire suppression activities (see *Attachment 4,* pp. 105-106).

6. Trees may be felled in riparian areas within salmon, steelhead trout, or bull trout watersheds when they pose a safety risk (see *Attachment 4*, pp. 105-106). Keep felled trees on site when needed to meet woody debris objectives.

7. Apply herbicides, pesticides, other toxicants, and other chemicals in a manner that does not hinder attainment of riparian management objectives and avoids adverse effects on salmon, steelhead trout, or bull trout.

8. Prohibit storage of fuels and other toxicants within riparian areas in salmon, steelhead trout, and bull trout watersheds (see *Attachment 4*, pp. 105-106). Prohibit refueling within riparian areas in salmon, steelhead trout, or bull trout watersheds, unless there are no other alternatives. Refueling sites within these areas must be approved by the resource advisor and have an approved spill containment plan.

9. Locate water drafting sites to avoid adverse effects to salmon, steelhead trout, bull trout, and instream flows, and in a manner that does not hinder attainment of riparian management objectives.

Indianola Fire Station - Along the Main Salmon River

Minimum Impact Suppression Tactics Guidelines

USDA Forest Service - Northern Region
1993

Note: The following pages are quoted directly from, and provide the majority of the content contained in, *Minimum Impact Suppression Tactics Guidelines* (USDA Forest Service - Northern Region 1993). Beginning and ending quotation marks are omitted, since the entire document is quoted; however, where only portions of the document are reproduced, deletions are indicated by an ellipsis (...). Some errors in the original document (word choice, grammar, punctuation, etc.) have been edited.

Preamble: ...The following Minimum Impact Suppression Tactics (MIST) guide is designed to assist Forest Service fire personnel when taking suppression action on wildfires located in wilderness, proposed wilderness or other lands with similar land management objectives. The guidelines are intended to reduce fire suppression impacts on the land while insuring the actions taken are timely and effective....

Concept: The concept of Minimum Impact Suppression Tactics (MIST) is to use the minimum amount of forces necessary to effectively achieve fire management protection objectives, consistent with land and resource management objectives. It implies a greater sensitivity to the impacts of suppression tactics and their long term effects when determining how to implement an appropriate suppression response.... MIST is not intended to represent a separate or distinct classification of firefighting tactics, but rather a mindset of how to suppress a wildfire while minimizing the long term effects of the suppression action.... The principle of fighting fire aggressively, but providing for safety first, will not be compromised. The key challenge to the line officer, fire manager, and firefighter is to be able to select the wildfire suppression tactics that are appropriate, given the fire's probable or potential behavior. The guiding principle is always "least cost plus loss" while meeting land and resource management objectives... These actions, or MIST, may result in an increase in the amount of time spent watching, rather than disturbing, a dying fire to insure it does not rise again. They may also involve additional rehabilitation measures on the site that were not previously carried out. When selecting an appropriate suppression response, firefighter safety must remain the highest concern. In addition, fire managers must be assured the planned actions will be effective and will remain effective over the expected duration of the fire....

Goal: The goal of MIST is to halt or delay fire spread in order to maintain the fire within predetermined parameters while producing tho least possible impact on the resource being protected. These parameters are represented by the initial attack incident commander's "size-up of the situation," in the case of a new start, or by the "escaped fire situation analysis (EFSA)," in the case of an escaped fire.

It is important to consider probable rehabilitation needs when selecting the appropriate suppression response. Tactics that reduce the need for rehabilitation are preferred whenever feasible.

Suppression Responsibility

...safety is the highest priority. All action will be anchored to the standard fire orders and watch out situations. Safety will remain the responsibility of each person involved with the incident.

Initial/Extended Attack

Incident Commander - To understand and carry out an appropriate suppression response which will best meet the land management objectives of the area at the least cost plus loss. Insure all forces used on the fire understand the plan for suppressing the fire in conjunction with MIST.

Keep in communication with responsible fire manager or line officer to insure understanding and support of tactics being used on the fire. Evaluate and provide feedback as to the tactical effectiveness during and after fire incident.

Project Fire

"**Type I/II Incident Commander** - To carry out instructions given by the responsible line officer both verbally and through the Escaped Fire Situation Analysis (EFSA). Establish and nurture a close dialogue with the resource advisor assigned to the fire team. Review actions on site and evaluate for compliance with land line officer direction and effectiveness at meeting fire management protection objectives."

Responsible Line Officer - To transmit the land management objectives of the fire area to the fire team and to define specific fire management protection objectives. Periodically review for compliance.

Resource Advisor - To insure the interpretation and implementation of EFSA and other oral or written line officer direction are adequately carried out. Provide specific direction and guidelines as needed. Participate at fire team planning sessions, review incident action plans and attend daily briefings to emphasize resource concerns and management's expectations. Provide assistance in updating the EFSA when necessary. Participate in incident management team debriefing and assist in evaluation of team performance related to MIST.

Guidelines

Following is a list of considerations for each fire situation.

Hot-Line/Ground Fuels

* Allow fire to burn to natural barriers.
* Use cold-trail, wet line or combination when appropriate.
* If constructed fireline is necessary, use only width and depth to check fire spread.
* Consider use of fireline explosives for line construction.

* Burn out and use low impact tools like swatter or 'gunny' sack.
* Minimize bucking and cutting of trees to establish fireline; build line around logs when possible.
* Use alternative mechanized equipment such as excavators, rubber tired skidders, etc. rather than tracked vehicles.
* Use high pressure type sprayers on equipment prior to assigning to incident to help prevent spread of noxious weeds.
* Constantly recheck cold trailed fireline.

Hot-Line/Aerial Fuels

* Limb vegetation adjacent to fireline only as needed to prevent additional fire spread.
* During fireline construction, cut shrubs or small trees only when necessary. Make all cuts flush with the ground.
* Minimize felling of trees and snags unless they threaten the fireline or seriously endanger workers. In lieu of felling, identify hazard trees with a lookout or flagging.
* Scrape around tree bases near fireline if it is likely they will ignite.
* Use fireline explosives for felling when possible to meet the need for more natural appearing stumps.

Mop-up/Ground Fuels

* Do minimal spading; restrict spading to hot areas near fireline.
* Coldtrail charred logs near fireline; do minimal tool scarring.
* Minimize bucking of logs to extinguish fire or to check for hotspots; roll the logs instead if possible.
* Return logs to original position after checking and when ground is cool.
* Refrain from making bone yards; burned and partially burned fuels that were moved should be returned to a natural arrangement.
* Consider allowing large logs to burn out. Use a lever rather than bucking to manage large logs which must be extinguished.
* Use gravity socks in stream sources and/or a combination of water blivits and fold-a-tanks to minimize impacts to streams.
* Consider using infrared detection devices along perimeter to reduce risk.
* Personnel should avoid using rehabilitated firelines as travel corridors whenever possible, because of potential soil compaction and possible detrimental impacts to rehabilitation work, *i.e.*, water bars.

Mop-up/Aerial Fuels

* Remove or limb only those fuels which, if ignited, have potential to spread fire outside the fireline.
* Before felling consider allowing ignited tree/snag to burn itself out. Ensure adequate safety measures are communicated if this option is chosen.
* Identify hazard trees with a lookout or flagging.

* If burning trees/snags pose a serious threat of spreading fire brands, extinguish fire with water or dirt whenever possible. Consider felling by blasting when feasible. Felling by crosscut or chainsaw should be the last resort. Align saw cuts to minimize visual impacts from more heavily traveled corridors. Slope cut away from line of sight when possible.

Logistics

Campsite Considerations

* Locate facilities outside of wilderness whenever possible.
* Coordinate with the Resource Advisor in choosing a site with the most reasonable qualities of resource protection and safety concerns.
* Evaluate short-term low impact camps such as coyote or spike versus use of longer-term higher impact camps.
* Use existing campsites such as reserved sites used by outfitters, if possible.
* New site locations should be on impact-resistant and naturally draining areas such as rocky or sandy soils, or openings with heavy timber.
* Avoid camps in meadows, along streams or on lakeshores. Locate at least 200 feet from lakes, streams, trails, or other sensitive areas.
* Consider impacts on both present and future users. An agency commitment to wilderness values will promote those values to the public.
* Lay out the camp components carefully from the start. Define cooking, sleeping, latrine, and water supply.
* Minimize the number of trails and ensure adequate marking.
* Consider fabric ground cloth for protection in high use areas such as around cooking facilities.
* Use commercial portable toilet facilities where available. If these cannot be used, a latrine hole should be utilized.
* Select latrine sites a minimum of 200 feet from water sources with natural screening.
* Do not use nails in trees.
* Constantly evaluate the impacts which will occur, both short and long term.

Personal Camp Conduct

* Use "leave no trace" camping techniques.
* Minimize disturbance to land when preparing bedding site. Do not clear vegetation or trench to create bedding sites.
* Use stoves for cooking, when possible. If a campfire is used, limit to one site and keep it as small as reasonable. Build either a "pit" or "mound" type fire. Avoid use of rocks to ring fires.
* Use down and dead firewood. Use small diameter wood, which burns down more cleanly. *Don't burn plastics or aluminum - pack them out with other garbage.
* Keep a clean camp and store food and garbage so they are unavailable to bears. Ensure items such as empty food containers are clean and odor-free; never bury them.

* Select travel routes between camp and fire and define clearly. Carry water and bathe away from lakes and streams. Personnel must not introduce soaps, shampoos or other personal grooming chemicals into waterways.

Aviation Management

One of the goals of wilderness managers is to minimize the disturbance caused by air operations during an incident.

Aviation Use Guidelines

* Maximize back haul flights as much as possible.
* Use long line remote hook in lieu of constructed helispots for delivery or retrieval of supplies and gear.
* Take precautions to insure noxious weeds are not inadvertently spread through the deployment of cargo nets and other external loads.
* Use natural openings for helispots and paracargo landing zones as far as practical. If construction is necessary, avoid high visitor use areas.
* Consider maintenance of existing helispots over creating new sites.
* Obtain specific instructions for appropriate helispot construction prior to the commencement of any ground work.
* Consider directional falling of trees and snags so they will be in a natural appearing arrangement.
* Buck and limb only what is necessary to achieve safe/practical operating space in and around the landing pad area.

Retardant Use

During initial attack, fire managers must weigh the non-use of retardant with the probability of initial attack crews being able to successfully control or contain a wildfire. If it is determined that use of retardant may prevent a larger, more damaging wildfire, then the manager might consider retardant use even in sensitive areas. This decision must take into account all values at risk and the consequences of larger firefighting forces' impacts on the land.

Consider impacts of water drops versus use of foam/retardant. If foam/retardant is deemed necessary, consider use of foam before retardant use.

Hazardous Materials

Flammable/Combustible Liquids

* Store and dispense aircraft and equipment fuels in accordance with National Fire Protection Association (NFPA) and Health and Safety Handbook requirements.

* Avoid spilling or leakage of oil or fuel (from sources such as portable pumps) into water sources or soils.
* Store any liquid petroleum gas (propane) downhill and downwind from firecamps and away from ignition sources.

Flammable Solids

* Pick up residual fusees debris from the fireline and dispose of properly.

Fire Retardant/Foaming Agents

* Do not drop retardant or other suppressants near surface waters.
* Use caution when operating pumps or engines with foaming agents to avoid contamination of water sources.

Fireline Explosives

* Remove all undetonated fireline explosives from storage areas and fireline at the conclusion of the incident and dispose of according to Bureau of Alcohol, Tobacco and Firearms (BATF) and Fireline Blaster Handbook requirements. Properly dispose of all packaging materials.

Fire Rehabilitation

Rehabilitation is a critical need. This need arises primarily because of the impacts associated with fire suppression and the logistics that support it. The processes of constructing control lines, transporting personnel and materials, providing food and shelter for personnel, and other suppression activities have a significant impact on sensitive resources, regardless of the mitigation measures used. Therefore, rehabilitation must be undertaken in a timely, professional manner.

During implementation, the resource advisor should be available for expert advise, support of personnel doing the rehabilitation work, and quality control.

Rehabilitation Guidelines

* Pick up and remove all flagging, garbage, litter, and equipment. Dispose of trash appropriately.
* Clean fire pit of unburned materials and fill back in.
* Discourage use of newly established trails created during the suppression effort by covering with brush, limbs, small diameter poles, and rotten logs in a naturally appearing arrangement.
* Replace dug out soil and/or duff and obliterate any berms created during the suppression effort.
* If impacted trails have developed on slopes greater than six percent, construct waterbars according to the following waterbar spacing guide:

Trail Percent Grade	*Maximum Spacing (feet)*
6-9	400
10-15	200
15-25	100
25+	50

* Where soil has been exposed and compacted, such as in camps, on user-trails, and at helispots and pump sites, scarify the top 2 to 4 inches and scatter with needles, twigs, rocks, and dead branches. It is unlikely that seed and fertilizer for barren areas will be appropriate, in order to maintain the genetic integrity of the area. It may be possible, depending on the time of year and/or possibility of a rainy period, to harvest and scatter nearby seed, or to transplant certain native vegetation.
* Blend campsites with natural surroundings, by filling in and covering latrine with soil, rocks, and other natural material. Naturalize campfire area by scattering ashes in nearby brush (after making sure any sparks are out) and returning site to a natural appearance.
* Where trees were cut or limbed, cut stumps flush with ground, and scatter limbs and boles out of sight in an unburned area. Camouflage stumps and tree boles using rocks, dead woody material, fragments of stumps, bolewood, limbs, soil and fallen or broken green branches. Scattered sawdust and shavings will assist in decomposition and be less noticeable. Use native materials from adjacent, unimpacted areas if necessary.
* Remove newly cut tree boles that are visible from trails or meadows. Drag other highly visible woody debris created during the suppression effort into timbered areas and disburse. Tree boles that are too large to move should be slant cut so a minimal amount of the cut surface is exposed to view. Chopping up the surface with an axe or pulaski, to make it jagged and rough, will speed natural decomposition.
* Leave tops of felled trees attached. This will appear more natural than scattering the debris.
* Consider using explosives on some stumps and cut faces of the bolewood for a more natural appearance.
* Consider, if no other alternatives are available, helicopter sling-loading rounds and tops from a disturbed site when there has been an excessive amount of bucking, limbing and topping.
* Tear out sumps or dams, where they have been used, and return site to natural condition. Replace any displaced rocks or streambed material that has been moved. Reclaim streambed to its predisturbed state, when appropriate. Walk through adjacent undisturbed area and take a look at the rehabilitation efforts to determine success at returning the area to as natural a state as possible. Good examples should be documented and shared with others!

Demobilization

Because demobilization is often a time when people are tired or when weather conditions are less than ideal, enough time must be allowed to do a good job. When moving people and equipment choose a method which is most efficient and has the least impact on the landscape and fire organization mission. An on-the-ground analysis of "How Things Went" will be important.

Post-Fire Evaluation

Post-fire evaluation is important for any fire occurrence so management can find out how things went in order to identify areas needing improvement, formulate strategies and produce quality work in the future. This activity is especially important in wilderness and like sensitive areas due to their fragility and inclination to long-term damage by human impacts.

Resource advisors and functional specialists such as wilderness rangers will be responsible for conducting the post-fire evaluation. They are the people who have the experience and knowledge to provide information required to make the evaluation meaningful and productive.

Post-fire evaluation will consist of data collection, documentation and recommendations. This process and report will, in most cases, be fairly simple and to the point. It should be accomplished before an overhead team departs from the fire. The evaluation emphasis should be on the MIST actions and not on the effects of the fire.

Evaluation will be completed on wildfires exceeding 100 acres and on a sample of fires less than 100 acres. It is appropriate to evaluate a diversity of fires, ranging from a spot fire suppressed by smokechasers or jumpers to a large project fire managed by an overhead team.

Region 1 is proposing a post-fire evaluation of sites, which includes data collection on campsites and helispots, using Cole's Site Inventory System report INT-259, "Wilderness Campsite Monitoring Methods: A Source Book." Data collected will be added to inventories already completed for recreational impacts on wilderness. This information should provide managers with a clearer picture of which activities affect these "last, best places."

Data Collection/Documentation/Recommendations

This phase will be completed by a review of the rehabilitation plan and visit to the fire site as soon after demobilization as possible. An inventory of camps and helispots will be completed using Cole's Inventory System. This will also include an objective overview of other areas covered by the rehabilitation plan.

Observations will be documented in a brief report to the line officer with a copy to the appropriate incident commander. In the report, the evaluator will include recommendations for ensuing fire suppression activities on similar lands. It is important that the evaluator recognize and commend the initial attack forces or overhead team for positive activities. Make special note of the extra efforts and sensitivity to suppression impacts.

Below is a sample format for a Post-Fire Evaluation Report (**Note:** This report is reproduced in summary form):

Post-Fire Evaluation for _____ Fire

Existing Direction Pertinent for Fire

(insert general and specific land use plan direction for the management area, including guidance for management concerns such as threatened or endangered plants or animals)

Findings

A. Resource Advisor Input and/or Actions

(Include a synopsis of the actions of the resource advisor and his or her input into suppression strategies/tactics)

B. Escaped Fire Situation Analysis (EFSA)

(How did the EFSA respond to the sensitivities of this fire area.)

C. Line Direction to Incident Commander

(Synopsis of what the line officer told the incident commander to do.)

D. Incident Action Plan

(Synopsis of how incident action plan responded to fire area.)

On-site Verification

(State here who made the field visit, the date, and what observations were made in terms of meeting the guidelines for MIST.)

Overall Review Evaluation

(Include overall findings of how well objectives were accomplished in terms of minimum impact activities.)

Review Recommendations

(What areas can we improve on, where did we do well, etc.)

Attachment 10: Leasable Minerals Stipulations

The stipulations in this attachment are referred to by the following numbers:

1. All or part of lands are subject to Special Bureau of Land Management Stipulation Form ID 3100-21 (March 1983) (Oil and Gas Lease Stipulations).

2. All or part of lands are subject to Special Bureau of Land Management Wildlife Habitat Stipulation.

3. All or part of lands are subject to Special Bureau of Land Management No Surface Occupancy Stipulation.

4. All or part of lands are subject to Special State of Idaho Stipulation (Division of Highways).

5. All or part of lands are subject to Special Bureau of Land Management Stipulation (Slopes).

6. All or part of lands are subject to Special Bureau of Land Management Stipulation.

7. All or part of lands are subject to Special Known Phosphate Leasing Area Stipulation.

8. All or part of lands are subject to Special Idaho National Guard Stipulation.

9. All or part of lands are subject to Special Bureau of Land Management Stipulation (Phosphate).

10. All or part of lands are subject to Powersite Stipulation Form 3730-1 (July 1984).

Stipulation Number 1 (Form ID 3100-21, March 1983)

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
IDAHO STATE OFFICE

Serial No. _____

OIL AND GAS LEASE STIPULATIONS

Endangered, Threatened, or Sensitive Species - The Federal surface management agency is responsible for assuring that the leased land is examined prior to undertaking any surface-disturbing activities to determine effects upon any plant or animal species, listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow use and occupancy that would be in violation of the Endangered Species Act of 1973 by detrimentally affecting endangered or threatened species of [sic.] their habitats.

The lessee/operator may, unless notified by the authorized officer of the surface management agency that the examination is not necessary, conduct the examination on the leased lands at his discretion and cost. This examination must be done by or under the supervision of a qualified resources specialist approved by the surface management agency. An acceptable report must be provided to the surface management agency identifying the anticipated effects of a proposed action on endangered or threatened species or their habitats.

Erosion Control - Surface disturbing activities may be prohibited during muddy and/or wet soil period. This limitation does not apply to operation and maintenance of producing wells using authorized roads.

Controlled or Limited Surface Use Stipulation - This stipulation may be modified by special stipulations which are hereto attached or when specifically approved in writing by the District Manager, Bureau of Land Management, with concurrence of the Federal surface management agency. Distances and/or time periods may be made less restrictive depending on the actual on-ground conditions. The lessee should contact the Federal surface management agency for more specific locations and information regarding the restrictive nature of this stipulation.

The lessee/operator is given notice that the lands within this lease may include special areas and that such areas may contain special values, may be needed for special purposed, or may require special attention to prevent damage to surface and/or other resources. Possible special areas are identified below. Any surface use or occupancy within such special areas will be strictly controlled or, if absolutely necessary, excluded. Use or occupancy will be restricted only when the Bureau of Land Management and/or the surface management agency demonstrates the restriction necessary for the protection of such special areas and existing or planned uses.

Appropriate modifications to imposed restrictions will be made for the maintenance and operations of producing oil and gas wells.

After the Federal surface management agency has been advised of specific proposed surface use or occupancy on the leased lands, and on request of the lessee/operator, the Agency will furnish further data on any special areas which may include:

100 feet from the edge of the rights-of-way of highways, designated county roads and appropriate federally-owned or controlled roads and recreation trails.

500 feet, when necessary, within the 100-year flood plain of reservoirs, lakes, and ponds and intermittent, ephemeral or perennial streams; rivers, and domestic water supplies.

500 feet from grouse strutting grounds. Special care to avoid nesting areas associated with strutting grounds will be necessary during the period from March 1 to June 30. One-fourth mile from identified essential habitat of state and federal sensitive species. Crucial wildlife winter ranges during the period from December 1 to May 1.

300 feet from occupied buildings, developed recreational areas, undeveloped recreational areas receiving concentrated public use and sites eligible for or designated as National Register sites.

Seasonal road closures, roads for special uses, specified roads during heavy traffic periods and on areas having restrictive off-road vehicle designations.

Slopes over 30 percent, or 20 percent on extremely erodible or slumping soils.

Federally owned or controlled springs, reservoirs, wells, or other water sources.

Date _____ Lessee _____

Stipulation Number 2

Special BLM Stipulation

Wildlife Habitat

In order to protect _____ _____, exploration, drilling and other development activity will be allowed only from _____ to _____. 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 District Manager, Bureau of Land Management.

* * * * * * * *

Stipulation Number 3

Special BLM No Surface Occupancy Stipulation

No occupancy or other surface disturbance will be allowed within _____ _____. This distance may be modified when specifically approved in writing by the District Manager, Bureau of Land Management.

Stipulation Number 4

Serial No._____

Special State of Idaho Stipulations

Division of Highways

The undersigned lessee accepts this lease subject to the following prohibitions unless said prohibitions are waived in whole or in part in writing and approved by the State Highway Administrator.

Right of Way of Public Roads

No buildings or structures will be erected within the right-of-way boundaries of any state highway.

No equipment or materials storage or drilling and/or exploratory operations will be conducted within the right-of-way of a state highway.

Borrow Sources, Stockpile and Maintenance Sites

No buildings or structures, equipment or material storage, or drilling and/or exploratory operations will be allowed within the boundaries of any borrow, aggregate, stockpile, quarry or maintenance site except by specific written waiver of this prohibition as outlined above.

This lease includes Material Site _____.

* * * * * * * *

Stipulation Number 5

Serial No._____

Special BLM Stipulation

No occupancy or other surface disturbance will be allowed on slopes in excess of 30 percent, or in excess of 20 percent on extremely erodible or slumping soils, without approval of the authorized officer of the Bureau of Land Management.

Stipulation Number 6

Serial No. _____

Special BLM Stipulation

All of the lands in the following legal subdivisions are included in _____ _____. Therefore, no occupancy or disturbance of the surface of the land described is authorized. The lessee, however, may exploit the oil and gas resources by directional drilling from sites outside the area.

* * * * * * * *

Stipulation Number 7

Serial No._____

Special BLM Stipulation

Known Phosphate Leasing Area

Exploration or development operations for oil and gas conducted under this lease shall be planned so as to prevent unreasonable interference with present or future exploration of phosphates or phosphate rock and associated or related minerals. Prior to conducting such operations under this lease, the lessee shall consult with, or otherwise advise the phosphate lessee or permittee of his proposed plans and obtain the phosphate lessees' or permittees' comments on the proposed operations. Evidence of such consultation and any comments resulting therefrom shall be submitted to the Authorized Officer of the BLM, with the submission of proposed plans of operations involving exploration for, or development of, oil and gas.

Stipulation Number 8

Serial No._____

Idaho National Guard Stipulations

The Idaho National Guard has requested the following stipulations be incorporated into all oil and gas leases issued in an area used by them as a firing and maneuver range.

STIPULATIONS:

1. That the Idaho National Guard be furnished with detailed plans for all exploration and construction/operations activity planned by the lessee at least 60 days prior to its commencement. This stipulation is for the specific purpose of evaluation by the Idaho National Guard of any impact on safety and ecological considerations and to provide an opportunity for reclamation when it is deemed appropriate.

2. That roads and trails in the area remain open for use by the National Guard. If closures are made, proper advance notification will be required and an alternate route established.

3. That no area fence closures be built, other than around the immediate vicinity of the construction/operation activity, to preclude the use of an entire section by the National Guard.

4. That the Federal Government (all agencies), the State of Idaho, and the Idaho National Guard be immuned from liability for any injuries or damage to property resulting from the explosion of military ammunition and/or explosives. While every effort is made to destroy ammunition "duds" in the range area, live ammunition has been fired into the impact area for many years. There is no way it can be guaranteed that this area is free from all unexploded rounds, explosives, and devices.

Stipulation Number 9

Serial No._____

Special BLM Stipulation

Exploration or development operations for oil and gas conducted under this lease shall be planned so as to prevent unreasonable interference with present or future exploration of phosphates or phosphate rock and associated or related minerals. Prior to conducting such operations under this lease, the lessee shall consult with, or otherwise advise the phosphate lessee or permittee of his proposed plans and obtain the phosphate lessees' or permittees' comments on the proposed operations. Evidence of such consultation and any comments resulting therefrom shall be submitted to the Authorized Office of the BLM, with the submission of proposed plans of operations involving exploration for, or development of, oil and gas.

Stipulation Number 10 (Form 3730-1)

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

POWERSITE STIPULATION
(Form 3730- 1; July 1984)

The lessee or permittee hereby agrees:

(a) If any of the land covered by this lease or permit was, on the date the lease or permit application or offer was filed, within a powersite classification, powersite reserve, waterpower designation, or project on which an application for a license or preliminary permit is pending before the Federal Energy Regulatory Commission or on which an effective license or preliminary permit had been issued by the Federal Energy Regulatory Commission under the Federal Power Act, or on which an authorized power project (other than one owned or operated by the Federal Government) had been constructed, the United States, its permittees or licensees shall have the prior right to use such land for purposes of power development so applied for, licensed, permitted, or authorized and no compensation shall accrue to the mineral lessee or permittee for loss of prospective profits or for damages to improvements or workings, or for any additional expense caused the mineral lessee as a result of the taking of said land for power development purposes. It is agreed, however, that where the mineral lessee or permittee can make adjustments of his improvements to avoid undue interference with power development, he will be permitted to do so at his own expense. Furthermore, occupancy and use of the land by the mineral lessee or permittee shall be subject to such reasonable conditions with respect to the use of the land as may be prescribed by the Federal Energy Regulatory Commission for the protection of any improvements and workings constructed thereon for power development.

(b) If any of the land covered by this lease or permit is on the date of the lease or permit within a powersite classification, powersite reserve, or waterpower designation which is not governed by the preceding paragraph, the lease or permit is subject to the express condition that operations under it shall be so conducted as not to interfere with the administration and use of the land for powersite purposes to a greater extent than may be determined by the Secretary of the Interior to be necessary for the most beneficial use of the land. In any case, it is agreed that where the mineral lessee or permittee can make adjustments to avoid undue interference with power development, he will be permitted to do so at his own expense.

Attachment 11: Summary of the Chilly Slough Wetland Conservation Project

(Summarizes the Chilly Slough Wetland Conservation Project Plan and the Thousand Springs/Chilly Slough Habitat Management Plan)

The Chilly Slough Wetland Conservation Project is a joint effort by the BLM, the Idaho Department of Fish and Game, The Nature Conservancy, and Ducks Unlimited, Inc. (the Chilly Slough Working Group) to acquire and manage a high value natural wetland for wildlife and recreational purposes. The project area is located in T.9N. and T.10N., R.21E. and R.22E., Custer County, Idaho (see *Map 18: Chilly Slough Wetland Conservation Project Area*).

Chilly Slough's values include the following: (1) breeding habitat for waterfowl, sandhill cranes, and long-billed curlews; (2) a natural wetland, physically unaltered by mechanical manipulation; (3) storage and release of ground and surface water; (4) livestock pasture; (5) maintenance of downstream water quality; and (7) a rainbow and brook trout fishery.

Production of waterfowl, fish, and nongame wildlife in the project area is limited by habitat condition and a lack of residual nesting cover. Fractured public and private land ownership patterns preclude opportunities to improve habitat condition and waterfowl nesting cover on the wetland.

The project is needed to (1) increase breeding populations of waterfowl, sandhill cranes, and nongame wildlife in the project area, and (2) perpetuate and protect wetland values that would otherwise remain below potential or be threatened by existing and future land use practices.

The conservation project primarily consists of:

1. Acquiring up to 3,200 acres of private lands through land exchanges or fee simple purchase on a willing-seller basis only, thereby creating a wetland management area of approximately 4,400 acres.

2. Constructing new fences and reconstructing or removing old fences to facilitate livestock control and increase residual nesting cover.

3. Creating, where feasible, additional open-aquatic habitat to provide breeding and brood-rearing habitat for waterfowl and other species.

4. Developing a viewing site for watching wildlife.

5. Vegetation treatments, in the form of prescribed burning, livestock grazing, or other methods jointly approved of by the project cooperators, which may be used where such methods are determined to be consistent with the achievement of wetland conservation objectives.

Attachment 12: Procedure for Nonpoint Source Consistency Review

The "Procedure for Nonpoint Source Consistency Review" for the Challis RMP is based upon the following sources:

(a) Memorandum of Understanding implementing the Nonpoint Source Water Quality Program of the State of Idaho (1992).
(b) Idaho Nonpoint Source Management Program (1989).
(c) Selected elements of the Idaho code referenced in the Idaho Nonpoint Source Management Program.
(d) Idaho State Office BLM Information Bulletin Number ID-91-853.
(e) Idaho Agricultural Pollution Abatement Plan (Idaho Dept. of Health and Welfare/Idaho Dept. of Lands 1993)

1. Identify nonpoint source activity.

2. Identify any water quality limited stream segment (see *Glossary*, p. 186) within the project area.

3. Identify any Outstanding Resource Water (ORW) within the project area.

4. Identify beneficial uses and indicate those "official designated" beneficial uses in the Idaho Water Quality Standards. Provide those beneficial uses identified and not officially designated to the Idaho Department of Environmental Quality for review and concurrence.

5. Identify water quality standards and criteria applicable to protecting the appropriate beneficial uses.

6. Identify current status of beneficial uses and predicted condition of beneficial uses, by providing an analysis of changes in habitat resulting from the nonpoint source activity which may impact the beneficial use.

7. Establish interim and long term site-specific water quality/riparian objectives to support identified beneficial uses.

8. Identify State approved BMPs, if any, for each nonpoint source activity.

9. Develop site-specific management systems and identify component strategies that demonstrate a knowledgeable and reasonable effort to meet the water quality objectives and minimize resulting water quality impacts.

10. Document the rationale and scientific basis for the management system and component practices identifying why the system will, or has been demonstrated to, protect or restore water quality, promote riparian improvement, and meet defined water quality objectives and Idaho Water Quality Standards.

11. Identify expected timeframe in which water quality objectives may be met.

12. Develop standards to measure and document implementation of the management strategies.

13. Develop a schedule for implementing component practices and a feedback loop compliance schedule.

14. Develop a monitoring plan which will provide adequate information to determine the effectiveness of the management strategies in achieving the water quality objectives and protecting the beneficial uses of the water.

15. Define a methodology or process, using feedback data from water quality monitoring, by which component practices of the management system may be modified, strengthened, or revised to meet water quality goals and protect beneficial uses of water.

16. Provide an opportunity for review by the Department of Environmental Quality (DEQ) for consistency and compliance with the Idaho Nonpoint Source Management Program and the Idaho Water Quality Standards.

Attachment 13: Riparian Study Area Development

(Referred to in Riparian Areas, Goal 2, #3, p. 81)

1. Sites would be chosen by a BLM interdisciplinary team.

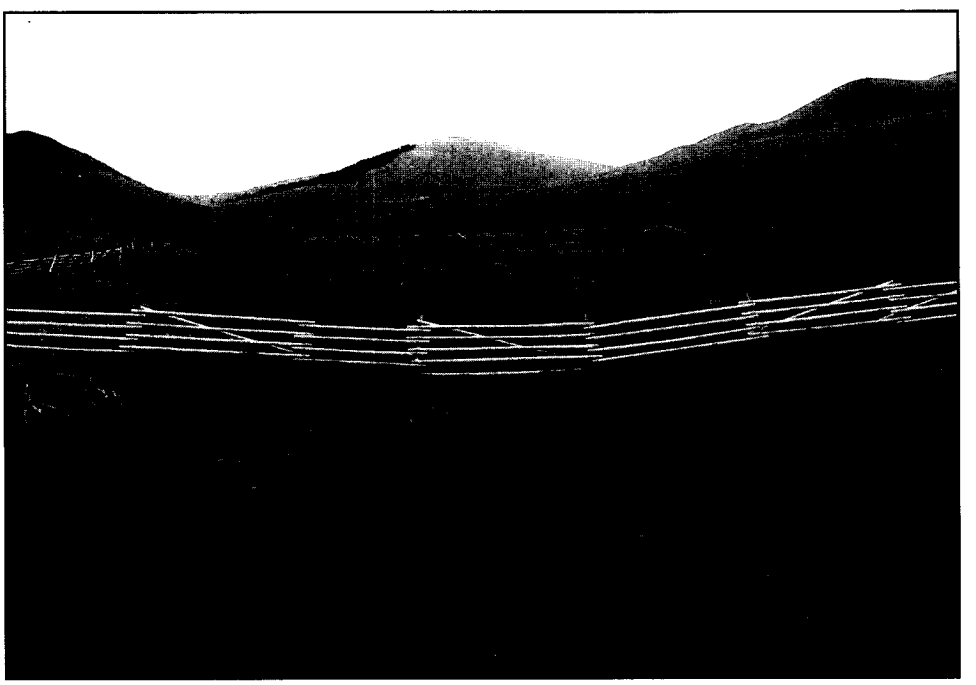
2. The riparian study area would help ranchers and land managers to

   (a) determine potential for riparian improvement,
   (b) compare management strategies and progress with control areas, and
   (c) indicate changes over time due to natural influences (*e.g.*, climate).

3. The study areas would be a minimum of 400 feet in length or 20 times the bankfull width, whichever is larger.

4. The study areas would generally contain the entire width of the riparian area.

5. The total area of each individual study area would generally be two acres or less and should not exceed five acres.



Road Creek Exclosure

Attachment 14: Procedures for Minimum Streamflow Application

(Referred to in Minimum Streamflow, Goal 1, #2, p. 67)

1. In cooperation with the IDFG, the Idaho Department of Parks and Recreation, or other outside interests, determine appropriate actions for obtaining a minimum streamflow on salmon, steelhead trout, and bull trout streams in the area, consistent with the resource values involved (see Fisheries, Goal 1, pp. 45-47). Review existing information available as a result of previous instream flow studies conducted by the IDFG.

2. During the year after signing of the Challis RMP, identify and prioritize streams within the Challis Resource Area for which minimum streamflow rights will be crucial to maintenance or improvement of fish and riparian habitat. Begin with the following list of streams:

East Fork Salmon River
Lake Creek
Herd Creek
Salmon River
Squaw Creek
Thompson Creek
Bayhorse Creek
Garden Creek
Challis Creek
Road Creek
Pahsimeroi River
Big Creek
Morse Creek
Falls Creek
Little Morgan Creek
Burnt Creek.

3. One year after signing of the Challis RMP, begin gathering a minimum of three years of flow data on the priority streams, focusing first on those streams with existing adequate data. Make application and/or assist in application preparation (according to Idaho code section 42-1501 to 42-1505) on at least one identified stream. Add one stream per year to the data collection and application process indefinitely, until minimum streamflow needs are satisfied.

Attachment 15: Minimum Riparian and Aquatic Habitat Conditions

Note: These conditions would be applied to all fish-bearing streams in the Challis Resource Area (see *Map 2: Anadromous and Resident Fisheries Occupied Habitat.*) These conditions may be altered (1) as reference information to natural conditions in similar channel types and geomorphology is improved, or (2) on a case-by-case basis when a watershed or site-specific assessment conducted by an ID team indicates alternative conditions are more appropriate. Rationale for changes to the minimum conditions must be properly documented.

(a) Pools/mile: commensurate with wetted width (see *Glossary,* p. 187 and *Attachment 16:* optimal pools/mile curve, p. 150):

wetted width (feet):	10	20	25	50	75	100	125	150	200
number of pools/mile:	96	56	47	26	23	18	14	12	9

(b) Streambank stability: >90%.

(c) Lower bank angle: >75% of banks with a <90° angle (i.e., undercut).

(d) Width:depth ratio: <10 measured at maximum pool depth within wetted width.

(e) Temperature standards:

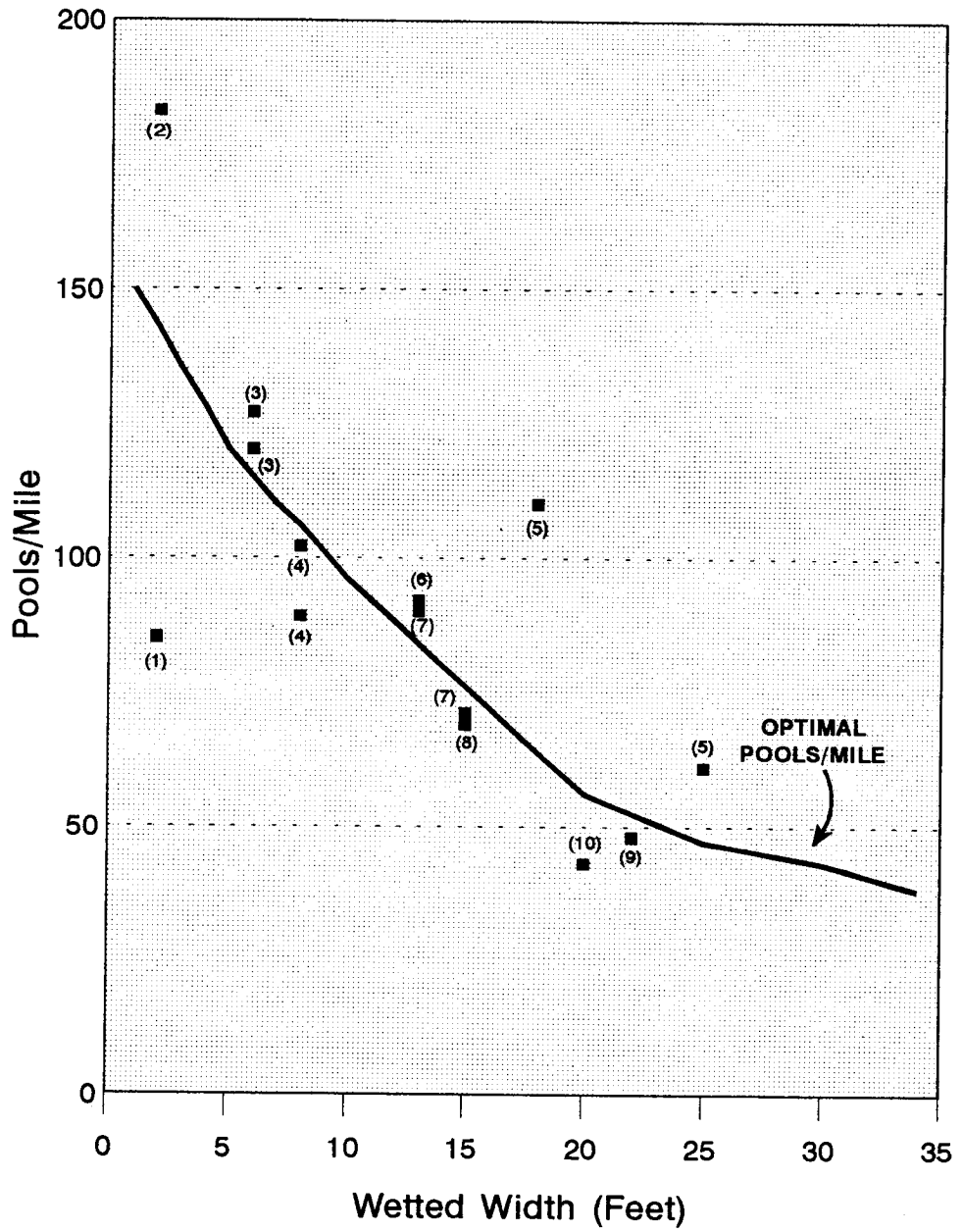
(1) Within designated critical habitat for anadromous fish (see *Glossary,* p. 167), no measurable increase in maximum water temperature (defined as a 7-day moving average of daily maximum water temperature over the warmest consecutive 7-day period) shall occur as a result of Federal land management activities. Maximum water temperatures must be below 64 °F within migration and rearing habitats and below 60 °F within spawning habitats (unless the bull trout temperature standards described in (3) below would apply).

(2) In watersheds not considered designated critical habitat for anadromous fish, management activities may not contribute to increased maximum water temperatures above 64° F within fish migration, spawning, and rearing habitats (unless the bull trout temperature standards described in (3) below would apply).

(3) Bull trout temperature criteria shall apply to all tributary waters, not including fifth order main stem rivers, located within the Thompson/Bayhorse creeks, Pahsimeroi River, and East Fork Salmon River drainages (Batt 1996: F-5), as well as Squaw, Morgan, and Challis creeks. Water temperatures shall not exceed a 53.6 °F daily average during June, July, and August for juvenile bull trout rearing, and a 48 °F daily average during September and October for bull trout spawning. For the purposes of measuring these criteria, the daily average shall be generated from a recording device with a minimum of six evenly spaced measurements in a 24-hour period (IDAPA 16, Title 01, Chapter 02, Subsection 250.02 e., p. 40; February 20, 1998).

(f) Cobble embeddedness for resident and anadromous fish habitat: <20% (see Glossary: cobble embeddedness, p. 168).

Attachment 16: Actual and Optimal Pools/Mile in 9 Challis RA Streams



Actual Streams Surveyed: (1)=Road Cr. Exclosure (2)= Horse Basin Cr. (3)= Road Cr. (4)=Lake Cr. (5)= Herd Cr. (6)=Cow Cr. (7)=Thompson Cr. (8)=Bayhorse Cr. (9)=Morgan Cr. (10)=Squaw Cr.
Source: Challis BLM Stream Survey, 1993.

Attachment 17: Tracts Considered for Sale

Note: This attachment lists tracts which are proposed for consideration as sale tracts under Land Tenure and Access, Goal 2, #3, p. 55.

Within the adjustment areas (see *Map A: Adjustment/Management Areas*) approximately 3,324.63 acres would be considered for sale, because they are difficult and uneconomical to manage (FLPMA, Section 203(a)(1)):

Legal Description	Approx. Acreage
T7N R23E Sec. 5 NESE	10.0
T7N R24E Sec. 7 lot 2, E½NW, NESW	159.14
T7N R24E Sec. 9 S½SW	80.0
T7N R24E Sec. 17 NE, E½SE, NWNW	280.0
T7N R24E Sec. 21 NE, NENW	200.0
T7N R24E Sec. 25 S½S½N²	5.0
T7N R25E Sec. 30 SE, E½SW	110.0
T8N R21E Sec. 1 SWSW	5.0
T8N R21E Sec. 2 SENE, SWSW, SESW	25.0
T8N R21E Sec. 15 NENE	20.0
T8N R22E Sec. 2 lots 5, 8, 9	24.65
T8N R22E Sec. 3 NWSW	10.0
T8N R22E Sec. 11 lots 2, 3	39.66
T8N R22E Sec. 12 lots 2, 3, 6	8.82
T8N R22E Sec. 13 lots 2, 4, 5; N½SE, SESE	175.50
T8N R22E Sec. 17 NENE	10.0
T8N R23E Sec. 18 lot 7	42.72
T8N R23E Sec. 19 lots 5, 9, 10, 13; SWSE	118.59
T8N R23E Sec. 25 NENE, SESW, SWSE	120.0
T8N R23E Sec. 29 lots 2, 16, 19, 21, 22, 25	109.00
T8N R23E Sec. 30 lot 6, NWNE	69.87
T8N R23E Sec. 32 lot 2	37.13
T8N R23E Sec. 33 lots 2, 3, 6, 8	85.09
T8N R24E Sec. 31 lots 3, 4, 9, 10	74.12
T9N R22E Sec. 32 SWSW	5.0
T10N R18E Sec. 12 NESENW	10.0
T10N R18E Sec. 13 NWSESW, SESENWNW	12.5
T11N R17E Sec. 27 N½NESW	5.0
T11N R17E Sec. 31 N½NW, NWNE	120.0
T11N R18E Sec. 12 NWNWNWNW	2.5
T11N R18E Sec. 35 NESESW	10.0
T12N R18E Sec. 3 lots 16, 17, 18	2.28
T12N R20E Sec. 4 lots 2, 5, 8	59.67
T12N R20E Sec. 10 lots 2, 3	24.05
T13N R19E Sec. 4 lot 6	0.97
T13N R19E Sec. 9 lot 1	3.86
T13N R19E Sec. 10 SESENESE (Portion N. of U.S. 93)	5.0
T13N R19E Sec. 21 lot 10	16.36
T13N R20E Sec. 20 lot 2	7.06
T13N R20E Sec. 29 lots 2, 3	5.99
T13N R20E Sec. 33 lot 2	10.92
T13N R23E Sec. 19 NENE	40.0
T13N R23E Sec. 34 NENE	40.0
T14N R18E Sec. 2 lot 4	5.0
T14N R19E Sec. 7 lots 7, 10	1.02
T14N R22E Sec. 6 SWNE, E½NE	50.0
T15N R19E Sec. 23 lot 4	4.08
T15N R21E Sec. 7 NENWNW	5.0
T15N R21E Sec. 13 S½SW	80.0
T15N R21E Sec. 14 S½ below road	180.0
T15N R21E Sec. 15 south of county road	400.0
T15N R21E Sec. 22 W½NE, E½NW	160.0
T15N R21E Sec. 23 N½NE	80.0
T15N R21E Sec. 24 N½NW	80.0
T15N R22E Sec. 31 W½W½W½E½SE	10.0
T16N R20E Sec. 23 S½S½SE (Surv. portion in ag trespass)	30.0
T16N R20E Sec. 24 lot 5 (east of Hwy 93)	0.5
T16N R20E Sec. 26 S½NENW	15.0
T16N R20E Sec. 27 E½E½SE (Surv. portion in ag trespass)	10.0
T16N R20E Sec. 35 lots 9 and 10	13.58

Approximately 1,481.21 acres would be considered for sale because they meet public objectives such as community expansion and economic development (FLPMA Section 203(a)(3)):

Legal Description	Approx. Acreage
T7N R20E parts of Sec. 9 SW¼; Sec. 17 NE¼	60.0
T7N R22E Sec. 1 S½NE	80.0
T7N R22E Sec. 3 lot 2, NESE	12.5
T7N R22E Sec. 11 NENW, NWNW	15.0
T7N R24E Sec. 24 SESE	40.0
T7N R24E Sec. 25 NENE	40.0
T7N R25E Sec. 30, lots 1 and 2	50.0
T8N R21E Sec. 9 E½SWNW, E½NWSW, NWNE	80.0
T8N R21E Sec. 11 NENW, NESW, N½SE	12.5
T8N R21E Sec. 20 NWSW	10.0
T8N R22E Sec. 5 NWSW	10.0
T8N R23E Sec. 26 NESE	15.0
T8N R24E Sec. 31, lot 7 (NESW)	40.0
T8N R24E Sec. 31, lot 11 (SESW)	40.0
T10N R18E Sec. 12 SENENW	10.0
T10N R18E Sec. 32 SWSWNWSE, SESENESW	5.0
T11N R17E Sec. 4 That public land within the boundary of MS 3148 in approximately the SWNW of Section 4. The lotting of this parcel is pending a cadastral survey.	2.0
T11N R17E Sec 4 NWSWNW	10.0
NESWNW	10.0
SESWNW	10.0
S½SENW	20.0
SWSWNE	10.0
W½NWSE	20.0
E½NESW	20.0
NESESW	10.0
SESESW	10.0
NENWSW	10.0
T11N R17E Sec 5 NESENE	10.0
NWSENE	10.0
SWSENE	10.0
NWNESE	10.0
SWNESE	10.0
NWSESE	10.0
NESESE	10.0
SESESE	10.0
SENESE	10.0
T11N R17E Sec 8 NENENE	10.0
SENENE	10.0
T11N R17E Sec 9 NENW	20.0
NESENW	10.0
NWSENW	10.0
SWSENW	10.0
SESENW	10.0
E½SWNW	20.0
NWNWNW	10.0
SWNWNW	10.0
SENWNW	10.0
W½SWNE	20.0
SWNWNE	10.0
SWNWSE	10.0
SENWSE	10.0
SWNESE	10.0
NWSESE	10.0
N½SWSE	20.0
E½NESW	20.0
NWNESE	10.0
N½NWSE	20.0
T11N R17E Sec. 24 S½ lying easterly of the patented MS 3144A. Pending final recorded cadastral survey.	11.0
T11N R17E Sec. 25, N½NE north of Salmon River	40.0
T11N R18E Sec. 2 NENESENE	2.5
T11N R18E Sec. 22 pending survey	2.5
T11N R18E Sec. 30 SWNWSWNE	2.5
T12N R20E Sec. 23 E½E½E½SW	5.0
T12N R20E Sec. 26 E½E½E½NW, NWSE	40.0
T13N R19E Sec. 4 lot 9	.66
lot 14	5.89
lot 15	10.05
lot 18	10.05
lot 19	16.02
SESW	40.00
E½NWSW	20.00
W½NESW	20.00
Sec. 5 lot 9	4.20
T13N R20E Sec. 18 SWSE	40.00
T14N R18E Sec. 35 SESESESW	2.5
T14N R23E Sec. 34 NESW	40.0
T15N R21E Sec. 22 SENW	20.0
T15N R22E parts of Sec. 19, 20, 29	125.0
T15N R22E Sec. 32, lot 2	11.34

Attachment 18: Wild and Scenic Rivers Study

Through the Wild and Scenic Rivers (W&SR) Act (PL 90-542, as amended) Congress has declared, "... that the established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes."

In 1993 the Challis Resource Area - BLM completed an inventory to determine which rivers flowing through BLM-administered lands within the Challis Resource Area would be eligible for further study for possible inclusion in a national rivers system. The results of that inventory and evaluation were first published in an eligibility report in July 1992. Following an open comment period, a revised eligibility report was published in March 1993, with an addendum in June 1993 which incorporated additional public comments. Details of the process and criteria used to determine eligibility (including outstandingly remarkable values and free-flowing characteristics), information on recommended tentative river classifications as wild, scenic, or recreational, and other elements of the eligibility evaluation are on file in the Salmon Field Office and may be reviewed upon request. Those eligible rivers were then included in a "suitability" study, which was part of the Challis Draft Resource Management Plan (DRMP, Volume 2, pp. 392a-399b). Results of that study are included in the PRMP (see Wild and Scenic Rivers, pp. 98-100). Rivers that are found suitable in the approved RMP may be recommended to Congress for inclusion in the National Wild and Scenic Rivers System, at the discretion of the Idaho BLM State Director.

The BLM considered many factors in determining the suitability of each eligible segment for inclusion in a national rivers system. Those factors included such things as the length of the segment, outstandingly remarkable (OR) values present within the river corridor, floatability, flow status, importance to the suitability of other segments, water development potential, the BLM's ability to manage the segment as a designated river, other opportunities to manage the OR values present, commitment of other involved land owners in sharing administration of the segment, identified support of or opposition to designation, consistency with other approved plans, and estimated potential costs of administering the segment, if designated. Documentation of the Challis Resource Area's consideration of these factors during the suitability study is on file in the Salmon Field Office and may be reviewed upon request.

In addition to considering the qualities of the river segment and its corridor, the BLM recognized that proposing that a river segment be found suitable for designation as part of a national rivers system is also an issue of allocation. For example, a river segment may have numerous OR values present within the river corridor, but because of other issues such as current or proposed uses in or near the corridor, the BLM may have chosen not to allocate that river for management as a national wild, scenic, or recreational river. In those cases the rivers were found unsuitable. Although the free-flowing character of the river, the presence and importance of OR values, and the protection that would be afforded under the W&SR Act were given heavy consideration, they were not viewed as circumstances that would require a finding of "suitable" on any given river segment. The BLM understood the charge of the W&SR Act to be to determine which, if any,

river segments within the planning area would be suitable for inclusion in a national river system and to prescribe management that would protect those rivers' qualities.

While a suitability finding was completed on most of the eligible river segments, a suitability finding on some segments was deferred to later coordinated river studies. Section 5(c) of the W&SR Act states its intent for coordinated river study: "The study of any of said rivers shall be pursued in as close cooperation with appropriate agencies of the affected State and its political subdivisions as possible, shall be carried on jointly with such agencies if request for such joint study is made by the State, and shall include a determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river should it be proposed for inclusion in the national wild and scenic river system."

In 1991 Idaho BLM State Director entered into a Memorandum of Understanding (MOU) with the Governor, State of Idaho, and Regional Foresters of the Northern and Intermountain Regions of the Forest Service. The purpose of the MOU is to "formalize a cooperative relationship for conducting river planning efforts and Wild and Scenic Rivers Studies of Idaho's rivers; among the State of Idaho, the Forest Service, and Bureau of Land Management. It affirms commitments to: prioritize Federal Wild and Scenic Rivers Studies and coordinate Federal studies with State planning activities; share data and planning resources between State and Federal water resource planning agencies; and coordinate public education and information outreach programs." Further, in 1992 the affected Forest Supervisors, BLM District Manager, and Idaho Department of Water Resources representative entered into a Study Agreement whose purpose "is to coordinate river basin planning activities in the Upper Salmon River Basin consistent with the MOU dated February 14, 1991 between the signatory agencies. This will include definition of the study area, designation of agency roles, timing and funding for the planning process, collection and sharing of data, and implementing procedures." Three of the rivers included in the study agreement are the Pahsimeroi River, the East Fork Salmon River, and the Main Salmon River. As a result of these agreements, the Challis PRMP deferred completion of the suitability study for these rivers to a coordinated study effort.

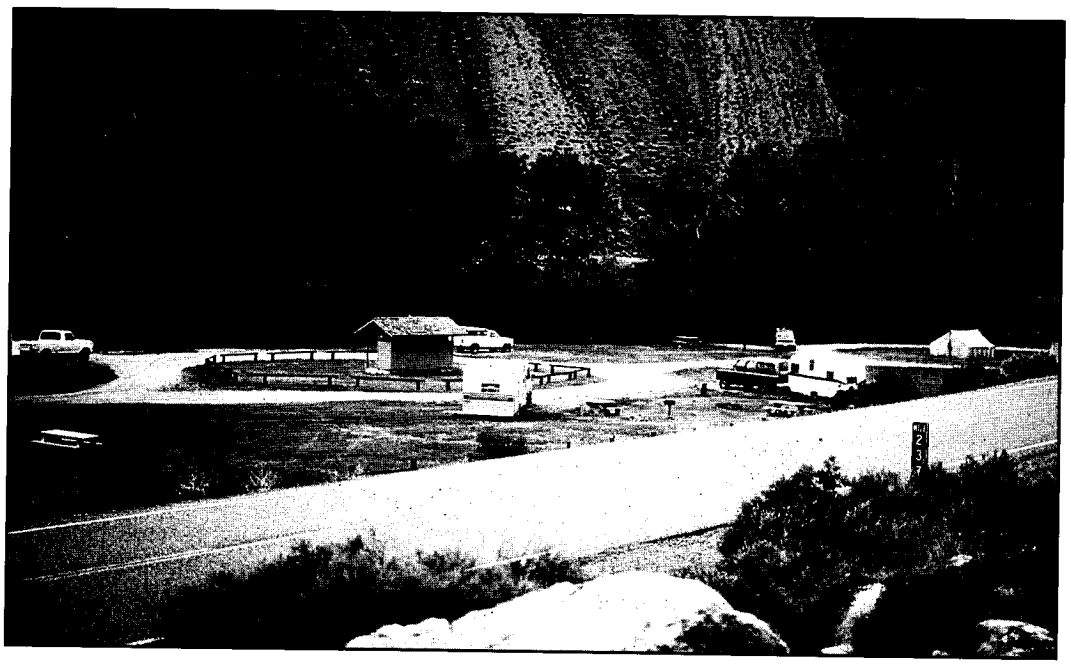
In addition to the Main Salmon, East Fork Salmon, and Pahsimeroi rivers, the Challis PRMP also deferred a suitability finding on nine other segments (as listed on pp. 99-100 of the PRMP) which are closely linked to and should be studied with the three main deferred rivers, would be suitable only as part of a system, or are logical extensions of river segments administered by the Forest Service or Upper Snake River District BLM. The BLM deferred a suitability finding on these segments until later coordinated study because studying only the portion of a river which is BLM-managed would not present a complete picture of the suitability of the entire river reach.

Attachment 19: Approved Methods for Waste Disposal

1. Sanitation facilities would be provided at the intensely-used recreation sites along the rivers and disposal of human waste would only be allowed at the provided sanitation facilities. Camping parties along the river must pack out their solid waste in porta-potties or in one of the rocket box systems commonly used by river outfitters.

2. People would be required to pack out and dispose of their litter properly.

3. Fires would only be allowed in designated fire rings in the campgrounds or recreation sites, or in approved fire pans commonly used by river outfitters along the river. If a party built a fire in a fire pan, they would be required to completely extinguish all embers and pack out the ashes.



Bayhorse Campground near Challis, Idaho

Attachment 20: Criteria for Road Maintenance Levels

Note: The following codes for road maintenance levels are from the "Facility Inventory Maintenance Management System Manual," November 22, 1989, pages 21 and 22. Levels are listed from highest level of maintenance (level 5) to lowest level of maintenance (level 1). At present, road surfaces on BLM roads within the Challis Resource Area are maintained at levels 3, 2, or 1.

Level	Description
5	This level of maintenance is for collector, double land, aggregate or bituminous surface roads with an average daily traffic greater than 15. Safety and comfort are important considerations. In addition to a scheduled maintenance program, these roads have a preventative maintenance program established to maintain the integrity of the system.
4	This level is used on roads which are generally kept open year around or on high-use seasonal roads. Driver safety and convenience are more important considerations than for level 3 roads. Roads in this maintenance level are typically double lane with a native or aggregate surface. The roadway is maintained on a scheduled basis. A preventative maintenance program may also be established. Problems are repaired as soon as discovered.
3	This level is for roads which are seasonal in nature or occasionally open year around. Traffic volumes approach an average daily traffic of 15 vehicles. Roads are typically single lane with an aggregate or native surface. Roads are maintained as needed to keep drainage functional, maintain roadway prism, maintain sight distance, and consider driver safety and convenience.
2	This level is used for roads where management requires a road to be open seasonally for limited passage of traffic. Traffic is generally administrative, with some minor specialized use or moderate seasonal use. Maintenance is minimal, and includes brush and obstruction removal, maintenance of drainage facilities, and minimum maintenance of road prism.
1	This level is for roads which only receive basic custodial care required to protect the road investment and/or adjacent lands and resource values. Normally, these roads are blocked and not open for traffic, or are only open to restricted traffic. Closure and traffic restrictive devices are maintained. Primitive roads receive no roadbed maintenance. On other roads, culverts, waterbars, and other drainage facilities are maintained. Slides, fallen trees, and brush are left unless they affect roadbed drainage.

Attachment 21: Withdrawal Status of Campgrounds and Recreation Sites*

Site Description	Site Location		Acreage
Mackay Reservoir	T. 7N.,R.23E.;	Sec. 1: SWSW	40.00
		Sec. 2: SESE	40.00
Black Daisy Recreation Site[1]	T. 7N.,R.23E.;	Sec.11: SESE	40.00
Pinto Creek Rec. Site (Garden Creek)	T. 8N.,R.21E.;	Sec.30: Lot 2	51.69
Upper East Fork Campground (Little Boulder Creek)	T. 9N.,R.17E.;	Sec.22: SESW	40.00
		Sec.27: NWSW	40.00
		Sec.28: SWSE	40.00
Fox Creek Campground[1]	T. 9N.,R.18E.;	Sec. 3: Lot 3	39.39
		Lot 4	39.00
Lake Creek Picnic Site	T. 9N.,R.19E.;	Sec.23: SESE	40.00
Ziegler's Hole Recreation Site[1]	T.10N.,R.18E.;	Sec.24: SESW	40.00
Jimmy Smith Lake Campground	T.10N.,R.18R.;	Sec.30: Lot 4	38.19
Clayton Ranger Station Campground[1]	T.11N.,R.17E.;	Sec.29: Lot 11	37.30
		Sec.30: Lot 10	37.10
East Fork Recreation Site	T.11N.,R.18E.;	Sec.22: Lot 5	29.39
Birch Creek Recreation Site[1]	T.11N.,R.18E.;	Sec.22: Lot 8	38.43
Spud Creek Rec. Site[1]	T.11N.,R.18E.;	Sec.22: Lot 11	25.89
		Sec.27: Lot 1	33.65
		Lot 2	0.92
		Sec.28: Lot 2	45.26
		Lot 3	44.05
Summit Creek Rec. Site	T.11N.,R.25E.;	Sec.22: NENE	40.00
		Sec.23: NWNW	40.00
Bayhorse Creek Rec. Site	T.12N.,R.18E.;	Sec. 2: S2SESE	20.00
		Sec.11: N2NENE	20.00

Site Description	Site Location		Acreage
Deadman Hole Recreation Site	T.12N.,R.19E.;	Sec.19: Lot 7	28.42
		Sec.30: Lot 1	32.30
		Lot 2	34.75
		Lot 3	41.38
Wood Creek Recreation Site (Dugway)	T.12N.,R.19E.;	Sec. 6: Lot 13	26.14
Double Springs Recreation Site[1]	T.12N.,R.23E.;	Sec.31: Lot 4	34.47
Round Valley Rec. Site (Challis Bridge)	T.13N.,R.19E.;	Sec.10: Lot 6	15.31
		Lot 7	33.80
Morgan Creek Recreation Site	T.16N.,R.19E.;	Sec.33: Lot 2	35.10
Mike Ellis Bridge Recreation Site[1]	T.16N.,R.20E.;	Sec.34: Lot 3	12.10
		Lot 4	24.80
		Lot 7	44.75
		Sec.35: Lot 1	23.15
Cow Creek Recreation Site[1]	T.16N.,R.21E.;	Sec. 8: Lot 4	41.71
		Lot 5	46.80
Cronk's Canyon Recreation Site[1]	T.16N.,R.21E.;	Sec. 8: Lot 8	52.00
		Sec.17: Lot 1	23.52
		Total	1,450.76

* Includes lands segregated from Homestead Entry, Desert Land Entry, Indian Allotment, Public Sale, and the General Mining Laws.

[1] Recreation site is not developed at present.

Attachment 22: Easements Needed to Ensure Public Access, by Ownership

Road Name	Road #	Number of Easements Needed		Miles of Easement	Township	Range	Section
		Private	*State*				
Road Creek	1902	1	0	1.0	9 N	20 E	1, 12
Malm Gulch	1905	0	1	0.1	12 N	19 E	19
Lone Pine	1916	1	1	1.3	11 N	20 E	3
					13 N	19 E	36
Lower Cedar Creek	1918	2	0	0.5	7 N	24 E	14, 23, 27
Jones-Cedar Creek	1919	1	0	0.5	8 N	23 E	22
Bear Wallow-Gossi Spring	1925	0	1	1.3	11 N	19 E	36
Broken Wagon	1928	2	0	1.0	11 N	20 E	19, 35
					11 N	21 E	30
Meadow Creek	1931	1	0	0.3	14 N	21 E	25
Pahsimeroi	1934	1	0	1.0	11 N	23 E	14
West Donkey	1935	0	1	1.0	12 N	23 E	36
Howell Canyon	1944	0	1	1.0	9 N	20 E	36
Cedar Creek Loop	1947	1	1	1.8	9 N	22 E	16, 21
Substation	1951	1	0	0.3	13 N	20 E	19
Gooseberry-Sheep	1955	1	1	2.0	11 N	21 E	16, 20, 21, 22
Hillside	1962	1	0	1.5	12 N	24 E	16, 23
Bradbury Flat SW	1970	0	1	0.8	13 N	19 E	36
Camp Creek	1980	3	0	0.75	13 N	19 E	12
					13 N	20 E	6, 7
Centennial Flat	1991	1	0	1.2	12 N	19 E	18, 19
					12 N	18 E	24
South Butte	1994	1	1	2.0	11 N	17 E	16, 21
Sink Creek	1995	2	0	1.8	11 N	18 E	1, 2, 11, 14
					12 N	18 E	35, 36
Donkey Timber	1996	1	0	0.3	11 N	25 E	8
Elkhorn	1998	0	1	1.3	11 N	24 E	36
Bartlett Point A	19143	1	1	2.0	8 N	21 E	11, 14, 36
Mill Creek	30100	2	1	1.0	13 N	23 E	2
					13 N	24 E	16, 21
Falls-Patterson Creek	30104	1	0	1.0	14 N	23 E	7, 18, 20
Big Creek	30150	3	1	2.0	13 N	22 E	1
					14 N	22 E	36
					13 N	23 E	6

Attachment 23: Beneficial Use Classifications for Drainage Segments

Beneficial use classifications for streams in the Big Lost River, Little Lost River, East Fork Salmon River, Pahsimeroi River, and Main Salmon River drainages are shown below. In addition to the classifications listed below, Bruno Creek in the Main Salmon River is identified by the BLM as an "industrial water supply" beneficial use. No streams in the above drainages are classified as an "outstanding resource waters" beneficial use. Listed beneficial uses were either identified by the BLM (shown with an "X") or published in the Idaho Department of Health and Welfare, Division of Environmental Quality, Title 01, Chapter 02, "Water Quality Standards and Wastewater Treatment Requirements," February 1998.

Drainage Big Lost River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
ROCK CREEK		X	X		X		X	X	
LONE CEDAR CREEK			X		X		X	X	
MAHOGANY CREEK		X	X	X	X		X	X	
FRANKLIN CANYON			X		X		X	X	
NAVARRE			X	X	X		X	X	
LEHMAN CREEK			X	X	X		X	X	
BOONE CREEK			X		X		X	X	
GARDEN CREEK		X	X		X		X	X	
GRANT		X	X		X		X	X	
BIG LOST*	D	D	D	D	D	D	D	D	D
CORRAL CREEK		X	X		X		X	X	
SAGE CREEK		X	X		X		X	X	
BRADSHAW CREEK		X	X		X		X	X	
N. FORK SAGE CREEK		X	X		X		X	X	
JONES CREEK			X		X		X	X	
UPPER CEDAR CREEK		X	X		X		X	X	
DEEP CREEK			X		X		X	X	
TWIN BRIDGES CREEK*	X	X	X	X			X	X	
MACKAY RESERVOIR	X	X	X	X	X		X	X	
THOUS. SPRINGS CR.		X	X	X	X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Little Lost River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
SUMMIT CREEK *		X	X	X	X		X	X	
DRY CREEK		X	X	X	X		X	X	

Drainage East Fork Salmon River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
EAST FK. SALMON	D	D	D	D	D	D	D	D	D
HORSE BASIN			X	X	X		X	X	
BEAR CREEK			X	X	X		X	X	
ROAD CREEK*			X	X	X		X	X	
MOSQUITO CREEK			X	X	X		X	X	
HERD CREEK	X	X	X	X	X		X	X	
LAKE CREEK		X	X	X	X		X	X	
MCDONALD CREEK			X	X	X		X	X	
FOX CREEK			X		X		X	X	
PINE CREEK			X	X	X		X	X	
BAKER CREEK			X		X		X	X	
WICKIUP CREEK		X	X	X	X		X	X	
LITTLE BOULDER CR.		X	X	X	X		X	X	
BIG BOULDER CREEK	X	X	X	X	X		X	X	
BLUETT CREEK			X		X		X	X	
BIG LAKE CREEK		X	X	X	X		X	X	
JIMMY SMITH CREEK		X	X	X	X		X	X	
CORRAL CREEK			X	X	X		X	X	
MARCO CREEK					X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Pahsimeroi River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
LITTLE MORGAN CREEK		X	X	X	X		X	X	
PATTERSON CREEK*	X	X	X	X	X		X	X	
MILL CREEK			X		X		X	X	
STINKING CREEK			X		X		X	X	
BIG CREEK*	X	X	X	X	X		X	X	
LONG CREEK		X	X	X	X		X	X	
BABY CREEK			X		X		X	X	
SHORT CREEK		X	X	X	X		X	X	
SQUAW CREEK			X		X		X	X	
DONKEY CREEK		X	X	X	X		X	X	
GOLDBURG CREEK		X	X	X	X		X	X	
BURNT CREEK		X	X	X	X		X	X	
ELKHORN CREEK			X		X		X	X	
PAHSIMEROI RIVER*	D	D	D	D	D	D	D	D	D
DOUBLE SPRING			X	X	X		X	X	
MEADOW CREEK			X		X		X	X	
ELBOW CREEK			X		X		X	X	
SULPHUR CREEK			X		X		X	X	
TRAIL CREEK			X		X		X	X	
LAWSON CREEK			X		X		X	X	
MORSE CREEK*	X	X	X	X	X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Main Salmon River (page 1 of 2)

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
MAIN SALMON RIVER*	D	D	D	D	D	D	D	D	D
MCKIM		X	X	X	X		X	X	
ALLISON CREEK			X		X		X	X	
COW CREEK		X	X	X	X		X	X	
SHEP CREEK			X		X		X	X	
DRY			X	X	X		X	X	
CAMP CREEK			X		X		X	X	
BROKEN WAGON			X		X		X	X	
LONE PINE			X	X	X		X	X	
WARM SPRINGS CR.*	X	X	X	X	X		X	X	
SPUD CREEK			X		X		X	X	
SULLIVAN CREEK			X		X		X	X	
FRENCH CREEK			X		X		X	X	
THOMPSON CREEK		D	D	D	D		D	D	
BRUNO CREEK			X	X	X		X	X	
SQUAW CREEK		D	D	D	D		D	D	
KINNIKINIC CREEK*			X	X	X		X	X	
BIRCH CREEK			X		X		X	X	
SINK CREEK			X	X	X		X	X	
LYON CREEK			X	X	X		X	X	
RATTLESNAKE CREEK			X		X		X	X	
BAYHORSE CREEK			X	X	X		X	X	
CENTENNIAL FLAT			X		X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Main Salmon River (continued - page 2 of 2)

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
GARDEN CREEK*	X	X	X	X	X	X	X	X	
MILL CREEK			X	X	X		X	X	
JEFF'S CREEK			X		X		X	X	
CHALLIS CREEK*	X	X	X	X	X		X	X	
DARLING CREEK			X	X	X		X	X	
MORGAN CREEK		X	X	X	X		X	X	
W.FK. MORGAN C.		X	X	X	X		X	X	
BLUE CREEK			X		X		X	X	
BLOCK CREEK			X		X		X	X	
SAGE CREEK			X		X		X	X	
ELLIS CREEK			X		X		X	X	
LITTLE HAT CREEK			X	X	X		X	X	
BIG HAT CREEK		X	X	X	X		X	X	
PARK CREEK			X	X	X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

[this page is intentionally blank]

Glossary

List of Acronyms.

ACEC	Area of Critical Environmental Concern.
ACHP	Advisory Council on Historic Preservation.
ADC	Animal damage control.
AIE	Analysis, interpretation, evaluation.
AMP	Allotment Management Plan.
ARPA	Archaeological Resources Protection Act.
ASL	Above sea level.
ATV	All-terrain vehicle.
AUM	Animal unit month.
BLM	Bureau of Land Management.
BMP	Best management practice.
BPA	Bonneville Power Administration.
CFR	Code of Federal Regulations.
CRMP	Cultural Resource Management Plan *or*, Coordinated Resource Management Plan
CRPP	Cultural Resource Project Plan.
DBH	Diameter at breast height.
DEQ	Department of Environmental Quality.
DRMP	Draft Resource Management Plan.
ERMA	Extensive Recreation Management Area.
ESA	Endangered Species Act.
FERC	Federal Energy Regulatory Commission.
FLPMA	Federal Land Policy and Management Act.
FTE	Full time equivalent.
FY	Fiscal year.
HCRS	Heritage Conservation and Recreation Service.
HMA	Herd Management Area.
HMAP	Herd Management Area Plan.
HMP	Habitat Management Plan.
ID	Interdisciplinary.
IDFG	Idaho Department of Fish and Game.
IDSL	Idaho Department of State Lands.
IMACS	Intermountain Antiquities Computer System.
IRAP	Integrated Resource Activity Plan.
LUP	Land Use Plan.
MBF	Thousand board feet.
MFP	Management Framework Plan.
MMBF	Million board feet.
NEPA	National Environmental Policy Act.
NHPA	National Historic Preservation Act.
NMFS	National Marine Fisheries Service.
NPS	National Park Service.
NRHP	National Register of Historic Places.
NSO	No surface occupancy.
NWSRS	National Wild and Scenic River System.
OHV	Off-highway vehicle, sometimes called off-road vehicle (ORV).
OR	Outstandingly remarkable (value).
PILT	Payment in lieu of taxes.
PNC	Potential natural community.
PRMP	Proposed Resource Management Plan.
PU	Planning Unit.
RA	Resource Area.
RAMP	Recreation Area Management Plan.
R&PP	Recreation & Public Purposes (Act).
RMP	Resource Management Plan.
RNA	Research Natural Area.
ROS	Recreation opportunity spectrum.
SHPO	State Historic Preservation Office(r).
SMA	Special Management Area.
SOP	Standard operating procedure.
SRMA	Special Recreation Management Area.
TES	Threatened, endangered, sensitive.
USFS	United States Forest Service.
USFWS	United States Fish and Wildlife Service
VRM	Visual resource management.
WSA	Wilderness Study Area.
WSR	Wild and Scenic River.

Glossary Definitions.

Acre-foot - A measure of water or sediment volume equal to the amount which would cover an area of 1 acre to a depth of 1 foot (325,851 gallons or 43,560 cubic feet).

Activity planning - A level of BLM planning where objectives are established and a plan of activities to meet those objectives is developed. Examples referred to in the Challis RMP include Integrated Resource Activity Plans, Habitat Management Plans, and Allotment Management Plans. (Also see *project planning.*)

Adjustment Area - A portion of a Resource Area where BLM administered public lands are considered unnecessary for long term public ownership, and those lands are identified for disposal through sale, exchange, Desert Land Entry, etc. Adjustment areas are in contrast to *Management Areas.* (Instruction Memorandum No. ID-89-395, August, 1989)

Adventures in the Past - The BLM's "umbrella" strategy for promoting public education and outreach in cultural resources and for enlisting public involvement in the protection of archaeological resources. Goals include increasing the public's enjoyment of cultural resources, demonstrating that the BLM is a good steward of cultural resources, and reducing the destruction of cultural resources by 1) expanding interpretation, 2) showcasing cultural resources with recreation and tourism potential, 3) promoting scientific study, research and management projects, and educational experiences, 4) increasing on-the-ground presence to combat vandalism, and 5) focusing on cultural resources with ethnic and minority ties to create a sense of identity and community.

Allotment - An area of land designated and managed for grazing of livestock; may contain BLM, other Federally managed, private, and/or State lands.

Allotment categorization - A process used by the BLM to place grazing allotments into one of three categories (maintain, improve, custodial) to prioritize them for future management.

Maintain (M) allotments: Most of the public lands in the allotment are proposed for retention; the range condition and trend is satisfactory; site potential for improvement is moderate or low; resource conflicts are moderate or low; opportunities may exist for positive economic return from public investments; and present management appears satisfactory. Generally, these allotments have no significant resource problems and present management is achieving management goals.

Improve (I) allotments: An allotment may be placed into the "improve" category if any of the following criteria are applicable: most of the public lands in the allotment are proposed for retention; range condition and trend are unsatisfactory; site potential for improvement is high; resource conflicts are high; opportunities exist for positive economic return from public investments; and present management appears to be unsatisfactory.

Custodial (C) allotments: Public lands in the allotment are proposed for retention or disposal; range condition and trend are satisfactory; site potential for improvement is low or moderate; resource conflicts are low or moderate; opportunities do not exist for positive economic return from public investments or are constrained by technology or economic factors; and present management appears satisfactory.

Allotment Management Plan (AMP) - A documented program which applies to livestock operations on public lands and which is prepared in careful and considered consultation, cooperation, and coordination with the permittee(s) involved; prescribes the manner in which and extent to which

livestock operations will be conducted in order to meet multiple use, sustained yield, economic, and other needs and objectives for public lands. AMPs also describe the type, location, ownership, and general specifications for range improvements to be installed on public lands to meet livestock grazing and other objectives of land management, and contain other such provisions as may be prescribed by the authorized officer.

Allowable cut (allowable sale quantity) - The amount of timber that can be harvested on an annual or decadal basis consistent with the principles of multiple use and sustained yield.

Anadromous fish - Those species of fish that mature in the sea and migrate into freshwater streams to spawn; *e.g.*, salmon, steelhead trout.

Analysis, interpretation, evaluation (AIE) - A process of determining whether a BLM grazing allotment is making progress toward meeting land use plan goals and objectives, and whether management changes are necessary.

Angler day - A portion of a day spent fishing.

Animal unit month (AUM) - The amount of forage needed to sustain one cow unit or its equivalent (one horse or five sheep, all over six months old) for one month (approximately 800 pounds of forage).

Appropriate management level (AML) - The optimum number of wild horses that provides a thriving natural ecological balance on the public range.

Aquatic - Living or growing in or on the water.

Archaeological resources - Sites, areas, structures, objects, or other material evidence of prehistoric or historic human activities.

Archaeological site - A geographic location containing structures, artifacts, material remains, and/or other evidence of past human activity.

Area of Critical Environmental Concern (ACEC) - Acreage within BLM public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historical, cultural, or visual values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. The identification of a potential ACEC shall not, of itself, change or prevent change of the management or use of public lands. (43 CFR 1601.0-5(a))

Artificial regeneration - The re-establishment and development of plant cover through the direct action of man by seeding or planting.

Backcountry - An area commonly referred to as roadless.

Back Country Byway - A vehicle route that traverses scenic corridors utilizing secondary or back country road systems. National Back Country Byways are designated by the type of road and vehicle needed to travel the byway.

Barrier - An impediment to movement of organisms across the landscape which is natural, such as water bodies or mountain ranges, or man-made, such as roads, fences, or irrigation diversion structures.

Beneficial use - Any of the various uses which may be made of the water, including, but not limited to, domestic water supply, industrial water supply, agricultural water supply, navigation, recreation in and on the water, wildlife habitat, and aesthetics. A beneficial use is identified based upon actual use, the ability of a water to support a non-existing use either now or in the future, and its likelihood of being used in a given manner. (Idaho Water Quality Standards - IDAPA 16.01.02.100)

Best management practice (BMP) - A practice or combination of practices determined by the state to be the most effective and practicable (including technological, economic, and institutional considerations) means of preventing or reducing the amount

of pollution generated by nonpoint sources to a level compatible with water quality goals.

Big game - Those species of large mammals normally managed as a sport hunting resource; includes elk, mule deer, pronghorn antelope, and bighorn sheep.

Biodiversity (biological diversity) - The variation in components and processes of an ecosystem; *i.e.*, the distribution and abundance of different plant and animal communities and species over time and space. This variation is typically studied and analyzed at four levels of diversity: genetic, species, community, and landscape. (Also see: *genetic diversity, species diversity, community diversity,* and *landscape diversity.*)

Biological assessment - In general, a documented review of programs or activities in sufficient detail to determine how an action or proposed action may affect any Federally listed threatened or endangered wildlife, fish, or plant species. Specifically, a procedural step in the interagency consultation process under the Endangered Species Act, Section 7, where the BLM submits a written summary of potential project impacts to threatened or endangered species to the USFWS and/or NMFS for their evaluation.

Board feet - A unit of solid wood one foot square by one inch thick. Generally, five board feet log measure is approximately equivalent to one cubic foot of round wood.

Bog - Soft, saturated ground; marsh.

Boot stage - A plant growth stage in grasses at which time the flowering portion is beginning to form in the leaf sheath.

Buffer strip - A land area of varying size and shape immediately adjacent to stream courses or to other water bodies, where the type and/or intensity of land use is managed to meet defined water resource goals. Also: A protective area adjacent to an area of concern requiring special attention or protection (*e.g.*, wildlife habitat).

Candidate species - A plant or animal species designated by the USFWS or NMFS as a candidate for listing as threatened or endangered (see *threatened species, endangered species*). A candidate species is a plant or animal species for which the USFWS or NMFS currently has on file substantial information to support a proposal to list the species as endangered or threatened (see *proposed species*). A candidate species' numbers are declining so rapidly that official listing as threatened or endangered pursuant to Section 4 of the Endangered Species Act may become necessary as a conservation measure. Declines may be due to one or more factors, including the following: destruction, modification, or curtailment of the species' habitat or range; overutilization for commercial, sporting, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; or other factors.

Carrying capacity (*syn.* grazing capacity) - The maximum stocking rate possible without inducing damage to vegetation or related resources. Carrying capacity may vary from year to year on the same area due to fluctuating forage production. (Society for Range Management 1974)

Chaining - A vegetative land treatment consisting of dragging a heavy anchor chain in a "U" shape behind a pair of tractors moving in a direction parallel to each other. This uproots trees and shrubs and reduces competition for water and soil nutrients.

Clearcut - The method of harvesting timber by removing all trees (which are larger than seedlings) in a stand in a single cut. Also, a silviculture system where a crop of trees is cleared from a large area at one time and regeneration occurs from a) natural seeding from adjacent stands, b) seed contained in the slash or logging debris, c) advanced growth (seedlings), and/or d) planting or direct seeding. An even-aged forest usually results.

Cobble (substrate) embeddedness (also **embeddedness**) - The degree to which cobble-sized rocks (about 3 inches in diameter) are encased in fine sediments; expressed as a percentage of surface

fine sediments, less than 6 mm (1/4 inch) in diameter, measured or estimated along cross-channel transects.

Commercial forest land - All forest land that is capable of yielding at least 20 cubic feet of wood per acre per year of commercial coniferous tree species. (Also see: *suitable commercial forest land, nonsuitable commercial forest land, noncommercial forest land, woodland.*)

Commercial product sales - Sales where the purchaser harvests forest products for resale. Planned (calculated as part of the allowable sale quantity) commercial product sales only occur on commercial forest lands.

Competition - The general struggle for existence in which living organisms compete for a limited supply of the necessities of life. Competition can exist between species, and even between individuals of a species, for food, shelter, space, nest sites, birthing sites, mates, access to water, and many other habitat and life cycle requirements.

Community - An ecological boundary defined by the species and species interactions which occur. (For example, a forest community contains those species which require or prefer a forested habitat for one or more biological processes (foraging, mating, nesting/denning, rearing, etc.).

Community diversity - The variation of a community in a location and over time. The association of species in the community will be different as aspects of the environment (such as soil, moisture, or elevation) change. In addition, the same location can support different associations of species over time, as when the site is affected by fire or logging.

Conditional suppression - See *Fire suppression.*

Corridor - An avenue for movement across the landscape. (For example, forested land adjacent to a river may serve as a corridor for species that require forested cover.) In the natural landscape, corridors are generally contiguous avenues of preferred habitat. In a human altered landscape, corridors may be less preferred but still functional avenues. Human activity may sometimes create corridors where none previously existed (*e.g.*, disturbed areas along roadsides which are corridors for weed dispersal, or shrubby fencelines which are corridors for small mammals and some birds).

Crucial habitat (or **key habitat**) - Describes a particular seasonal range or other habitat component (*e.g.*, winter or winter/yearlong range for big game animals; riparian habitat for riparian-dependent species; and wintering and/or nesting areas for sage grouse) which is a primary determining factor in a population's ability to maintain and reproduce itself at a certain level (theoretically at or above population objectives).

Cultural property - A definite location of past human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. Includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and possible religious importance to specified social and/or cultural groups. Concrete, material places and things that are classified, ranked, and managed through a system of inventory, evaluation, planning, protection, and utilization.

Cultural resource - According to BLM Manual 8100, Release 8-38: a general term meaning any cultural property or traditional lifeway value. Also, the physical remains of human activity (artifacts, ruins, petroglyphs, etc.) and conceptual content or context (as a setting for legendary, historic, or prehistoric events as a sacred area of native peoples, etc.) of an area.

Cultural resource inventory classes - An inventory system used to identify and assess cultural resource values on BLM public lands. *Class I:* an overview document discussing the known resources of a particular region and defining research goals and questions from known data; primarily a chronicle of past land uses. *Class II:* professionally conducted, statistically based random samples designed to help characterize the probable density,

diversity, and distribution of cultural resources in a large area. *Class III:* inventories conducted at 30 meter intervals or less to provide for intensive coverage over an entire project area, rather than a randomly selected sample area.

Cut slope - The uphill bank of a road built across a hill.

Designated **critical habitat** - Those areas formally designated as critical by the Secretary of the Interior or Commerce for the survival and recovery of listed threatened and endangered species (50 CFR, Parts 17 and 226). Because the term has legal implications, its use is limited to only those habitats officially determined as critical by the Secretary.

Desired plant community - The plant community which provides the vegetation attributes required for meeting or exceeding RMP vegetation objectives. The desired plant community must be within an ecological site's capability to produce these attributes through natural succession, management action, or both.

Developed recreation site - A site developed primarily to accommodate specific intensive use activities or groupings of activities such as camping, picnicking, boating, swimming, winter sports, etc. These sites include permanent facilities which require continuing management commitment and regular maintenance, such as roads, trails, toilets and other facilities needed to accommodate recreation use over the long term. (BLM Manual)

Diameter at breast height (DBH) - The diameter of a standing tree measured 4.5 feet above the ground level on the uphill side.

Disjunct species - Species with a discontinuous distribution. The most common pattern is a large center of distribution with distant "disjunct" populations.

Dispersal corridor - A corridor through which animal populations move or distribute themselves throughout an area.

Disposal tracts - Public lands identified in the Challis RMP as unnecessary for long term public ownership. These lands would be made available for disposal through sale, exchange, Desert Land Entry, Carey Act, Recreation and Public Purposes Patent, Airport Grant, or State Indemnity Selection.

Disturbance - Any management activity that has the potential to accelerate erosion or mass movement. Also, any other activity that may tend to disrupt the normal movement or habits of a particular wildlife or plant species.

Diversion screen - A protective device installed on an irrigation diversion to prevent anadromous and resident salmonids from being diverted from a stream into an irrigation system.

Diversity - The distribution and abundance of different plant and animal communities and species within an area.

Dormant stage - A plant growth stage occurring after annual growth and reproduction when the plant prepares for winter.

Ecological condition - The present state of vegetation on a site compared to the natural potential of vegetation on the site.

Ecological site - A kind of land with a specific potential natural community and specific physical characteristics, differing from other kinds of land in its ability to produce vegetation and in its response to management. (*A Glossary of Terms Used in Rangeland Management*, Society of Range Management, 1989)

Ecological site inventory - A type of rangeland inventory where the current composition of species present on a given site is compared to the composition that should be there if the site were at climax or highest ecological condition.

Ecological status (*syn.* seral stage, seral community, successional community, successional stage) - To what degree the present state of kinds, proportions, and amounts of plants on an ecological site

resemble the potential natural community (climax successional stage) for the site. Classes are designated based on percentage of present plant community that is climax for that site: early seral (0 to 25%), mid-seral (25 to 50%), late seral (51 to 75%), and potential natural community (climax) (76 to 100%).

Ecosystem - An interacting system of organisms considered together with their environment; for example, a marsh, watershed, or lake ecosystem.

Ecotone - A relatively narrow, transition or junction zone between two or more different plant communities (ecosystems), such as the zone between a forested area and a sagebrush flat.

Edge - The site where different plant communities, successional stages, or vegetative condition classes meet and a change in flora, fauna, and microclimate occur. For example: the meadow/forest interface along the boundary of a timber harvest clearcut; the boundary between riparian vegetation (*e.g.*, willows) and sagebrush-grassland.

Effects (impacts) - The biological, physical, social, or economic consequences resulting from a proposed action. Effects may be adverse (detrimental) or beneficial, and direct, indirect, or cumulative. *Direct effects* are caused by the action and occur at the same time and place. *Indirect effects* are also caused by the action, but occur at a later time or further removed in distance. *Cumulative effects* include incremental effects of the proposed action when added to other past, present, or reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes the other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Endangered species - Any plant or animal species that is in danger of extinction throughout all or a significant portion of its range, and has been officially listed as endangered by the Secretary of Interior or Commerce under the provisions of the Endangered Species Act. A final rule for the listing has been published in the *Federal Register*.

Endemic species - Those native species whose distribution is restricted to a small, localized area; for example "central Idaho" or "the Salmon River canyon from Clayton to Ellis."

Environment - The aggregate of physical, biological, economic, and social factors affecting organisms in an area.

Environmental Assessment (EA) - A concise public document which complies with NEPA law and regulation and analyzes the effects of a proposed action. An EA briefly provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact, aids an agency's compliance with NEPA when an EIS is unnecessary, and facilitates preparation of an EIS when necessary.

Environmental Impact Statement (EIS) - A detailed public document which complies with NEPA law and regulation. An EIS describes a major Federal action which significantly affects the quality of the human environment, provides alternatives to the proposed action, and analyzes the effects of the proposed action.

Ephemeral stream - A stream which has no predictable flow pattern and only flows in direct response to precipitation (rainfall), and whose channel is at all times above the water table.

Erosion - The wearing away of the land's surface by water, wind, ice or other physical processes. It includes detachment, transport, and deposition of soil or rock fragments.

Essential habitat - Pertaining to threatened, endangered, or sensitive species only - those areas possessing the same characteristics as critical habitat for a threatened or endangered species, without having been declared as critical habitat by the Secretary of the Interior or Commerce.

Exclosure - An area fenced to exclude grazing animals, usually for study purposes.

Existing roads, vehicle ways, and trails - For the purposes of the Challis RMP, "existing" is defined as the following: For Wilderness Study Areas (WSAs), "existing" refers to roads, vehicle ways, and trails which existed as of the Idaho Intensive Wilderness Inventory Final Decision (November 1980). For the remainder of the Challis Resource Area, "existing" refers to (a) roads, vehicle ways, and trails which exist at the time the Record of Decision for the Challis approved RMP is signed, and (b) any newly constructed road, trail, or parking area authorized by the BLM during the life of the RMP. Also see *road; vehicle way*; and *trail.*

Expenditures - The use of local and non-local sources of monies designated for local government public goods and services such as road and bridge maintenance, court operations, public safety, health and mental health services, solid waste disposal, welfare, and education.

Extensive Recreation Management Areas (ERMAs) - BLM administrative units where recreation management is only one of several management objectives and where limited commitment of resources is required to provide extensive and unstructured types of recreation activities. ERMAs may contain recreation sites. These areas consist of the remainder of land areas not included in Special Recreation Management Areas.

Fill slope - Earth placed during road construction using the side-cast method. The earth is taken out of the uphill (cut) slope and placed on the downhill side of the road (fill slope) to create a flat terrace.

Fire suppression - All work and activities associated with fire extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

> *Full suppression* consists of management designed to aggressively suppress all new fires on or threatening public land.
>
> *Conditional suppression* consists of management which allows fires to continue to burn without active suppression activity, as long as they are burning within prescribed limits, including fire location, weather conditions, forces available, and fire size. Monitoring of the fire would be done throughout the fire's duration, and direct suppression would be undertaken if any one condition is exceeded.

Firewood cutting - Cutting firewood for home or off-site use, usually in high volume (*e.g.*, cord, pickup load).

Firewood gathering - Picking up dead and down wood for on-site campfire use.

Floodplain - The area or lowlands adjoining a body of standing or flowing water which has been or might be covered by overbank flows of water (floodwaters).

Flowering stage - A plant growth stage occurring when the reproductive portion of the plant begins to emerge.

Fluid energy leasable minerals - For the purposes of this RMP, includes oil, gas, and geothermal resources. Also see *leasable minerals.*

Forage - All browse and non-woody plants that are available to wildlife for grazing or harvested for feeding livestock. Normally includes only the current year's growth.

Forb - Any herbaceous plant species other than those in the *Gramineae* (grasses), *Cyperaceae* (sedges), and *Juncaceae* (rushes) families; fleshy leaved plants.

Forest land - Ten or more acres of land capable of being ten percent stocked by forest tree species and not currently developed for non-timber use. Lands developed for non-timber use may include areas for crops, improved pasture, residential or administrative areas, improved roads of any width, and adjoining road clearings or powerline clearings of any width. (Also see *commercial forest land (suitable*

and nonsuitable), noncommercial forest land, woodland (suitable and nonsuitable).

Forest product (woodland product) - A product derived from trees, either directly, such as fuelwood and sawtimber, or indirectly (after processing), such as paper.

Fragmented - A term describing a landscape where large areas of suitable habitat are broken up into smaller patches which are surrounded or bisected by unsuitable habitat.

Free-flowing - As defined by the Wild and Scenic Rivers Act: A river which is "existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed...shall not automatically bar its consideration...."

Fry - A young, recently hatched fish.

Full suppression - See *Fire suppression.*

Full time equivalent (FTE) - The number of person-year equivalents of both full and part time employment.

Gabion - A streambank erosion control structure consisting of a wire cage filled with rock and cobble.

Genetic diversity - The variation within individual species which results from genetic variability (the variation in traits and genes within a single species).

Goal - The desired state or condition that a resource management policy or program is designed to achieve (usually not quantifiable and may not have a specific completion date).

Grazing permit - Under Section 3 of the Taylor Grazing Act, a document authorizing the use of the public lands within grazing districts for the purpose of grazing livestock.

Grazing preference (total grazing preference) - The total number of animal unit months (AUMs) of livestock grazing on public lands, apportioned and attached to base property owned or controlled by a permittee or lessee. The *active preference* and *suspended preference* are combined to make up the total grazing preference. *Active preference* is that portion of the total preference for which grazing use may be authorized. *Suspended preference* is that portion of the recognized grazing preference which is placed in a suspended category because the preference exceeds the present available livestock grazing capacity.

Grazing system - A system of manipulating livestock grazing to accomplish desired results. *Seasonal (season long):* grazing use throughout a specific season. *Deferred rotation*: discontinuance of livestock grazing on various parts of a range in succeeding years, allowing each part to rest successively during the growing season. Two, but more commonly three or more, separate pastures are required. *Rest rotation:* one pasture is totally rested from livestock grazing and all other pastures absorb the grazing load. *Trailing:* livestock use is limited to incidental grazing which occurs as livestock move through the area.

Ground water - Water beneath the earth's surface between saturated soil and rock that supplies wells and springs.

Group selection (harvest method) - The periodic removal of trees from all age groups in order to maintain a balanced uneven-aged structure. Group sizes range from 1/4 acre to 5 acres.

Guzzler - A water development for wildlife that relies on rainfall or snowmelt to recharge it, rather than springs or streams. Usually used where no other sources of wildlife water exist.

Habitat - A specific set of physical conditions that surround a species, group of species, or large community. For example, major habitat components for wildlife are food, water, living space, and cover.

Habitat type - The aggregate of land area potentially capable of producing similar plant communities at climax (Steele, *et. al.* 1981). Each habitat type is named for the climax tree species and understory species that would eventually occupy a site at climax, under ideal conditions. In reality, habitat types indicate the potential of a site, for many factors (e.g., fire interval, climate, soil productivity, aspect, percent slope) will determine the vegetation that occupies a site over time.

Habitat Management Plan (HMP) - An approved activity plan for a geographical unit of land that identifies wildlife habitat management activities to be implemented to meet specific land use plan goals.

Harvest unit - A specified number of forest land acres marked for a proposed site-specific timber sale.

Headcut - An erosion feature of a stream characterized by an abrupt change in channel invert elevation (*e.g.*, waterfall).

Helicopter logging - A harvest method where the yarding of cut trees is by helicopter to a loading point.

Herbaceous - Plants that are green and leaflike in appearance or texture and have characteristics typical of an herb, as distinguished from a woody plant.

Heritage Education - A nationwide BLM program that seeks to strengthen children's sense of personal responsibility for the stewardship of America's cultural heritage and to use historic and archaeological resources in math and science education.

Hiding cover - For elk, vegetation capable of hiding 90% of an elk seen from a distance of 200 feet or less.

Historic property - A term used in the National Historic Preservation Act that refers to a cultural resource which is considered eligible to be listed or is listed on the National Register of Historic Places.

Hunter day - A portion of a day spent hunting.

Hydrology- The scientific study of the properties, distribution, and effects of water in the atmosphere, on the earth's surface, and in soil and rocks.

Integrated pest management - The use of several techniques (*i.e.*, fire, grazing, herbicide, biological agents) as one system to gain control of a pest species.

Integrated Resource Activity Plan (IRAP) - A type of activity plan which addresses a number of resources and programs. (Also see *activity plan.*)

Interdisciplinary (ID) team planning process - A process of assembling a team of staff resource specialists who become fully involved in a discussion of issues, problems, conflicts and concerns; the development of alternatives; analysis of environmental effects; and development of final recommendations for management decision. From time to time, members of the general public or specialists from outside groups or agencies may participate with ID teams.

Intermittent stream - A stream or segment of stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas.

Interpretive site - A site where the local history, environment, and/or current land use practices are explained through signs and brochures or other media.

Invertebrates - A group of organisms which includes insects, butterflies, spiders, and worms.

Irretrievable - A loss of production or use of a renewable natural resource for a period of time. The loss of production or use *for that period of time* can not be "retrieved," but production or use of the resource may still be possible in the future -- *i.e.*, the land management action can be reversed

and the loss of production or use is not permanent. For example, if a mature timber stand is withdrawn from timber harvest to provide for wildlife needs, there is an irretrievable loss of sawtimber value from that stand for the period of time the stand is being managed for wildlife needs rather than timber production purposes.

Irreversible - A loss of production or use of a renewable or non-renewable resource that is permanent (cannot be reversed), or is so long term as to be considered permanent (*e.g.*, as in the case of soil productivity, which can only be renewed over very long time periods). An irreversible commitment of a resource implies loss of production or use for a period of time as well as loss of *future* options for production or use of the affected resource. For example, (1) permanent loss of non-renewable paleontological or cultural resources may result from vandalism, erosion, or surface disturbance; and (2) "wilderness" character may be permanently changed through construction and ongoing use of roads, which are obvious visual intrusions in a natural landscape.

Island (of vegetation) - An inclusion of one species or type of vegetation totally surrounded by other species or types.

Issue - See *planning issue.*

Key ecosystem indicator species - Species selected for management as components of a system which is being managed or monitored. These species are chosen because they are indicators of the health of the entire system. Key ecosystem indicator species may be: 1) wide-ranging species for whom landscape level patterns and processes are very important; 2) species dependent on many other species (such as predators at the top of the food chain); 3) common species that are important basic components of the system; or 4) rare or unique species that are especially sensitive to changes in the system.

Key area - A relatively small area that reflects or has the ability to reflect the effectiveness of management actions over a much larger area.

Key habitat - See *crucial habitat.*

Knowledgeable and reasonable practices - Those practices, or combination of component practices, developed through a systematic approach and implemented in a manner which demonstrates reasonable success in minimizing adverse resource impacts. Any knowledgeable and reasonable practice which is not expressly described in the Challis RMP, but is proposed and developed at a later date, would be based on the following: (1) current scientific literature or other applicable study results which substantiate that improvement would result from implementing the practice; (2) the recommendations of an ID team responsible for reviewing, interpreting, and documenting the scientific literature or study results upon which the knowledgeable and reasonable practice is based; and (3) completion of an environmental assessment documenting how the knowledgeable and reasonable practice would meet resource objectives.

Landscape diversity - The variation of pattern and size of communities within a landscape, including the size of unfragmented habitat, the existence of migration corridors, the juxtaposition of feeding and cover habitat, etc.

Landscape level processes - Natural or human activities which create patterns at the level of landscapes (*i.e.*, across community boundaries). Examples are periodic wildfire or human activities which affect a watershed (and its water quality or fisheries habitat).

Land transfer - The sale, exchange, or other conveyance of land from one owner to another, especially under the authority of land disposal laws such as the Desert Land Act, Carey Act, Recreation and Public Purposes Act, FLPMA, etc.

Leasable minerals - Minerals subject to lease by the Federal government under the Mineral Leasing Act of 1920, including coal, oil, gas, phosphate,

sodium, potassium, oil shale, sulphur, and geothermal steam. Yearly lease rentals and production royalties are paid to the Federal government. In this RMP, leasable minerals are further categorized as either fluid energy leasable minerals (oil, gas, and geothermal resources) or non-energy leasable minerals.

Listed species - Those plant, animal, or fish species listed by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service as "threatened" or "endangered."

Locatable minerals - Generally, the metallic minerals subject to development specified in the General Mining Law of 1872. Generally includes metallic minerals such as gold, silver, copper, and iron, and all other minerals not subject to lease or sale (limestone, talc, gypsum, etc.).

Management Area - A portion of the Resource Area where BLM administered public lands would remain in public ownership for the long term, unless the RMP is amended. Lands would be managed for multiple use purposes consistent with law and regulation. Management areas are in contrast to *Adjustment Areas.* (Instruction Memorandum No. ID-89-395, August, 1989)

Management concern - Resource activities or opportunities that are addressed in the RMP/EIS in order to ensure consideration of all multiple uses in the planning area.

Management Framework Plan (MFP) - A BLM land use plan for a specific area of land called a planning unit. MFPs were the first generation of BLM land use plans, prior to completion of Resource Management Plans. An MFP was written after completion of a Unit Resource Analysis as an inventory.

Management Situation Analysis (MSA) - The physical resource data and analysis of a planning unit, including current use, production, condition, and trend of resources, potentials and opportunities, and a profile of ecological values.

Mesic - Relatively moist habitat sites typically occupied by vegetative species requiring relatively higher amounts of soil moisture for survival.

Mineral withdrawal - Closure of public land to specific mineral development laws such as the Mining Law of 1872 and the Mineral Leasing Act of 1920. Withdrawal of public lands is subject to valid existing rights, such as valid mining claims and mineral leases which precede the withdrawal.

Mitigation - An action to avoid, minimize, reduce, eliminate, compensate, or rectify the impact of a management practice.

Monitoring - The systematic gathering of data to determine whether progress is being made in achieving land use objectives or goals.

Motorized vehicle - Any form of motorized transportation. (Also see *off-highway vehicle.*)

Multiple use - The management of the public lands and their various resource values so they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long term needs of future generations for renewable and nonrenewable resources...with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output (FLPMA 1976).

National Register of Historic Places - A register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture, established by the National Historic Preservation Act of 1966 (NHPA) and maintained by the Secretary of the Interior.

Natural regeneration (revegetation) - The regeneration or reforestation of a site by natural means, whether from seedlings originating by natural seeding, or from sprouts and other plants which reproduce vegetatively. Natural regeneration may or may not be preceded by site preparation.

Nested frequency trend monitoring - A method of monitoring rangeland trend that consists of observing plots of various sizes along a transect. The frame is constructed such that successively smaller plots are included within the next larger plot.

Nonattainment area - An airshed in which one or more air quality standards are not being met.

Noncommercial forest land - All forest land that is not capable of yielding at least 20 cubic feet of wood per acre per year of commercial tree species, or land capable of producing only noncommercial tree species. All noncommercial forest land is further classified as suitable woodland. (Also see *suitable woodland, woodland, commercial forest land.*)

Non-discretionary action - A BLM action that is required by law or regulation. These types of actions cannot vary by alternative within the RMP.

Non-energy leasable minerals - For the purposes of this RMP, all leasable minerals which are not considered fluid energy leasable minerals (oil, gas, geothermal resources). Also see *leasable minerals.*

Nongame - Species of animals which are not managed as a sport hunting resource.

Nonpatented claim - A mining operation with no privilege or right of sole use by an individual.

Nonpoint source - A source of water pollution which cannot be attributed to a specific point or small area, but is generated on a wider scale from a larger land area. Nonpoint source pollutants may include sediment, nutrient, chemical, or bacteria loadings to a body of water. Nonpoint sources of these pollutants may include activities such as grazing, mining, timber harvesting, high use recreation, and road construction and maintenance.

Nonsuitable commercial forest land - Those lands incapable of sustained long term timber production (fragile nature or inability to adequately reforest) under existing harvest or reforestation technology. (Also see *suitable commercial forest land.*)

Nonsuitable woodland - Includes all fragile nonsuitable forest land and sites that are not biologically and/or environmentally capable of supporting a sustained yield of forest products.

Nonsuitable WSA - A Wilderness Study Area that has been studied by the BLM and recommended to the President for uses other than Wilderness.

No surface occupancy (NSO) stipulation - A stipulation which prohibits construction or placement of energy mineral development facilities (buildings, roads, drilling equipment, etc.) on an area of land surface. An NSO stipulation is often attached to energy mineral leases for particular tracts of land leased for energy mineral development. (See, *Attachment 10: Leasable Minerals Stipulations,* pp. 135-143 for other energy minerals stipulations specific to this RMP.)

Nonuse AUMs - Available grazing forage which is not permitted during a given time period.

Non-vascular plants - A group of plants which includes fungi (mushrooms), lichens, mosses, and algae.

Noxious weed - Any plant designated as noxious by the director of the Idaho Department of Agriculture.

Objectives - Planned results to be achieved within a stated time period; objectives are measurable, quantifiable, subordinate to goals, and narrower in scope.

Off-highway vehicle (off road vehicle) - A motorized vehicle which can travel off of constructed road surfaces, such as a motorcycle, all-terrain vehicle, four-wheel drive vehicle, or snowmobile. (Also see *motorized vehicle.*)

Off-highway vehicle use designations -

Open: Vehicle travel is permitted throughout the area designated as "open" to OHV use, if the vehicle is operated responsibly.

Limited: Motorized vehicle travel on designated areas, routes, roads, vehicle ways, and trails is subject to restrictions.

Closed: Motorized vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted.

Old growth - Forested land that is comprised of mature trees whose vigor is being maintained or is declining. Old growth is characterized by plants and animals which prefer or depend upon a climax or late successional habitat. An old growth forest differs significantly from a younger forest in structure, ecological function, and species composition. Old growth characteristics begin to appear in unmanaged conifer forests at 175-250 years of age. These characteristics include (a) a patchy, multilayered canopy with trees of several age classes; (b) the presence of large living trees; (c) the presence of larger standing dead trees (snags) and down woody debris; and (d) the presence of species and functional processes which are representative of the potential natural community.

Old growth dependent species - An animal species so adapted that it can exist only in old growth forests.

Omitted lands - Unsurveyed lands that were erroneously excluded from the original survey by some gross discrepancy in the location of a meander line, whether by mistake or fraud. These are lands that were, in fact, in place at or above the ordinary high water mark at the date of the original subdivision of the township. The representation of the original survey by the accompanying plat and field notes will be grossly in error (USDI - BLM, *Manual of Surveying Instructions*, 1973).

Outstandingly Remarkable (OR) value - A resource value or natural element of a stream being considered for inclusion in the National Wild and Scenic Rivers System which is extraordinary within the region (or RMP planning area). Categories of resource values listed in Section 1(b) of the Wild and Scenic Rivers Act include "scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values." "Other similar values" include, but are not limited to, hydrologic, ecologic/biologic diversity, paleontologic, botanic, and scientific study opportunities.

Overstory removal - A method of harvesting timber, where the overstory (uppermost canopy) is removed and the remaining portion of forest is not harvested at that time.

Paleontological resource - Fossilized remains of vertebrate, invertebrate, or botanical life forms associated with past geologic periods.

Patented claim - A mining operation with an official document conferring a right or privilege to have sole use of that operation.

Parturition areas - Birthing areas commonly used by more than just a small number of females from a given population (*e.g.*, lambing grounds or calving/fawning areas).

Perennial stream - A stream that flows continuously and is generally associated with a water table in the areas through which it flows.

Peripheral species - Species whose distribution in Idaho is at the edge of their range. Because populations of these species often occur in marginal habitat (in terms of species needs), they are especially important to the genetic diversity of the species.

Petrified - Vegetative material converted to stone when organic matter is replaced with dissolved minerals.

Phenology - The relationship between climate and plant stage of growth.

Planning issue - Defined by BLM Manual 1601 as a matter of controversy or dispute regarding a resource management activity or land use that is well defined and/or topically discrete, and involves alternatives among which to choose or decide.

Plant maintenance - Fulfilling the plant's requirements for water, nutrients, and sunlight to ensure food storage and plant vigor sufficient for normal growth and reproduction.

Potential natural community (PNC) (*Syn.* **climax community**) - The culminating stage in natural plant succession for any given site where the vegetation consists of a stable community of adapted native plants. The highest ecological development of a plant community capable of perpetuation under prevailing climatic and soil conditions and natural disturbance events. Climax species will generally dominate a climax community.

Prehistoric site - A geographic location where Native American cultural activities took place during a period when Native Americans were not yet influenced by contact with historic non-native culture(s).

Prescribed burn (prescribed fire) - Intentional use of fire, whether by planned or unplanned ignition, to accomplish planned objectives.

Prescription - Management practices which are selected and scheduled for application in a specific area in order to attain goals and objectives.

Primitive - Characterized by an essentially unmodified natural environment isolated from the sights, sounds, and structures of man.

Primitive values - Opportunity for primitive and unconfined recreation, opportunity for solitude, and naturalness.

Priority fish species - Fish having special significance for management, including (a) special status species; (b) species of high economic or recreational value; or (c) populations of fish recognized as significant for one or more factors such as density, diversity, size, public interest, remnant character, or age.

Prior to boot stage - The vegetative phenological stage that occurs in grasses after the plant initiates growth in the spring, but before any flowering buds are detectable on the flower stalk.

Pristine condition - The ecological condition of that plant community assumed to have existed prior to the influence of European man.

Project planning - The most detailed level of BLM planning which identifies the design, placement, and implementation of specific projects. (Also see *activity planning.*)

Proposed species - Species that have been officially proposed for listing as threatened or endangered by the Secretary of the Interior or Commerce under the provisions of the Endangered Species Act. A proposed rule has been published in the *Federal Register.*

Provenience - origin (*e.g.,* of artifacts).

Public - Affected or interested individuals, including consumer organizations, public land resource users, corporations and other business entities, environmental organizations and other special interest groups, and officials of State, local, and Indian tribal governments (43 CFR 1601.0-5(h)).

Public land - Any land and interest in land (*e.g.,* mineral estate) owned by the United States and administered by the Secretary of the Interior through the BLM, except lands located on the Outer Continental Shelf and lands held for the benefit of Indians, Aleuts, and Eskimos (43 CFR 1601.0-5(i)). May include public domain or acquired lands in any combination.

Rank growth - Older plant (vegetative) material, typically of forage plants, that has higher lignin and cellulose content, which reduces palatability.

Range improvement - A structure, excavation, treatment, or development to rehabilitate, protect, or improve range conditions on public lands.

Raptor - A bird of prey with sharp talons and strongly curved beak (*e.g.,* hawk, owl, vulture, eagle).

RARE II (Roadless Area Review and Evaluation II) - The second national inventory and assessment of roadless and undeveloped areas within the National Forests and Grasslands, documented in the *Final Environmental Impact Statement of the Roadless Area Review and Evaluation*, January, 1979.

Rare species - Plant or animal species which are uncommon to a specific area. All threatened, endangered, and sensitive species can be considered rare, but the converse is not true.

Recreation opportunity spectrum (ROS) - A classification system which characterizes the ability of the land resource to provide opportunities for certain types of recreation experiences. Classifications (listed in order of increasing development (modification of the natural environment) and decreasing opportunities for solitude) include the following: primitive, semi-primitive nonmotorized, semi-primitive motorized, roaded natural, rural, and urban.

Redd - A spawning bed; specifically, a depression made in stream substrate (*i.e.*, gravel) by a spawning fish, by fanning water and gravel with its tail. Eggs are deposited into the redd to be incubated and later hatched.

Reforestation- The natural or artificial restocking of an area with forest trees. (Also see *artificial regeneration, natural regeneration.*)

Regeneration - The renewal of a tree crop, whether by natural or artificial means. Also the young tree crop (seedlings, saplings) itself.

Relict community - A plant community surviving in an environment that has changed considerably, usually as a result of grazing animal use. Relict communities often occupy areas inaccessible to or otherwise unused by grazing ungulates.

Residual ground cover - That portion of the total vegetative ground cover that remains after the livestock grazing season.

Remnant population - A small population of a plant or animal species that has been reduced in numbers and/or area of distribution; or: A small, isolated population which remains after the rest of the population has been extirpated from the area.

Research Natural Area (RNA) - An area in as near a natural condition as possible, which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes; commercial and general public use is not allowed.

Right-of-way - A permit or easement which authorizes the use of public lands for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs, etc.; also, the lands covered by such an easement or permit.

Riparian - Of, pertaining to, situated, or dwelling on the bank of a river or other body of water.

Riparian area - The area between permanently saturated wetland and upland areas, which exhibits vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Typical riparian areas include lands along, adjacent to, or contiguous with perennial and intermittent streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil. Riparian habitat area width delineations for this RMP are shown in **Volume 1**,

Attachment 4, pp. 105-106.

Riparian ecosystem - A transition between the aquatic ecosystem and adjacent upland terrestrial ecosystem which is identified by soil characteristics and distinctive vegetation communities that require free or unbounded water.

Riparian area condition classes - Riparian areas may be classified in one of three conditions: proper functioning, non-functional, or functional-at-risk. See **Volume 1**, *Attachment 1,* pp. 101-102 for a complete description of condition classes.

Rip rap - Broken angular stone used for embankments; a foundation or wall of stone thrown together irregularly.

Road - A vehicle route which has been improved and maintained by mechanical means to ensure relatively regular and continuous use. (USDI-BLM 1987; *Lemhi Draft RMP/EIS*)

Rockhounding - The recreational collection of minerals.

Saleable minerals - High volume, low value mineral resources, including common varieties of rock, clay, decorative stone, sand, and gravel. Specifically, mineral materials made available for sale under provisions of the Mineral Materials Act of 1947, as amended.

Salmonid - A member of the family of fish species *Salmonidae*; includes trout and salmon species.

Sawtimber - Live trees usually nine inches DBH or larger that can be used for lumber.

Scoping - The process of obtaining input from the ID team, resource staff and management, and the public (including the general public and relevant government agencies, Indian tribes, organizations, and interest groups) in order to determine 1) which issues are significant to the RMP and 2) the scope of issues to be addressed in the alternatives.

Season of use - A period of grazing use defined either by calendar dates or phenological stages (*e.g.*, early = prior to boot, critical = boot to flowering, late = after flowering, dormant = dormant/winter). (Also see *boot stage*, *dormant stage*, and *prior to boot stage*.)

Section 106 Consultation - Discussions between a Federal agency official and the Advisory Council on Historic Preservation, State Historic Preservation Officer, and other interested parties concerning historic properties that could be affected by a specific undertaking. The consultation process is outlined in the National Historic Preservation Act, Section 106, and codified in 36 CFR 800.

Sediment - Solid material that originates mostly from disintegrating rocks and is transformed by, suspended in, or deposited by water. Sediment includes chemical and biochemical precipitates and decomposed organic material.

Sediment yield - The volume or weight of sediment transported from a site.

Seep (or **spring**) - A saturated zone at or near the ground surface where voids in the rock or soil are filled with water at greater that atmospheric pressure. Seep or spring sites are typically characterized by riparian vegetation and soil formed in the presence of water. Water may or may not be discharging from these sites, depending on the underlying geology, water source, season, or long term climatic trends. A seep is a small spring.

Selective cut logging - The periodic removal of trees, individually or in small groups, from an uneven-aged forest in order realize a timber yield and establish a new tree crop of irregular constitution.

Semi-developed recreation site - A site partially developed to accommodate specific intensive uses such as camping, boat launching, gaining access, etc. These sites may include some permanent facilities such as a launch ramp, parking area, and/or toilet. However, regular maintenance may not occur.

Sensitive species - Plant or animal species designated by the BLM State Director as sensitive, usually in cooperation with the State agency responsible for managing the species. Sensitive species are those (a) which are under status review by the USFWS or NMFS; or (b) whose numbers are declining so rapidly that Federal listing may become necessary; or (c) with typically small and widely dispersed populations; or (d) inhabiting ecological refugia of other specialized or unique habitats. (BLM Manual 6840)

Seral stage - See *ecological status.*

Severe winter relief range - A survival range, not considered a crucial habitat range area. It is only used heavily during extremely severe winters (*e.g.*, 2 years out of 10). It may lack habitat components which would make it attractive or capable of supporting a majority of the population during normal years, but it allows at least a significant portion of the population to survive occasionally extreme winters.

Shelterwood cut - A method of forest stand regeneration and timber harvest where mature timber is removed in a series of two or more cuttings over a relatively short portion of the rotation (30 years or less), and the establishment of even-aged reproduction under the partial shelter of seed trees is encouraged. The first cutting is termed a "seed cut," intermediate cutting is termed a "removal cut," and the last cut is the "final cutting."

Skid trail - The tracks where tractors slide or pull logs from the tree stumps to the roadside or log landings.

Slash- Woody material left after logging, pruning, thinning, brush cutting, or other activities associated with timber harvest and management, road construction and maintenance, or trail construction and maintenance. Slash may also accumulate as a result of storms, fire, or other damage.

Smolt- A juvenile salmonid at the time when it is physiologically adapting from life in fresh water to life in salt water.

Snag - A standing dead tree that is at least six inches DBH and 20 feet tall. Used by birds for nesting, roosting, perching, courting or foraging, and by some mammals for escape cover, denning, and reproduction.

Soil capability classes - Groupings of soils based on their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. They are defined as follows:

Class I - Soils that have slight limitations that restrict their use.

Class II - Soils that have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class III - Soils that have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class IV - Soils that have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class V - Soils that are not likely to erode but have other limitations, impractical to remove, that limit their use.

Class VI - Soils that have severe limitations that make them generally unsuitable for cultivation.

Class VII - Soils that have very severe limitations that make them unsuitable for cultivation.

Class VIII - Soils and miscellaneous areas that have limitations that nearly preclude their use for commercial crop production.

Special Management Area (SMA) - Portions of the Challis Resource Area that currently receive (or would receive, once designated) special management above that designated for the remainder of the Resource Area. Special Management Areas

include Wilderness Study Areas, Wild and Scenic Rivers, and Areas of Critical Environmental Concern/Research Natural Areas.

Special status species - Species which have official recognition of rarity or decline, including species identified in the *Federal Register* as "threatened," "endangered," "proposed," or "candidate," and species listed as "sensitive" by a state or the Bureau of Land Management. The BLM sensitive species list for the Salmon Field Office BLM (including the Challis Resource Area) generally follows the list of State of Idaho sensitive species recognized by the Idaho Department of Fish and Game. (Also see *threatened species, endangered species, proposed species, candidate species, State listed species, sensitive species.*)

Special Recreation Management Area (SRMA) - BLM administrative units established to direct recreation program priorities, including the allocation of funding and personnel, to those public lands where a commitment has been made to provide specific recreation activities and experience opportunities on a sustained yield basis.

Species diversity - The variation in numbers and kinds of species and the complexity of their interaction within a community.

Spring - See *seep.*

Spring-summer-fall range - A population or portion of a population of animals use available habitat sites within this range annually during that period of the year when persistent winter conditions are not present. Typically, this period would be between May 1 and November 30.

Stand (of timber) - A plant community of trees which possess uniformity in vegetation type, age class, vigor, size class, and stocking class and which is distinguishable from adjacent forest communities.

State listed species - A plant or animal species proposed for listing or listed by a state in a category implying potential endangerment or extinction. Listing is either by legislation or regulation.

Stocking level - The current level of livestock grazing use on a unit of land, usually expressed as acres of land per AUM grazed.

Stubble height - The height of ungrazed herbaceous matter left standing at the close of the grazing period or growing season.

Substrate embeddedness - See *cobble (substrate) embeddedness.*

Suitable commercial forest land - Land classified as capable of (possessing necessary characteristics and capabilities) producing commercial timber under operational forest management practices and able to maintain those qualities necessary to meet sustained yield principles. (Also see *nonsuitable commercial forest land.*)

Suitable ranges - Areas which can be grazed by livestock without damage to the soil and vegetation resources.

Suitable woodland - Includes all noncommercial forest land and nonsuitable commercial forest land that is biologically capable of supporting a sustained yield of forest products. (Also see *nonsuitable woodland.*)

Suitable WSA - A Wilderness Study Area that has been studied by the BLM and recommended to the President as suitable for inclusion into the National Wilderness Preservation System.

Summer range - Areas where young are raised by elk or bighorn sheep. Summer ranges are usually more important to a given population than spring-summer-fall ranges and are generally much smaller in size. Typically used between June 1 and September 31.

Supervised trailing - Livestock are actively pushed to their destination, not merely allowed to move along at their own pace without human encouragement.

Sustained yield - The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands, consistent with multiple use.

Tax revenues - Revenues for the purpose of local government which are generated annually through real property taxes (*e.g.*, home or business value), personal property taxes (*e.g.*, motor vehicle assessments), and operating property taxes (*e.g.*, utilities). Tax revenues are sources of funds for local government in addition to non-local sources of aid (*e.g.*, payments in lieu of taxes, Federal and State grants and funds).

Technical approaches for riparian/aquatic improvement - Those activities, methods, and approaches which require active intervention and import of materials to restore or rehabilitate the affected site. The approaches include such things as plantings, gabions, retention structures, and rock or tree barbs.

Thermal cover - Vegetative or topographic cover used by animals to ameliorate the effects of weather; for elk, a stand of coniferous trees 40 feet or taller with an average crown closure of 70 percent or more.

Threatened species - A plant or animal species which is likely to become endangered (see *endangered species*) within the foreseeable future throughout all or a significant portion of its range, and is officially listed as threatened by the Secretary of the Interior or Commerce under the provisions of the Endangered Species Act. A final rule for the listing has been published in the *Federal Register*.

Timber harvest - Cutting of trees for commercial use as sawlogs, house logs, posts and poles, pulpwood, or any other commercial use where the forest products are removed from the site.

Tractor skidding - A method of moving logs from the stump to the roadside, deck, or other landing.

Traditional lifeway value - The quality of being useful in or important to the maintenance of a specified social and/or cultural group's traditional systems or religious belief, cultural practice, or social interaction, not closely identified with definite locations.

Trail- Any designated, designed, and constructed pathway suitable for one or more of the following methods of travel: foot, packstock, cross country ski, mountain bike, motorcycle, or all terrain vehicle (ATV).

Transfer payments - A term indicating a payment made by business or government which does not result from current production and for which no services are currently rendered. Examples include social security and veterans payments, public assistance, and unemployment compensation. (M.H. Robison, *Using the Custer-Lemhi Economic Model (CLEModel) for Local Economic Impact Assessment: A How-To Manual*, p. 27)

Treaty- A formal agreement between two or more nations, relating to peace alliance, trade, etc. Treaties between the United States government and Indian tribes are formal contracts between two sovereigns which were signed by authorized representatives and ratified by two-thirds of the U.S. Senate.

Treaty rights - Those provisions negotiated in treaties between the U.S. government and Indian tribes which retain certain "rights" for the Indian tribes, such as hunting and fishing rights, land rights, water rights, etc.

Tree cutting - A silvicultural practice of felling trees which remain on-site for resource values, rather than being removed for their value as forest products. Examples would include pre-commercial thinning, aspen regeneration treatments, and forest health treatments, as opposed to firewood cutting or timber harvest.

Trespass - The use of public land without authority, resulting from an innocent, willful, or negligent act.

Trust resources - Those resources (*e.g.*, deer, elk, fish) located on public lands which Native American tribes have the right to take under treaty.

Trust responsibility - The sovereign status of Indian tribes and special provisions of treaty language set Native Americans apart from other U.S. populations, and define a special level of Federal agency responsibility. Most of the Federal lands were ceded to the U.S. government through treaties with the Indian tribes. By retaining certain rights on these lands (see *Glossary*: treaty rights), the Indian tribes, in essence, placed their lands in the trust of the U.S. government, giving the U.S. government "trust responsibility" to manage those ceded lands for the benefit of the tribes' treaty rights.

Unsurveyed islands - A category of omitted lands (see definition above) which may have been intentionally omitted from the original survey for numerous reasons. These islands existed at or above the ordinary high water mark, separate and distinct from adjoining uplands, at the date of statehood. Late 1800s survey practices by the Government Land Office (GLO) in this area were to make ties to the ends of islands rather than to physically survey them. An additional problem is that islands tend to "move" downstream over time by the processes of erosion and accretion and can attach themselves to adjoining uplands. (USDI - BLM, *Manual of Surveying Instructions*, 1973)

Upland - The portion of land located away from riparian or floodplain areas.

Utilization- The proportion of current year's vegetative growth consumed or destroyed by grazing animals, usually expressed as a percentage.

Utilization criteria - A set of criteria or standards to determine when proper use of an area has been made and livestock, wild horses, or wildlife should make no further use.

Vacant allotment - A grazing allotment that does not have a livestock grazing preference attached to it in accordance with the grazing regulations. No grazing permittee has a preference to use this allotment.

Vascular plants - Any of various plants of the division *Tracheophyta*, which includes the ferns and seed-bearing plants typified by a system of specialized conductive and supportive tissue.

Vehicle way (way) - A route established and maintained solely by the passage of motor vehicles. (USDI - BLM 1987; *Lemhi Draft RMP/EIS*)

Viable population - That population level that is self-sustaining without exhibiting genetic depression caused by inbreeding.

Visual resource management classes (VRM classes) -

Class I - Preservation. The objective of this class is to maintain a landscape setting that appears unaltered by humans. Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. It is applied to wilderness areas, some natural areas, wild portions of Wild and Scenic Rivers, and other similar situations where management activities are to be restricted.

Class II - Retention. The objective of this class is to design proposed alterations so as 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 the 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.

Class III - Partial Retention. The objective of this class is to design proposed alterations so as to partially retain the existing character of the landscape. Contrasts to the basic elements (form, line, color, and texture) caused by a management activity may be evident and

begin to attract attention in the characteristic landscape. However, the change should remain subordinate to the existing characteristic landscape. Structures located in the foreground distance zone (0-½ mile) often create a contrast that exceeds the VRM class, even when designed to harmonize and blend with the characteristic landscape. This may be especially true when a distinctive architectural motif or style is designed. Approval by the District Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards and, if not, whether they add acceptable visual variety to the landscape.

Class IV - Modification. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape. Structures located in the foreground distance zone (0-½ mile) often create a contrast that exceeds the VRM class, even when designed to harmonize and blend with the characteristic landscape. This may be especially true when a distinctive architectural motif or style is designed. Approval by the District Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards and, if not, whether they add acceptable visual variety to the landscape.

Class V - Rehabilitation or Enhancement. Change is needed to bring an area up to the standards of Class I, II, III, or IV (rehabilitation), or change may add acceptable visual variety to an area (enhancement). This class applies to areas where the natural character of the landscape has been disturbed to a point where the contrast is inharmonious with the characteristic landscape and rehabilitation is needed. (For example, unacceptable cultural modification has reduced the scenic quality.) It may also be applied to areas that have the potential to increase the visual quality or variety of an area or site. Class V should be considered an interim or short term classification until one of the other VRM class objectives can be reached through rehabilitation or enhancement. The desired visual resource management class should be identified.

Visual quality - The relative worth of a landscape from a visual perception point of view (BLM, VRM Manual).

Visual resource - The visible physical features on a landscape (*e.g.*, land, water, vegetation, animals, structures, and other features) (BLM, VRM Manual).

Watershed (or **drainage basin**) - A topographically defined area drained by a river, stream, or system of connecting rivers or streams such that all outflow is discharged through a single outlet.

Watershed assessment - A procedure used to characterize and document the human, aquatic, riparian, and terrestrial features, conditions, processes, and interactions within a defined area. Watershed assessment provides a context and focus for resource activity or project planning, design, and implementation.

Watershed condition class - The description of watershed condition as satisfactory or unsatisfactory. *Satisfactory condition watershed* - a watershed which has stable soils, sustains soil development and ecological processes, stores water and attenuates floods, maintains the integrity of nutrient cycles and energy flow, and has present, functioning recovery mechanisms. *Unsatisfactory condition watershed* - a watershed in which one or more of the attributes described for a satisfactory condition watershed is non-functional, not properly functioning, or is functioning and at risk of becoming less than properly functioning.

Water quality limited stream segment - A stream segment in which full attainment of an identified beneficial use has not been achieved as a result of

one or more limiting water quality parameters.

Way - See *vehicle way.*

Wetland area/habitat - An area where at least periodic inundation or saturation with water (either from the surface or subsurface) is the predominant factor determining the nature of soil development and the types of plant and animal communities living there. These include the entire zones associated with streams, lakes, ponds, canals, seeps, wet meadows, and some aspen stands. They support all fish and more species of wildlife in higher densities than any other habitat type in the Resource Area.

Wetted width - The width of the water surface measured at right angles to the direction of flow and at a specific discharge.

Wild and Scenic River - As designated by the 1968 Wild and Scenic Rivers Act, specific watercourses and their immediate environments which have outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values and are preserved in their free-flowing condition to protect them for the benefit and enjoyment of present and future generations. Wild and Scenic River segments are classified as wild, scenic, or recreational (from Section 2(b), Public Law 90-542):

> *Wild* - Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
>
> *Scenic*- Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
>
> *Recreational* - Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundments or diversions in the past.

Wild and Scenic River corridor - Land approximately 1/4 mile upslope either side of the river from the mean high water mark, or as otherwise defined for a specific river segment.

Wild and Scenic River study - A two-step study process followed by the BLM in order to identify rivers or river segments for possible inclusion in the National Wild and Scenic Rivers System (NWSRS). In step one the river is found eligible (or ineligible) for further study. In step two, eligible rivers are recommended as suitable (or unsuitable) for possible inclusion in the NWSRS.

> *Eligible river:* A river or river segment determined through inventory and evaluation to be eligible for further study. Three elements are considered: 1) is the drainage or waterway a river according to the Wild and Scenic River (WSR) Act and BLM Manual definition; 2) is the river free-flowing according to WSR Act definition; and 3) does the river support any of the Outstandingly Remarkable values listed in the WSR Act, Section 1(b). Rivers meeting the eligibility criteria for further study are assigned the appropriate tentative classification as wild, scenic, or recreational, as defined in Section 2(b) of the WSR Act.
>
> *Suitable river:* A river or river segment determined by the BLM to be suitable for possible inclusion in the NWSRS. Factors which may be considered include the following: characteristics which make the river segment a worthy addition to the NWSRS; the current status of land ownership and use in the area; reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS; and proposed costs of acquiring necessary lands and interests in lands and of administering the area (*Wild and Scenic Rivers Act*, Sec. 4(a).

Wilderness - All lands included in the National Wilderness Preservation System by public law. Also, generally defined as undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation.

Wilderness Study Area (WSA) - A roadless area that has been inventoried and found to have wilderness characteristics, having few human developments and providing opportunities for solitude and primitive recreation, as described in Section 603 of FLPMA and Section 2(c) of the Wilderness Act of 1964.

Wildfire - Any wildland fire that is not designated or managed as a prescribed fire.

Wildlife - Animals living in a natural, undomesticated state, including birds (raptors, songbirds, upland game birds), mammals (furbearers, big game, nongame mammals), reptiles, amphibians, and fish.

Windrow - A row of slash, generally alongside a road or trail, piled as a result of right-of-way clearing or road and trail construction or maintenance.

Winter range - A population or portion of a population of animals use the suitable habitat within this range annually, but in substantial numbers only during the winter. Typically used between December 1 and April 30.

Winter/yearlong range - A portion of a population of animals make general use of the suitable habitat sites within this range on a year-round basis. However, between December 1 and April 30 (commonly), there is a significant influx of additional animals into the area from other seasonal ranges

Woodland - Forest land which is not included in the commercial forest land allowable harvest base; also lands which include fragile nonsuitable land, noncommercial forest land, and nonsuitable commercial forest land. All woodland is further classified as suitable woodland or nonsuitable woodland. (Also see *suitable woodland, nonsuitable woodland.*)

Woodland product sales - Sales where the purchaser harvests forest products for personal use. These sales are created as a response to public demand, and are not part of the allowable sale quantity. Woodland product sales can occur on commercial forest land or woodland.

Yearlong range - A population or substantial portion of a population of animals makes general use of the suitable habitat sites within this range on a year-round basis. However, during extremely severe winters or drought periods, animals may leave the area.

Maps

Note: Maps 1 through 48 are bound in the back of **Volume 1**. Maps A through H are folded and inserted in a maps pocket at the back of **Volume 1**.

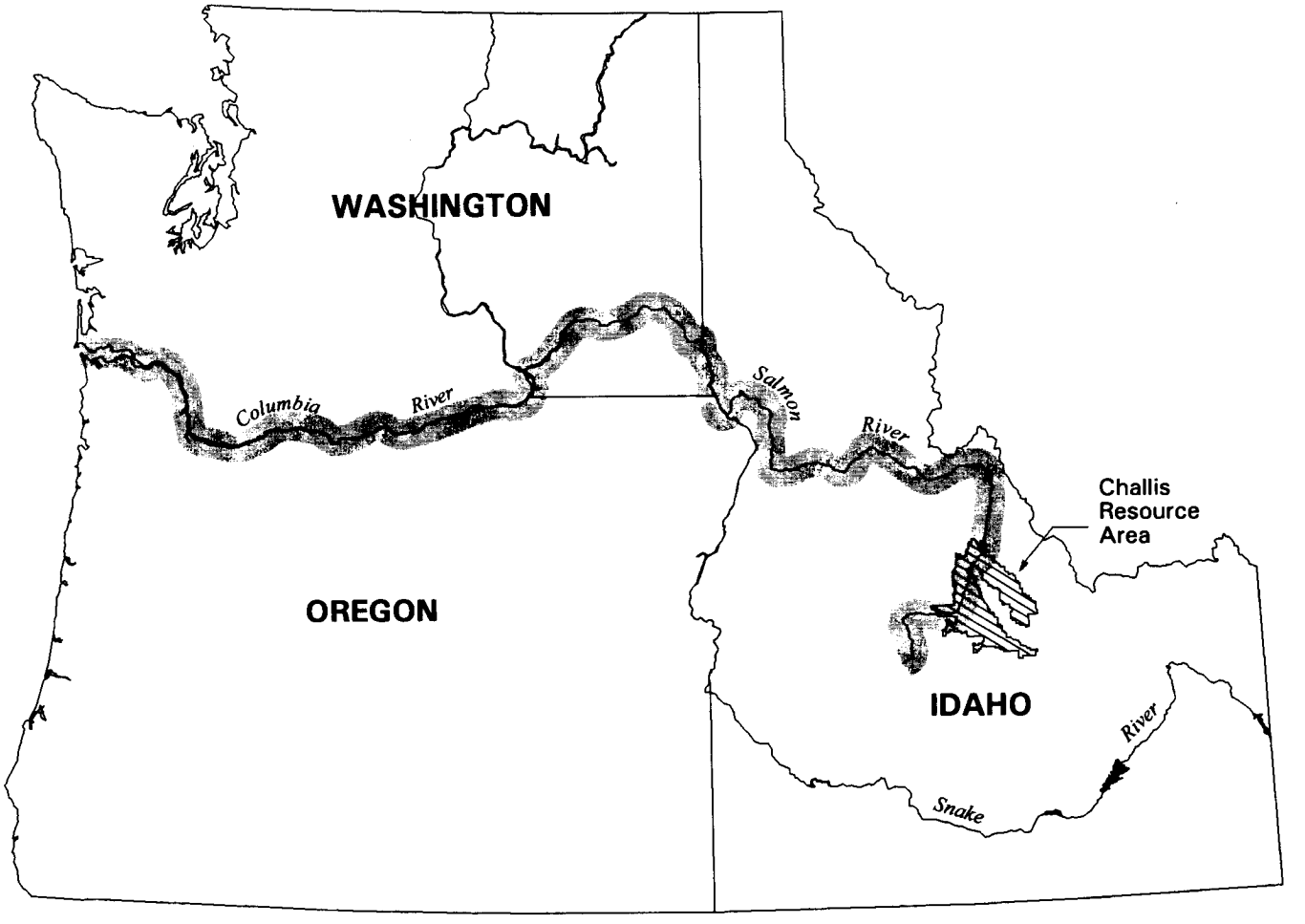
Map 1: Anadromous Fish Migration
Map 2: Anadromous & Resident Fisheries Occupied Habitat
Map 3: Antelope Winter Range
Map 4: ACECs - General Location
Map 5: ACECs - Antelope Flat ACEC
Map 6: ACECs - Birch Creek ACEC
Map 7: ACECs - Cronk's Canyon and Dry Gulch ACECs
Map 8: ACECs - Donkey Hills and Summit Creek ACECs
Map 9: ACECs - East Fork Salmon River Bench ACEC
Map 10: ACECs - Herd Creek Watershed ACEC
Map 11: ACECs - Lone Bird ACEC
Map 12: ACECs - Malm Gulch/Germer Basin ACEC
Map 13: ACECs - Peck's Canyon ACEC
Map 14: ACECs - Pennal Gulch ACEC
Map 15: ACECs - Sand Hollow ACEC
Map 16: ACECs - Thousand Springs ACEC
Map 17: Bighorn Sheep Winter Ranges
Map 18: Chilly Slough Wetland Conservation Project Area
Map 19: Communication Sites
Map 20: Economic and Social Analysis Regions
Map 21: Elk Winter Ranges and Donkey Hills Calving Area
Map 22: Existing Maintained Roads
Map 23: Fire Control
Map 24: General Location
Map 25: Geography and Principal Drainage Basins
Map 26: Geothermal Potential (and expanded legend)
Map 27: Grazing Closures
Map 28: Known Noxious Weed Infestations
Map 29: Local Wilderness Status
Map 30: Locatable Mineral Land Classification (and legend)
Map 31: Locatable Mineral Potential (and expanded legend)
Map 32: Mule Deer Winter Range
Map 33: Off-highway Vehicle Use
Map 34: Oil and Gas Potential (and expanded legend)
Map 35: Road and Trail Maintenance Priorities
Map 36: Sage Grouse Winter Range and Strutting Grounds
Map 37: Saleable Minerals Land Classification (and legend)
Map 38: Sensitive Plant Species
Map 39: Soils
Map 40: Special Recreation Management Areas
Map 41: Visual Resource Management
Map 42: Wilderness Study Areas
Map 43: WSAs - Goldburg WSA
Map 44: WSAs - Burnt Creek WSA
Map 45: WSAs - Borah Peak WSA
Map 46: WSAs - Jerry Peak West and Boulder Creek WSAs
Map 47: WSAs - Corral-Horse Basin and Jerry Peak WSAs
Map 48: Wild Horses

Map A: Adjustment/Management Areas
Map B: Allotment Boundaries
Map C: Suitable Commercial Timberlands
Map D: Forest Lands
Map E: Land Ownership
Map F: Range Condition
Map G: Vegetation
Map H: Wild and Scenic River Suitability Findings

Anadromous Fish Migration Corridor

CHALLIS RESOURCE AREA

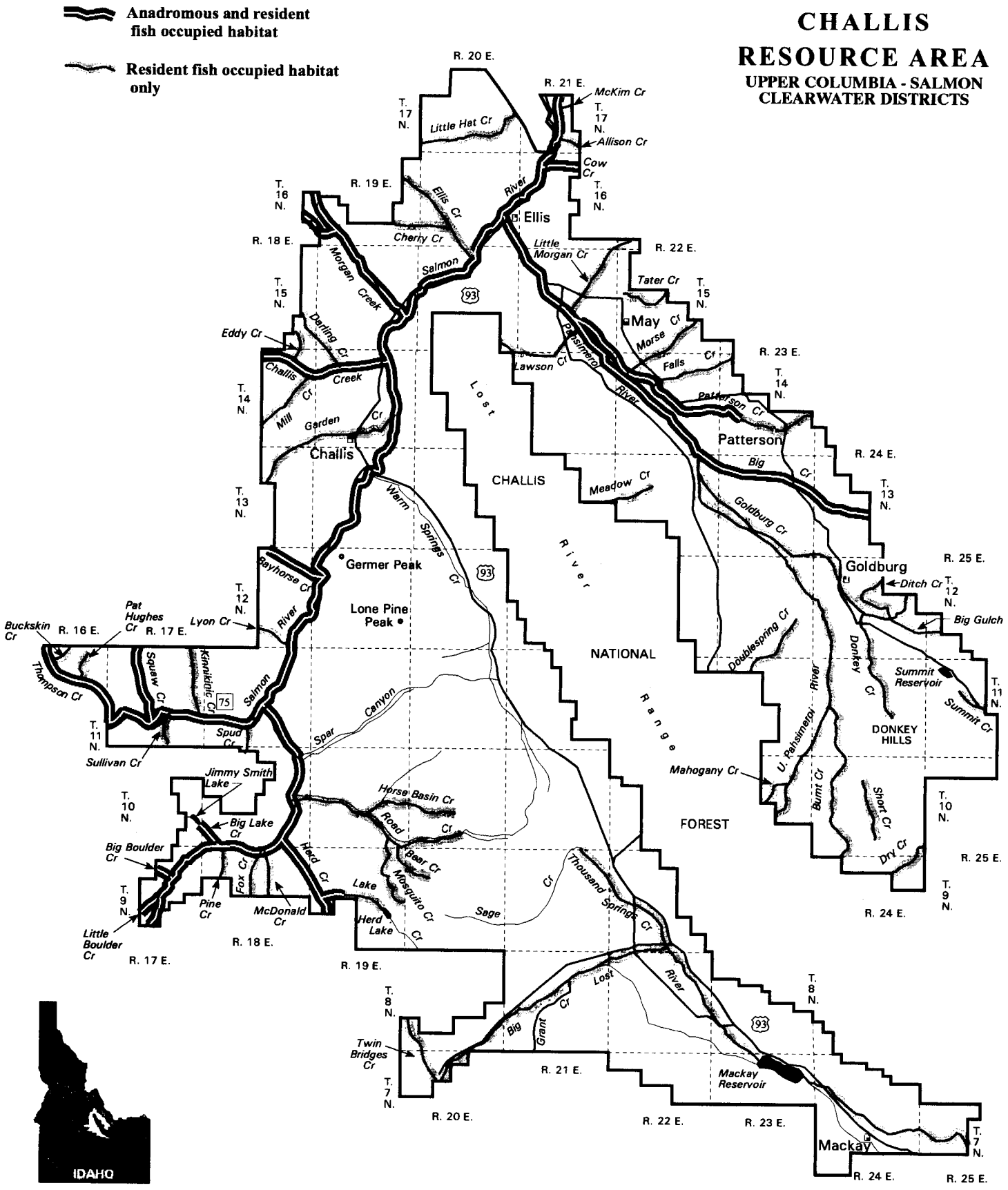
UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



Scale Approximately 1:6,300,000

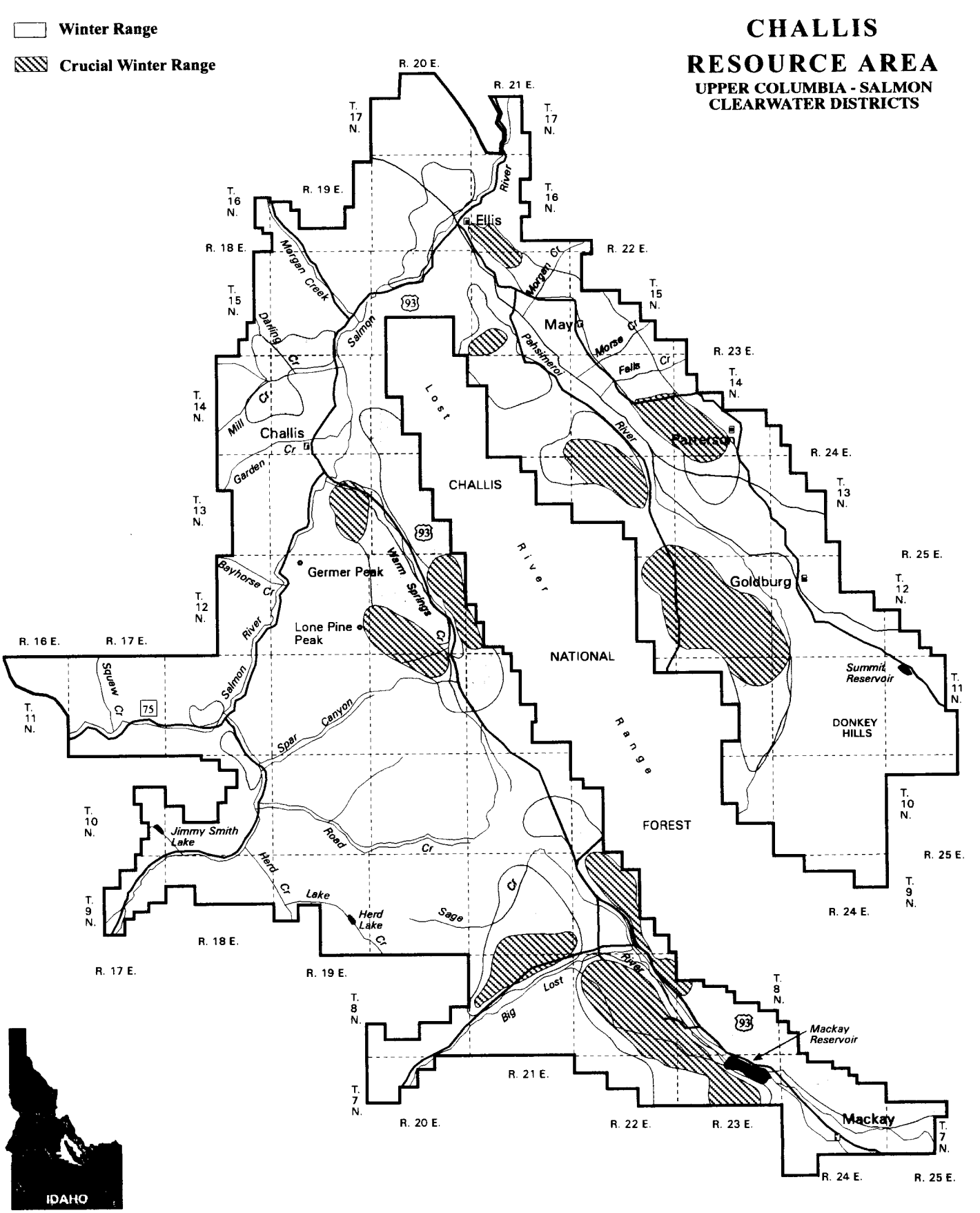
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



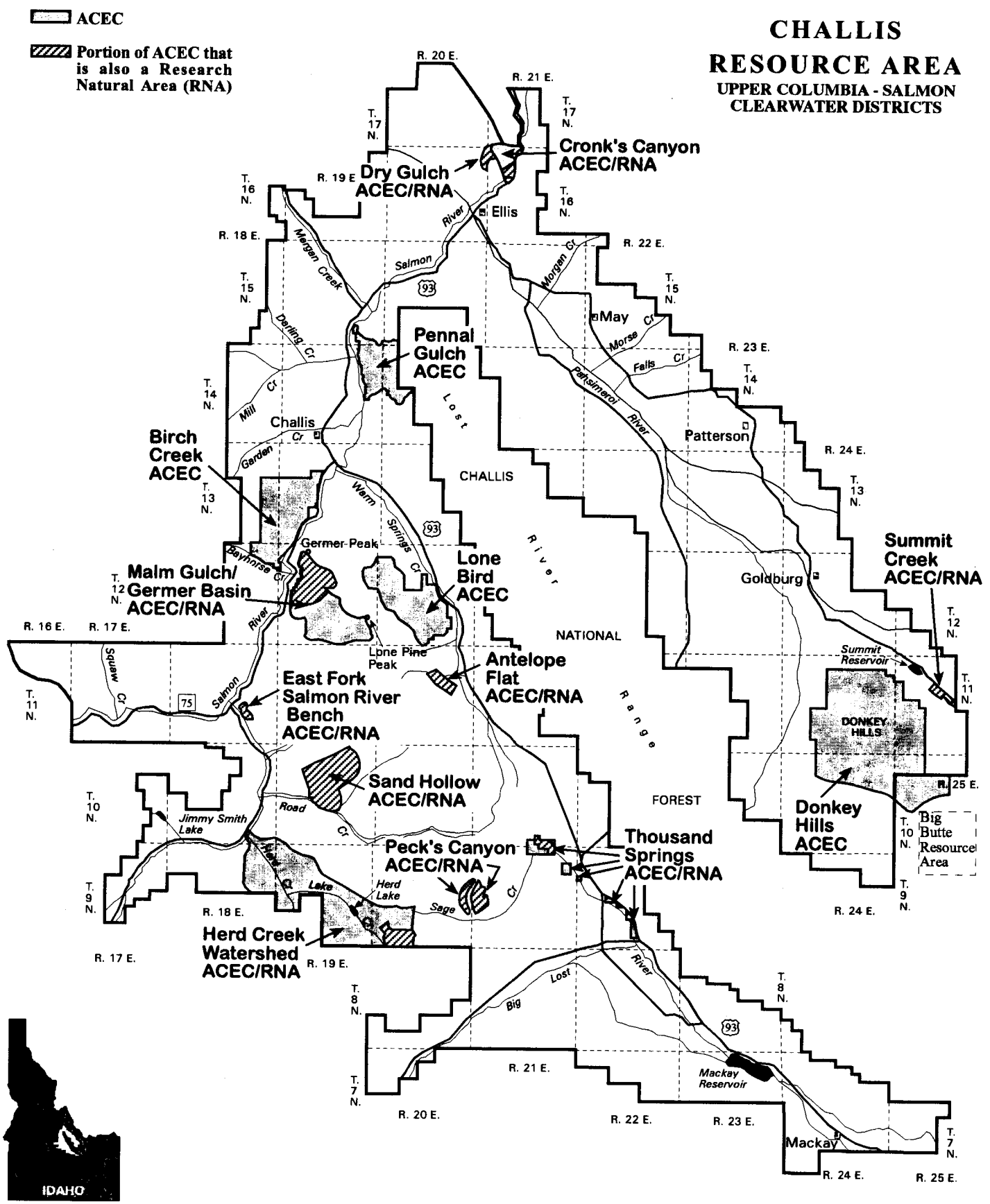
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



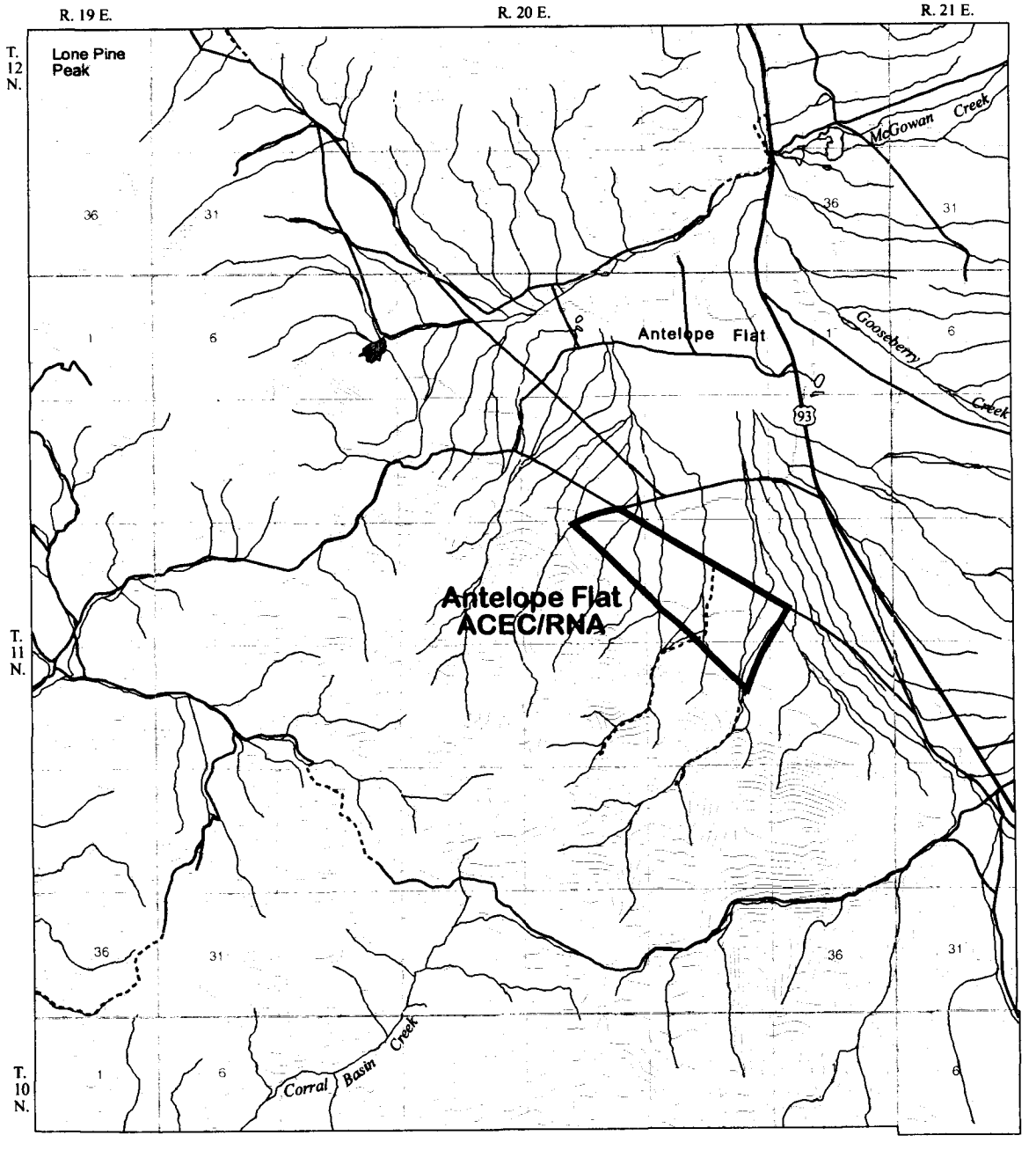
Note: Land Ownership Status is shown on Map E . Management Actions apply to BLM public land only.

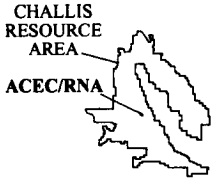
BLM, Idaho State Office, Mapping/GIS, 1998

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 1 2

Scale in Miles

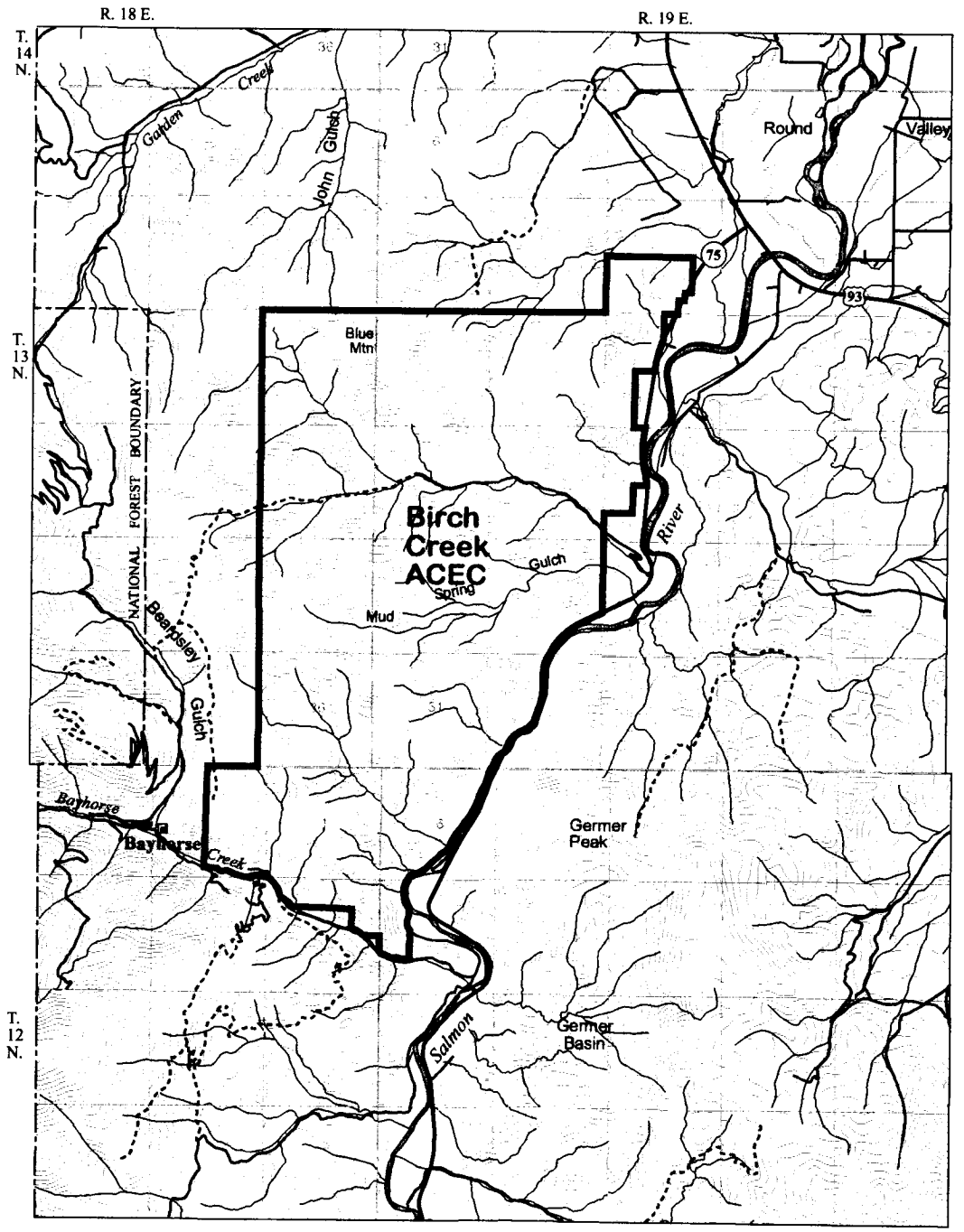
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

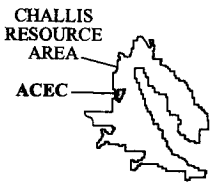
BLM, Idaho State Office, Mapping/GIS, 1998

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 1 2

Scale in Miles

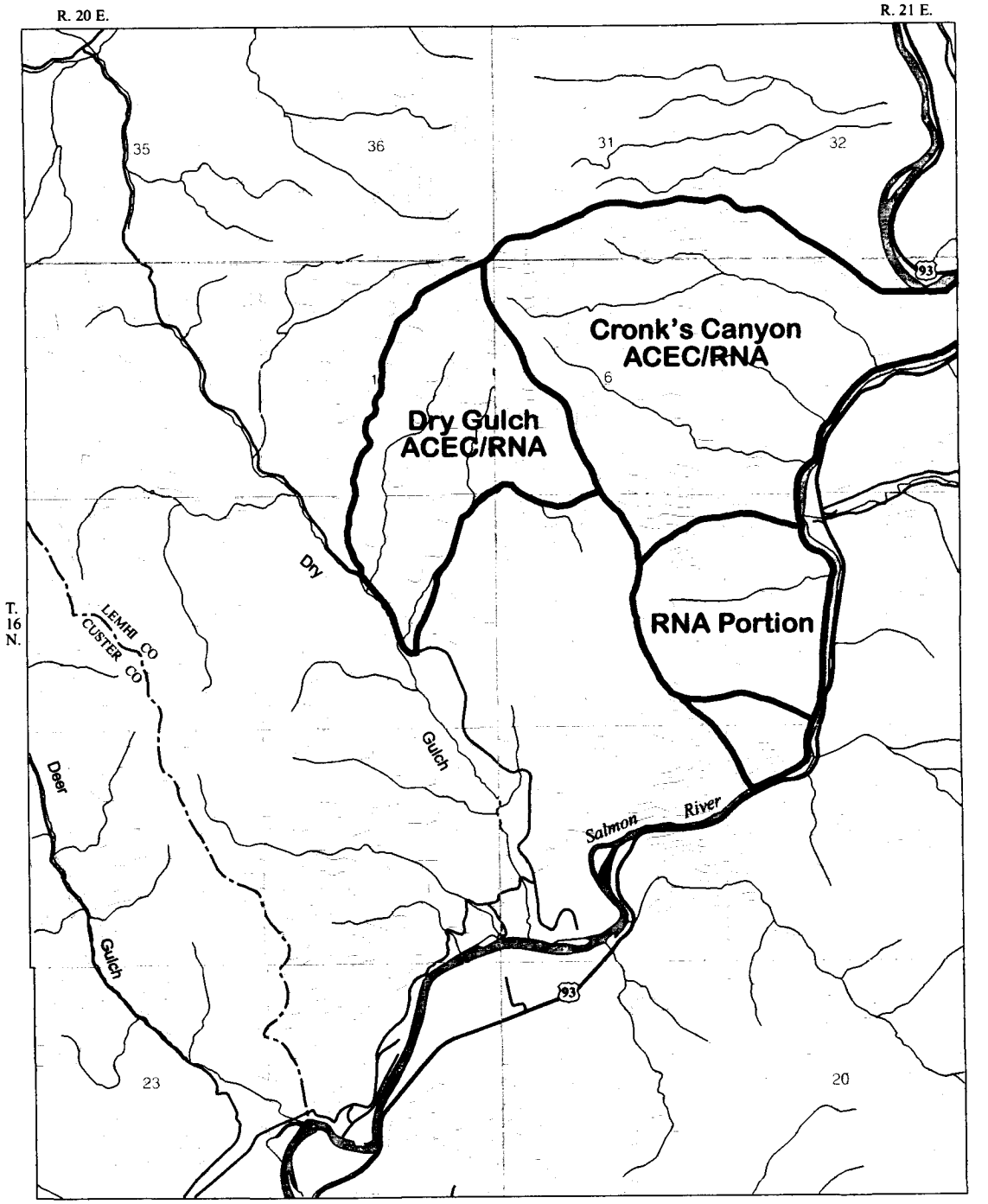
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

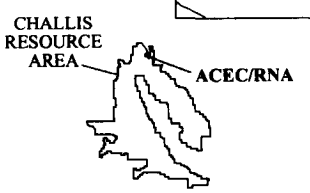
BLM, Idaho State Office, Mapping/GIS, 1998

Areas of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 0.5 1 1.5 2

Scale in Miles

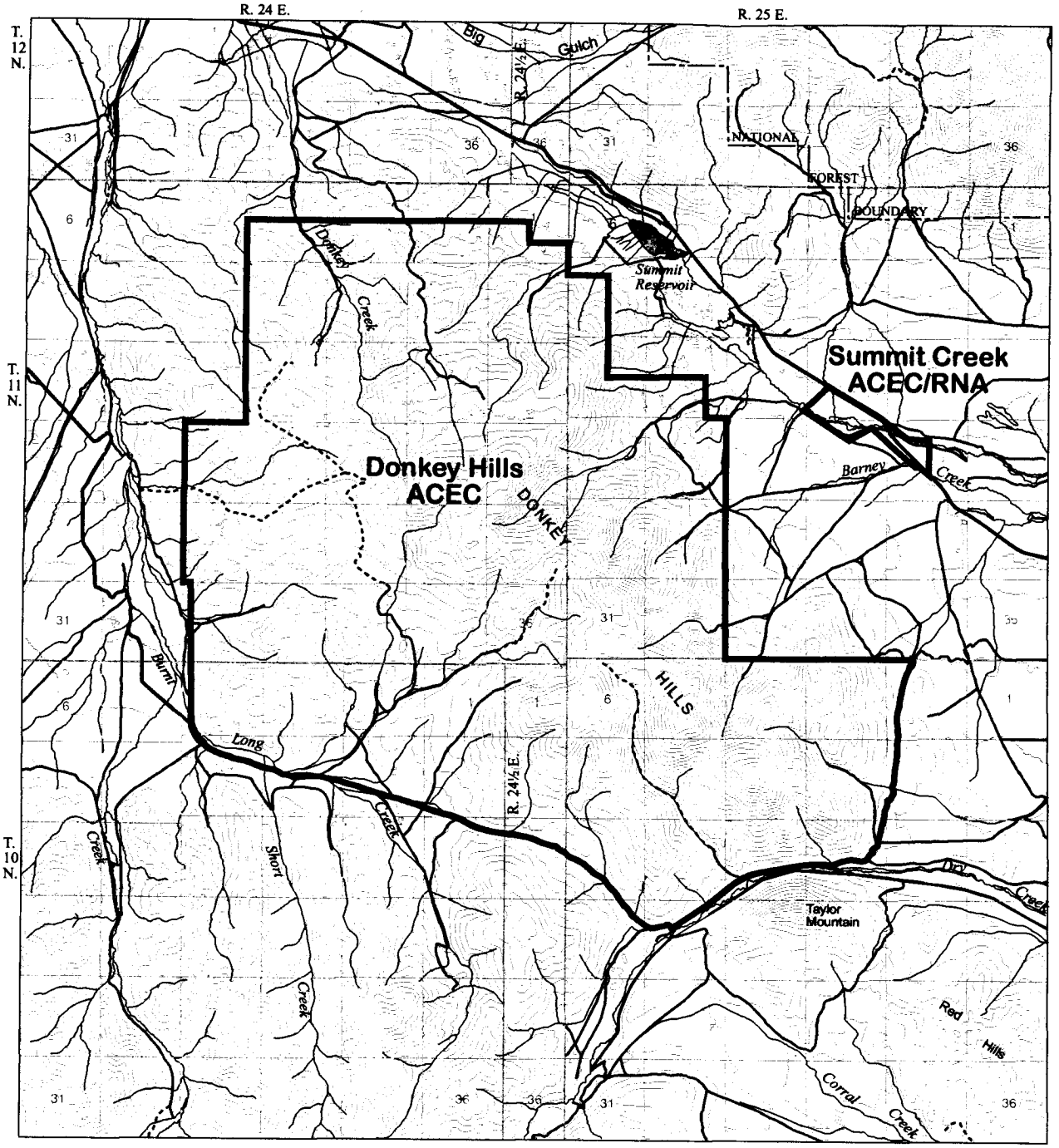
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

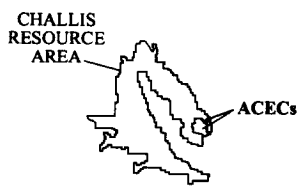
BLM, Idaho State Office, Mapping/GIS, 1998

Areas of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 1 2

Scale in Miles

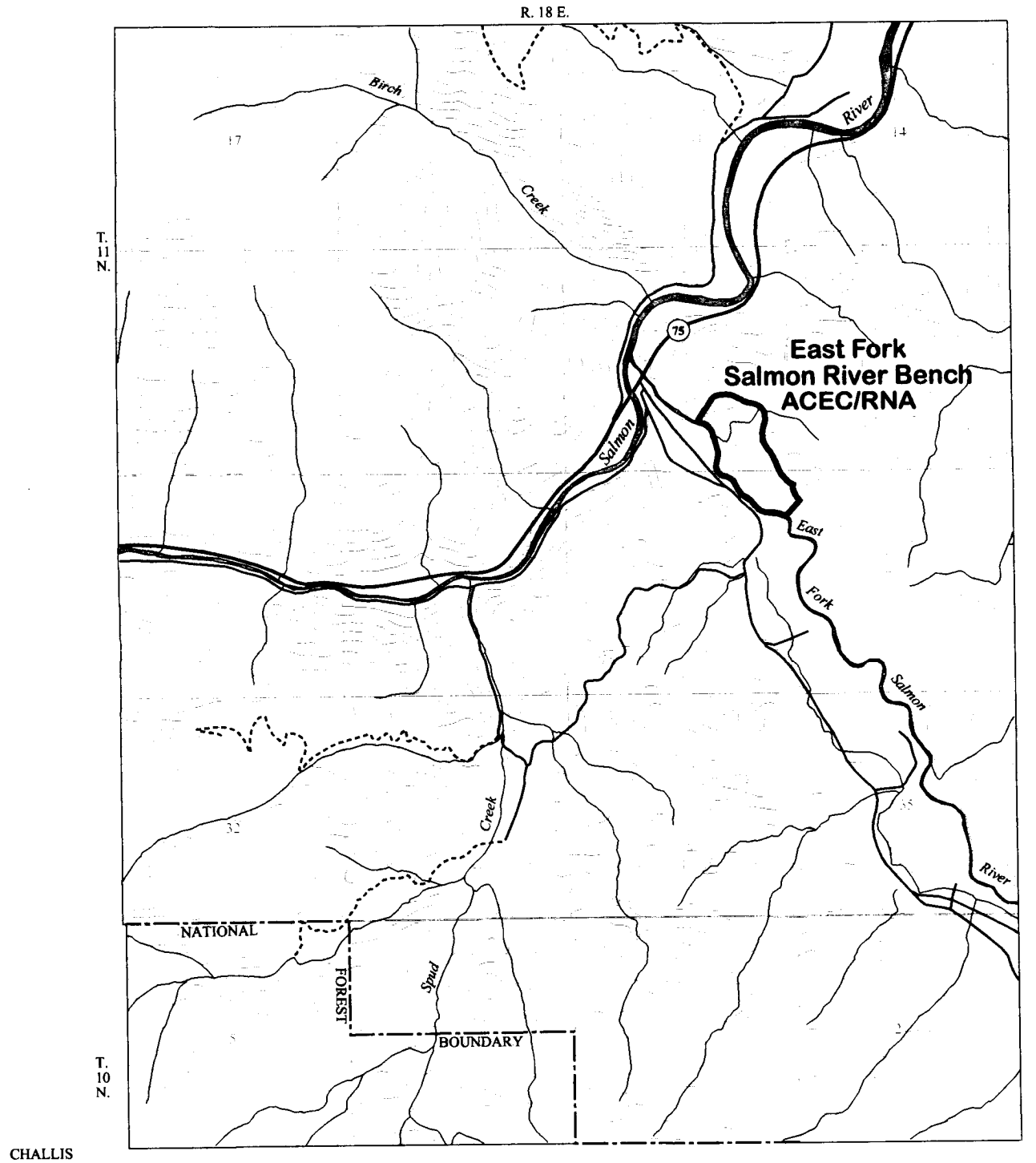
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



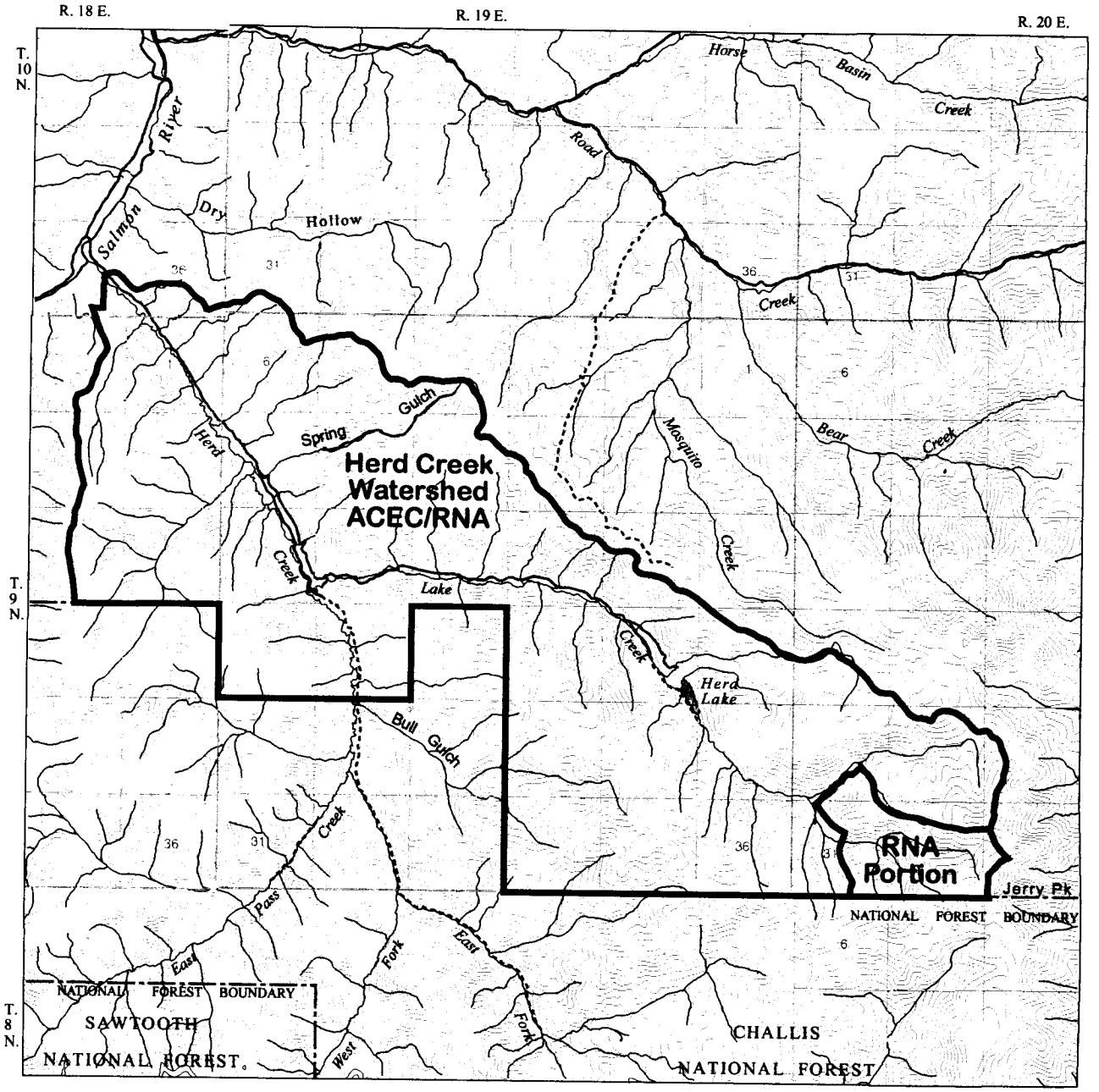
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

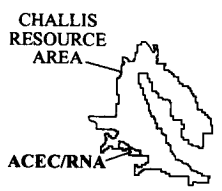
BLM, Idaho State Office, Mapping/GIS, 1998

Areas of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 1 2

Scale in Miles

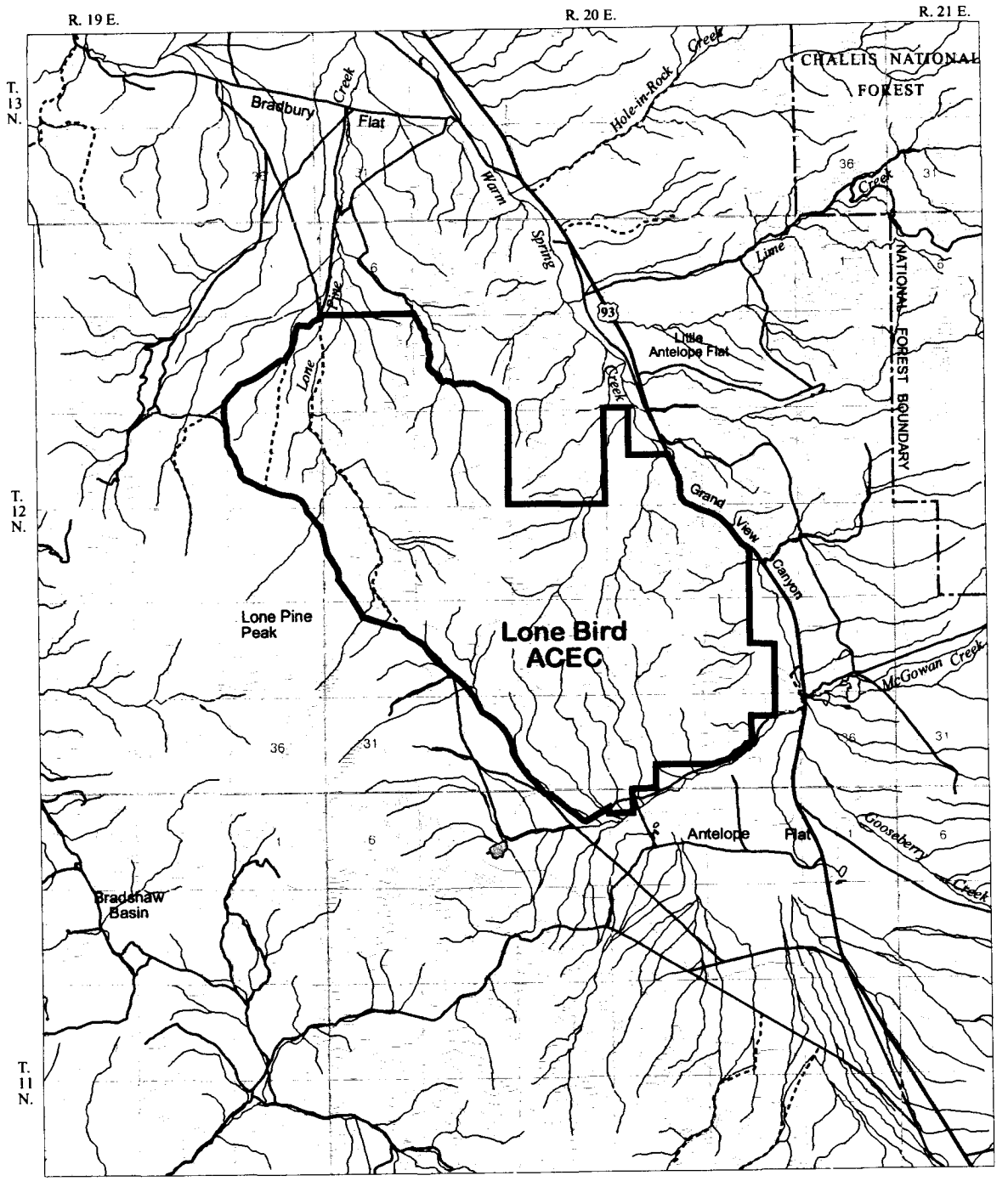
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

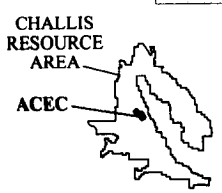
BLM, Idaho State Office, Mapping/GIS, 1998

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 1 2

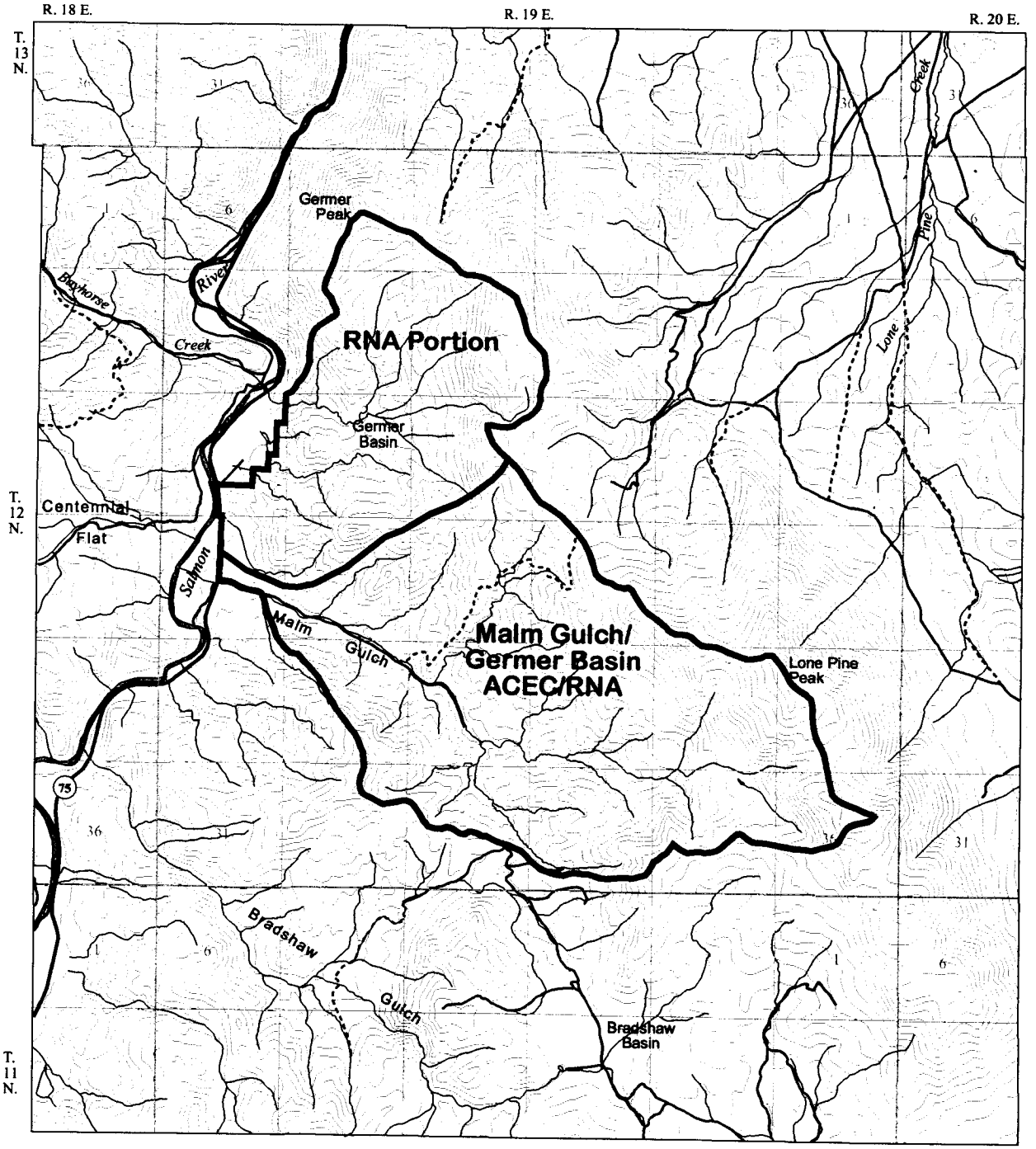
Scale in Miles

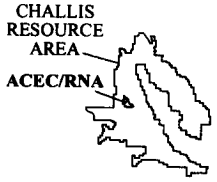
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 1 2

Scale in Miles

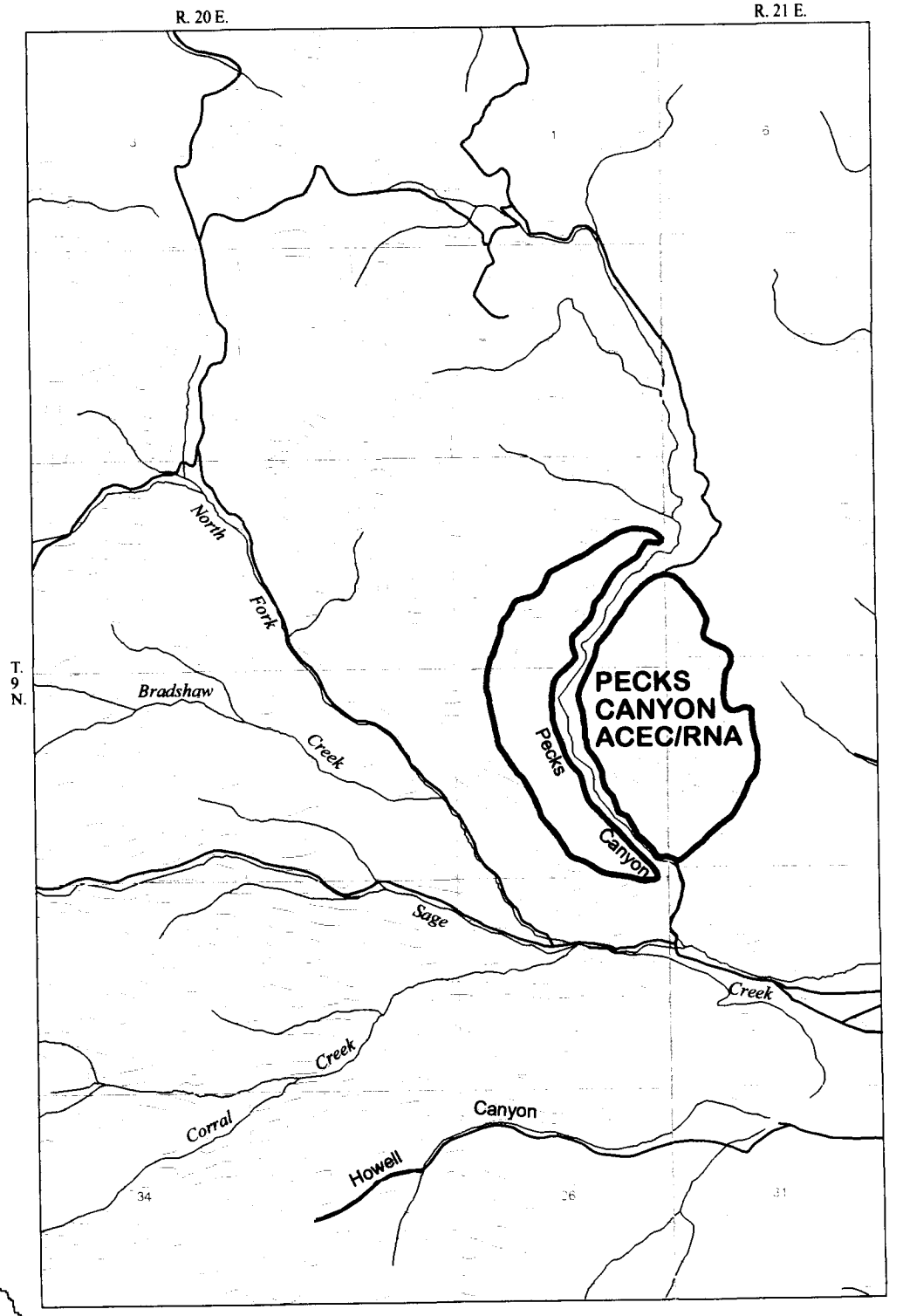
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

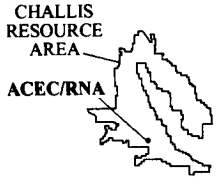
BLM, Idaho State Office, Mapping/GIS, 1998

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 0.5 1 1.5 2

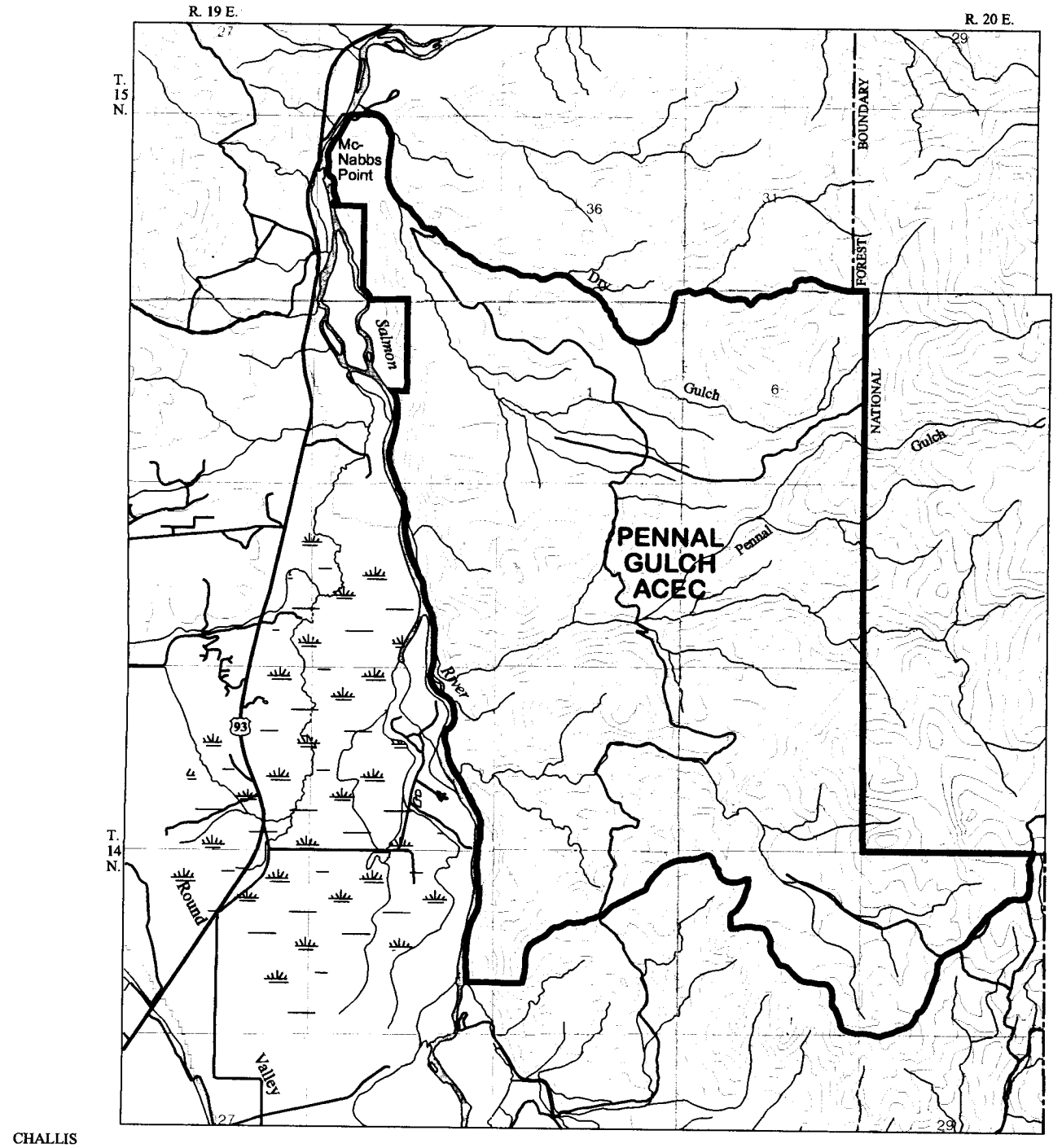
Scale in Miles

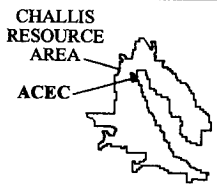
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 0.5 1 1.5 2

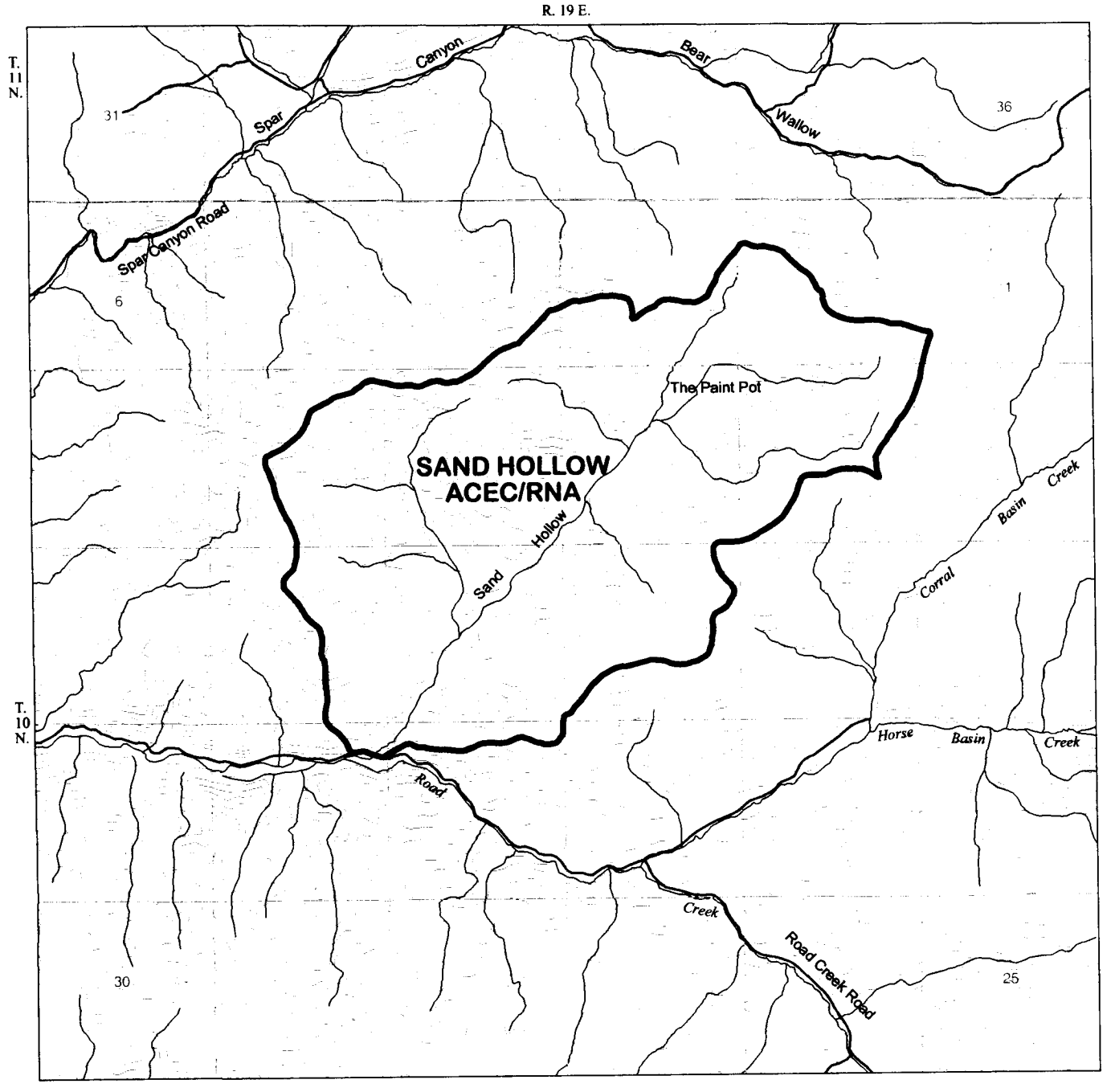
Scale in Miles

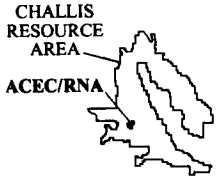
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





0 0.5 1 1.5 2

Scale in Miles

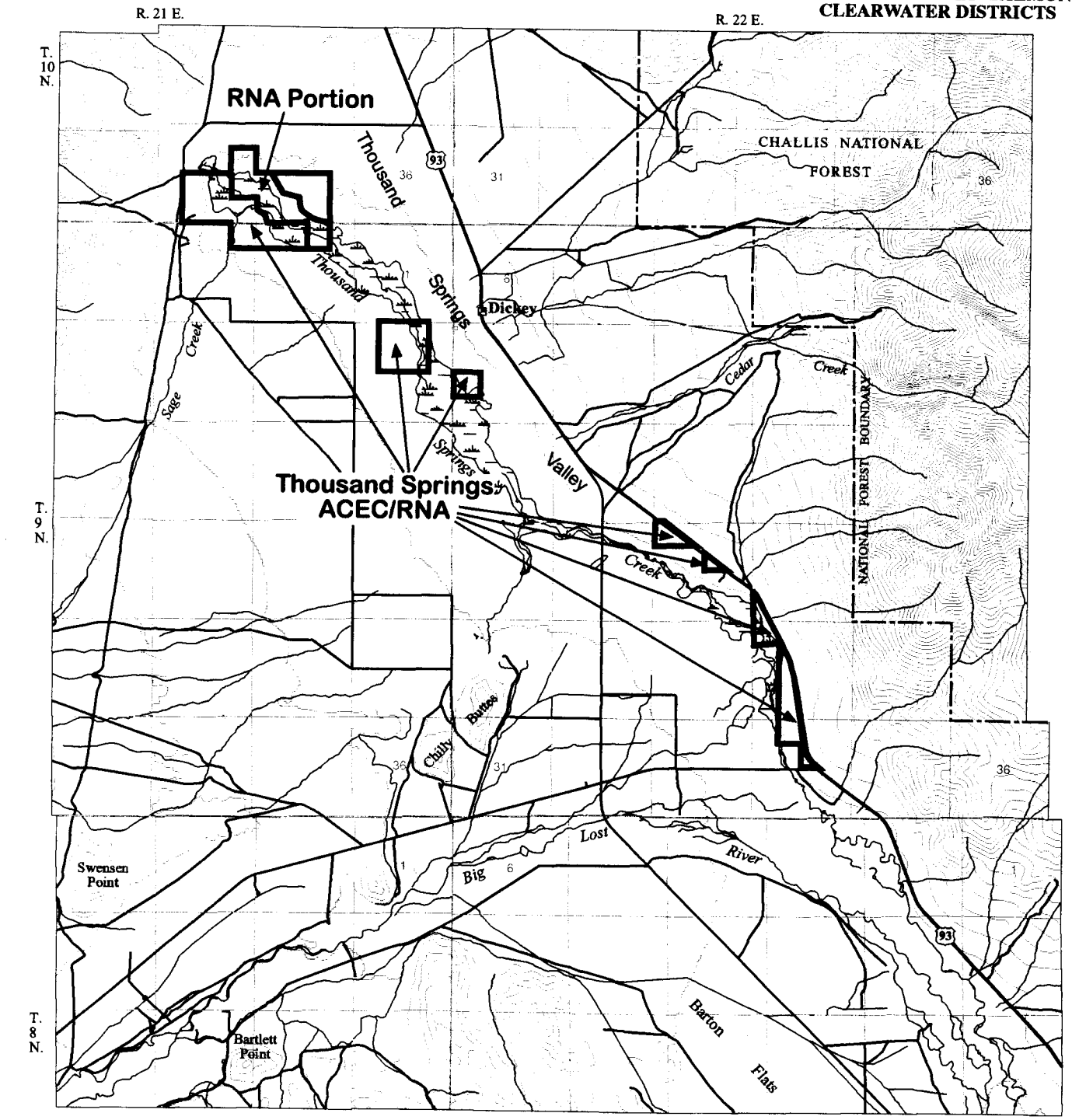
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

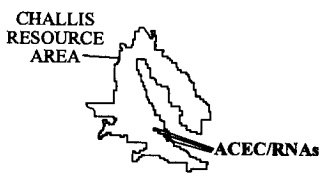
BLM, Idaho State Office, Mapping/GIS, 1998

Area of Critical Environmental Concern

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



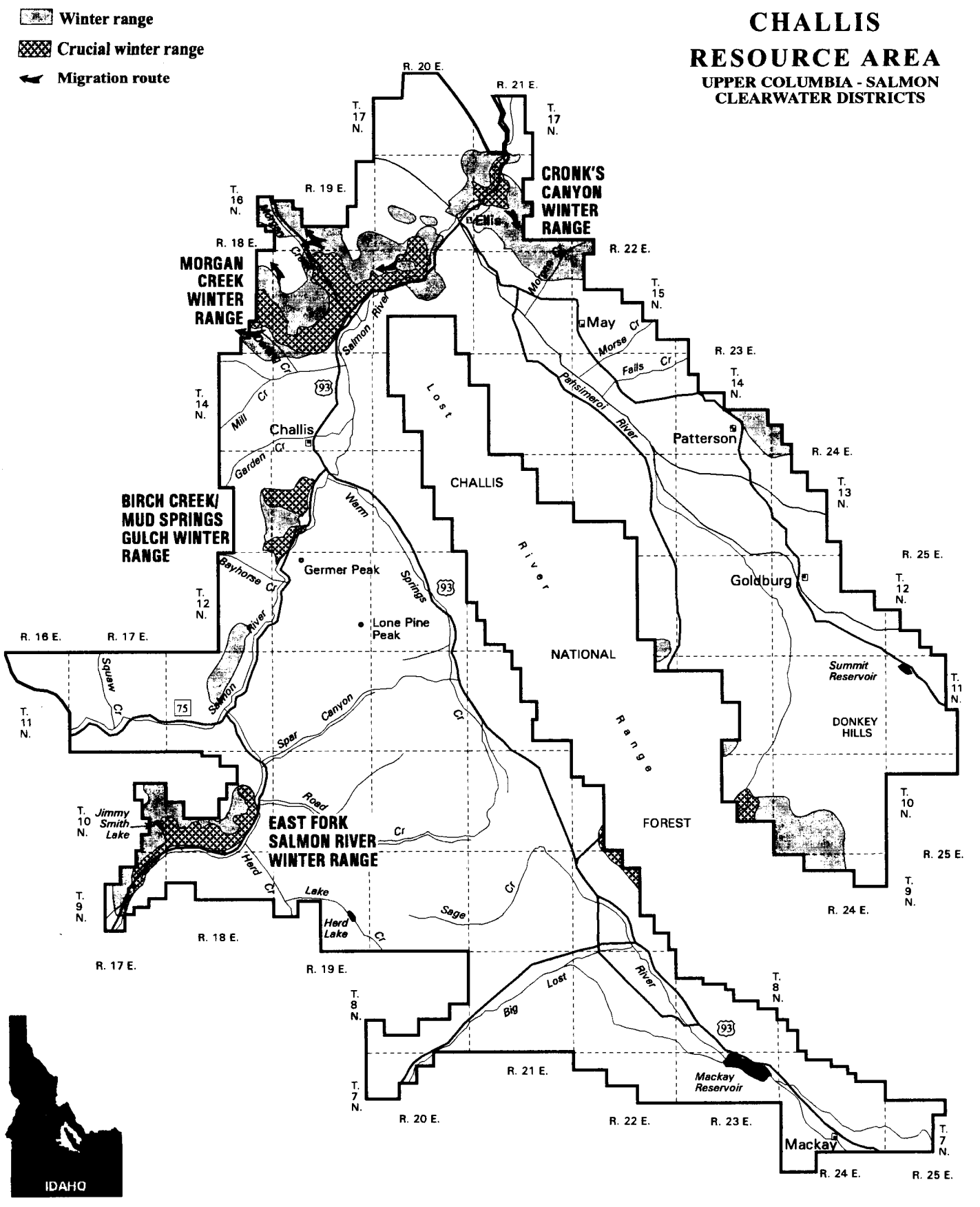


0 1 2

Scale in Miles

Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

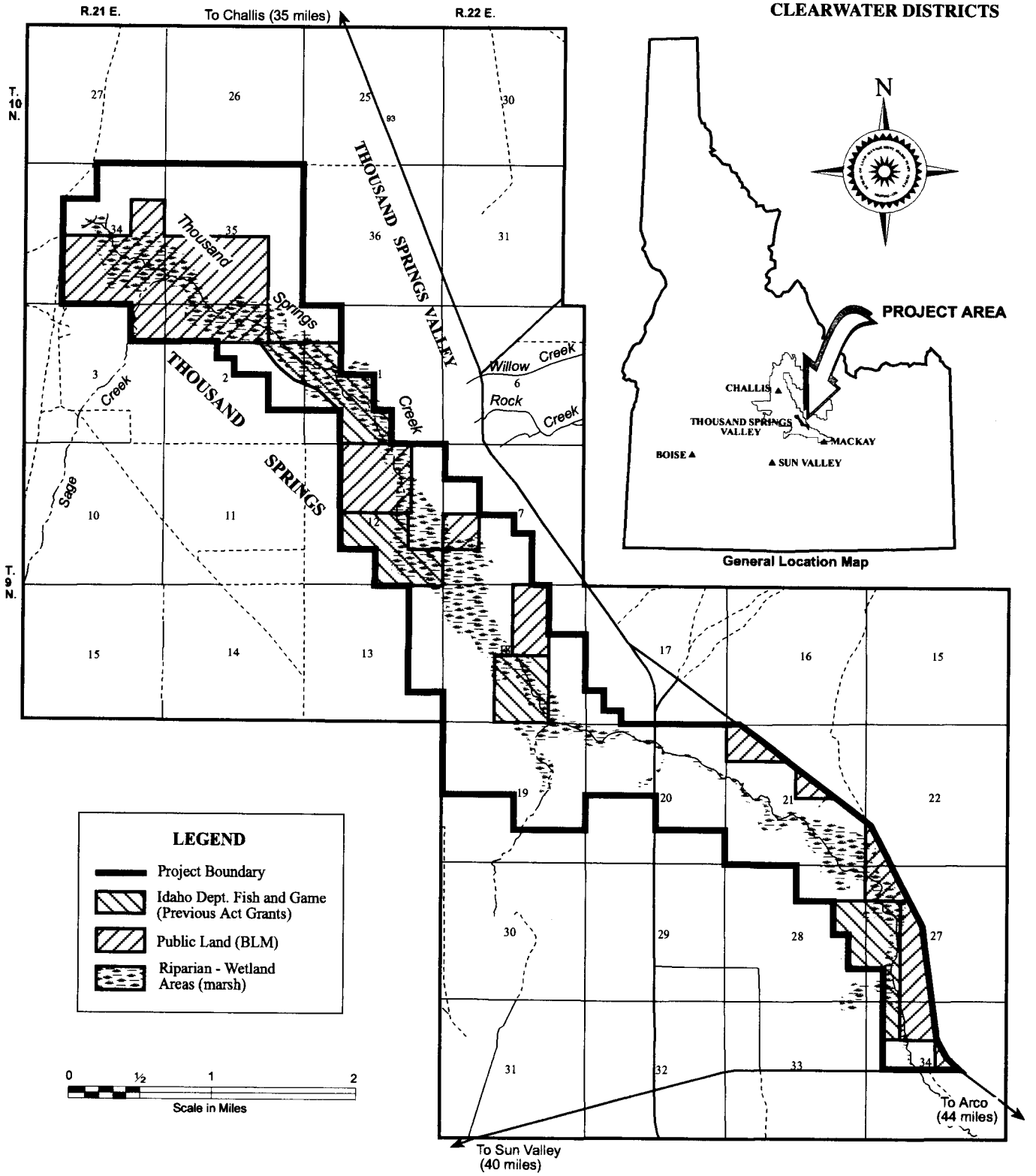


Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



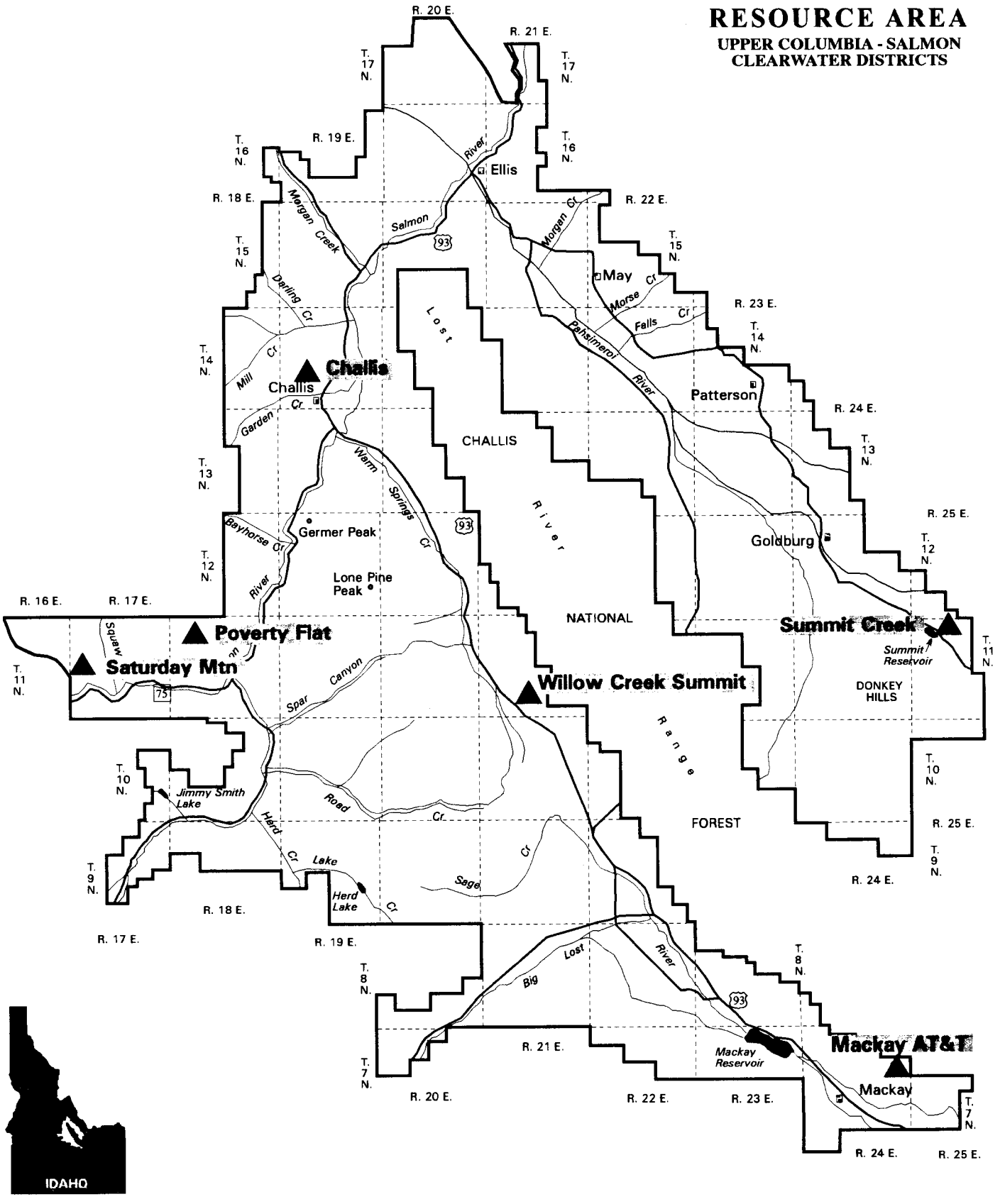
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

▲ **Authorized Communication Sites**

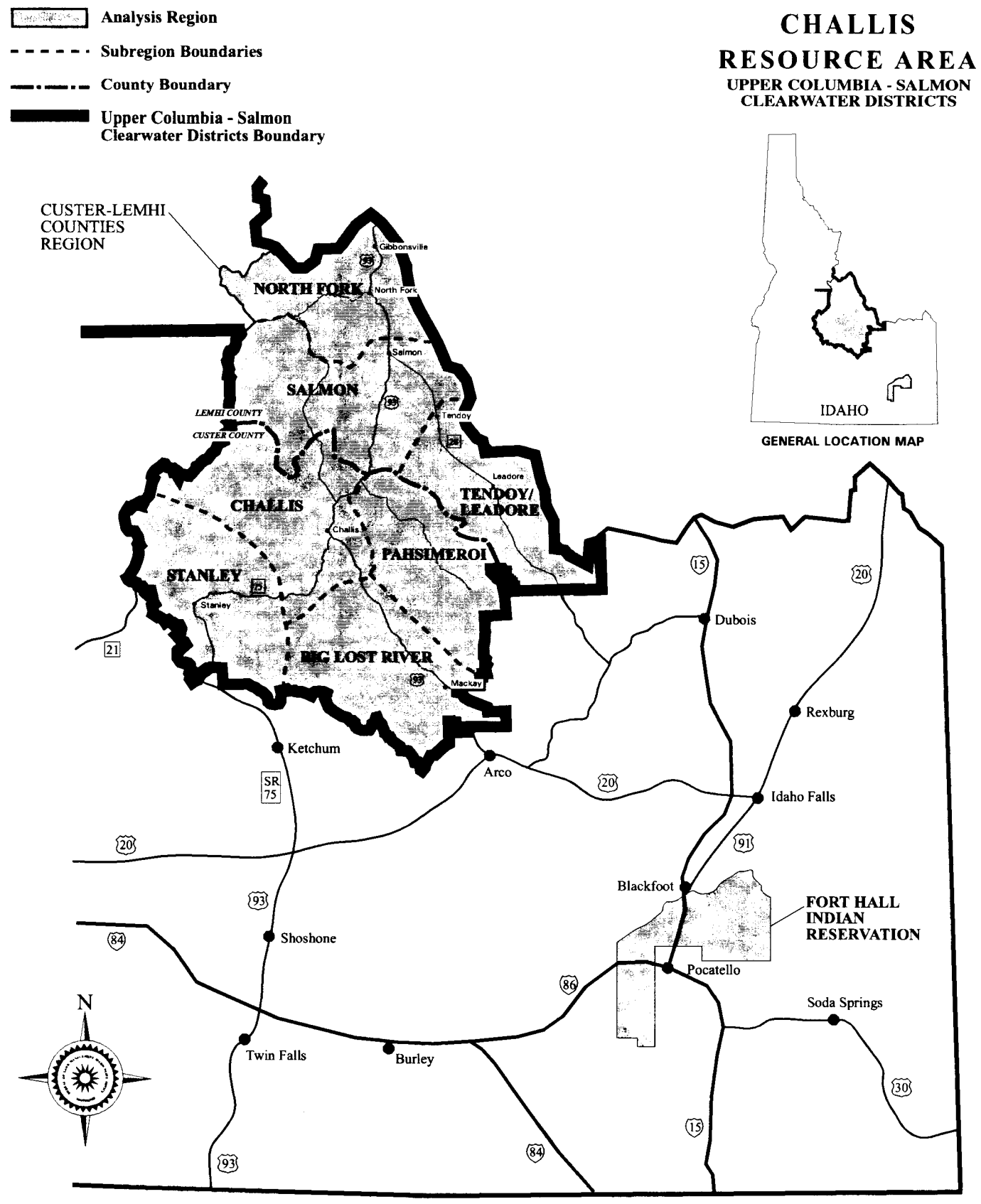
CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



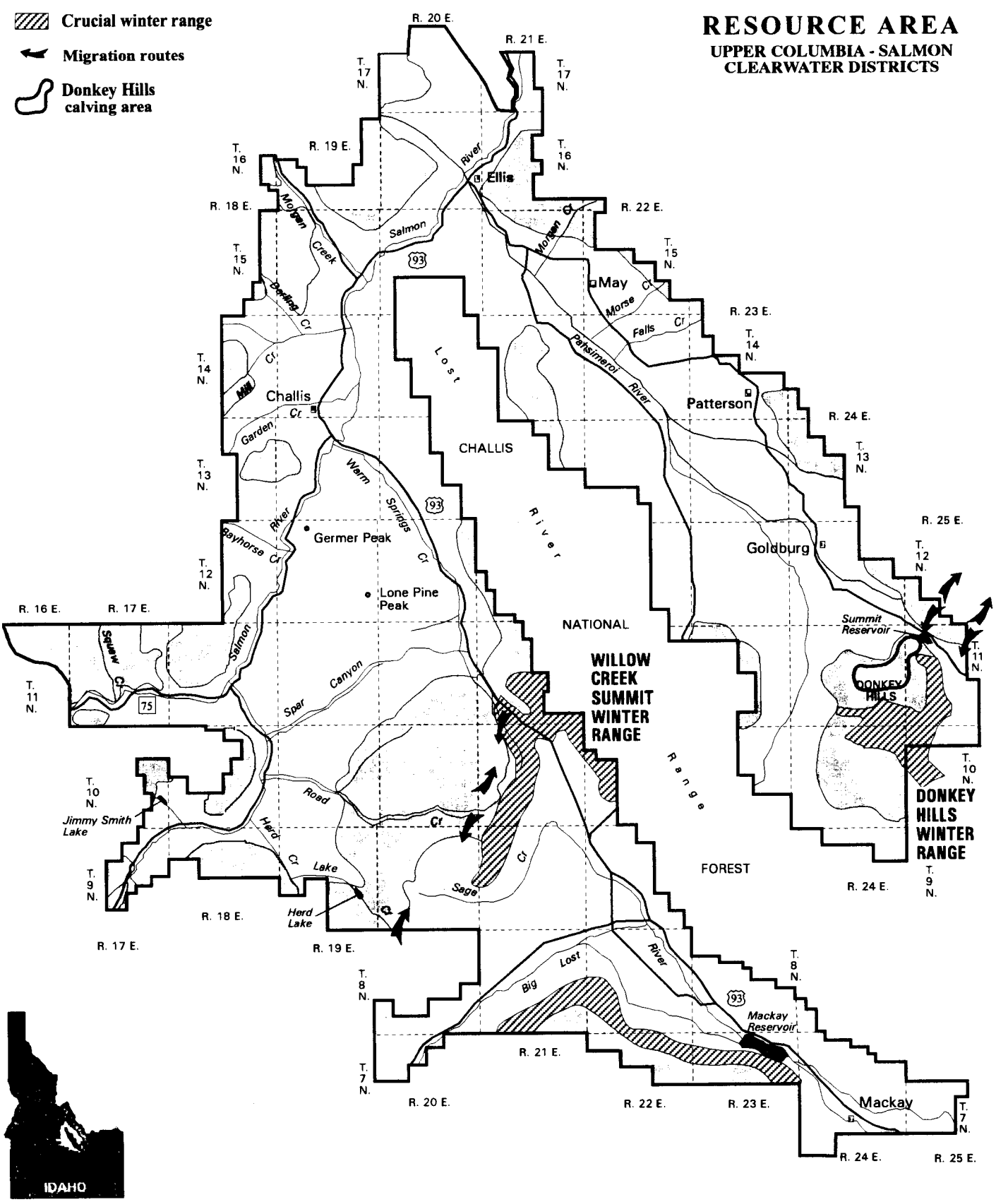
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



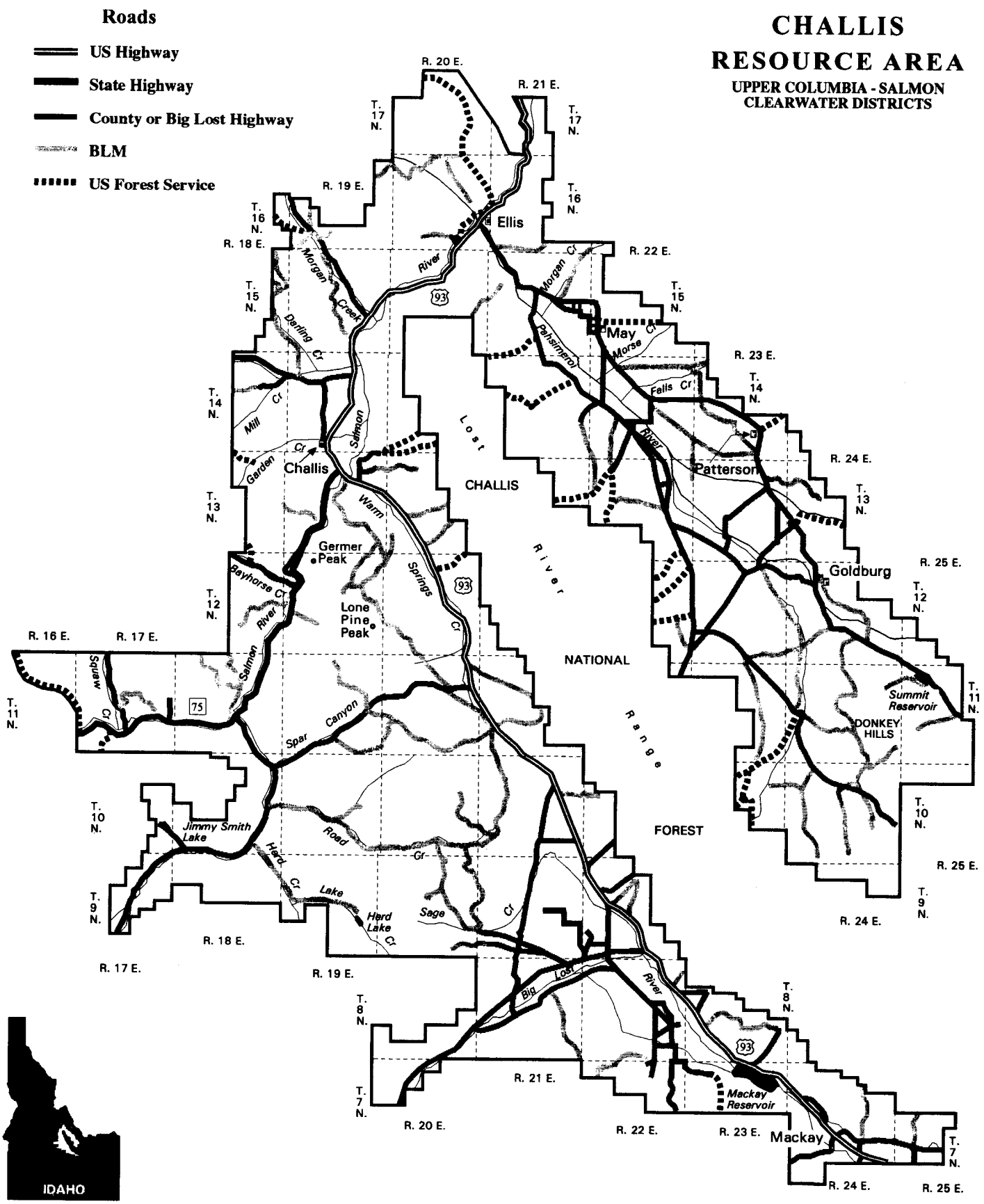
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



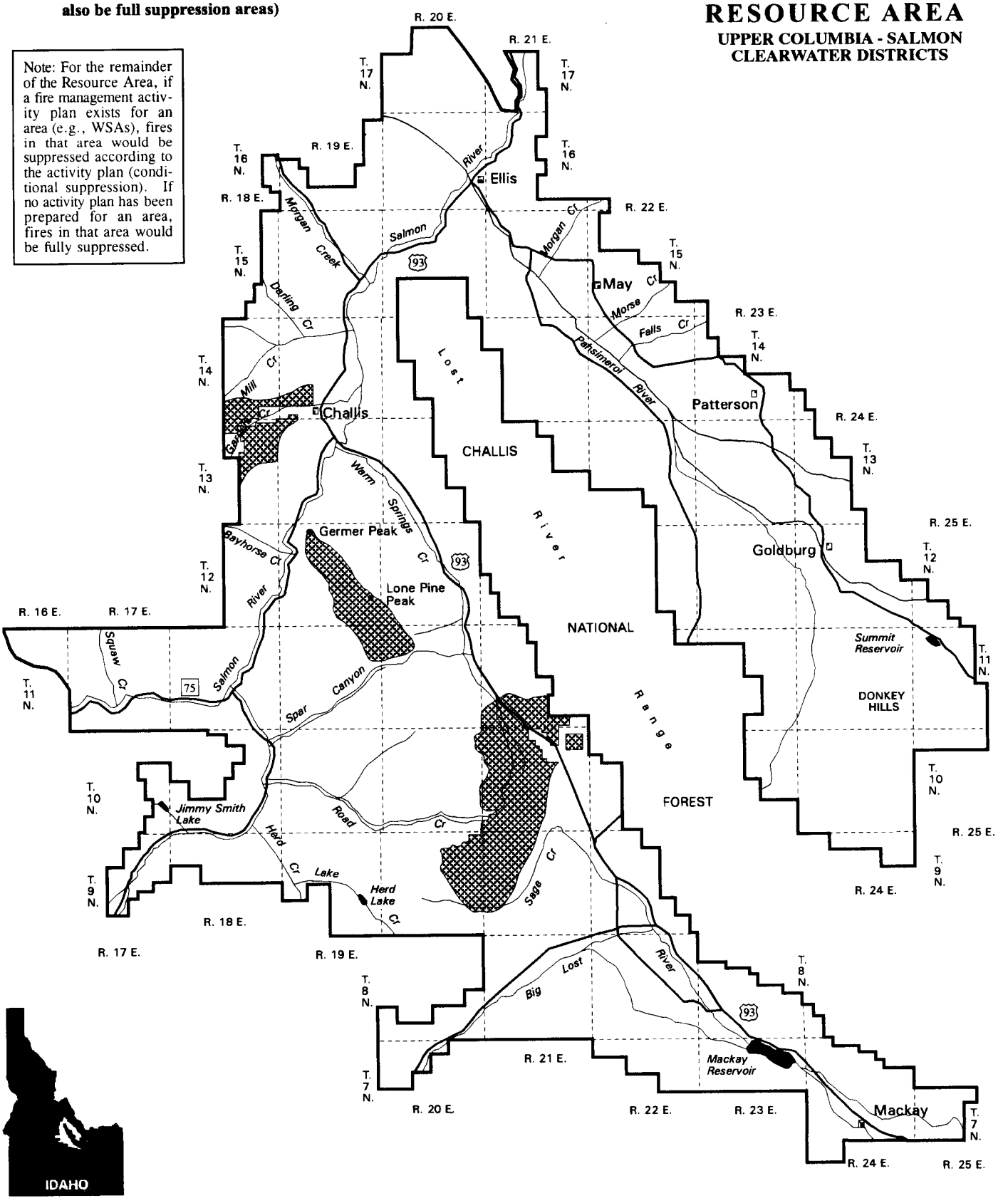
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS

Full Suppression Areas (All designated recreation sites and cultural sites would also be full suppression areas)

Note: For the remainder of the Resource Area, if a fire management activity plan exists for an area (e.g., WSAs), fires in that area would be suppressed according to the activity plan (conditional suppression). If no activity plan has been prepared for an area, fires in that area would be fully suppressed.

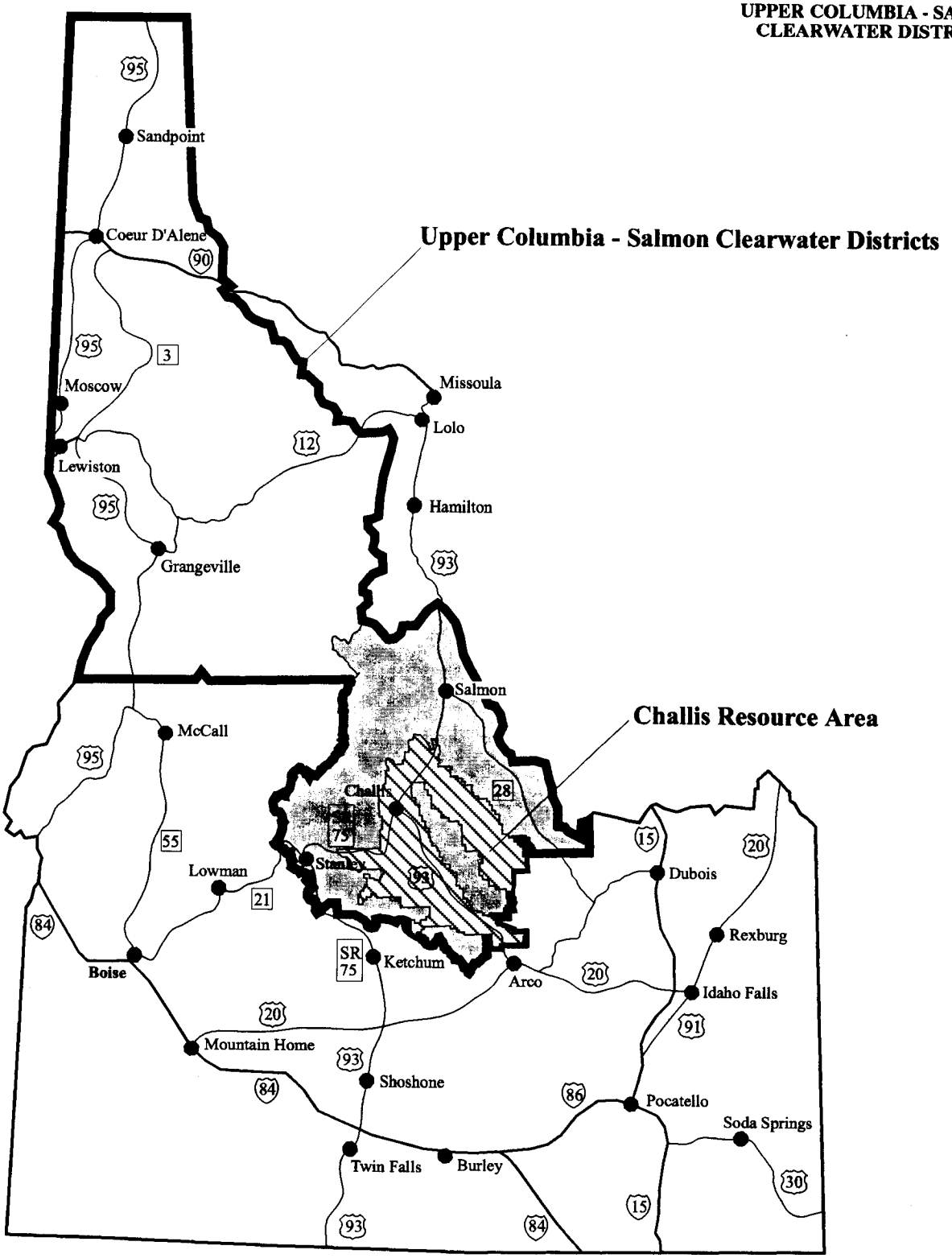


1 0 1 2 3 4 5
Scale in Miles

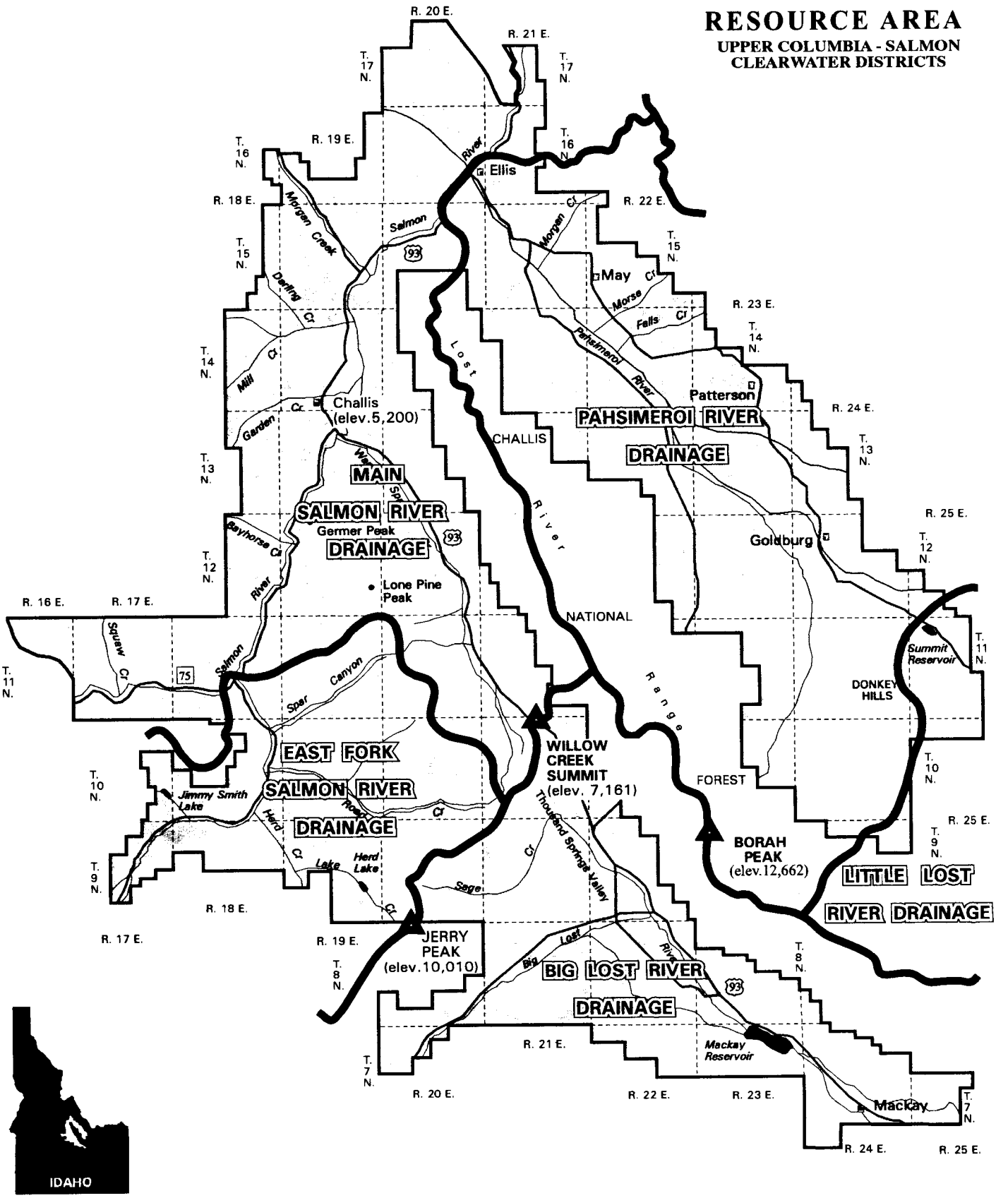
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

CHALLIS RESOURCE AREA

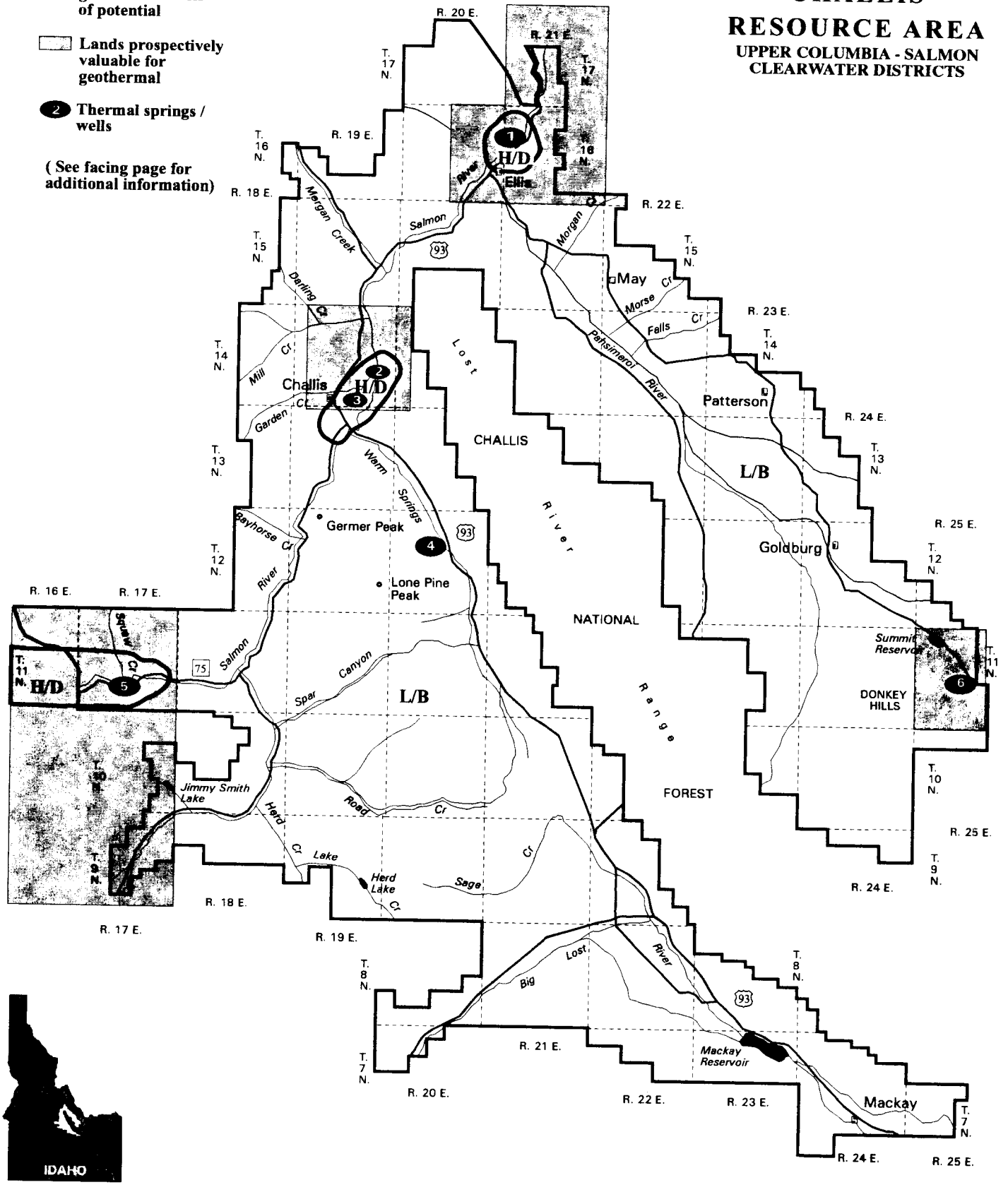
UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS

Boundary between geothermal levels of potential

Lands prospectively valuable for geothermal

2 Thermal springs / wells

(See facing page for additional information)



Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

Expanded Legend for Map 26: Geothermal Potential

THERMAL SPRINGS AND WELLS IN THE CHALLIS RESOURCE AREA				
No.	Name	Surface temp.(°C)	Aquifer temp.(°C)	Remarks
1	Cronk's Canyon Hot Spring	46	N/A	Not used
2	Beardsley Hot Spring	43	N/A	Recreation use
3	Bill Johnston Well	40	60	Used for irrigation
4	Little Antelope Flat Warm Spring	34	N/A	Not used
5	Sullivan Hot Spring	41	99	Sulfur odor. Silaceous and carbonaceous deposition.
6	Barney Warm Spring	28	59	Used for stock watering

DEFINITION OF LEVELS OF GEOTHERMAL POTENTIAL AND LEVELS OF CERTAINTY

(H) HIGH. Inclusion in a Known Geothermal Resource Area; or existence of an active hydrothermal convection system demonstrated by thermal spring activity or by other thermal features such as geysers, mud volcanoes, and fumaroles; or high subsurface temperatures measured in wells and/or estimated by chemical geothermometry.

(M) MEDIUM. Existence of a hot igneous system demonstrated by geologic evidence of Late Tertiary or Quaternary volcanism and higher than normal geothermal gradient as documented in existing literature.

(L) LOW. Existence of a conduction dominated area demonstrated by the absence of hydrothermal convection systems or hot igneous systems. Includes areas of radiogenic heat production, geopressured environments, and regions with above normal geothermal gradients.

(N) NONE. Absence of physical evidence indicating the existence of hydrothermal convection systems, hot igneous systems, and higher than normal geothermal gradient.

The level of certainty of an assessment of mineral potential incorporates a consideration of the adequacy of the geologic, geochemical, geophysical, and resource data and literature available at the time of the assessment. The levels of certainty and standards for each are:

A. The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the area.

B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C. The available data provide direct evidence but are quantitatively minimal to support or refute the possible existence of mineral resources.

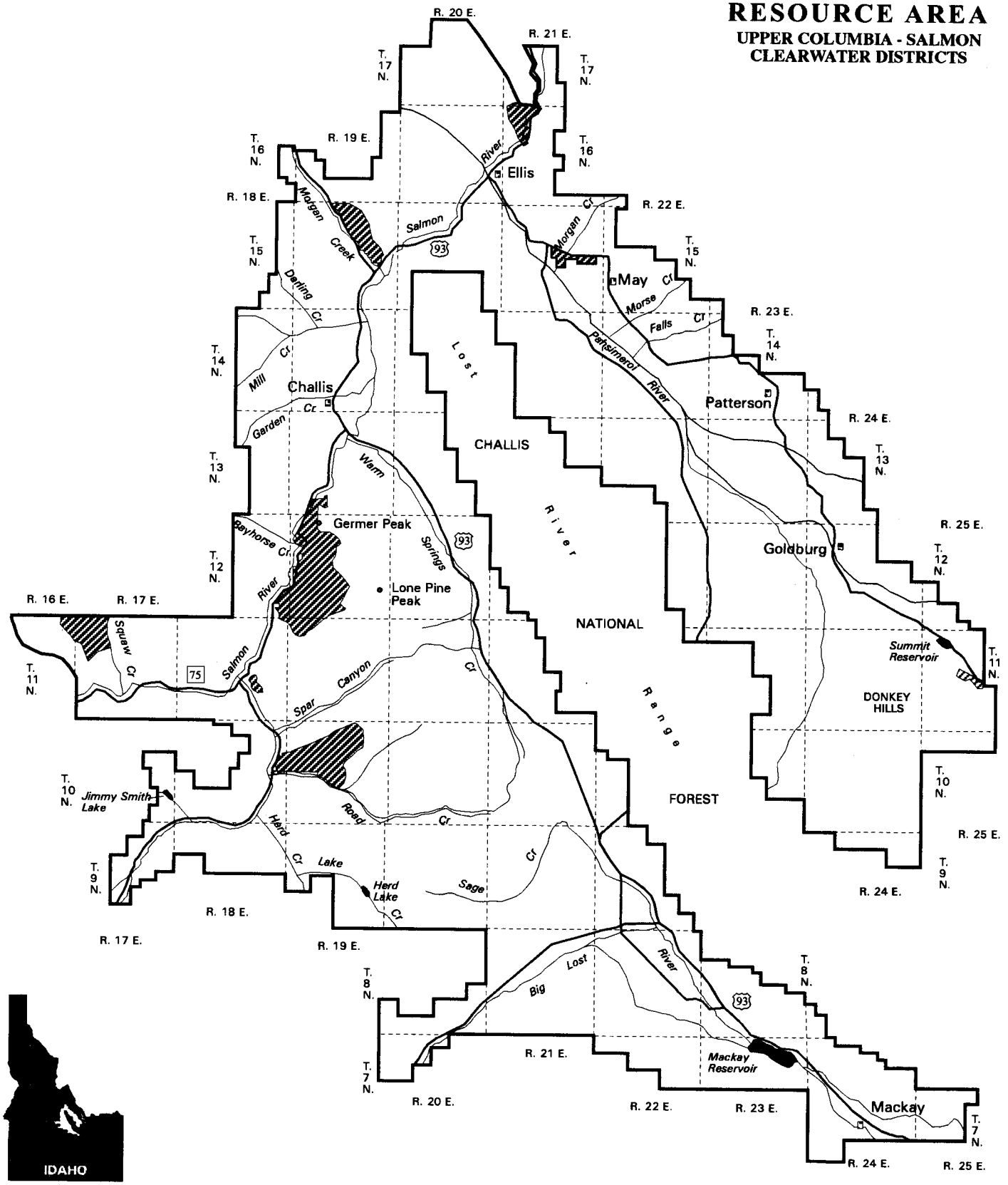
D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

Source: Idaho State Office, BLM

Area closed to livestock grazing

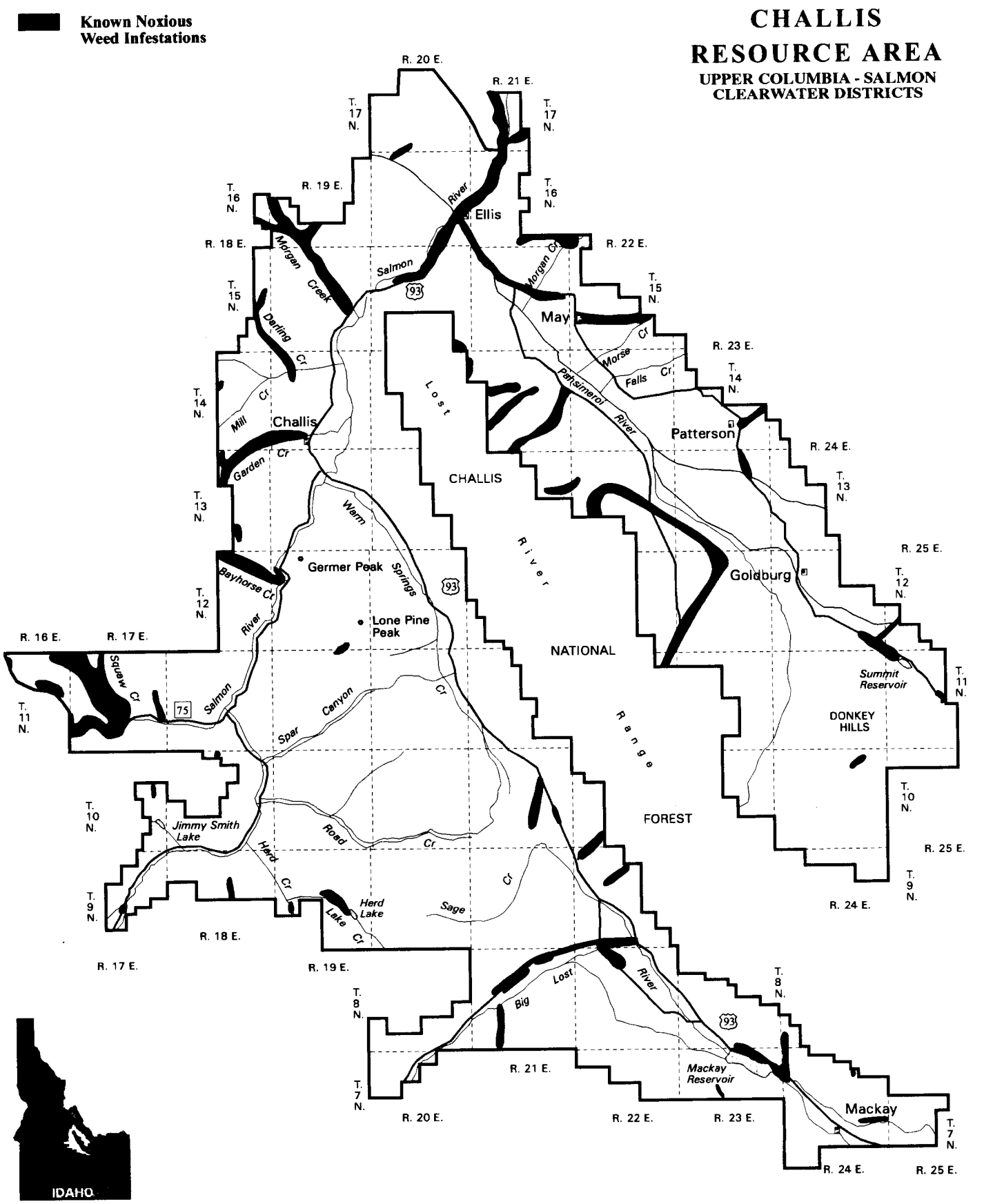
CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



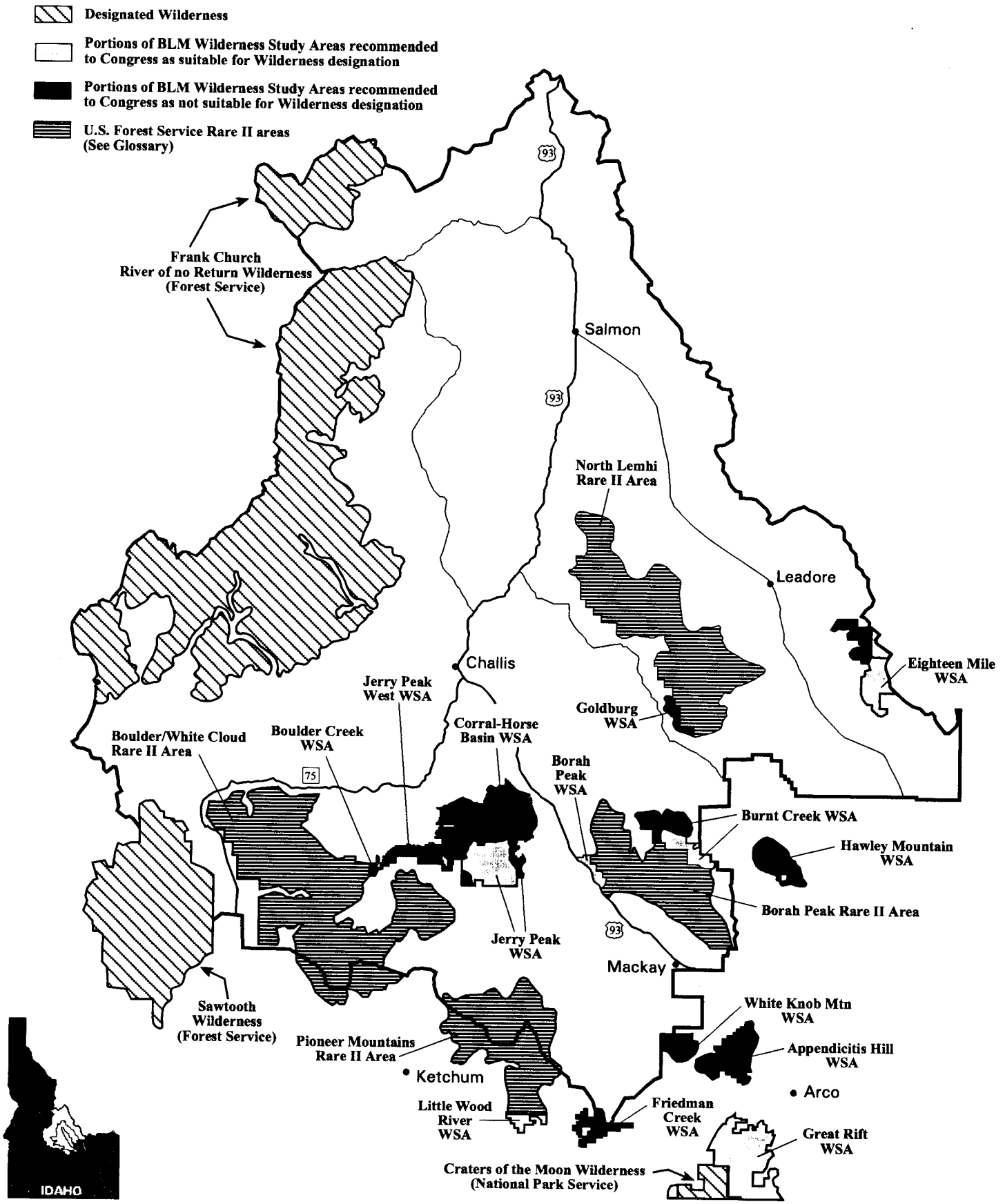
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



Scale Approx. 1:825,500

Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

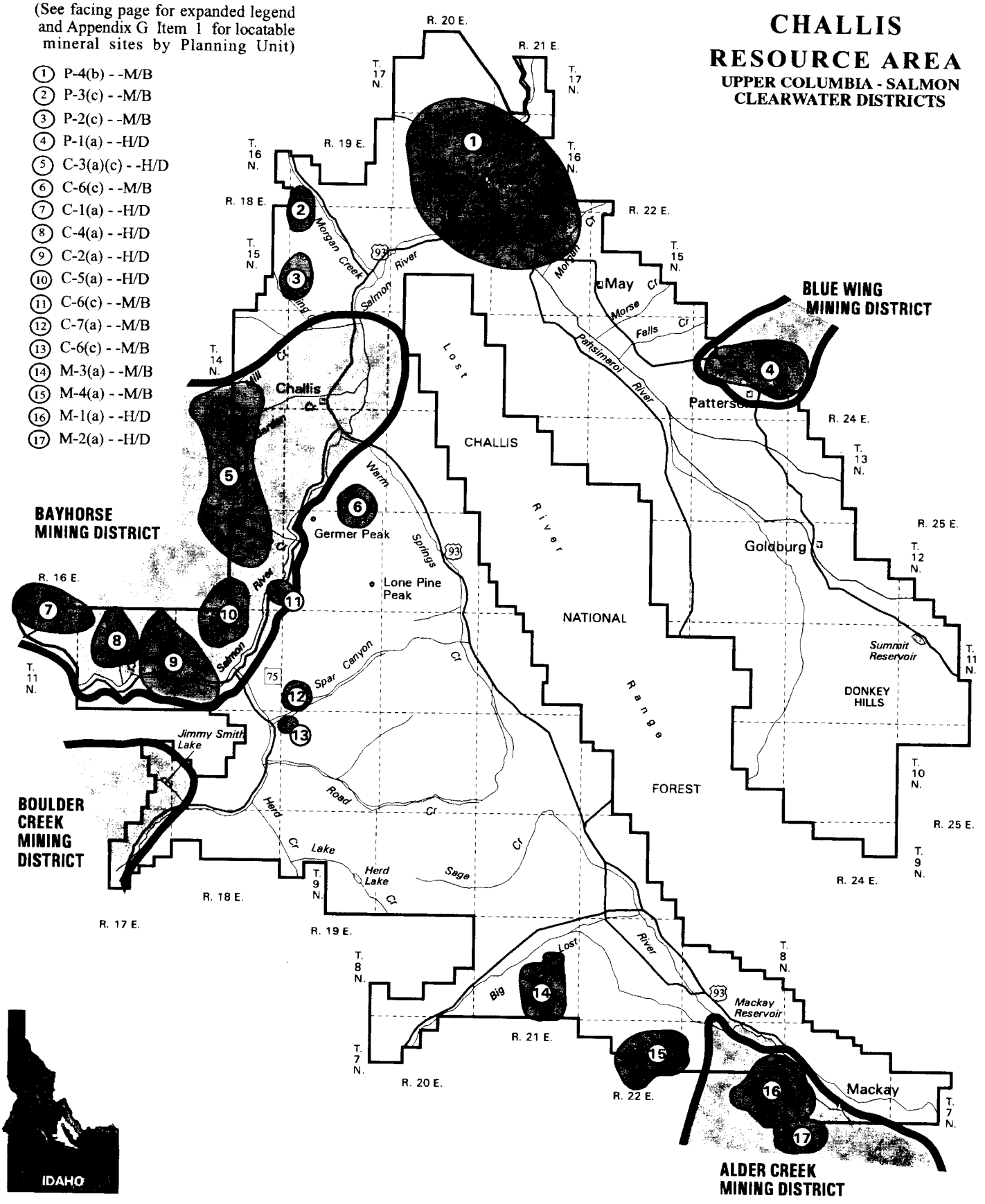
[this page is intentionally blank]

(See facing page for expanded legend and Appendix G Item 1 for locatable mineral sites by Planning Unit)

1. P-4(b) - -M/B
2. P-3(c) - -M/B
3. P-2(c) - -M/B
4. P-1(a) - -H/D
5. C-3(a)(c) - -H/D
6. C-6(c) - -M/B
7. C-1(a) - -H/D
8. C-4(a) - -H/D
9. C-2(a) - -H/D
10. C-5(a) - -H/D
11. C-6(c) - -M/B
12. C-7(a) - -M/B
13. C-6(c) - -M/B
14. M-3(a) - -M/B
15. M-4(a) - -M/B
16. M-1(a) - -H/D
17. M-2(a) - -H/D

CHALLIS RESOURCE AREA

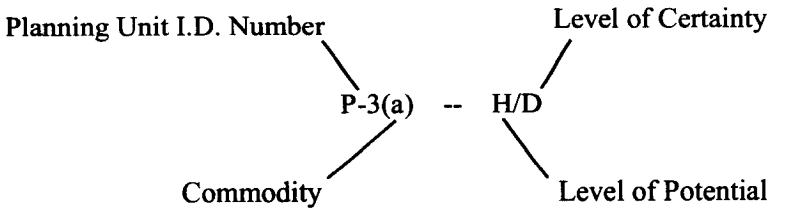
UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

Expanded Legend for Map 30 : Locatable Mineral Land Classification

EXPLANATION



a) Metallic Minerals
b) Uranium
c) Non-Metallic Minerals

MINING DISTRICT BOUNDARY

LOCATABLE MINERAL POTENTIAL CLASSIFICATION SYSTEM *

I. Level of Potential

0. The geologic environment, the inferred geologic processes, and the lack of mineral occurrences do not indicate potential for accumulation of mineral resources.

L. The geologic environment and the inferred geologic processes indicate low potential for accumulation of mineral resources.

M. The geologic environment, the inferred geologic processes, and the reported mineral occurrences or valid geochemical/geophysical anomaly indicate moderate potential for accumulation of mineral resources.

H. The geologic environment, the inferred geologic processes, the reported mineral occurrences and/or valid geochemical/geophysical anomaly, and the known mines or deposits indicate high potential for accumulation of mineral resources. The "known mines and deposits" do not have to be within the area that is being classified, but have to be within the same type of geologic environment.

ND. Mineral(s) potential not determined due to lack of useful data. This notation does not require a level-of-certainty qualifier.

II. Level of Certainty

A. The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.

B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C. The available data provide direct evidence but are quantitatively minimal to support or refute the possible existence of mineral resources.

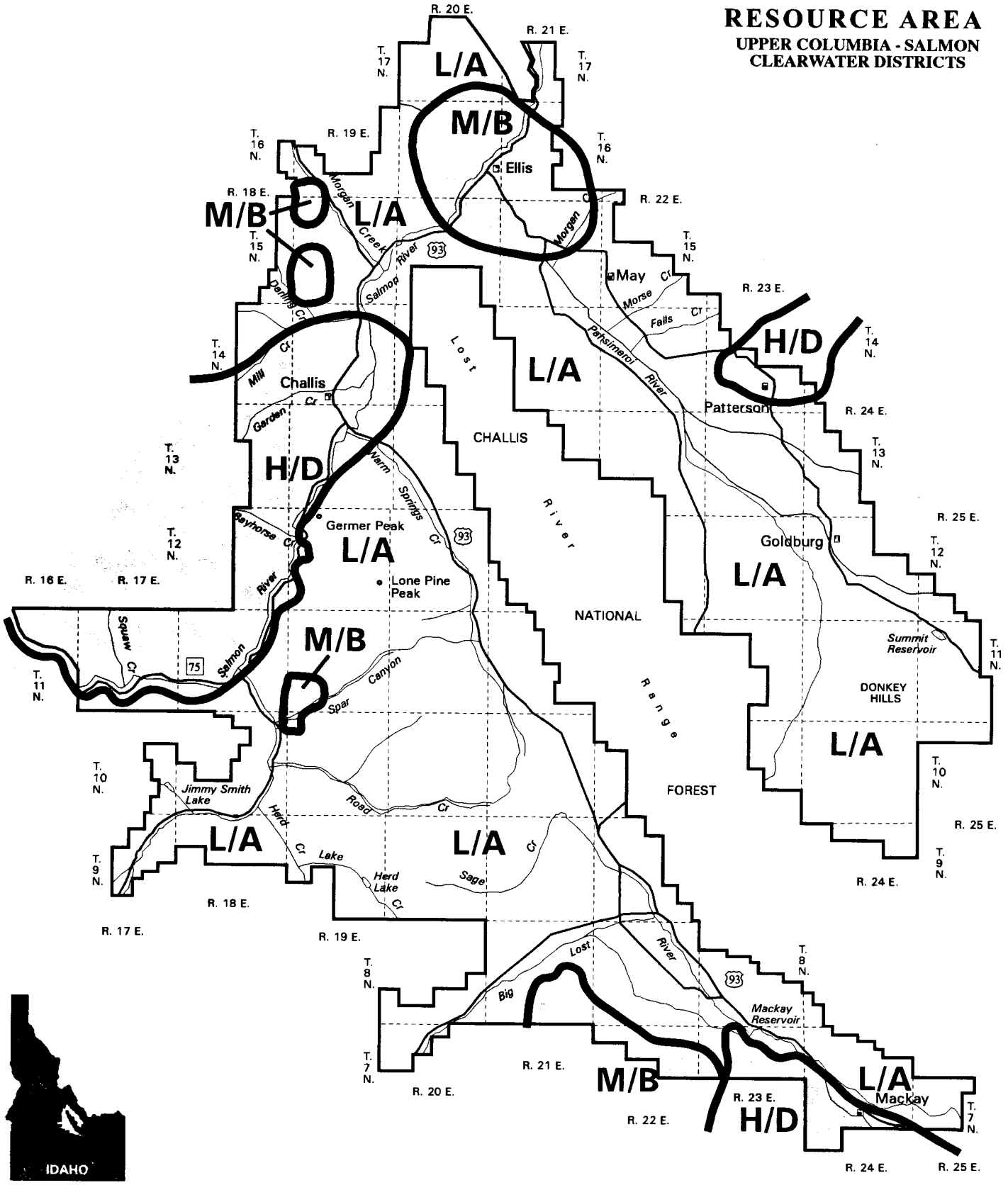
D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

* As used in this classification, potential refers to potential for the presence (occurrence) of a concentration of one or more energy and/or mineral resources. It does not refer to or imply potential for development and/or extraction of the mineral resource(s). It does not imply that the potential concentration is or may be economic, that is, could be extracted profitably.

(See facing page for extended legend)

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS

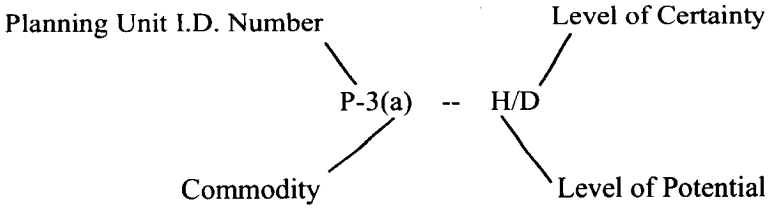


Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

Expanded Legend for Map 31: Locatable Mineral Potential

EXPLANATION



a) Metallic Minerals
b) Uranium
c) Non-Metallic Minerals

MINING DISTRICT BOUNDARY

LOCATABLE MINERAL POTENTIAL CLASSIFICATION SYSTEM *

I. Level of Potential

0. The geologic environment, the inferred geologic processes, and the lack of mineral occurrences do not indicate potential for accumulation of mineral resources.

L. The geologic environment and the inferred geologic processes indicate low potential for accumulation of mineral resources.

M. The geologic environment, the inferred geologic processes, and the reported mineral occurrences or valid geochemical/geophysical anomaly indicate moderate potential for accumulation of mineral resources.

H. The geologic environment, the inferred geologic processes, the reported mineral occurrences and/or valid geochemical/geophysical anomaly, and the known mines or deposits indicate high potential for accumulation of mineral resources. The "known mines and deposits" do not have to be within the area that is being classified, but have to be within the same type of geologic environment.

ND. Mineral(s) potential not determined due to lack of useful data. This notation does not require a level-of-certainty qualifier.

II. Level of Certainty

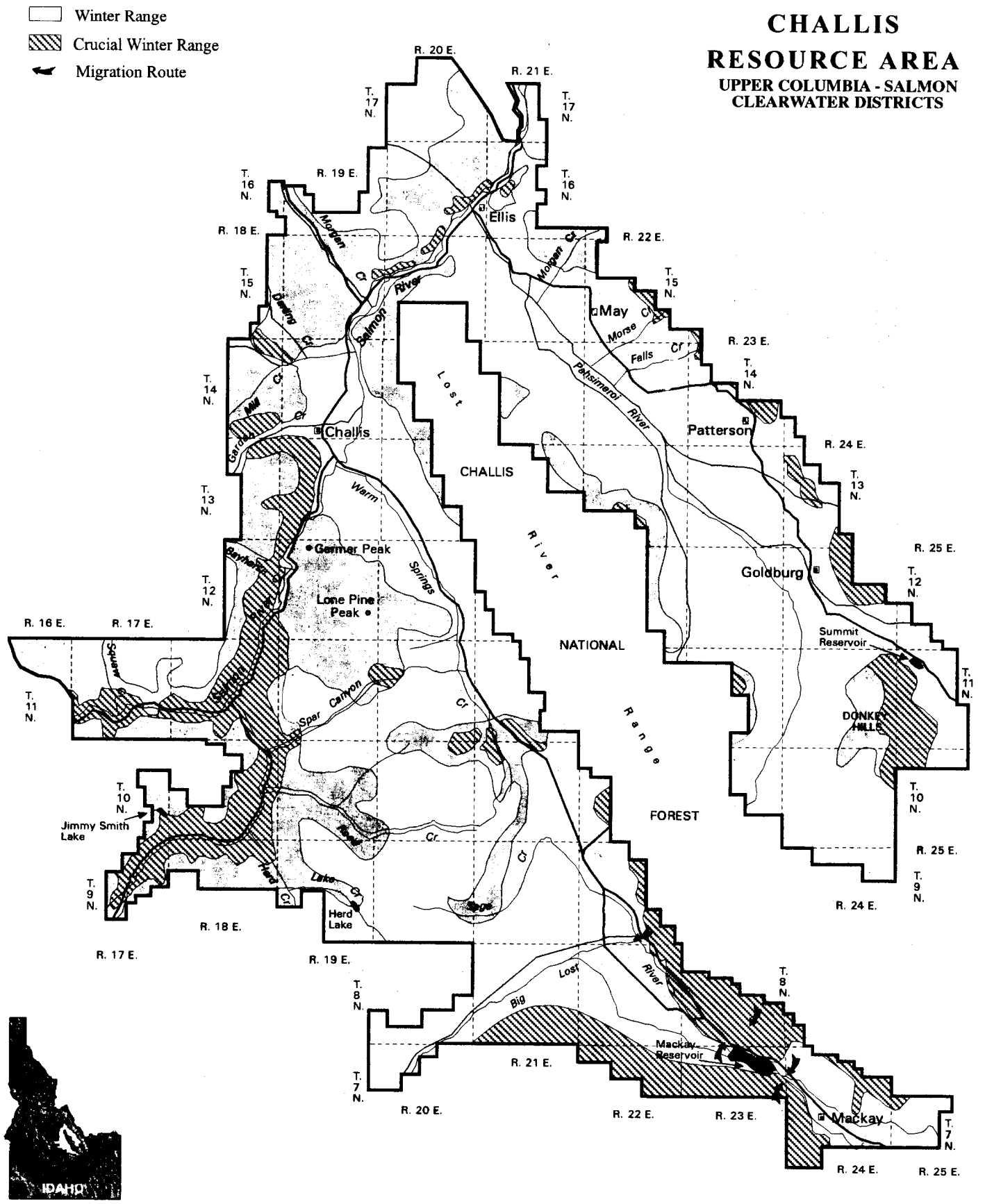
A. The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.

B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C. The available data provide direct evidence but are quantitatively minimal to support or refute the possible existence of mineral resources.

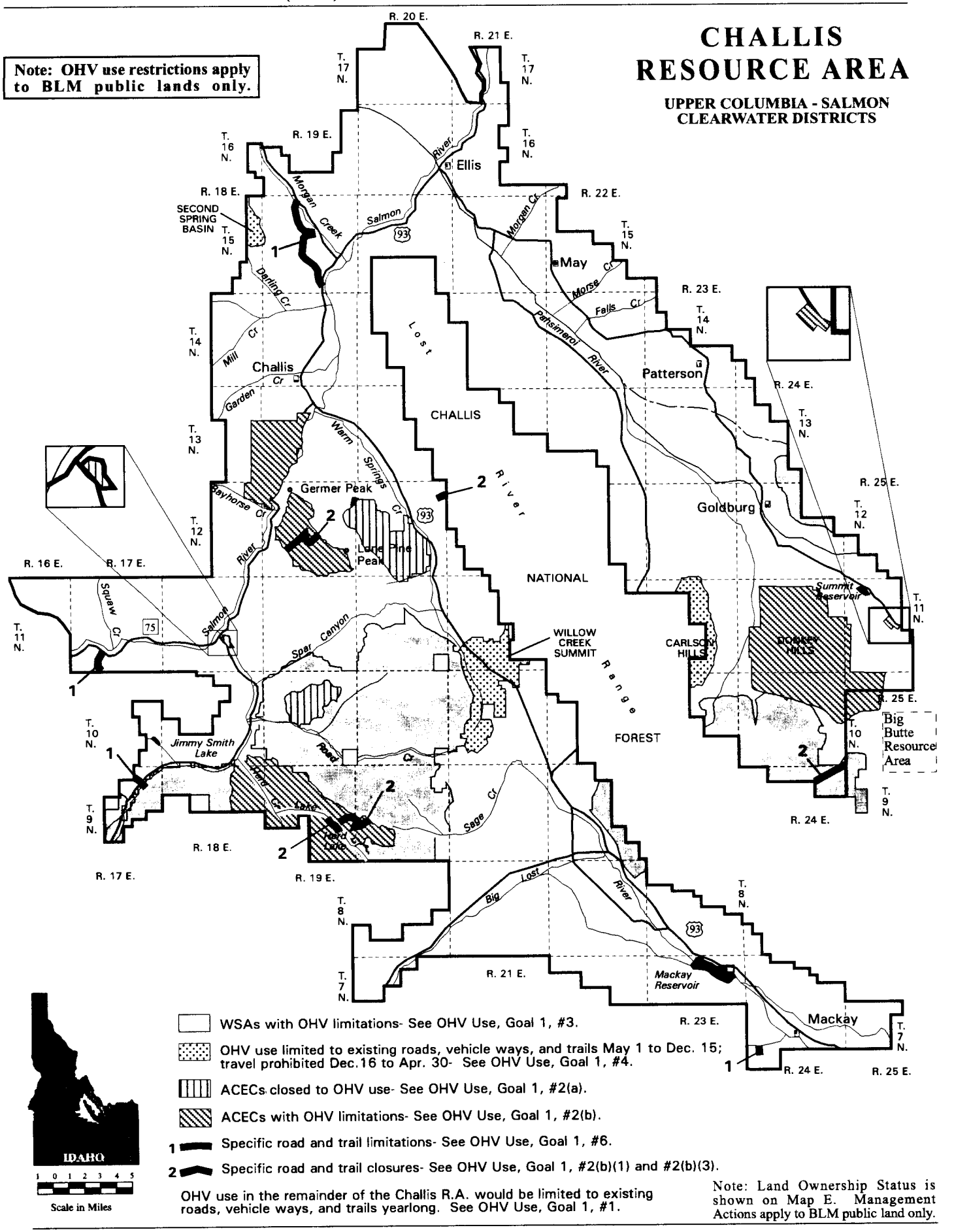
D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

*As used in this classification, potential refers to potential for the presence (occurrence) of a concentration of one or more energy and/or mineral resources. It does not refer to or imply potential for development and/or extraction of the mineral resource(s). It does not imply that the potential concentration is or may be economic, that is, could be extracted profitably.



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



BLM, Idaho State Office, Mapping/GIS, 1998

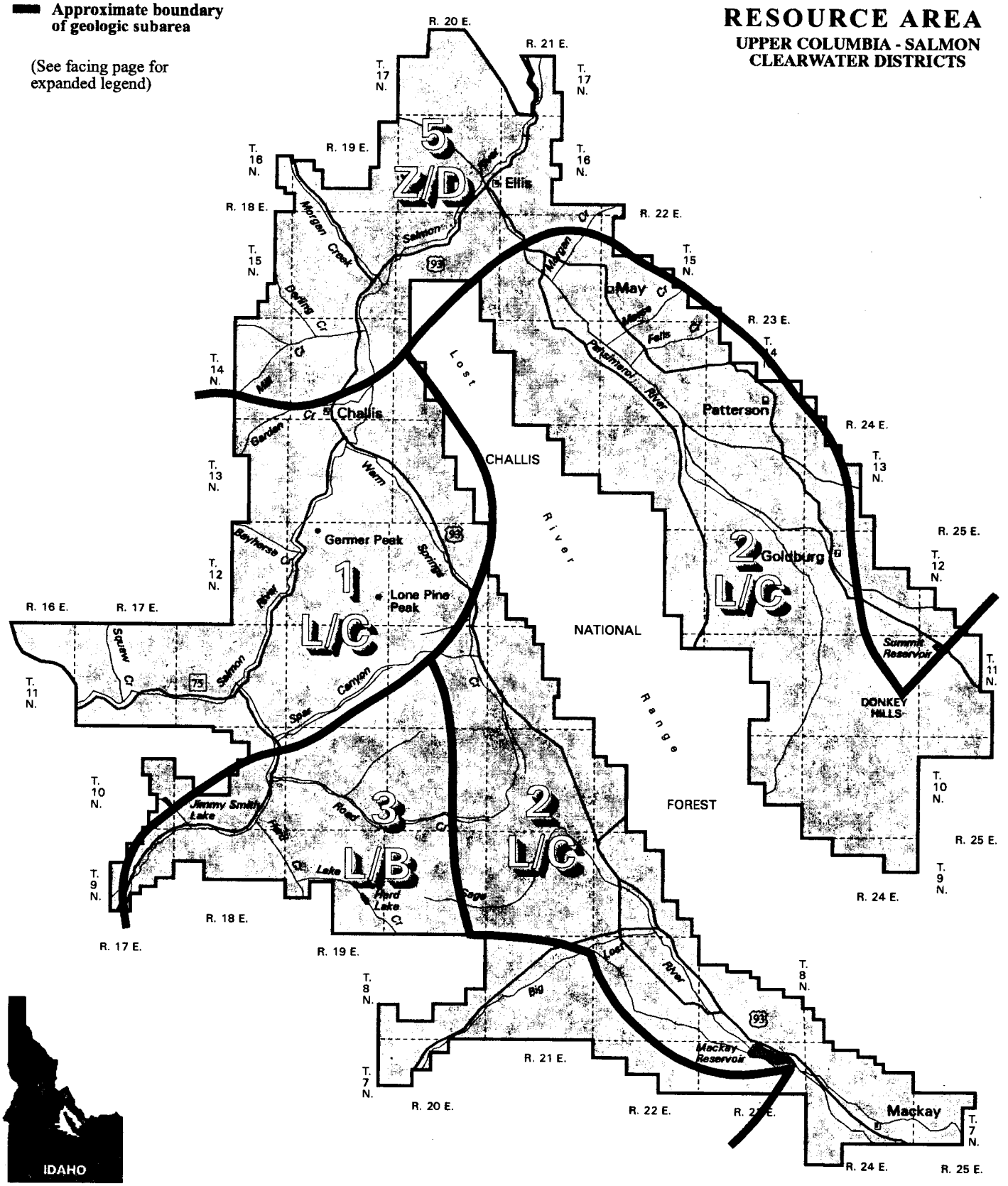
CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS

5 Geologic Subarea

Approximate boundary of geologic subarea

(See facing page for expanded legend)



Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

Expanded Legend to Map 34: Oil and Gas Potential

DEFINITION OF LEVELS OF PETROLEUM RESOURCE POTENTIAL AND CERTAINTY OF ASSESSMENT FOR IDAHO

(Modified from: BLM Handbook H-1624-1, BLM Manual 3031, and Miller, 1983).

Definitions of Petroleum Potential

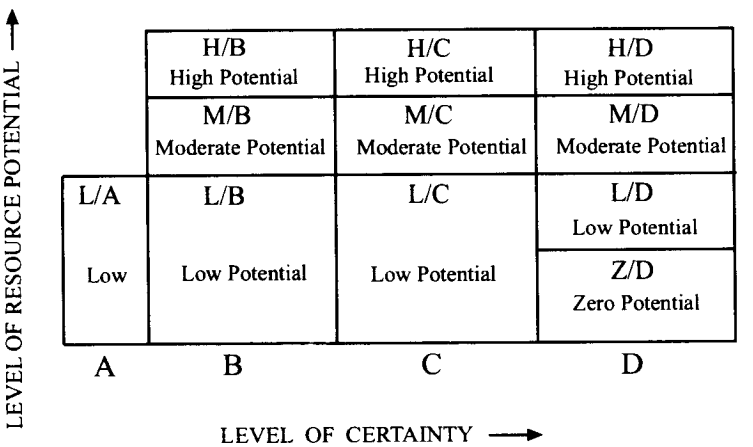
(H) HIGH - Geologic environment highly favorable for occurrence of oil and gas accumulations. Area is near or on trend with existing production from structural and (or) stratigraphic traps. Included are areas designated as an oil and gas "play" as designated by the USGS national assessment.

(M) MODERATE - Geologic environment favorable for the occurrence of oil and gas accumulations. Contains known reservoir rocks and hydrocarbon source beds. Includes some areas of sparse subsurface control or areas where expected field size will be small.

(L) LOW - Geologic environment is interpreted as unlikely for the occurrence of oil and gas accumulations. Includes areas of poor or unknown hydrocarbon source bed and (or) reservoir quality. Specific indications that one or more of the essential characteristics for a favorable geologic environment for oil and gas accumulation may not be present.

(Z) ZERO - Geologic environment is interpreted to lack all of the essential characteristics favorable for the occurrence of oil and gas accumulations. Areas generally with exposed batholithic or PreCambrian rocks or with very thin sedimentary section with no potential for the occurrence of sealed structural or stratigraphic traps with hydrocarbons.

LEVELS OF CERTAINTY



Available information:

A. Is insufficient to infer level of potential; however, minimal potential cannot be ruled out.
B. Provides indirect evidence to infer the level of potential.
C. Provides direct evidence to indicate the level of potential.
D. Clearly defines the level of potential based on abundant direct and indirect evidence.

BLM roads and trails receiving level 3 maintenance (regular maintenance as needed)

NOTE:

All other BLM roads would only be maintained to:

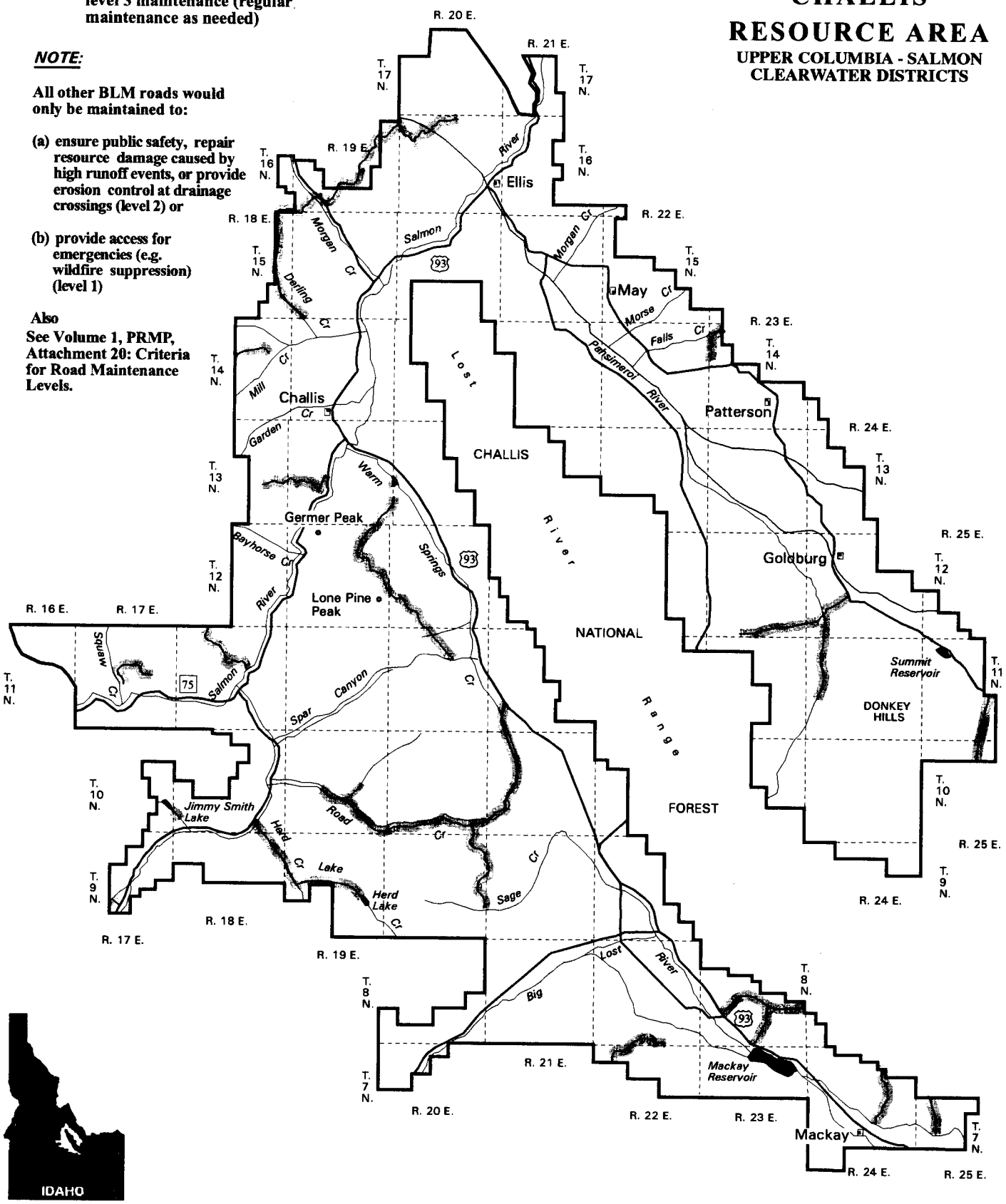
(a) ensure public safety, repair resource damage caused by high runoff events, or provide erosion control at drainage crossings (level 2) or

(b) provide access for emergencies (e.g. wildfire suppression) (level 1)

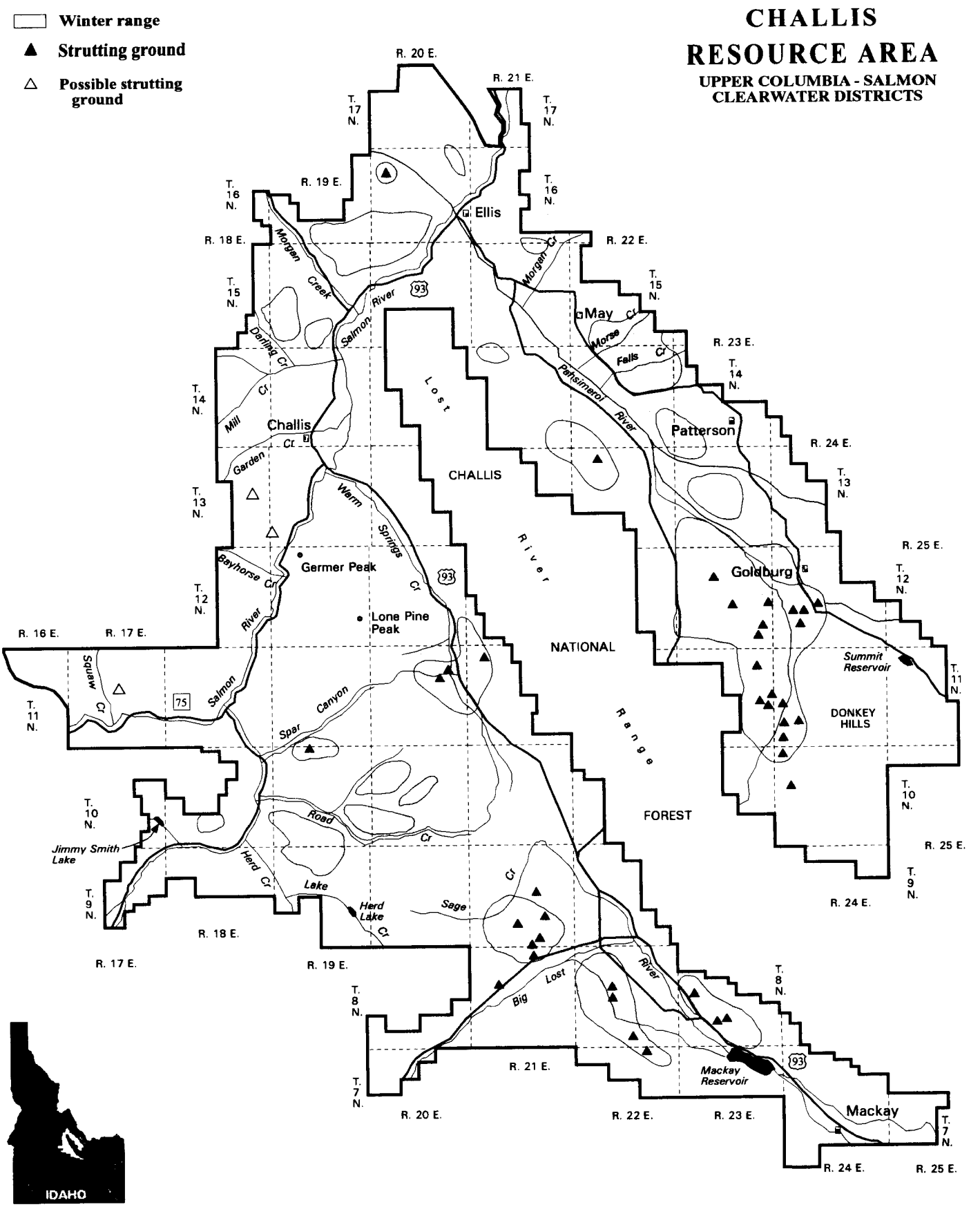
Also
See Volume 1, PRMP, Attachment 20: Criteria for Road Maintenance Levels.

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.



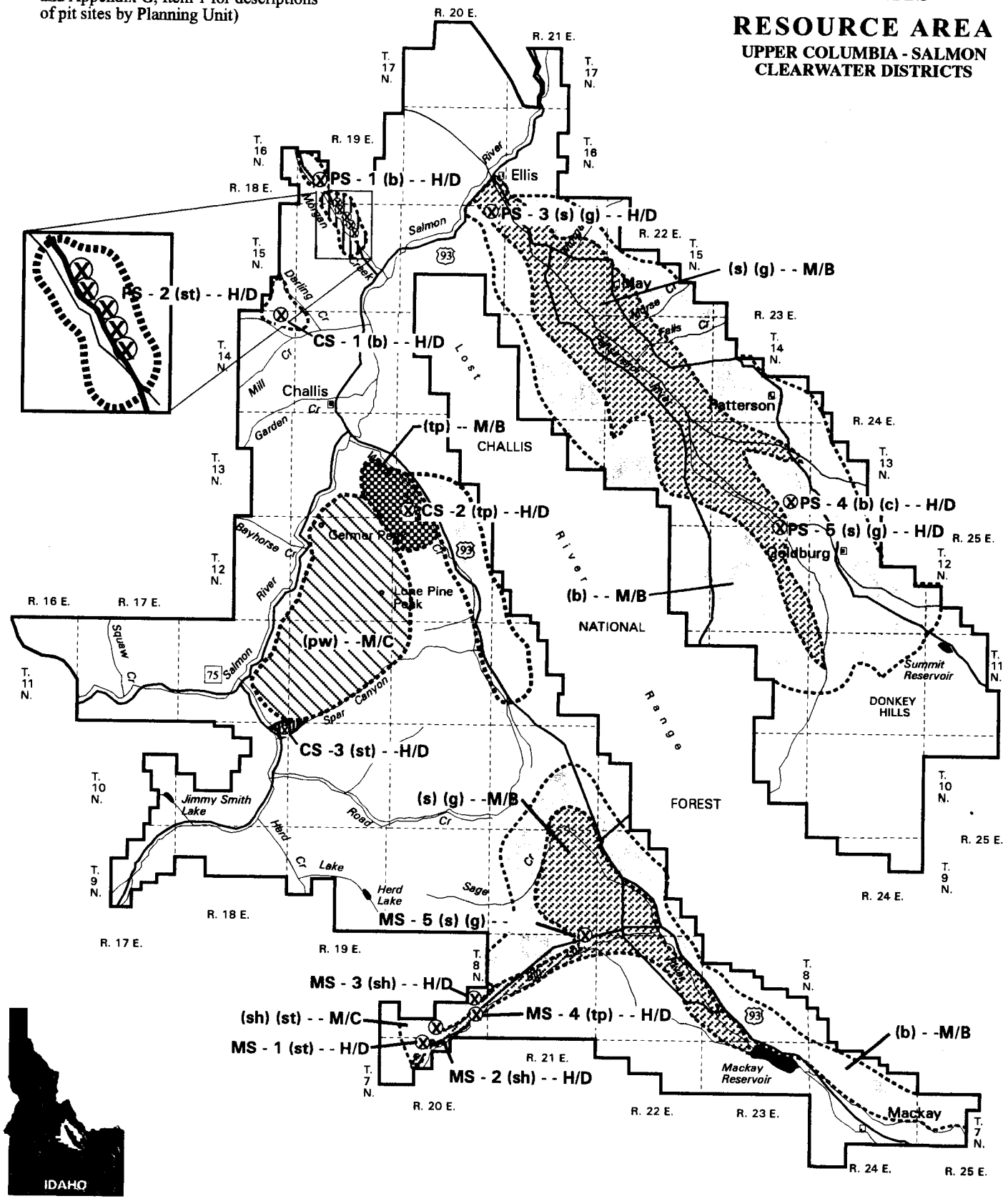
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

(See facing page for expanded legend and Appendix G, Item 1 for descriptions of pit sites by Planning Unit)

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS

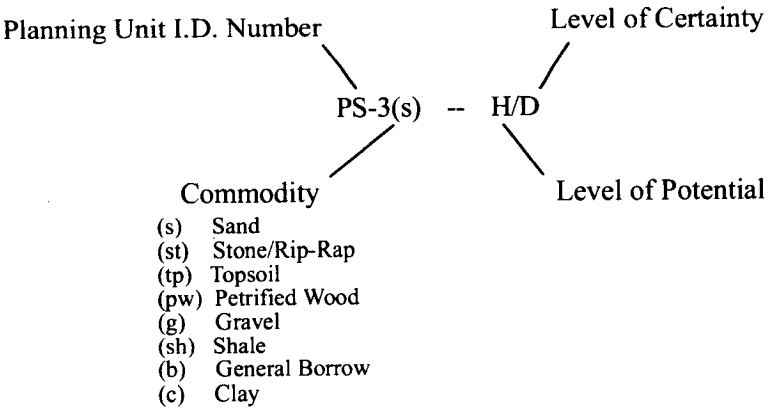


Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

Expanded Legend for Map 37: Saleable Mineral Land Classification

EXPLANATION

COMMUNITY PIT LOCATION ⊗
(See Appendix G, Item 1 for description of pit sites by Planning Unit.)



SALEABLE MINERAL POTENTIAL CLASSIFICATION SYSTEM *

I. Level of Potential

0. The geologic environment, the inferred geologic processes, and the lack of mineral occurrences do not indicate potential for accumulation of mineral resources.

L. The geologic environment and the inferred geologic processes indicate low potential for accumulation of mineral resources.

M. The geologic environment, the inferred geologic processes, and the reported mineral occurrences or valid geochemical/geophysical anomaly indicate moderate potential for accumulation of mineral resources.

H. The geologic environment, the inferred geologic processes, the reported mineral occurrences and/or valid geochemical/geophysical anomaly, and the known mines or deposits indicate high potential for accumulation of mineral resources. The "known mines and deposits" do not have to be within the area that is being classified, but have to be within the same type of geologic environment.

ND. Mineral(s) potential not determined due to lack of useful data. This notation does not require a level-of-certainty qualifier.

II. Level of Certainty

A. The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.

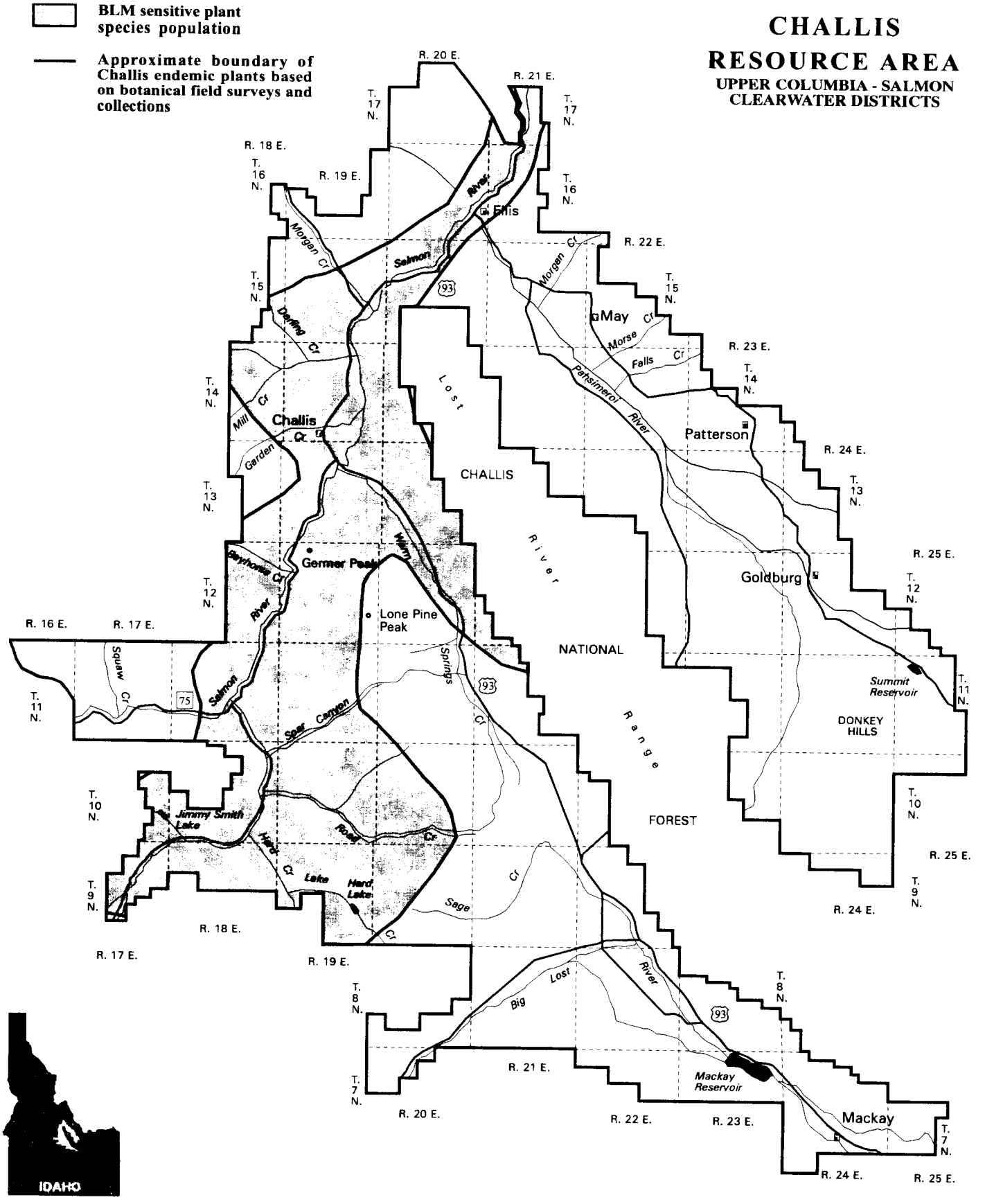
B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C. The available data provide direct evidence but are quantitatively minimal to support or refute the possible existence of mineral resources.

D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

*As used in this classification, potential refers to potential for the presence (occurrence) of a concentration of one or more energy and/or mineral resources. It does not refer to or imply potential for development and/or extraction of the mineral resources(s). It does not imply that the potential concentration is or may be economic, that is, could be extracted profitably.

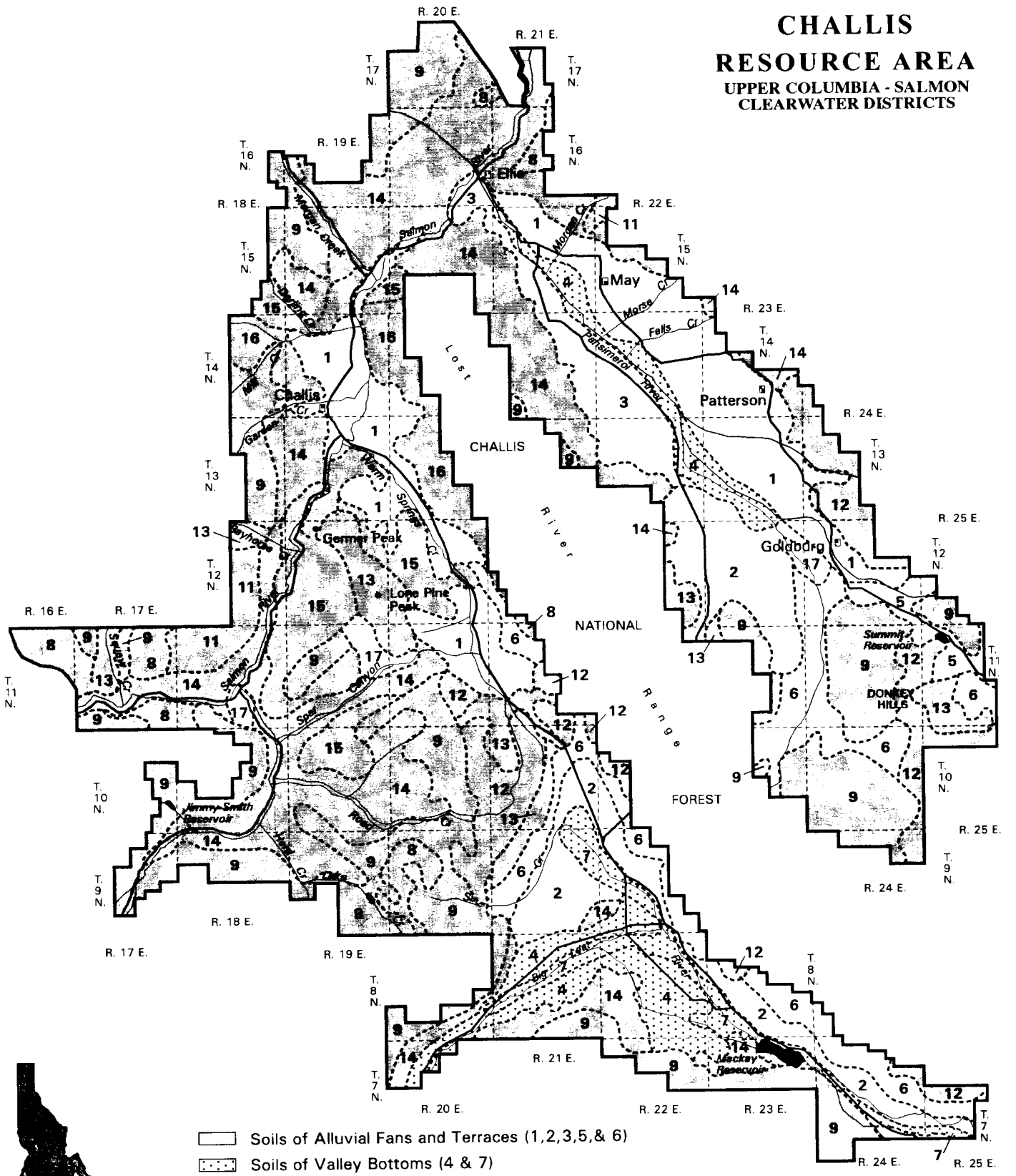
Source: BLM, Idaho State Office 1994



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS



Soils of Alluvial Fans and Terraces (1,2,3,5,& 6)

Soils of Valley Bottoms (4 & 7)

Soils of Mountains and Foothills (8,9,11,12,13,14,15,&16)

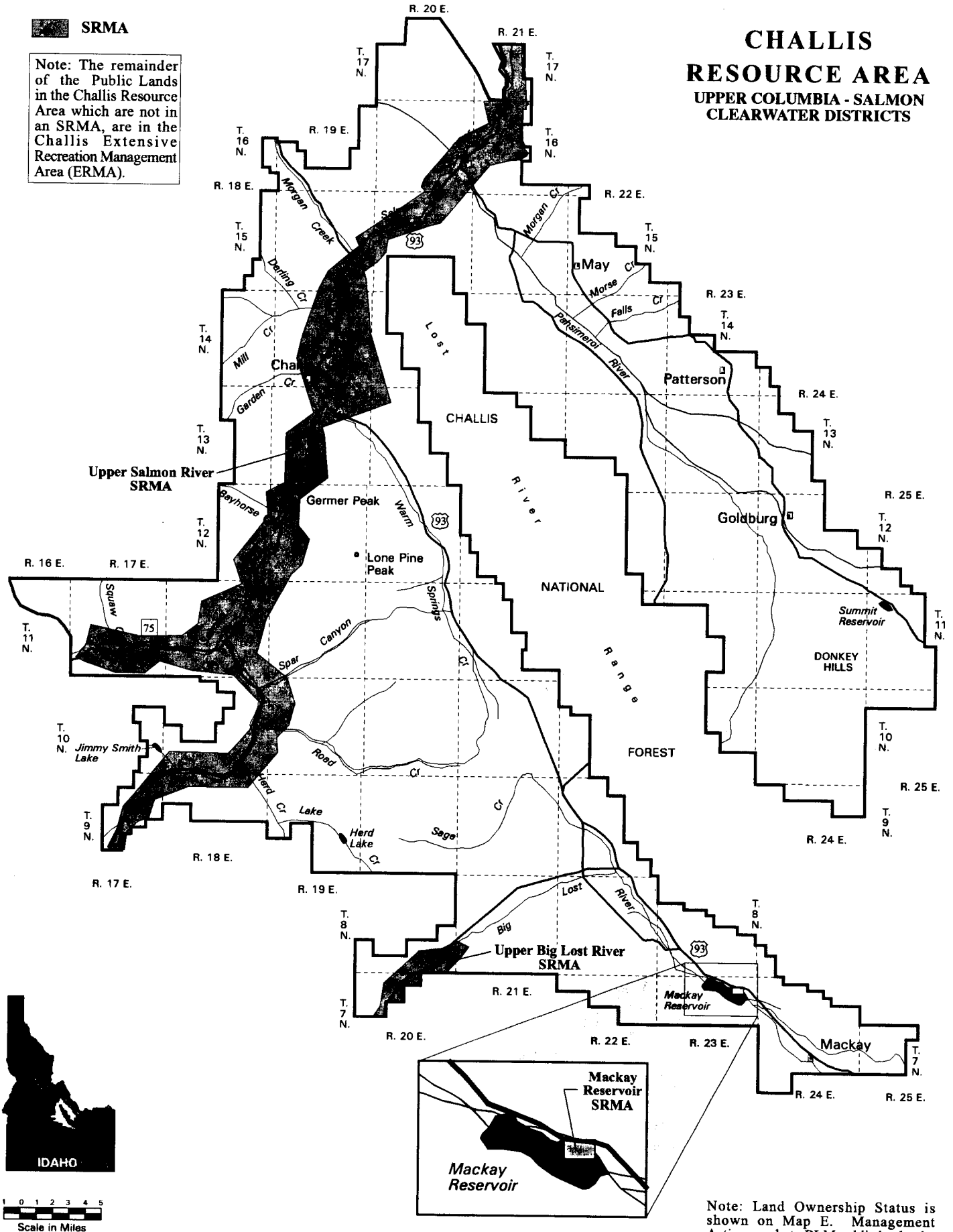
Soils of Lacustrine Sediments (10 &17)

Note: See Chapter 3, Table 3-18 : (*Summary of Soils in the Challis Resource Area*) for soil series descriptions.

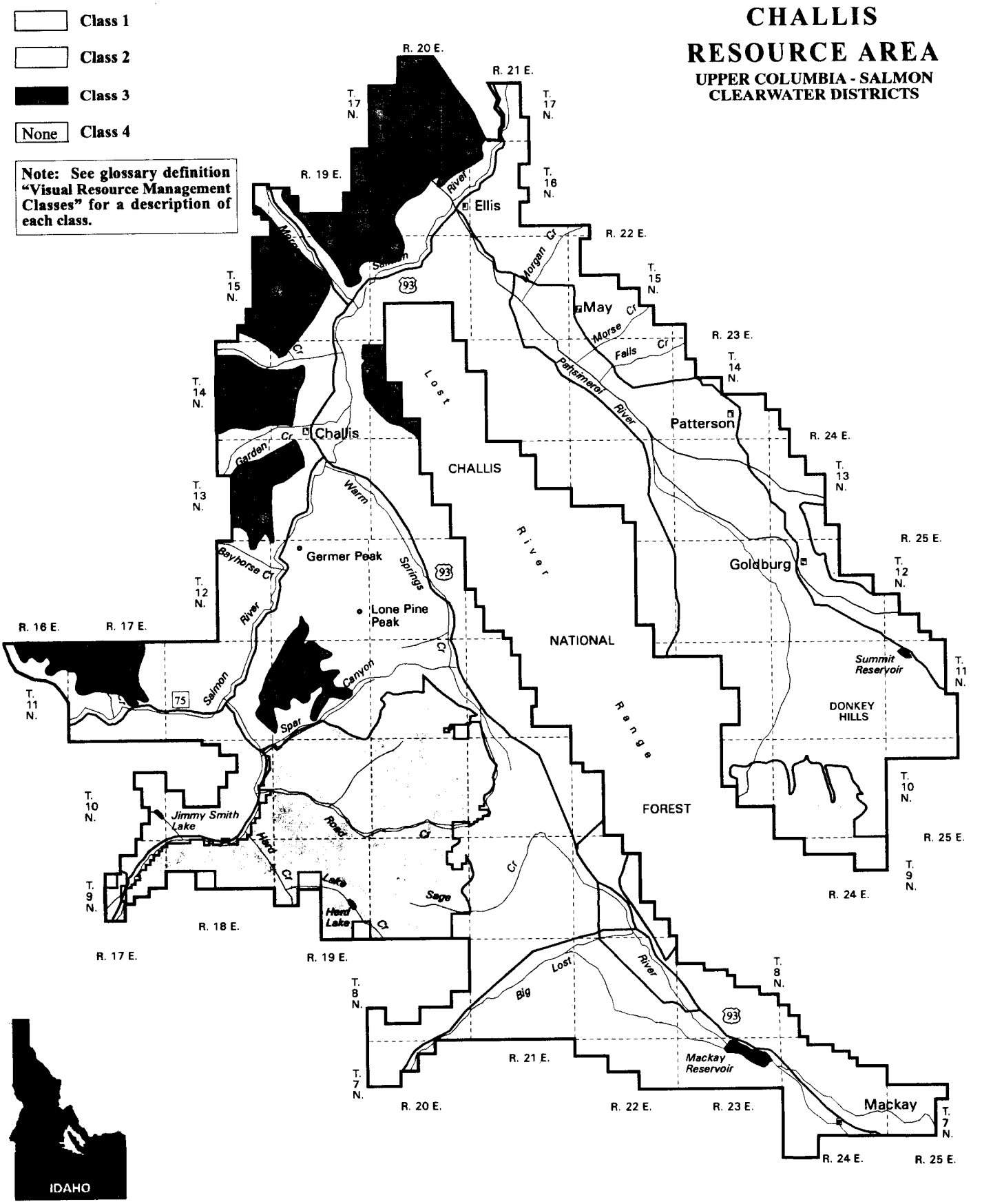
1 0 1 2 3 4 5
Scale in Miles

Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

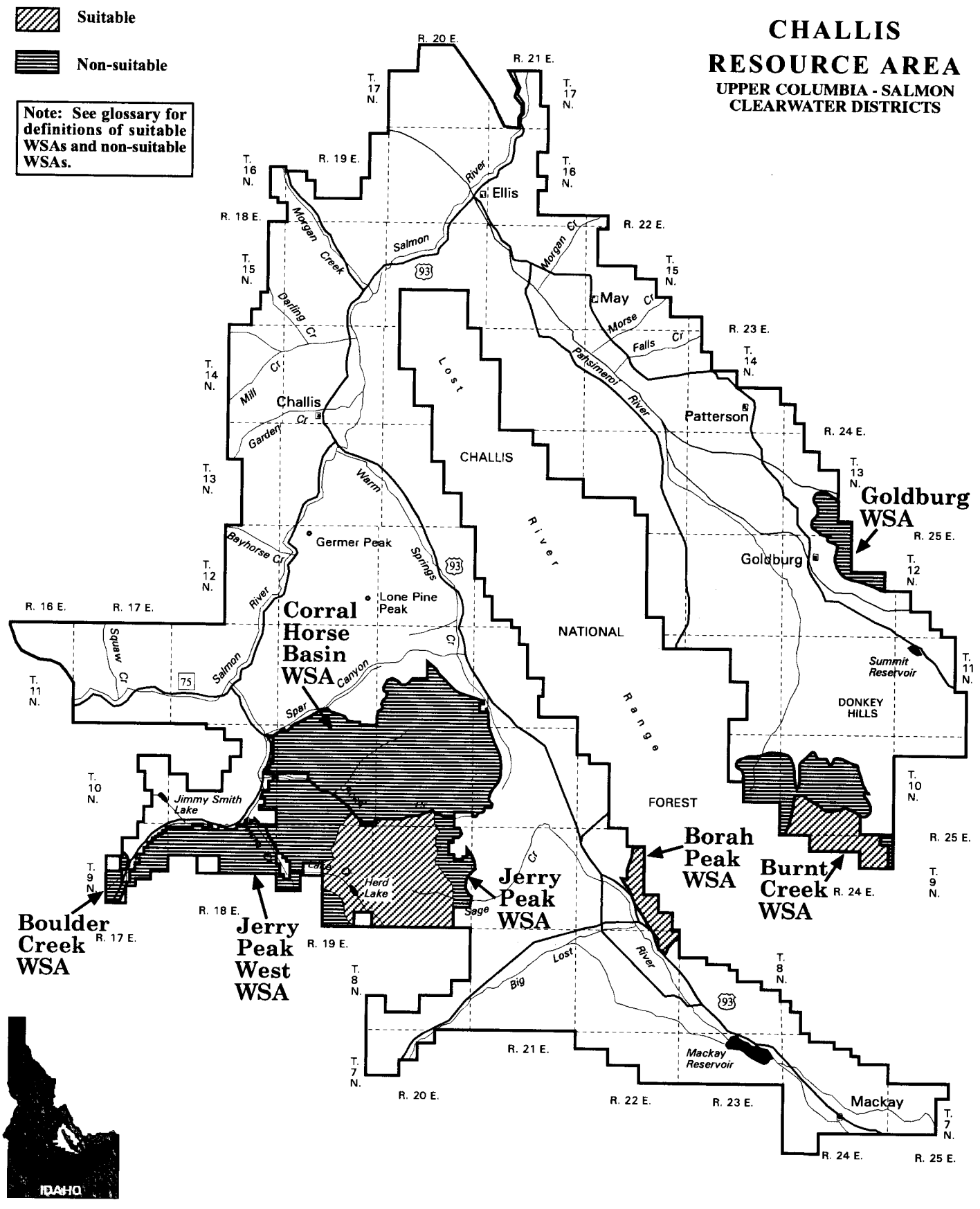


BLM, Idaho State Office, Mapping/GIS, 1998



Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

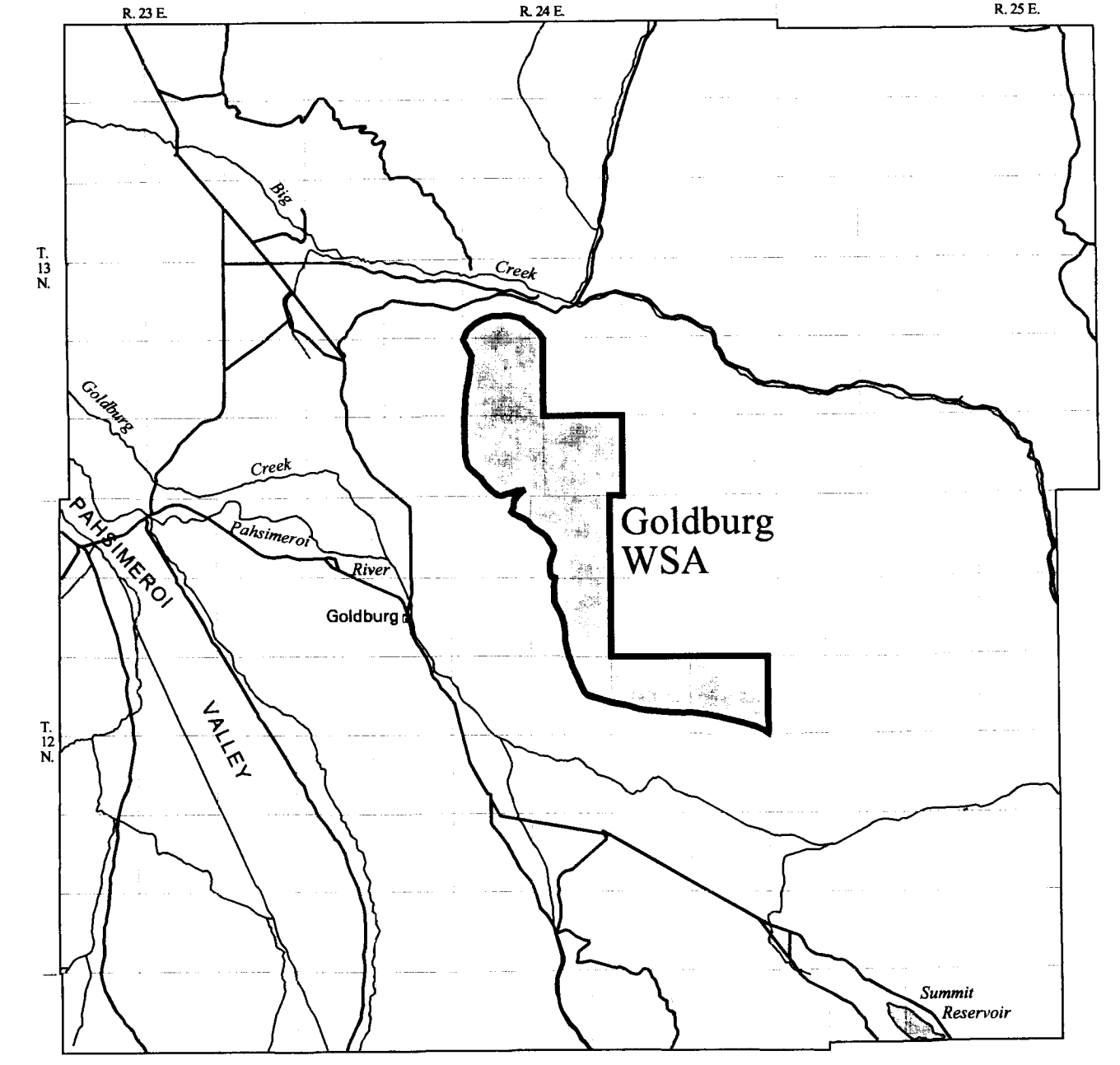


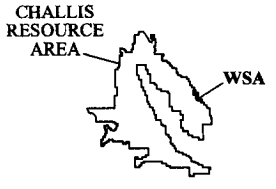
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

Wilderness Study Area

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





1 0 1 2
Scale in Miles

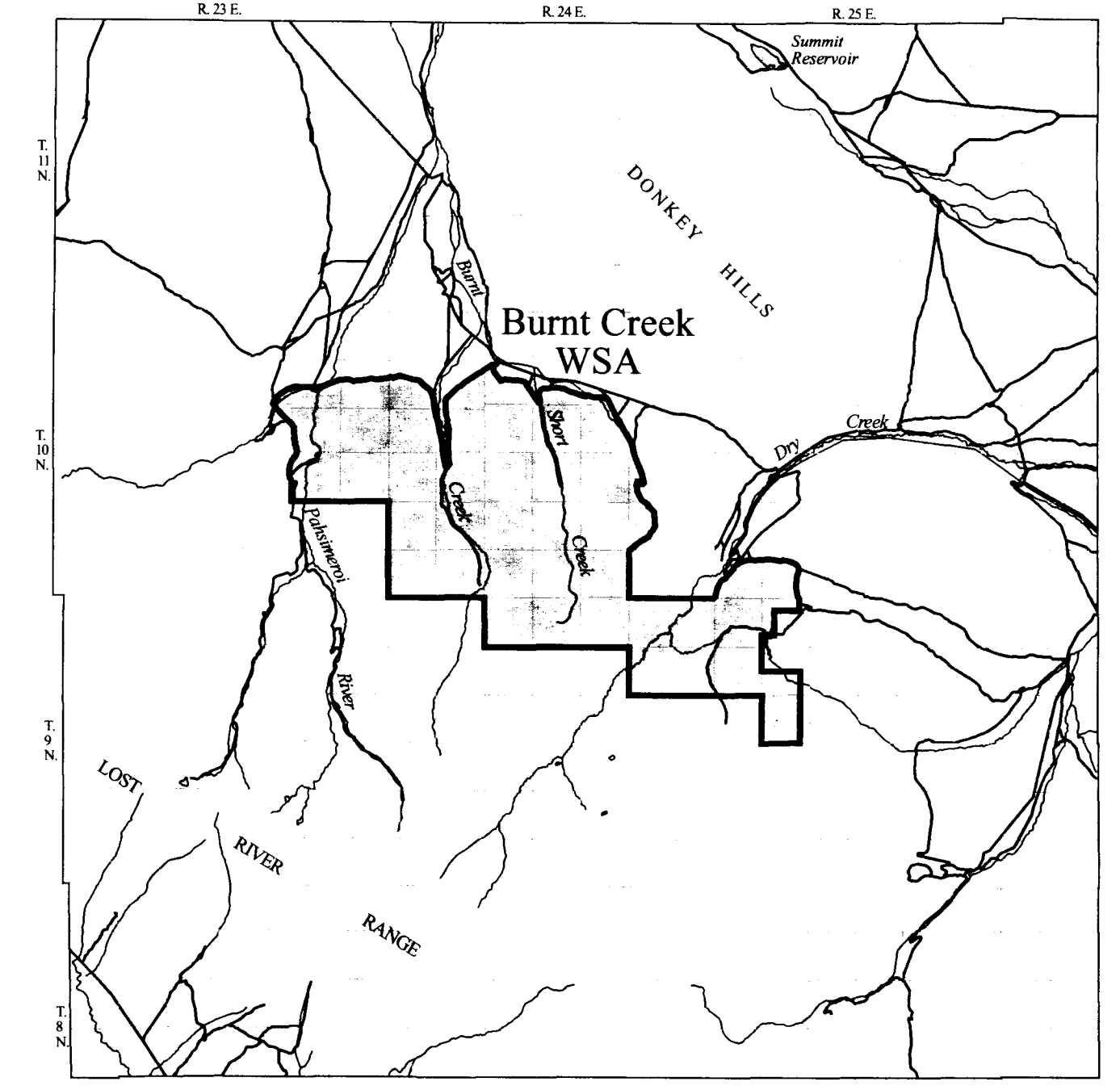
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

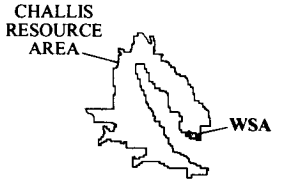
BLM, Idaho State Office, Mapping/GIS, 1998

Wilderness Study Area

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





1 0 1 2
Scale in Miles

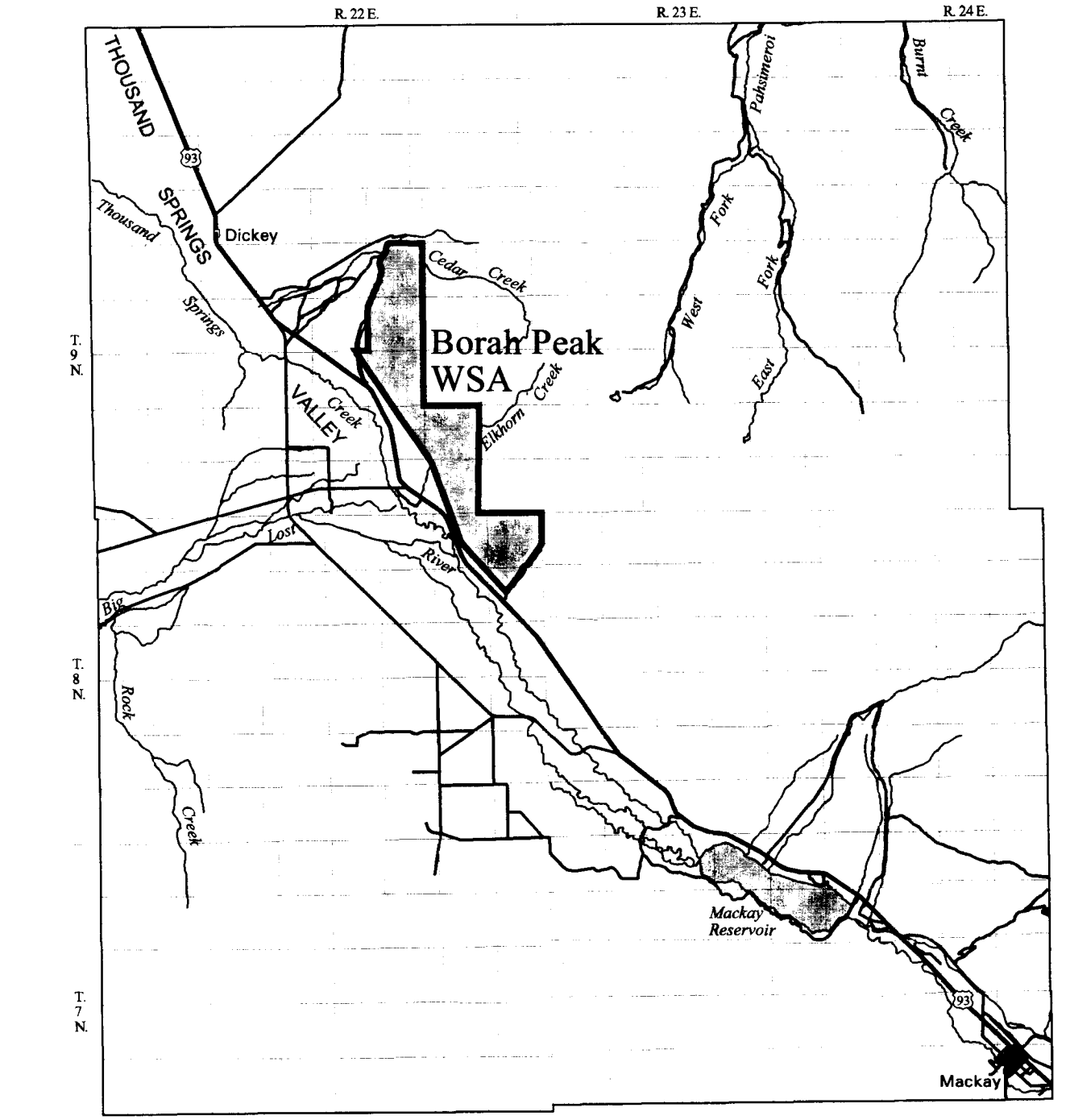
Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

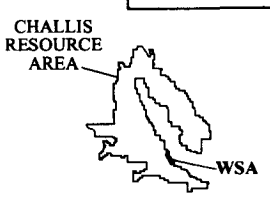
BLM, Idaho State Office, Mapping/GIS, 1998

Wilderness Study Area

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





1 0 1 2
Scale in Miles

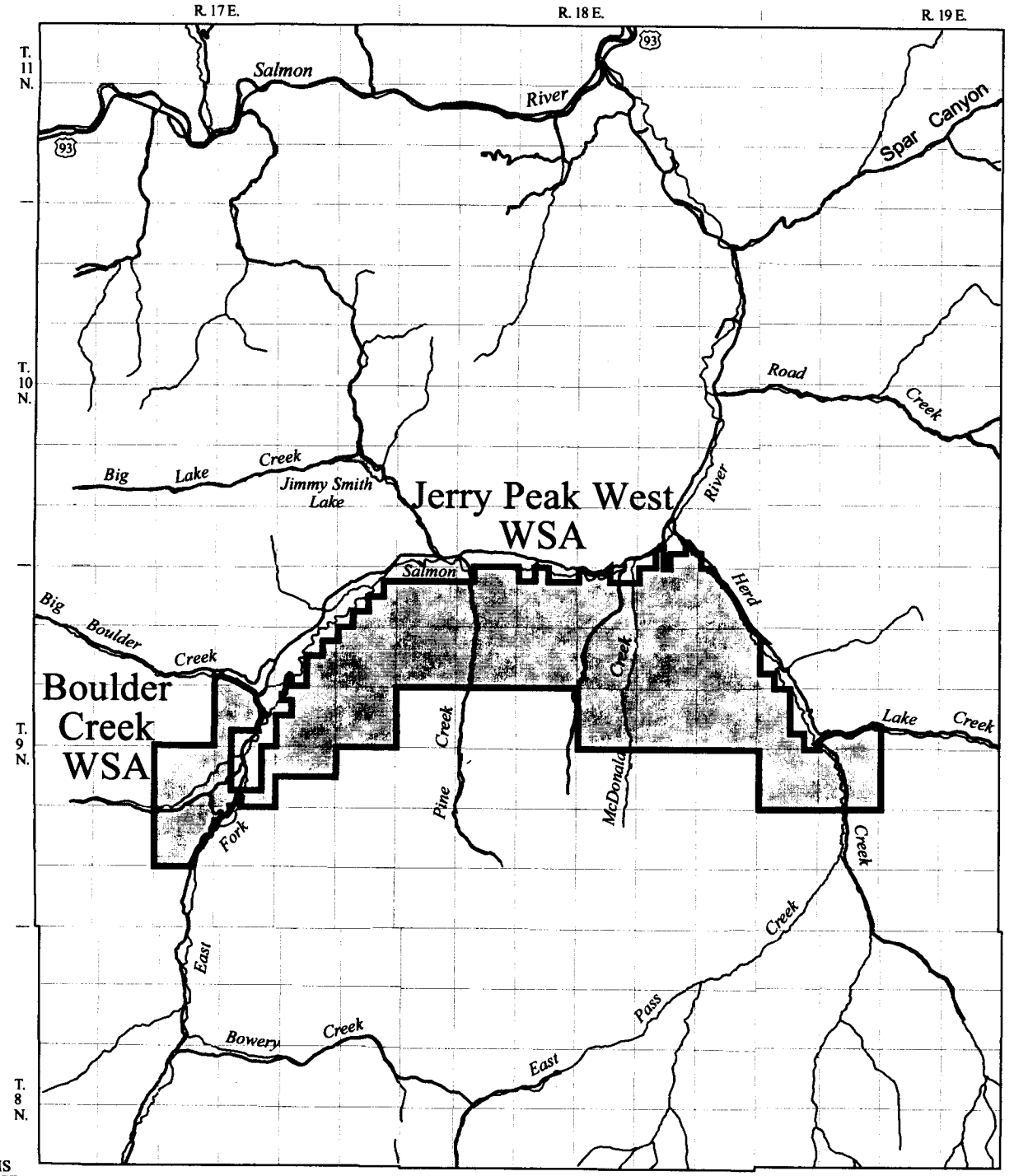
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

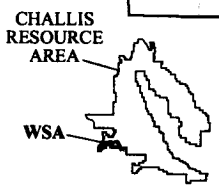
BLM, Idaho State Office, Mapping/GIS, 1998

Wilderness Study Areas

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS





1 0 1 2
Scale in Miles

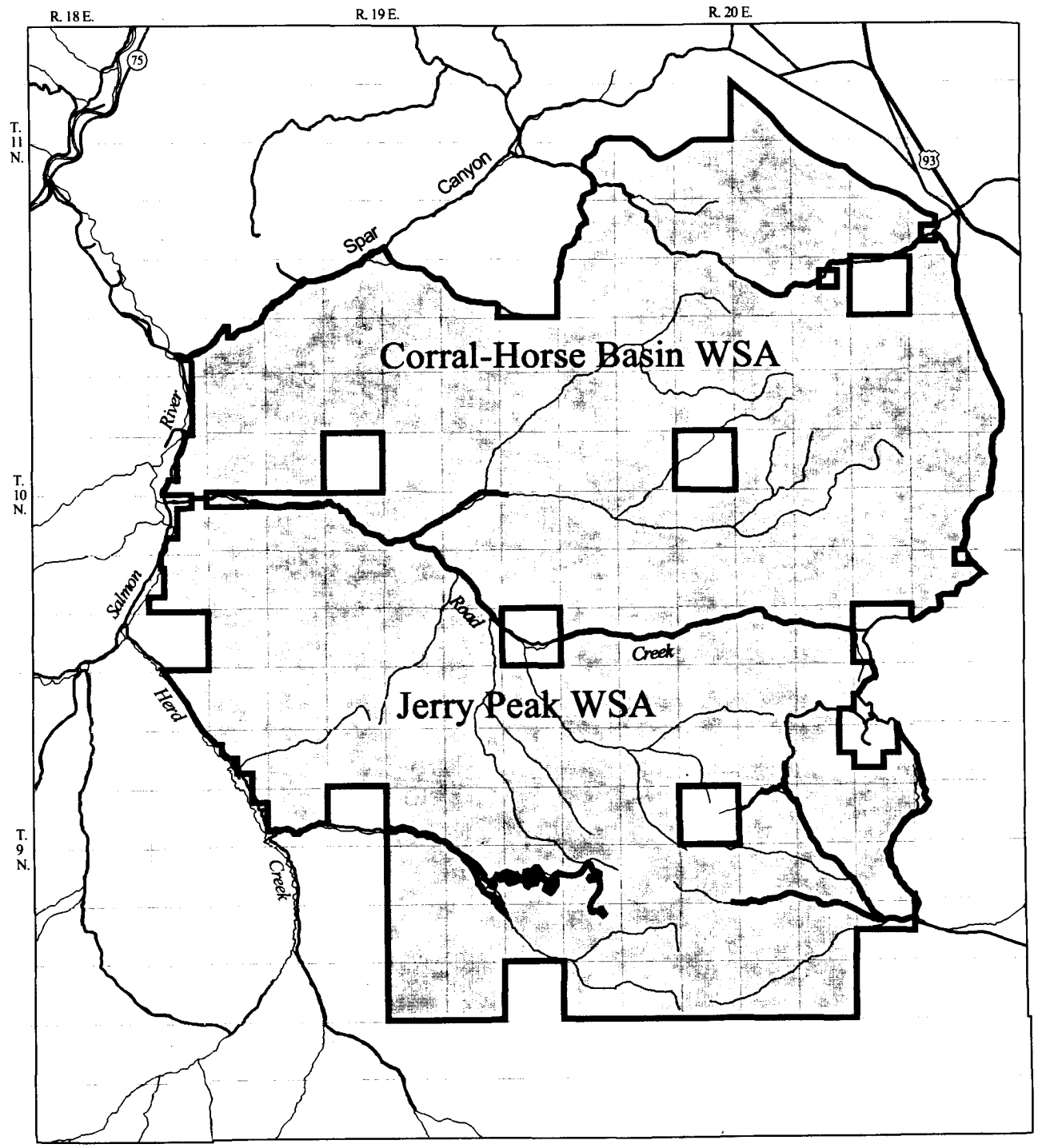
Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

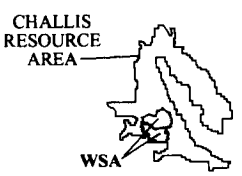
BLM, Idaho State Office, Mapping/GIS, 1998

Wilderness Study Areas

CHALLIS RESOURCE AREA

UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS

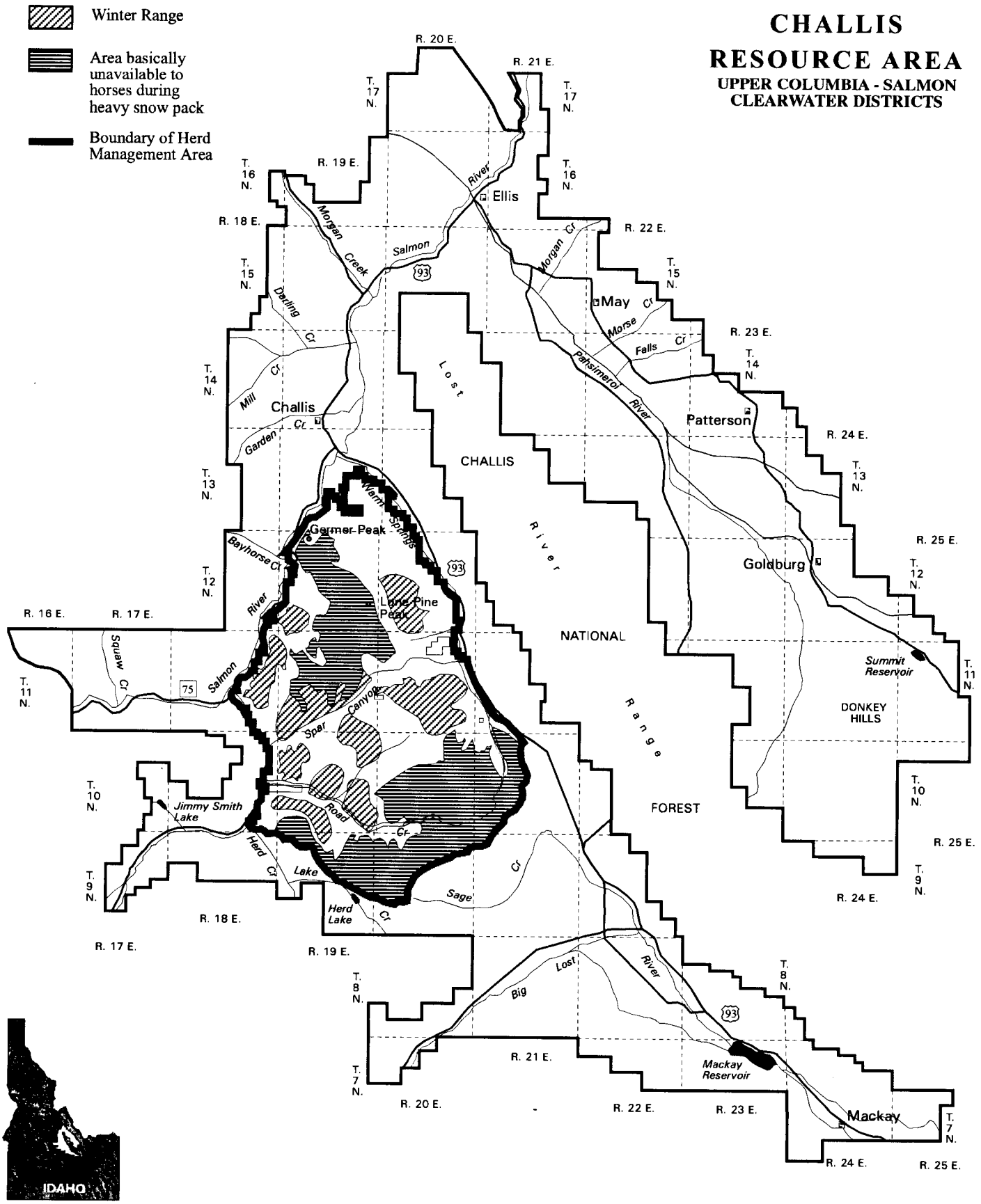




1 0 1 2
Scale in Miles

Note: Land Ownership Status is shown on Map E.
Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998



Note: Land Ownership Status is shown on Map E. Management Actions apply to BLM public land only.

BLM, Idaho State Office, Mapping/GIS, 1998

☆ U.S. GOVERNMENT PRINTING OFFICE: 1998—789-110 / 41306 Region No. 10

United States Department of the Interior
Bureau of Land Management

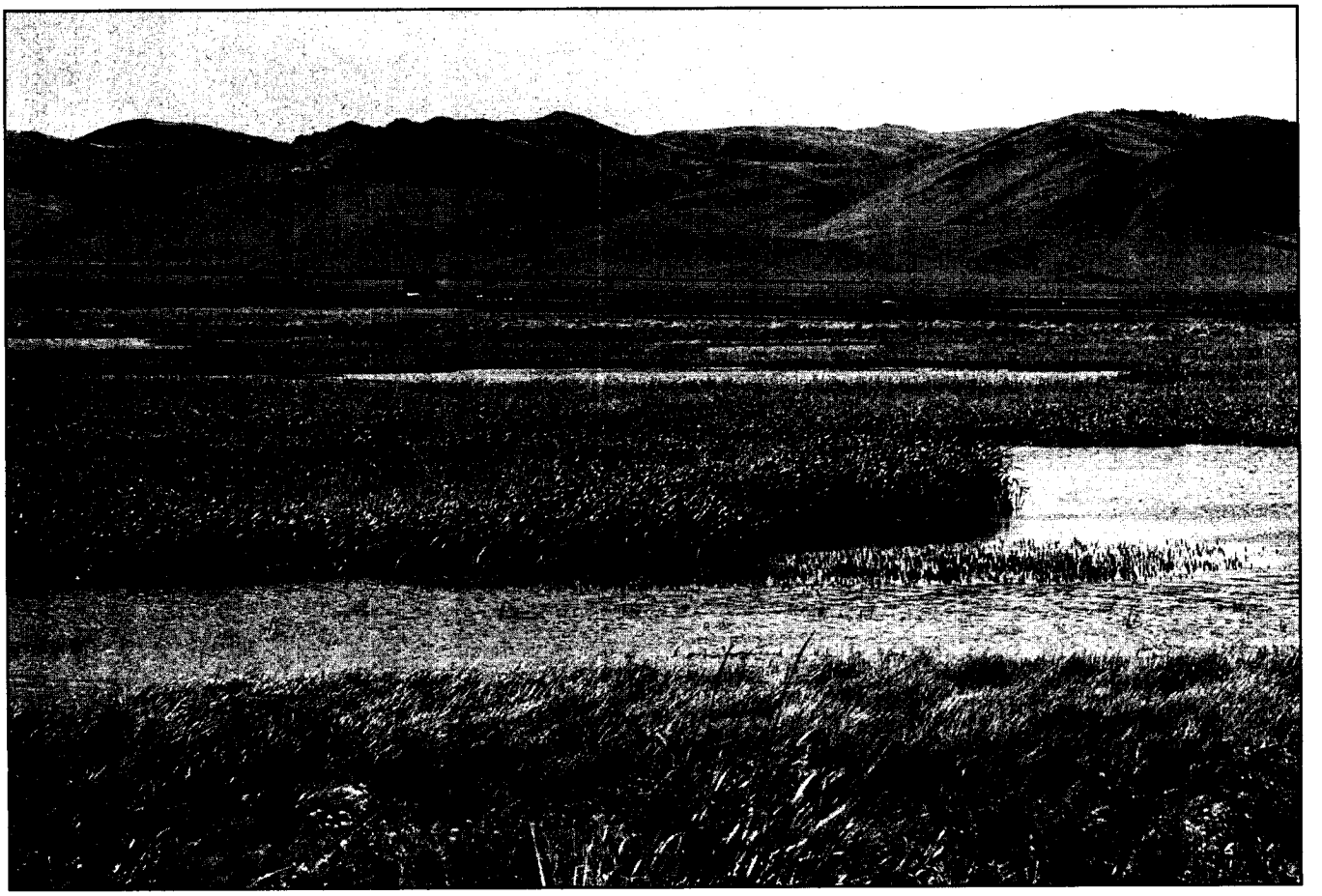
Challis Resource Area
Upper Columbia - Salmon Clearwater Districts
Salmon, Idaho

October 1998

Challis Resource Area

Proposed Resource Management Plan and Final Environmental Impact Statement

Volume 2 (of 2) - Chapters 3 through 5, Appendices, References, Index



Chilly Slough Wetland

Abbreviated Table of Contents - Volume 1

Attachments to the Challis Proposed Resource Management Plan

Table of Contents - Volume 2

Chapter 3 - Affected Environment

Chapter 4 - Environmental Consequences

Chapter 5 - Consultation, Coordination, Consistency, and Comments and Responses

Appendices

List of Tables - Volumes 1 and 2

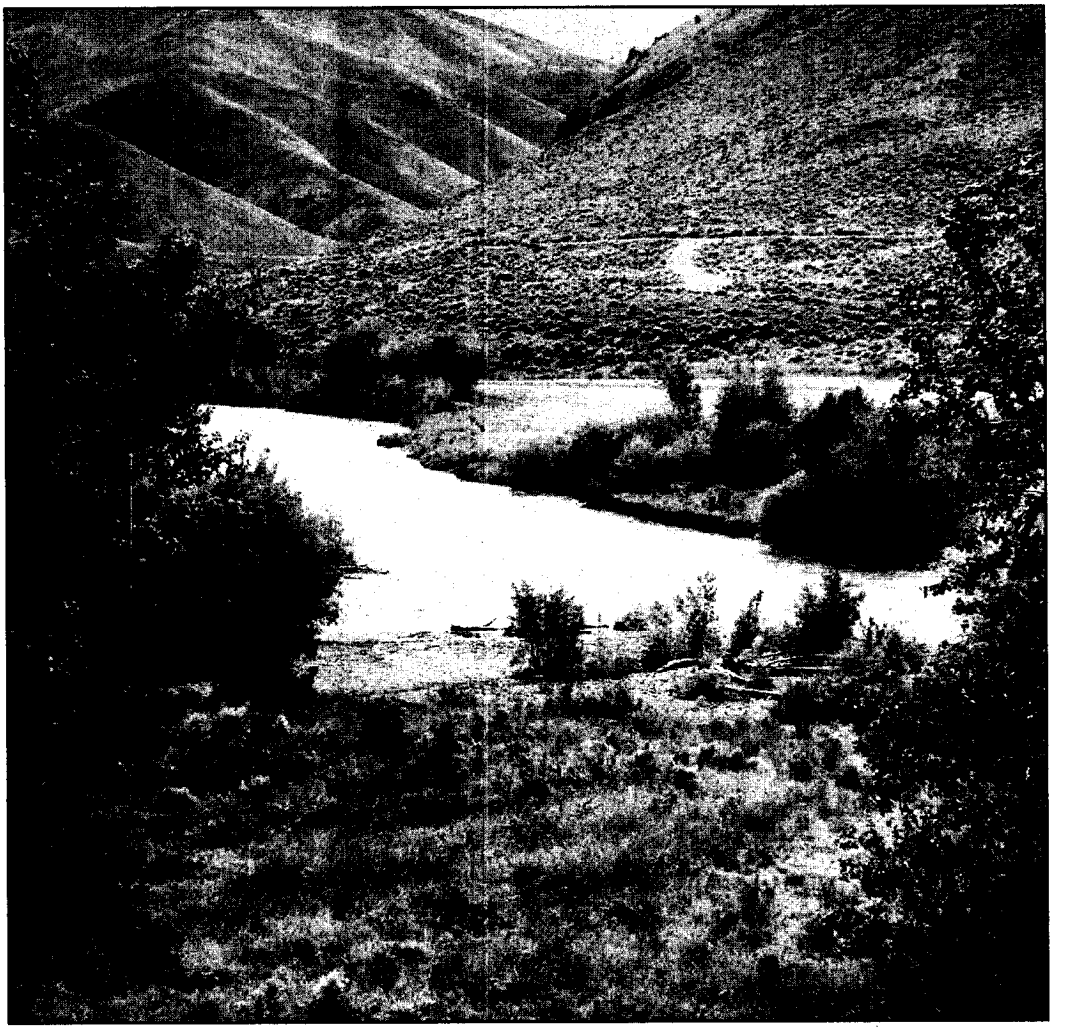
Chapter 1

Chapter 3

Chapter 4

[this page is intentionally blank]

Chapter 3
Affected Environment



Herd Creek Entering the East Fork Salmon River

Introduction.

Chapter 3 describes the existing condition of the physical, social, and biological environment in the Challis Resource Area (RA). These environmental descriptions are primarily based on Resource Area Profiles (RAPs) completed during the Management Situation Analysis phase of Resource Management Plan (RMP) development, when existing data on resource occurrence, level of use, condition and trend, and potential to yield desired products were assessed. (RAPs are available for review at the Salmon Field Office, Highway 93 South, Salmon, Idaho.) Appendix L, Item 1 (pp. 668-670) lists the majority of field studies, monitoring data, and similar information used to compile a description of the Affected Environment. Additional sources are cited in the text where appropriate, and complete references are provided in the *References* section (pp. 671*ff*).

Chapter 3 begins with an overview of geography, topography, and climate. The chapter then discusses the Challis RA programs/resources in alphabetical order. Each description includes a summary of relevant law, regulation, and policy and a detailed discussion of the program/resource's existing condition. An expanded discussion of the most relevant laws and executive orders is provided in *Appendix E, Item 1,* pp. 638-643.

General Description of the Challis Resource Area.

Geography/Topography

The Challis Resource Area contains approximately 792,567 surface acres of public land managed by the Salmon Field Office (see *Map 24: General Location*). The RA is divided into three general areas: the Pahsimeroi Valley, the Salmon River and East Fork Salmon River drainages in the Challis area, and the Mackay area. The Mackay area and Pahsimeroi Valley are separated by the Lost River Range, which contains the point of highest elevation in Idaho (see *Map 25: Geography and Principle Drainages*).

The Salmon River and Big Lost River are the principal drainages within the RA. The Salmon River, a major tributary to the Snake River (see *Map 1: Anadromous Fish Migration*), flows roughly south to north through the western part of the RA. Most of the RA is in the Salmon River watershed. The Thousand Springs Valley is part of the Big Lost River watershed, and a small area in the southeastern edge of the RA is in the Little Lost River watershed. The East Fork Salmon River and Pahsimeroi River are major drainages contributing to the Salmon River. All of the river basins are contained within the Columbia River Basin (see *Map 1: Anadromous Fish Migration*). The Salmon River flows through a narrow "V" shaped valley flanked by cliffs, rock outcroppings, and moderate to very steep terrain. Tributary drainages vary in relief depending on the dominant geological parent materials. Glacial, fluvial, and alluvial deposits occur on the bottom of all major stream valleys. These deposits filled the valleys and were downcut by the streams during the retreat of the last glaciers, creating the present "V" shaped valleys. The steep, incised character of the principal drainages limits human access and influences livestock and

wildlife utilization patterns. The general relief of the area varies from nearly flat on the valley floors of major drainages, to nearly vertical cliffs on the mountains.

A general aspect cannot be given for the RA, but exposure does play an important role in utilization patterns. South and west facing slopes have the earliest spring grass and tend to be drier, with less vegetation. North and east facing slopes retain snow longer in the spring than other aspects and tend to be cooler and wetter. Elevations range from about 4,600 feet at Hat Creek to 10,010 feet at the top of Jerry Peak. Elevations generally rise going upstream along the Salmon River from the north boundary of the Challis Resource Area to the south and west boundary. Elevations generally fall from Willow Creek Summit (the divide between the Salmon River and Big Lost River drainages) to the southeast boundary of the Resource Area along the Big Lost River. Elevation differences account for a growing season which ranges from 60 to 100 days from the highest to the lowest points of the RA.

Climate

The climate of the Challis Resource Area is influenced primarily by maritime air carried eastward on prevailing westerly winds. General climatic characteristics are abundant sunshine, low humidity, and high evaporation. The major precipitation source, particularly for winter storms, is the Northern Pacific Ocean. In the summer, however, most of the thunderstorm activity is caused by moisture-laden air originating from the south, off the Pacific coast of Mexico.

Average annual precipitation in the Challis Resource Area varies from about 7.5 inches (reportedly the lowest in Idaho) at Challis, Idaho (elevation 5,200 feet) to 25 inches at the southern end of the RA near Jerry Peak (elevation 10,010 feet), with an estimated average of 10 to 15 inches. Drought cycles are typical of the Intermountain West, and precipitation amounts during these drought periods can be less than 50% of the average annual precipitation. These drought cycles affect the growth and vigor of plants and animals, and limit free water availability from surface water sources such as springs, creeks, and seeps.

Precipitation in the Challis area occurs primarily in the spring and fall. April, May, and June are the three wettest months, with 37% of the average annual precipitation accumulating during this period. June is the wettest month, with about 16% of the average annual precipitation. January, February, and March are the three driest months, with about 16% of the average annual precipitation. These figures vary with elevation, but indicate general precipitation trends in the RA. High intensity localized convective thunderstorms are common in the RA during spring and summer months, especially at higher elevations, and will vary the precipitation amounts from year to year in localized areas.

Spring rainfall is generally of low to moderate intensity and long duration. Infiltration and percolation are greater than during other seasons. These rains initiate plant growth. The amount of precipitation occurring in the spring is the primary factor determining forage production throughout the grazing season.

Summer rainfall comes mainly in the form of high intensity, short duration thunderstorms. This

precipitation often exceeds the soil infiltration capacity in many areas, causing overland flow and flash flooding. The concurrent runoff and soil movement often physically damage grasses and forbs. Since summer precipitation is usually sparse and sporadic, forage plants in the lower elevations of the RA are dried up by the end of June, in the mid-elevation areas by mid-to-late July, and in the higher elevation areas by mid-August.

Fall precipitation occurs in September and October, mostly in the form of rain, although wet snow and sleet storms are not uncommon. If temperatures during these months are above normal, additional leaf growth on grasses may occur.

Winter precipitation within the RA comes primarily in the form of snow. Records from a weather station at May, Idaho indicate that approximately 27% of the annual precipitation at the lower elevations of the RA falls as snow during the five months from November through March. As elevation increases, a greater percentage of the annual precipitation falls as snow (approximately 39% in the 20 inch precipitation zone). Snow depths vary considerably throughout the RA. An average low of seven inches occurs at Challis, Idaho, with 50 to 60 inches occurring at the highest elevations. Average annual snowfall at the lower elevations is 27 inches, but snow generally does not accumulate to a significant depth due to melting and/or sublimation between precipitation events. At higher elevations snow accumulations of four to six feet are common and will persist into May, especially in drifted areas. This winter precipitation replenishes ground water supplies and soil moisture prior to the spring growing season. Winter moisture, which infiltrates and percolates slowly and gradually, is especially critical in coarse-textured droughty soils, for it is the primary source of effective precipitation for such soils. The persistence of snowdrifts on the high-elevation divides until early summer delays forage growth at these locations.

Rain-on-snow events occur to some extent almost every year. Fall and early winter events (before any significant snowpack has accumulated) do not generally produce significant consequences, although they can produce flows which are higher than would be expected from a given rainfall event. Late winter or early spring rain-on-snow events seem to occur less frequently. They can potentially cause very significant flow events to occur. However, the flow events generally do not cause much surface erosion or severe channel erosion. Late winter or early spring rain-on-snow events can also have a lasting effect on water quantity, by very rapidly releasing snowpack which would have recharged groundwater supplies and helped maintain base stream flows.

Average monthly temperatures in Challis, Idaho range from a high of 68 °F in July to a low of 18 °F in January. During winter an extreme low of -33 °F may occur, and in summer the high may reach 103 °F. Moderate to strong winds in winter can cause a windchill of as low as -25 to -75 °F in some portions of the RA. Extremely low and high temperatures occur nearly every year, but do not persist for long periods of time. Daily freezing and thawing occur during late fall and early spring as temperatures vary from daytime highs in the fifties and sixties to night-time lows in the twenties and thirties. The frost-free growing season generally averages less than 100 days on the lower elevation agricultural lands and may be as few as ten days at the highest elevations in the RA. Extended periods of extreme cold have caused complete icing-over and winter flooding of some rivers and creeks. Ice build-up can also cause some bank damage as the ice breaks away from the banks. The extent of damage depends on the condition of vegetation on

those banks.

Prevailing winds aloft are generally from the west. Surface winds are influenced by topography and may blow either up or down drainages. In the winter months persistent temperature inversions may develop in valleys as high pressure builds over the area. Nighttime inversions in summer and fall may also develop due to the large diurnal and elevational temperature differences. Vegetation is affected by dry winds in the spring, which increase evaporation and reduce the available moisture needed for plant growth. Relative humidity in the Resource Area during the growing season can be as low as 5 to 20%.

Air Quality.

Law, Regulation, and Policy

The Clean Air Act of 1963 contains national ambient air quality standards which set limits on the total amounts of specific pollutants allowed in the atmosphere. The Clean Air Act also gives authority to the states to set more stringent standards, with which the BLM must comply. Congress established a system for the Prevention of Significant Deterioration (PSD) through the Clean Air Act Amendments of 1977, under which areas are classified into PSD Class I, II, or III. PSD Class I areas include National Parks and certain Wilderness Areas; virtually any air quality degradation in these areas is considered significant. In PSD Class II areas, moderate air quality deterioration associated with moderate, well-controlled industrial and population growth is allowed. The greatest amount of impact is allowed in areas classified as PSD Class III.

Affected Environment

Under the Clean Air Act (as amended, 1977), all BLM-administered lands were given PSD Class II status. Challis Resource Area lands will continue to be managed as PSD Class II unless they are reclassified by the State of Idaho as a result of procedures identified in the Clean Air Act (as amended, 1977). Wilderness Study Areas (WSAs) within the Resource Area (see *Map 42: Wilderness Study Areas*) are also managed under the non-impairment criteria of PSD Class II. PSD Class I areas which could potentially be affected by BLM management of the Challis Resource Area include Yellowstone and Grand Teton National Parks and the Red Rock Lakes, Selway-Bitterroot, Craters of the Moon, and Sawtooth Wilderness Areas.

Air quality in the Challis Resource Area is generally believed to be excellent, because of the remoteness of the RA's geographical location in east-central Idaho. Some air quality degradation occurs within the Challis Resource Area, but it is usually seasonal and short-term. None of the Resource Area is classified as a nonattainment area (see *Glossary*, p. 177).

Occasionally in the spring and summer months, short periods of smoke haze occur when forest or farmland fires are burning locally. Smoke haze can also develop when large forest or brush fires are burning in northern Idaho, Montana, Nevada, or California. Smoke from such fires is

borne on the prevailing winds, and results in hazy conditions for a few days to several weeks.

In the winter months air inversions sometimes develop in the valleys. Valleys with larger populations (*e.g.*, Salmon or Challis, Idaho) can experience an increase in smoke haze from wood burning heaters and other urban pollutants. During an inversion the air movement stagnates and prevailing breezes do not disperse the pollutants. Inversions can last from one to many days, during which time a decrease in air quality occurs.

Other minor pollutants include smoke from ditch, slash, and garbage burning, and dust from vehicular traffic on unpaved roads. Many local residents burn their fencerows and ditches once or twice annually in the spring and fall. This burning is not controlled or regulated, except during the fire season, when a burning permit is required by the Idaho Department of Lands. Residents of Custer County are required to burn trash at designated garbage dumps and are discouraged from burning animal carcasses. Reported violations are investigated by the Idaho State Health Officer and County Attorney. Dust pollution can be locally quite heavy on the more frequently traveled unpaved roads. However, these pollutants rarely persist and are dispersed by the prevailing winds. Locally higher concentrations of pesticide vapors are sometimes evident following noxious weed spraying. These pollutants are very localized and quickly dispersed.

Livestock production is a prevalent activity in the Challis Resource Area. However, methane production from livestock has not been identified as a significant air quality concern. During the grazing season, when most livestock are dispersed on Federal lands, there are no apparent or detectable increases in methane concentrations. During winter months, when livestock are concentrated on private lands and air inversions occur, there may be localized increases in methane concentrations. Any methane concentration increases which may occur have not been identified as an air quality problem either locally or regionally.

Areas of Critical Environmental Concern.

Law, Regulation, and Policy

The Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1701 *et seq.*) provides for Area of Critical Environmental Concern (ACEC) designation and establishes National policy for the protection of public land Areas of Critical Environmental Concern. Section 202(c)(3) of FLPMA mandates the BLM to give priority to the designation and protection of ACECs in the development and revision of land use plans. BLM Manual 1613 describes the process followed to nominate ACECs and screen areas for their suitability for ACEC designation. The BLM's planning regulations (43 CFR 1610.7-2) establish the process and procedural requirements for designating ACECs in Resource Management Plans and RMP amendments.

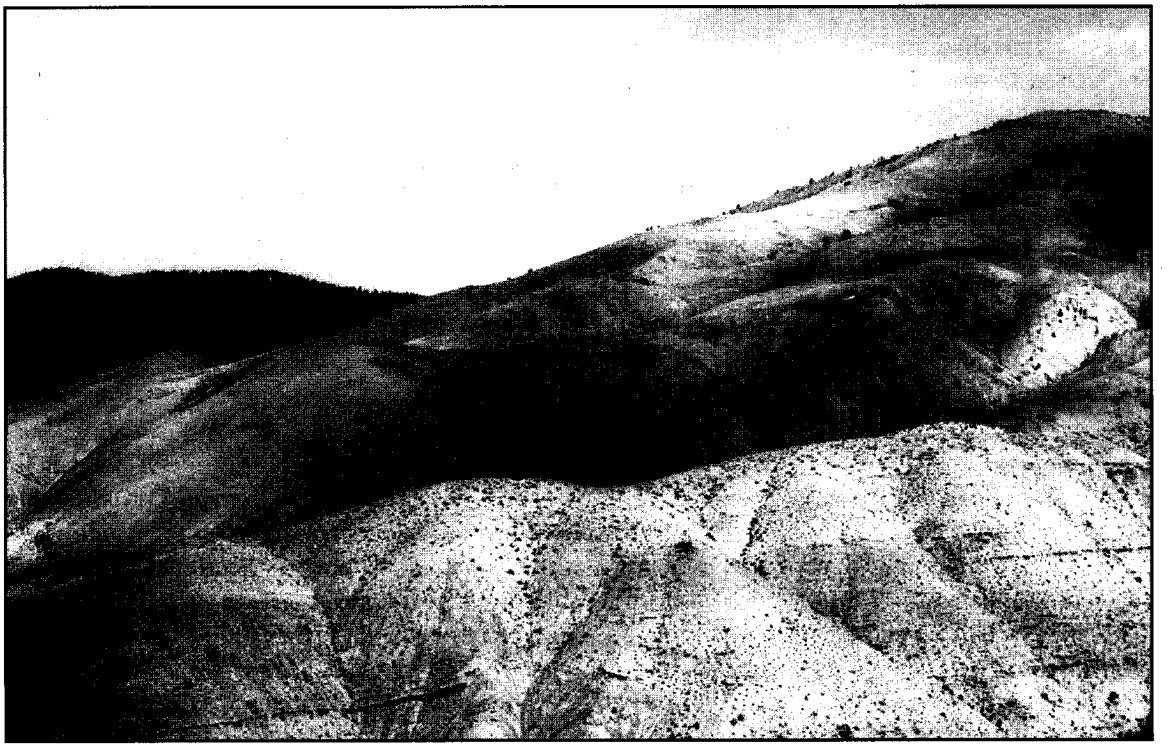
Affected Environment

The purpose of an ACEC designation is to "highlight" values, resources, or conditions that need management and/or protection (see *Glossary*: Area of Critical Environmental Concern). While

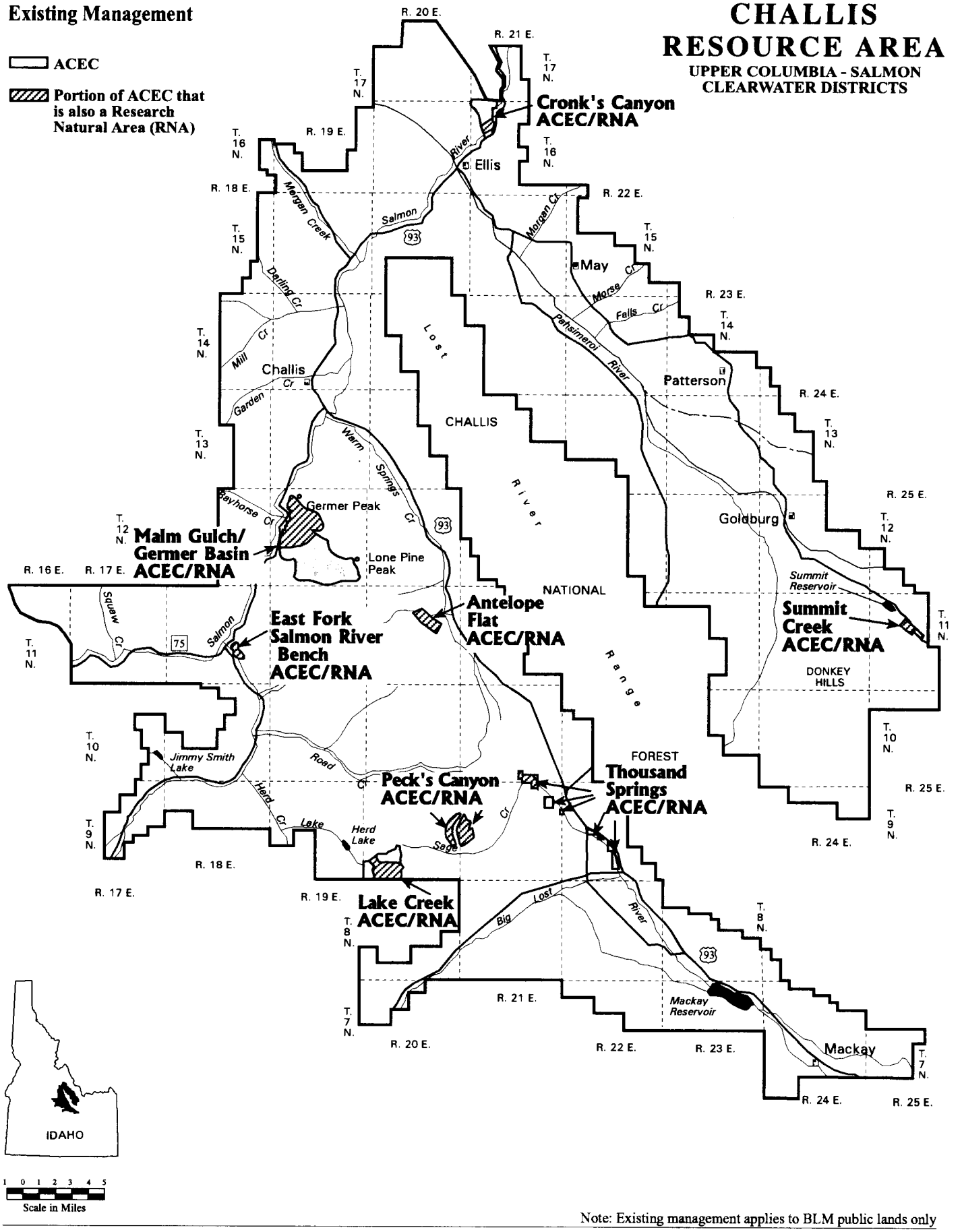
an ACEC may emphasize one or more unique resources, other existing multiple-use management can continue within an ACEC as long as the uses do not impair the values for which the ACEC was designated. Some ACECs in the Challis RA also contain Research Natural Areas (RNAs) (see *Glossary*). RNAs are ACECs or portions of ACECs designated for study of some natural, pristine, or unique characteristics of an area. RNA designation requires nomination and concurrent designation through the ACEC designation process.

A land use or activity plan is the principle means for prescribing management direction for each ACEC/RNA. The *Final Plan Amendment and Environmental Assessment* for the Challis, Mackay and Ellis-Pahsimeroi MFPs (December 21, 1987) prescribes specific management for the existing ACECs and RNAs in the Resource Area. The Thousand Springs/Chilly Slough Habitat Management Plan, approved in 1989, also describes management for the Thousand Springs ACEC. No other specific ACEC activity plans have been prepared.

The Challis Resource Area has eight formally designated ACECs, which include 5,975 acres of Research Natural Areas (see *Map 3-1: Existing ACECs General Location*). *Table 3-1* summarizes the acreage, values, nomination, condition, and trend of those ACECs.



Malm Gulch ACEC



BLM, Idaho State Office, Mapping/GIS, 1998

Table 3-1: Formally Designated ACECs in the Challis Resource Area

ACEC	Acreage	Values	Nomination[1]	Condition[2,3]	Trend[3]
Malm Gulch/Germer Basin	7,823	pristine vegetation rare plants paleontological	INACC/TNC	good	stable
Antelope Flat	588	pristine vegetation	INACC/TNC	good	stable
Peck's Canyon	782	pristine vegetation	INACC/TNC	excellent	stable
East Fork Salmon River Bench	78	pristine vegetation riparian	INACC/TNC	excellent	stable
Cronk's Canyon	1,496	pristine vegetation bighorn sheep	INACC/TNC	good	stable
Lake Creek[4]	2,054	pristine vegetation wildlife	INACC/TNC	good	stable
Summit Creek	304	vegetation riparian fisheries recreation rare plants	INACC/TNC	good	stable
Thousand Springs	896	wildlife waterfowl habitat	INACC/TNC	fair	upward

[1] INACC = Idaho Natural Areas Coordinating Committee; TNC = The Nature Conservancy.
[2] Refers to the condition of values managed.
[3] Condition and trend estimates are based on the judgement of BLM staff specialists.
[4] The Challis Proposed RMP would incorporate the Lake Creek ACEC and RNA into the Herd Creek Watershed ACEC/RNA (see PRMP, ACECs, p. 34).

A more detailed description of the eight existing ACECs is contained in the *Final Plan Amendment and Environmental Assessment* for RNA/ACECs (December 21, 1987), which is available for review at the Salmon Field Office.

Proposed ACECs

Table 3-2 lists the seven proposed ACECs which were nominated and evaluated by an interdisciplinary team of BLM staff specialists and managers to determine if they (a) met ACEC relevance and importance criteria and (b) should be proposed for ACEC designation in the Challis Proposed RMP (see PRMP, ACECs, pp. 29-39). An area was determined to meet relevance criteria if it contains one or more of the following: (a) a significant historic, cultural, or scenic value; (b) a fish or wildlife resource; (c) a natural process or system; or (d) a natural hazard. The value, resource, system, process, or hazard must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following: (a) it has more than locally significant qualities which give it special worth or meaning compared to any similar resource; (b) it has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change; (c) it has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA; (d) it has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare; or (e) it poses a significant threat to human life and safety or to property (BLM Manual 1613.1).

Table 3-2: Size, Values, and Relevance and Importance of Proposed Areas of Critical Environmental Concern (ACECs)

Name	*Size*	*Values*	*Relevance and Importance*
Dry Gulch	ACEC/RNA: 539 acres	Populations of *Thelypodium repandum*, a sensitive plant species, and several populations of two rare/sensitive Challis endemic plant species.	A population of *Thelypodium repandum*, a sensitive plant species, is present in Dry Gulch, along with other unusual Challis endemic plant populations (*Astragalus amblytropis* and *A. aquilonius*). The thelypody population is on the fringe (northern-most edge) of the species distribution, occurring on different substrate and with different associated species (*e.g.*, Salmon River wild rye) than the populations found in the center of the species distribution. It is likely that this population is genetically different from other populations to the south. Stands of Salmon River wild rye, *Elymus ambiguous salmonensis*, a species endemic only to the Challis area in close proximity to the Salmon River corridor, are represented on the site.

Name	*Size*	*Values*	*Relevance and Importance*
Sand Hollow	ACEC/RNA: 3,332 acres	Populations of *Thelypodium repandum*, a sensitive plant species; several populations of rare or sensitive Challis endemic plant species; fragile soils; and a geologic area of interest.	Populations of these Challis area endemic plant species in the Sand Hollow area are representative of typical populations occurring within the East Fork watershed: populations of *T. repandum* (a sensitive plant species), and populations of *A. amblytropis* and *A. aquilonius* (rare/sensitive Challis endemic plant populations). The area identified contains two known population areas and additional habitats that may be suitable for these species. Soils in the Sand Hollow watershed are fragile, requiring special management consideration. At the upper end of the watershed are the Paint Pots, an assemblage of bright, multicolored outcroppings of Challis volcanic material that are unique to the area.
Pennal Gulch	ACEC: 5,832 acres	Populations of *Thelypodium repandum*, a sensitive plant species; other rare/sensitive plants; unique riparian area; unique and representative vegetation of the area.	Populations of *T. repandum* in the Pennal Gulch area are representative of those found in the north central portion of the species range. The Pennal Gulch area contains four known subpopulation areas of this species, and habitat for additional populations. The area also contains many of the Challis endemic sensitive species, including *Astragalus aquilonius* and *A. amblytropis*, and representative examples of typical Challis area communities and unusual associations containing rare or sensitive species. An unusual cottonwood community with a unique understory composition is present along a portion of the drainage channel.
Herd Creek Watershed	ACEC/RNA: 17,943 acres This would include the existing Lake Creek ACEC (2,054 acres)/RNA (1,055 acres).	Important known spawning area for steelhead trout and chinook salmon; bull trout habitat; riparian recovery demonstration and control area; rare/sensitive plants; roadless, primitive, and scenic values.	Herd Creek is a known spawning stream for the threatened steelhead trout and chinook salmon, and is one of the key spawning tributaries of the East Fork critical habitat watershed. Bull trout, a resident fish species listed as threatened, are also found in Herd Creek. The upper main stem of Herd Creek on BLM land below the Forest Service boundary has been fenced since 1980, and serves as a demonstration and control area for riparian study, recovery and management. Three populations of *Thelypodium repandum*, a sensitive plant species, are known from this area, the most southern edge of the species range. The peripheral location and the range of habitats on which *T. repandum* occurs in the area suggest significant genetic differences from other populations in the region. The area also contains many of the Challis endemic sensitive species, including *Astragalus aquilonius* and *A. amblytropis*. Most of the watershed is in WSA status because of its primitive and scenic values, naturalness, and opportunities for solitude. The Lake Creek portion of the watershed above the State section on Lake Creek is a suitable WSA (see *Glossary,* p. 183).

Name	*Size*	*Values*	*Relevance and Importance*
Birch Creek	ACEC: 8,649 acres	Crucial winter range and lambing habitat for bighorn sheep; rare/sensitive plants.	The area provides general winter range, critical winter range, and lambing habitat for a remnant herd of approximately 50 bighorn sheep. The inherently low genetic viability of such small populations places the population at risk from environmental events. Levels of human activity, off-road vehicle use, and disturbance from domestic dogs are greater than normal because of the area's close proximity to the town of Challis (see *Map 6: Birch Creek ACEC*). The potential for mineral development activity is relatively high in this area, and livestock grazing is an existing source of forage competition. Two populations of *Thelypodium repandum*, a sensitive plant species, and one population of Lemhi milkvetch (Astragalus aquilonius), another rare/sensitive species, have been found in the area.
Donkey Hills	ACEC: 29,706 acres (Note: The ACEC would include approximately 4,714 acres in the Big Butte Resource Area - BLM.)	Crucial winter range, general winter range, and calving habitat for a large elk herd.	The area encompasses winter range and calving habitat for approximately 800 elk. The winter range is important to the long term survival and viability of outlying elk populations. It is regionally significant because it is used by elk from many distant big game hunt units and helps maintain regional levels of elk hunting opportunity. The area's forage, cover, and other habitat components are critical to maintaining good quality habitat conditions on distant winter ranges and in reducing regional crop depredation complaints.
Lone Bird	ACEC: 9,969 acres	Numerous and unique cultural resources; rare and sensitive plants.	The area contains a number of prehistoric sites, identified quarry sites, and evidence of deeply stratified cultural deposits. The prehistoric sites are threatened by intensive erosion, vandalism, and destructive casual use. Several of the sites are listed on the National Register of Historic Places. The area is also of local and regional significance to the Shoshone-Bannock Tribes for its socio-cultural values. One population of *Thelypodium repandum*, a sensitive plant species, and populations of two other Challis endemic plant species (*Astragalus amblytropis* and *A. aquilonius*) are found in the area.

Biological Diversity.

Law, Regulation, and Policy

The Federal Land Policy and Management Act (FLPMA) (43 USC 1701 *et. seq.*), the Endangered Species Act (16 USC 1531 *et. seq.*), and BLM Manuals are the BLM's primary authorities for managing biological diversity. FLPMA requires that (1) public land resources be periodically and systematically inventoried, (2) public land resources be managed in a manner that will protect the quality of scientific, ecological and environmental values, and (3) ACECs be identified where special management attention is required to protect and prevent irreparable damage to important values, including fish and wildlife resources or other natural systems or processes. Manual section 6500.06 states: "Manage habitat with emphasis on ecosystems to ensure self sustaining populations and a natural abundance and "diversity" of wildlife, fish, and plant resources on the public lands." Manual section 6840.06 states: "Conserve endangered and threatened species and the ecosystems upon which they depend."

Affected Environment

Data on biodiversity in the RA include a variety of inventories of vertebrate animal and vascular plant species, classification of vascular plant communities, and mapping of plant community distribution. Inventories of rare plant and animal species and their distributions is ongoing. Data on the distribution and occurrence of non-vascular plants are limited to documented occurrences of some lichens and mosses. Data on invertebrates are limited to non-BLM sources such as museum records and private collections.

Concern about the management of biodiversity has only begun to receive attention during the last three to five years. New tools, such as computerized geographic mapping of public land resources, are just now becoming available to facilitate the storage and retrieval of biodiversity data after the information is obtained through inventories. (The RMP proposes resource inventories which focus on the collection of biodiversity data (see PRMP, Biological Diversity, Goal 1, p. 40.)

Biodiversity is the variety of life and its processes and includes four primary levels of variation: genetic, species, community, and landscape/ecosystem. The most basic level of variation is genetic diversity. Genetic variation within and between populations of species affects their physical characteristics, viability, productivity, resistance to stress, and adaptability to change. Species diversity includes variation in the abundance of individuals within a population and the numbers of species within a community or given geographic area. In the Challis RA, species such as redwing blackbirds, Basin big sagebrush, and Douglas-fir trees are abundant; others, such as the chinook salmon, are not. Associations or populations of species comprise the community level of biodiversity. Communities form the biotic parts of ecosystems and can usually be recognized as distinct stands, patches, or sites such as old growth forests, riparian areas, or wetlands. Finally, at large geographic scales, biological diversity includes variety in the kinds of ecosystems and their patterns and linkages across regional landscapes.

Because different species of plants and animals utilize different stages of biological community succession (see *Glossary*: ecological status, p. 170), maximizing the number of successional stages can increase the number of species on a given tract of land. A change in land use or land manipulation involves a trade-off between species that benefit from the change and those that do not. If the species that are harmed by a given land use or management action are rare or more imperiled than the ones that benefit, or if the land use eliminates a rare species or community, then biological diversity is reduced. If the land use eliminates a species or community that is common elsewhere in the landscape and provides an opportunity for a rare or imperiled species or community to increase, then biological diversity is enhanced (The Keystone Center 1991).

Genetic Diversity

Little is known about the levels or distribution of genetic diversity in the RA. It is fairly well established that populations that are ecologically or geographically isolated may be unique, and even within the main population of a species, genetic selection and environmental variation may have established significant genetic differences. Thus, subpopulations of rare plants on the fringe of a species range are likely to be genetically different from the remainder of the population. The species listed in *Table 3-27: Rare and Endemic Plant Species Known or Likely to Occur in the Challis Resource Area* (see ***Chapter 3*** - Vegetation, pp. 292-293), are examples of species that are limited geographically and are endemic to the Challis RA. The same is true of isolated fish and wildlife populations. The spotted frog population in Chilly Slough and anadromous fish stocks spawning only in the East Fork Salmon River are examples of subpopulations with a high probability of significant genetic difference from other populations.

The conservation of genetic diversity can be accomplished by maintaining representative communities and their component species without tracking the genetic material itself (Keystone Center Report 1991). This would involve restricting or controlling the release of exotic and native species that may threaten natural communities or populations; maintaining genetically representative examples and unique populations of native species throughout their ranges; and maintaining genetic integrity of selected distinct populations, races, and subspecies to ensure that the gene pools they represent do not become extinct.

Species Diversity

Data on species diversity in the RA include comprehensive inventories of vertebrate animal and vascular plant species. Data on invertebrate species are limited to museum records and other non-BLM sources such as private collections. Species distributions have not been completed for all vertebrate animals and vascular plants. Data on the distribution and occurrence of non-vascular plants are limited to documented occurrences of some lichens and mosses. Inventories of rare plants and animals are ongoing.

Inventories, studies, and observations have documented 307 vertebrate fish and wildlife species in the RA. This list (see Planning Record) does not include species that have been documented only once or twice and are considered to be accidental in occurrence. The distribution of the larger, more easily observed, common vertebrate animal species is relatively well known. Data

are limited on rare vertebrate species, especially those that are difficult to observe due to their ability to elude observers, their small size, or the inaccessibility of their habitats to humans. Most of the species listed in *Table 3-36: Special Status Wildlife Species of the Challis Resource Area* (see ***Chapter 3*** - Wildlife, pp. 325-326) belong in this category.

One factor affecting conservation of biodiversity is population viability (see *Glossary*: viable population, p. 185). In general, viability indicates the likelihood of a species' continued existence in an area for some specified period of time. Viability is generally higher in direct proportion to population size, width of geographic distribution, kinds and numbers of locations occupied by the species, and overall species resistance and tolerance to environmental change or disturbance. The concept of population viability provides a relative standard for judging the expected future for native plant and animal species. Population viability of species listed in *Table 3-36: Special Status Wildlife Species of the Challis Resource Area* (pp. 325-326) and *Table 3-27: Rare and Endemic Plant Species Known or Likely to Occur in the Challis Resource Area* (pp. 292-293) is generally unknown due to relatively limited information on species distribution, habitat requirements, and other factors. Special status fish, plant, and animal species are more fully discussed in three other sections of ***Chapter 3***: "Fisheries" (pp. 222-227), "Vegetation" (pp. 278-296), and "Wildlife" (pp. 315-326).

Endemic species are native plant or animal species which are limited in distribution to specific geographic areas. The Challis Resource Area, with its unusual volcanic soils and dry climate, contains a number of species which are unique to this area - they do not occur anywhere else in the world. Some endemic species are so common within their limited distribution that they are not considered in any danger of extinction, and thus may not warrant a special status category. They do deserve recognition, however, as important elements of biodiversity. *Table 3-27: Rare and Endemic Plant Species Known or Likely to Occur in the Challis Resource Area* (pp. 292-293) lists the endemic, peripheral, disjunct, and unusual plant species of the Challis Resource Area that are not designated special status species (see *Glossary*: disjunct, endemic, peripheral, pp. 170, 171, and 178).

Community Diversity

The distribution of common plant communities is relatively well known in the RA. *Table 3-21: Vegetation Summary for the Challis RA* and *Table 3-22: Riparian Community Types* (see ***Chapter 3*** - Vegetation, pp. 282-283) list the principle plant communities that have been described for the RA. Various community type and ecological site inventories have been conducted in different parts of the RA, and are available for review in the Challis RA office.

Conservation of naturally occurring plant and animal populations requires the maintenance of representative examples of all biological communities, along with the structural diversity of these communities and the migration corridors that connect communities and ecosystems. Especially important are biological communities that are limited in distribution or require special management to maintain them. Examples are old growth forests, wetlands, riparian areas, and other unique communities with limited distributions, such as the rare plant communities that occur in some areas proposed for ACEC designation (see PRMP, ACECs, pp. 29-39). Special habitats, such as

talus slopes and cliffs, provide another component of diversity.

Communities occupy units known as ecological sites which can be mapped. Ecological sites are determined by soil, climate, and vegetation and are standardized by the Natural Resources Conservation Service (formerly Soil Conservation Service) during soil survey mapping efforts. Vegetation on an ecological site may be comprised of a range of possible plant communities in different successional or seral stages (see *Glossary*: ecological status, p. 170). The composition of plant and animal species usually varies by seral stage. The potential natural community (PNC) (see *Glossary*) is the seral stage that theoretically would occur on an ecological site barring any disturbance. Early, mid, and late seral plant communities typically result from the effects of disturbance events such as fire, timber blowdown, insect infestation, or past and present land uses. It is believed that fire suppression and grazing of herbaceous fuels have progressively reduced the size of wildfires in the Resource Area. This may have resulted in a gradual, extensive increase in sagebrush canopy cover on many upland vegetative sites, and an increase in coarse fuel loads in forested areas (see ***Chapter 3*** - Fire Management, pp. 220-221). The current effects on biodiversity of these changes in vegetative condition are discussed in the Draft RMP/EIS, ***Chapter 4*** - Biological Diversity, pp. 190a-197a, Alternative 1.

The structural diversity of a plant community is characterized by features such as snags and large fallen trees, canopy structure, plant age diversity, and the presence of pools and riffles in aquatic systems. Structural diversity is usually a function of ecological succession; *i.e.*, the seral stage of a particular plant community determines structural diversity.

In the Challis RA, forest lands enhance biodiversity within the broad expanses of sagebrush-grasslands that make up most of the Resource Area. The vertical and horizontal structure of forest stands, their patchiness on the landscape, and their occurrence on more mesic (wet) sites result in different associations of plant and animal species. The presence of extensive forest lands at higher elevations on adjacent National Forest lands detracts little from the biological importance of BLM forest lands as islands, edges, and ecotonal areas bordering sagebrush-grassland communities (see *Glossary*: ecotone, edge, island, pp. 171 and 175).

Structural diversity contributes to species richness and the general ecological function of all plant communities. It is especially important in forested areas, where snags and fallen trees may support up to 20 percent of the vertebrate species (Keystone Center Report 1991). Many of these species (*e.g.*, woodpeckers) help maintain ecosystem health. Structural diversity is also important for numerous poorly-known elements of diversity, such as invertebrate and fungal species, due to the array of habitats and special niches that structural features provide. Structural diversity is typically high in natural forested stands and healthy sagebrush grasslands. Younger, managed forest stands typically have lower structural diversity, due to timber harvest which removes older trees, and subsequent site preparation, which removes or redistributes downfall and other woody debris.

Landscape/Ecosystem Diversity

Landscape or ecosystem diversity is the geography of the size, shape, and connectedness of different ecosystems across a large area, and may be described in terms of the arrangements of communities within a watershed or larger area. For example, a landscape interspersed with grasslands, shrublands, meadows, ponds, streams, wetlands, forests and mountains typically has greater biological diversity than one that is a broad, flat expanse of sagebrush-grassland.

Landscape diversity has not been inventoried in the RA. However, the steep, rugged mountainous terrain, and the patchy distribution of forested areas interspersed with sagebrush-grassland results in significant natural landscape diversity.

Agricultural and residential development of private lands in valley bottoms within the RA has resulted in conversion of some native desert-shrub habitats (sagebrush and saltbush shrub communities) to non-native cultivated crops and pastures. Diversion of streams for irrigation has resulted in significant fragmentation of aquatic habitats, resulting in loss of connectivity between habitats (see *Glossary:* fragmented, p. 173). This loss and fragmentation of habitats has adversely affected some native fish and wildlife species. Sage grouse winter ranges, sage grouse strutting grounds, and antelope winter ranges in the Barton Flat area of the Mackay Planning Unit have gradually been converted to cropland and dryland pasture. In the Challis area, residential development, subdivision fences, busy highways, stray dogs, and domestic sheep are adjacent to the Birch Creek and Morgan Creek bighorn sheep winter ranges. Bighorn sheep mortality has increased above natural levels and the viability of the small Birch Creek herd is at risk. The viability of anadromous fish populations which spawn within the RA are at risk because fewer fish are returning to spawn (due to factors outside RA boundaries) and because of aquatic habitat degradation and dewatering on both private and public lands within and adjacent to the RA. Irrigation diversions and dams on streams have greatly reduced or eliminated the connectivity between essential aquatic habitat components (*e.g.,* ocean habitat and spawning areas for anadromous fish) and reduced the viability of populations by reducing or eliminating opportunities for genetic interchange.

Cultural Resources.

Law, Regulation, and Policy

Some of the legislation and implementing regulations governing cultural resource management include the following: the National Historic Preservation Act of 1966 (NHPA), as amended; the Archaeological Resources Protection Act of 1979 (ARPA), as amended; the American Indian Religious Freedom Act of 1978 (AIRFA); and the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA). The Federal Land Policy and Management Act of 1976 (FLPMA) states that public lands will be managed in a manner "that will protect the quality of...historical...and archeological values". The National Environmental Policy Act of 1969 (NEPA) and NHPA provide the objective to coordinate plans and functional programs and resources so as to preserve and protect important cultural resources early in the project planning process. Traditional lifeway values are usually identified through consultation with tribal officials. The American Indian Religious Freedom Act (AIRFA), NHPA, Executive Order No. 13007 (Indian Sacred Sites, of May 24, 1996), and certain treaty rights guarantee access, use, and protection of traditional cultural properties, religious sites, and sacred objects. *Appendix E, Item 1* (pp. 638-643) includes an overview of relevant Federal legislation affecting cultural resource management.

Affected Environment

The BLM is responsible for identifying, protecting, managing, and enhancing archaeological, historic, architectural, and traditional lifeway values located on BLM public lands, as well as those that might be affected by BLM undertakings on non-Federal lands. The Challis Resource Area's cultural resources program manages archaeological remains, historic values, and traditional lifeway values important to Native American groups. (See *Glossary*: archaeological resource/site, cultural property/resource, historic property, and traditional lifeway value (pp. 167, 169, 174 and 184.)

Cultural Resource Inventories

Cultural resources are generally identified through field inventories conducted by qualified professionals to comply with Section 106 of the National Historic Preservation Act of 1966 (NHPA). Informant information and historical records are also used to identify archaeological, historical, and traditional lifeway values. Three types of inventories - Class I, Class II, and Class III (see *Glossary* definition: cultural resource inventory classes, p. 169) - are conducted to identify and assess these values on BLM public lands. A Class I study has not been completed for the Challis Resource Area. An estimated 74,600 acres (9.5%) of the Challis Resource Area have been inventoried for cultural resources at a Class II level using a variety of methods. Approximately 12,500 acres (1.5%) of the Challis Resource Area have been intensively inventoried at a Class III level. Most of these Class III inventories were associated with project activities where sites needed to be identified and evaluated in order to protect significant values and minimize effects on these values.

While these inventories have served to identify numerous cultural resource sites, little work has been done to synthesize the results and provide a comprehensive framework for assessing cultural resource function, significance, variability, and distributional patterns. Existing inventory information indicates that sites are situated across a variety of landscapes; however, a general hypothesis that sites are distributed near water sources has been proposed.

Prehistoric and Historic Sites

BLM lands within the Challis Resource Area contain 495 known, recorded cultural resource sites which represent a variety of types and chronological periods. Together, these sites document an almost continuous human occupation of the RA from at least 11,000 years ago to the present.

Identified prehistoric sites include lithic scatters, quarry sites, rockshelters, talus pits, rock structures and piles, and pictographs. These remains mostly represent activities occurring within the RA prior to the arrival of European populations in the 1800s. Based on information available in the archaeological record, the mountains and valleys located north of the Snake River Plain (which include lands of the Challis Resource Area) appear to have been major areas of prehistoric utilization in central and eastern Idaho. While sites adjacent to the RA record human presence and big game hunting as early as 14,500 years ago (see Gruhn 1961 on Wilson Butte Cave), archaeological remains found within the RA indicate at least 11,000 years of human presence in the area. Due to the scarcity of research conducted on prehistoric archaeological sites within and adjacent to the RA, little is known about these early inhabitants.

Historic sites in the Challis Resource Area include components of historic mining districts, stage and freight road remnants, homesteads, cabins, and dumps. Fur trapping and exploratory expeditions in the early 1820s marked the first European presence in the Challis Resource Area. A major Euro-American population expansion in the RA occurred in the 1860s when gold was discovered. This expansion eventually led to serious friction with the original inhabitants of these lands, and culminated in the U.S. Army's removal of most remaining non-reservation Indians in 1879. Some Indian families were able to escape capture and remain in the remote and rugged country until the 1900s. Small ranches and farms soon appeared in the arable valleys to meet the needs of the miners. Mining communities, now seen as ghost towns, also sprang up to serve the burgeoning mining industry. Custer County was created in 1881 and the boom continued until the early 1900s. While prospecting for gold and silver continued to be of great interest into the 1920s, cattle and sheep ranching operations became the primary economic focus during the settlement and homestead period (1880s to present).

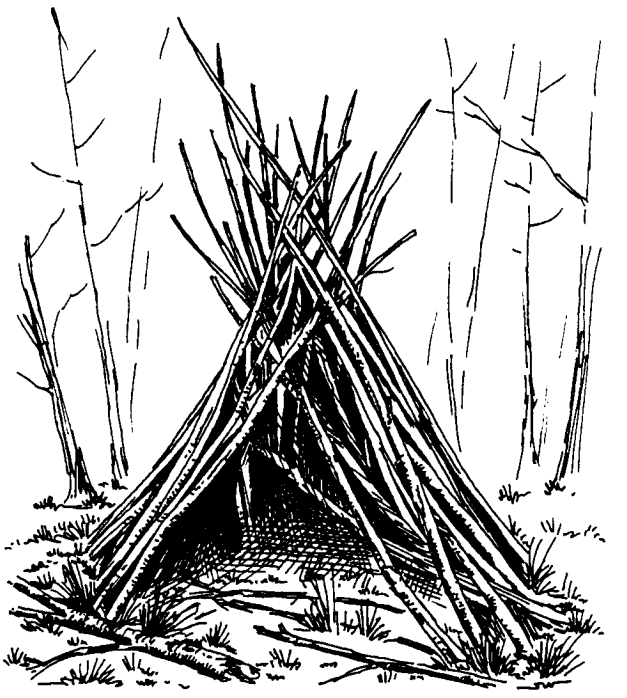
Native American Traditional Values

Native American Indians lived on lands within the RA for thousands of years. They hunted, fished, gathered plant foods, buried their dead, and conducted religious ceremonies. Beliefs, customs, and practices of their culture were passed down through generations and were still in use when the Indians were removed from their homelands onto reservations. Today, many of the customs are still being practiced by Native Americans on RA lands. The areas used for these practices hold special significance to Native Americans.

Cultural Resources Special Areas

The Challis Resource Area lies at the boundaries of three distinct cultural areas: the Plains, the Great Basin, and the Columbia Plateau. The majority of the known sites located in the RA are considered eligible to be listed on the National Register of Historic Places (NRHP). Several sites are listed on the Register, including the Challis Bison Jump and twenty-eight sites included in the Challis Archaeological Spring District. The Bayhorse Mining District is also listed on the Register, although most of the site lies on private patented lands.

Other cultural resource areas located within the Challis Resource Area hold special significance to Native Americans and as indicators of prehistoric and historic adaptation in the RA. Noteworthy cultural resource areas are further described in *Appendix A, Item 1: Cultural Resource Special Areas* (page 599).



Wickiup - Challis Resource Area

Cultural Resources Condition and Trend

Cultural resources condition and trend in the RA vary considerably due to the variability of terrain and geomorphology, access and visibility, and past and current land use. Because recorded sites are manifested by exposed artifacts, features, and/or structures, they are easily disturbed by elements such as wind and water erosion, animal and human intrusion, and development and maintenance activities. Cultural resources may be "harvested" by three methods: approved site excavation, unauthorized use (vandalism/collection), and Native American use of traditional lifeway values. Based on limited site visitation, site form documentation, and informant information, the trend of site conditions in the RA is considered to be downward. Vandalism or collecting (unauthorized digging and "pothunting") at recorded sites, impacts caused by development and maintenance activities (associated with grazing, mining, and recreation), and erosion (*e.g.,* natural, human, animal) have adversely affected known cultural resources.

The demand for cultural resources particular to the Challis Resource Area is thought to be moderate, based on known interests of researchers and members of the Native American community, documented site conditions, informant information, and site visitation.

Economy and Society.

Law, Regulation, and Policy

The National Environmental Policy Act of 1969 requires that the human environment be considered when evaluating the environmental impacts of proposed public land actions. Thus, the BLM shall consider how the effects of its actions extend beyond public lands boundaries into the surrounding social and economic environment.

Affected Environment

This section describes the economic and social climate of two distinct geographical regions which may be affected by RMP actions: the Fort Hall Indian Reservation and the Custer-Lemhi counties two-county region (see *Map 20: Economic and Social Analysis Regions*).

Fort Hall Indian Reservation

The Fort Hall Indian Reservation, home of the Shoshone-Bannock Tribes, is located in southeastern Idaho (see *Map 20: Economic and Social Analysis Regions*). The Reservation contains about 544,000 acres (850 square miles), 96% of which is individually and tribally owned (Shoshone-Bannock Tribes 1994). Land uses on the Reservation are as follows: 325,000 acres for grazing/timber; 140,000 acres agriculture; 33,728 acres of flooded reservoir; and 12,500 acres for mining (Colter *et al* 1995). Bannock, Bingham, Caribou and Power counties lie within the boundaries of the Reservation, and the cities of Blackfoot (pop. 9,646 - 1990 U.S. Census) and Pocatello (pop. 46,080 - 1990 U.S. Census) are on the northern and southern ends of the Reservation. The most populous portion of the reservation lies between the cities of Pocatello and Chubbuck to the south and Blackfoot to the north. The townsite of Fort Hall (pop. 900) is an unincorporated village in Bingham County and the only major community within the Fort Hall Reservation.

Under the *Treaty with the Eastern Band Shoshone and Bannock, 1868* members of the Shoshone-Bannock Tribes retain rights to hunt, fish, and gather natural resources on unoccupied lands of the United States **outside** the boundaries of the Reservation, including public lands within the Challis Resource Area. Currently, the Tribes do not depend on commodity resources from the Challis Resource Area for their economic livelihood. However, the Tribes do rely on resources from public lands for subsistence and cultural purposes. Little specific information is available on the Tribes' degree of dependence on resources from the Challis Resource Area, or on the exact species sought or locations used by tribal members exercising their treaty rights in the RA. **(Note:** For additional information on tribal treaty rights in the Challis Resource Area, see ***Chapter 3*** - Tribal Treaty Rights, pp. 276-277.)

The Fort Hall Indian Reservation economy is primarily comprised of economic activity related to leasing agriculture land for irrigated crop production; contracts with the Federal government;

grants from Federal, state, and private sectors; and operation of the Bingo Hall and the Trading Post complex (grocery store, restaurant, clothing store, gas station, and museum) located just off of Interstate-15. Through the efforts of Tribal government, the Tribal Employment Rights Ordinance (TERO) program, and others, economic and social conditions on the Reservation seem to have improved gradually during the past 15 years. However, the Reservation economy still exhibits unemployment and household poverty levels far greater than the average unemployment and poverty levels for the U.S., Idaho, or four surrounding counties. According to Jorgensen (1972), the poverty, health, and other problems common among Native American groups are derived from their position within the economy of the general society. Jorgensen (1972) documents that conquest of various groups, the forcible taking of Indian-owned lands, the past confinement of Indians to reservations; racist-ethnocentric attempts to destroy Indian cultures, and contemporary attempts to secure control over Indian lands, water or other resources have resulted in the poverty of Indians past and present.

Demographics

The Tribes have 3,528 enrolled members who live on and off the Reservation. According to 1990 census data, 3,035 American Indians live on the Fort Hall Reservation and the total Reservation population is 5,114 persons. Of the tribal members living on the Reservation, the highest percentage (42%) are children eighteen years or younger. The Reservation also has a large percentage of persons of child rearing and working age (34%). The Reservation has a small population (10%) of young adults ages 19-24, presumably because many persons in this age group leave the Reservation to find work or attend college or trade school. The lowest percentage of the population represented on the Reservation is in the age group of 65 years and older (5%).

Tribal members living on the Fort Hall Indian Reservation (3,035 persons) comprise a small percentage (2.4%) of the total population in the four-county area; the total 1995 estimated population of Bannock, Bingham, Caribou, and Power counties was 128,569 persons (U.S. Bureau of the Census, USA Counties, 1996 CD-ROM).

Employment and Business Development

The Shoshone-Bannock Tribal Government has developed a number of tribal businesses to provide employment for tribal members. In addition, approximately 280 people are employed by the tribal government itself; most are tribal members.

A buffalo herd was established in 1966. While some animals are slaughtered annually for tribal celebrations and religious ceremonies, the herd has grown large enough that some buffalo are slaughtered routinely for sale at the Tribal Trading Post Store and Oregon Trail Restaurant. In 1976, a tribal farm of 1700 acres was established where potatoes and grain are raised by irrigation. The tribal farm enterprise has been expanded by another 550 acres at a farm near the American Falls Reservoir. In 1978, the Trading Post complex was built on the Reservation off of Interstate 15. Since 1978, the Trading Post has grown from a grocery store to include a gas station, clothing store, ice cream shop, video arcade, restaurant, museum, Bingo Hall, post office, and credit union. The Tribes have a construction enterprise which was responsible for building the

Trading Post complex. A convenience store on Interstate-86 west of Pocatello has also been opened (Colter *et al* 1995). Finally, in a sample of approximately one-third of the adult population in 1960, two-thirds of all housewives reported earning some cash through craft sales (Knack 1986).

Depending on available capital, tourism/recreation-related businesses may become a future source of income for the Tribes. Proposals include promoting the museum and buffalo herd, developing an R.V. park, developing a ski resort on Mount Putnam, and developing a marina and hotel on the American Falls Reservoir (Colter *et al* 1995).

Unemployment on the Fort Hall Reservation is high. In 1982, approximately 65% of the potential labor force over age 16 was unemployed (BIA Report On Labor Force *in* Shoshone-Bannock Tribes 1985). Since 1982, the Tribal Employment Rights Ordinance (TERO) program has become effective and made significant progress in Indian job placement both on and off the Reservation. A 1985 estimate judged the unemployment rate to have dropped substantially, to 50% (Shoshone-Bannock Tribes 1985). This unemployment rate, though improved, is still far greater than average unemployment figures nationally (4.6% in 1997), State-wide (4.8% in 1997 - Idaho Dept. of Employment 1997), or for the four-county area (5.0% in 1997 - Idaho Dept. of Employment 1997).

Expenditures for Public Goods and Services

The Shoshone-Bannock Tribes administer reservation services through various departments and programs. Under P.L. 93-638 the Tribes contract from the Federal government, Bureau of Indian Affairs, and Indian Health Services to provide services to Tribal members. Also, the Tribes receive various grants from Federal, state, and private sectors. The Tribal government operates from an estimated 4 million dollars a year from its own resources. The tribal general fund is comprised of money from assets on the Reservation. Revenue is gained from leasing agricultural lands and granting right-of-way privileges on the Reservation (Shoshone-Bannock Tribes 1994). The Tribes also use approximately 9 million dollars annually from grant and Federal sources to perform governmental functions to the tribal membership (Shoshone-Bannock Tribes 1994).

Income and Earnings

The median income on the reservation is at the poverty level or below (Colter *et al.* 1995). The gross income per working household was less than $10,000 annually for 65% of working persons and greater than $15,000 per year for only 24.6% of working persons. Thus, the vast majority (greater than 65%) of **working** households on the Reservation are at or below the U.S. poverty level for a non-farm family of four ($15,569 - U.S. Bureau of the Census 1997). The percentage of people living below poverty level on the Reservation is very different from the percentage of families in the four-county area who have incomes below poverty level: In 1979, an average of only 10% of families and 12% of persons in Bingham, Bannock, Caribou, and Power counties had incomes below poverty level (Idaho Dept. of Commerce 1989). More recent (1995) annual **per capita** (not "per household") personal income data for counties in the four county area also demonstrate the difference in economic levels between the Reservation and surrounding counties.

Per capita incomes range from $14,733 in Bingham County to $17,033 in Bannock County, substantially higher than the median poverty-level income for the Reservation (U.S. Dept. of Commerce - Bureau of Economic Analysis, *Survey of Current Business*, August 1997).

Given the poverty level of the majority of people living on the Reservation, it is likely that resources gathered through the exercise of treaty rights off-reservation are an important or essential component of personal subsistence for many tribal members. Tribal members utilize resources from the Challis RA such as big game, small game, resident fish species, anadromous fish species, and various roots, nuts, and berries to provide food for themselves and their families. Tribal members also use resources from the Challis RA for medicinal purposes and to craft products for personal use or sale at the Trading Post (*e.g.*, beaded elkskin moccasins).

Society and Culture

The society and culture of the Shoshone-Bannock Tribes are closely tied to natural resources. The Tribes' religion, general beliefs, value system, and lives continue to revolve around natural resources and their ability to hunt, fish, and gather natural resources. The Tribes' society and culture are directly tied to various natural resources from the Challis RA, for the Tribes have traditionally and historically utilized resources from this area such as elk, bighorn sheep, and salmon. For example, procuring salmon is a very essential aspect of the Shoshone-Bannock society and culture. Ceremonies, family gatherings, celebrations, and other various events are planned in conjunction with salmon runs and fishing activities. The same type of activities also occur during the hunting seasons and plant gathering seasons.

Hunting, fishing, and gathering natural resources are more than a sport or hobby for the Shoshone-Bannock people; they are a way of life that can not be separated from their culture and society. Clean water, clean air, and healthy lands that will sustain viable populations of fish, game, and natural resources necessary to subsist upon are essential to the Shoshone-Bannock Tribes' lifestyle.

Custer-Lemhi Counties Two-County Region

The socio-economic description of Custer and Lemhi counties is based on *A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties, Idaho: And Models*, a technical report prepared by the Department of Agricultural Economics and Rural Sociology, University of Idaho in fulfillment of a cooperative agreement among the Salmon District BLM, Salmon National Forest, Lemhi County, and Custer County (BLM 1994). This section presents an overview of economic and societal information about Custer and Lemhi counties which may be relevant to the RMP, including descriptions of the area's demographics, employment, income and earnings, sales, expenditures for public goods and services, business development and operations, and society and culture.

The two-county area under consideration is subregionalized for the purpose of analysis (see *Map 20: Economic and Social Analysis Regions*). Subregion boundaries are consistent with the clustering of population, physical features of the land, and distribution of economic sectors and

trade patterns. *Map 24: General Location* shows the location of major population centers within several hours drive of the Challis Resource Area.

Various social, economic, environmental, and political situations affect the economy and society of the two-county area. For example, changes in world mineral prices and Federal mineral and environmental policies affect the feasibility of mineral exploration and mining operations. Expanding urbanization nation-wide makes rural, scenic locations like Custer and Lemhi counties attractive to retirees and recreationists, contributing to local growth in the tourism sector and a population influx of retirees. Public policy regarding use of the public domain for grazing, mining, and timber harvest affects persons and businesses associated with those economic sectors. Legislation such as the Endangered Species Act may, in some locations, preclude the previous, historic use of resources such as grazing, timber harvest, and mining, while enhancing the land's value for resources such as recreation. The vast decline in salmon fisheries has reduced supplemental income opportunities for several communities which once experienced substantial salmon runs.

Demographics

Table 3-3 lists the 1990 populations of Custer and Lemhi counties and their subregions. Both counties have a large percentage of persons of child rearing and working age (ages 25 to 49) (Custer - 39%; Lemhi - 33%), households with children under age 18 (Custer - 67%; Lemhi - 83%), and persons of retirement age (age 65 and older) (Custer - 12%; Lemhi - 17%). Both counties have a small population (4%) of young adults ages 19 to 24, primarily because many persons that age leave the area to find work or attend college or trade school.

Custer and Lemhi counties are rural, with population concentrations in and around the communities of Challis, Mackay, Stanley, Salmon, Tendoy, Leadore, and North Fork. Salmon is the largest community and the trading hub for the region. In 1890 the population in each county was about 2,000 persons. Custer County had a population of at least 3,000 persons in 1920, 1940, and 1980. Recent population changes in Custer County have occurred because of the development and subsequent temporary closure of the Cyprus Mine at Thompson Creek. Custer County experienced a 29% population increase in 1981-82 due to in-migration; from 1983 to 1989, the population declined gradually due to out-migration, and layoffs at the mine in 1992 caused a further decline in population. Still, the current population (4,133) is the highest since 1890 data. Historic population data suggest that dramatic population changes are a result of migration patterns due to fluctuations in employment opportunities. Lemhi County had a population of about 6,000 in 1940, which declined gradually to about 5,500 in 1970. Lemhi County experienced population increases from 1969-1982, gradual decreases from 1982-1989, and slight increases again in the early 1990s, bringing the population to its 1990 level of 6,899 persons. As for Custer County, Lemhi County's population changes have been most dramatically affected by migration patterns due to changing employment opportunities.

Table 3-3: 1990 Population of Custer and Lemhi Counties, Idaho, by County and Subregion[1]

County/Subregion	Population Number	Percent
Custer County	4,133	37.46
Challis Subregion	1,765	16.00
Big Lost River Subregion	1,207	10.94
Stanley Subregion	444	4.02
Pahsimeroi Subregion[2]	1,109	10.05
Lemhi County	6,899	62.54
Salmon Subregion	5,009	45.40
Tendoy-Leadore Subregion	588	5.33
North Fork Subregion	910	8.25
Total Two-County Region	11,032	100.00

[1] Source: Census of Population and Housing, 1990 (in BLM 1994).
[2] The Pahsimeroi subregion includes the Patterson Division, which is within Lemhi County and has a population of 392. As a result, the subregion numbers do not add up to their respective county totals.

Employment

Appendix B, Items 1 and *2* (pp. 600-601) summarize employment for the two-county region surrounding the Challis Resource Area. Regional employment opportunities, which total 4,535 full-time equivalents (FTE) (see *Glossary*, p. 173), are dominated by agriculture (24.18%), businesses associated with visitors to the area (22.71%), State, local, or Federal government employment (20.70%), and mining (18.74%). Employment in the Challis subregion is primarily in the mining sector (55.36%), with other employment opportunities in secondary sectors which provides goods and services for the mine and employee households. The Salmon subregion has a diverse employment base, with no dominant sectors. The Stanley subregion has a majority of employment associated with visitors to the area (78.69%). The Pahsimeroi, Big Lost River, and Tendoy-Leadore subregions have a high percentage of agricultural employment (83.95%, 50.64%, and 76.93%, respectively). The North Fork subregion emphasizes employment associated with visitors to the area (63.65%) and Federal government (24.43%).

Unemployment in Custer County ranged between five and nine percent from 1982 to 1988, and dropped to between three and six percent from 1988 to 1993. Custer County's employment has tended to be stable since 1988, except when changes in the mining sector during late 1993 and early 1994 caused substantial employment fluctuation for Challis-area mine workers. Depending on mining activity in the county, unemployment levels should continue to fluctuate between three and six percent. In addition, there should be no appreciable change in the employment

composition by industry in the near future.

In Lemhi County unemployment ranged from 7 to 13 percent between 1975 and 1982, peaked at about 18 percent in 1983, decreased gradually to a low of five percent in 1989, and then increased to its current level of about 11 percent. In 1991, average unemployment for Idaho was 7.9 percent and the national average was 6.6 percent. Higher unemployment levels in Lemhi County may be due to large numbers of people employed in seasonal work associated with agriculture, tourism, and government agencies. Lemhi County has experienced more fluctuation in unemployment than Custer County during the past 15 years. Trends in retail and service industries indicate that the composition of the economy is shifting, albeit slowly. This changing employment composition may make it more difficult to predict future employment fluctuations.

Mining development since the spring of 1994 in Lemhi County (Beartrack mine) and Custer County (Hecla Grouse Creek gold mine, Yellowjacket mine, Thompson Creek molybdenum mine) have increased expectations for a healthier local economy in the near term. Temporary construction jobs have been replaced with operations jobs that are permanent and long term (although mine operations workers may transfer to another job site when this mine ceases operations in 5 to 7 years). However, minerals commodities are very sensitive to national and international markets, and changes in commodity prices can rapidly affect local mining development and employment potential.

In the Challis subregion many jobs outside the mining sector are seasonal, part-time, and/or low wage. This results in significant underemployment and situations where a family can be below the Federal poverty level even if household wage earners have several jobs. Because employment in the mining sector rises and falls with the trend of commodity prices, the economy of Challis will also need to rely on agriculture, government employment, and visitor-generated business. With a few exceptions, these sectors do not offer wages as high as the mineral sector and the jobs are often seasonal. However, these sectors provide vital employment opportunities for an area with significant evidence of multiple job holdings.

Underemployment and poverty also exist in the other subregions; probably, this is again because of a lack of full-time, yearlong, and higher-wage employment opportunities.

Of the 434 Federal employees located within Custer and Lemhi counties, 68 (15.7 percent) are employed by the BLM at its Salmon Field Office. This number increases temporarily during the summer, as seasonal employees are hired for field work and fire crews.

Income and Earnings

Specific earnings and personal income information for Custer and Lemhi counties and their subregions is provided in *Appendix B, Items 3, 4* and *5,* pp. 602-604.

Earnings for the two-county region are estimated at over 97 million dollars (1991 data). In general, the distribution of earnings in each economic sector of the counties and subregions is similar to the distribution of employment. Variations may be due to higher earnings per job in

the mining sector and lower earnings per job in the tourism sector. Earnings in the region are dominated by the mining (28.58%) and agriculture (21.78%) economic sectors. However, State, local and Federal government (19.23%), economic activity associated with visitors to the area (14.06%), and the timber industry (8.75%) also have a substantial impact on the regional economy. Custer County's earnings are generated primarily in the mining (48.61%) and agriculture (21.92%) sectors. Lemhi County has a fairly even distribution of earnings and employment throughout all sectors of the economy. Except for the Salmon subregion, where earnings are distributed fairly evenly across economic sectors, each subregion has one or more predominant sources of earnings: The Big Lost River, Pahsimeroi, and Tendoy-Leadore subregions are primarily agricultural (49.79%, 96.51%, and 85.40% of earnings, respectively); Challis subregion earnings are based on mining (68.78%); the Stanley subregion's earnings stem from business associated with visitors to the area (72.32%); and the North Fork subregion has the majority of earnings from business associated with visitors to the area (43.65%) and Federal government (36.95%).

When Custer County experienced a mining boom in the early 1980s, non-farm personal income nearly doubled, while net farm income slowly continued to decline; changes in net earnings mirrored these changes in personal income. The county has also had a slow, but steady, growth in dividends, interest, rents, and transfer payments, possibly associated with the in-migration of retired persons, who have more non-wage income sources. Income and earnings in Custer County are likely to continue to mirror employment opportunities in the primary economic sector for the county (mining). The growth in government transfer payments (particularly in government retirement) has had a stabilizing influence and should continue to do so in the near future.

Lemhi County has had steady increases in non-farm and total income since 1969, and fairly stable farm income. Government transfer payments (*e.g.*, retirement pensions) have steadily increased since 1969. This growth in government transfer payments has had a stabilizing influence on income and earnings generation within the county. Net farm earnings have tended to fluctuate in step with the cyclical trends in cattle prices (which run in 5 to 10 year cycles). Cattle prices are currently in a "down" phase of the cycle, which may require a few more years to reverse. As cattle prices increase, net farm earnings are likely to increase correspondingly.

In 1991, estimated per capita income was $11,607 for Custer County and $10,624 for Lemhi County, compared with an average per capita income of $15,366 for Idaho and $19,091 nationally. Most personal income in the two-county area is generated within the Salmon (47.10%) and Challis (28.35%) subregions, the areas with the greatest percentage of population. Income per capita is highest in the Challis subregion, where there are many higher-wage jobs in the mining sector, and lowest in the Stanley, Pahsimeroi, Tendoy-Leadore, and North Fork subregions, which have a large number of lower-wage jobs associated with visitors to the area or agriculture. Most subregions (Salmon, Tendoy-Leadore, North Fork, Big Lost, Pahsimeroi) have substantial populations of children, adults, and/or elderly persons living at or below the poverty level. The remaining two subregions (Stanley and Challis) also have a sizeable proportion of households with incomes below $25,000 per year. As discussed earlier, the poverty of the two-county region may be due to the lack of full-time, yearlong employment opportunities and few higher-wage jobs.

Sales

Total industry sales represents the level of economic activity based on the value of all goods and services produced locally/regionally. These goods and services are either sold locally, reflecting local activity, or are sold outside the region and considered export sales. Total sales for the two-county region exceeded $291 million in 1991 - $136.5 million for Lemhi County and $154.6 million for Custer County. 1991 sales for each subregion were as follows:

Subregion	Total Industry Sales	% of Region
Salmon	$120,652,400	41.4
North Fork	$4,728,100	1.6
Tendoy-Leadore	$11,176,800	3.8
Lemhi County	$136,557,300	46.9
Challis	$114,276,900	39.2
Pahsimeroi	$7,100,100	2.4
Stanley	$7,323,300	2.5
Big Lost River	$25,909,900	8.9
Custer County	$154,610,200	53.1
Total Region	$291,167,500	100.0

Expenditures for Public Goods and Services

In 1991, total expenditures for public goods and services approximated 6.1 million dollars for Custer County and 7.2 million dollars for Lemhi County. Funds for these goods and services are primarily derived from two sources: local tax revenues and non-local aid.

Total revenues from personal, real, and operating taxes in 1991 were about 2.3 million dollars for Custer County and 2.6 million dollars for Lemhi County. In 1991, non-local aid for public goods and services exceeded 3.5 million dollars for Custer County and approximated 5 million dollars for Lemhi County. Annual non-local aid to the two-county area is in the form of payments in lieu of taxes, shared Federal timber and grazing receipts, and Federal and State funds and grants.

Because the two-county region has acreage in public ownership (93% of Custer County; 91% of Lemhi County), each county is designated a sharing of Federal revenues called payments in lieu of taxes (PILT) as a substitute for real property taxes. Custer County receives approximately $207,000 per year as PILT and Lemhi County receives approximately $265,000 per year as PILT (1991). Other shared Federal receipts include timber receipts (from Forest Service lands) of $731,000 in Lemhi County and $95,000 in Custer County (1992) and grazing receipts (from BLM lands) of $14,000 in Lemhi County and $8,000 in Custer County (1993). Both counties also receive Federal and State funds and grants to help pay for mandated programs intended to provide for the health and safety of residents.

Business Development and Operations

The two-county region's trade pattern is hierarchial in nature, from smaller to larger communities The trade flow extends beyond the region to nearby population centers such as the Bitterroot Valley and Missoula, in Montana, and Idaho Falls in southeastern Idaho. From Salmon, it is often easier to travel to Missoula (142 miles) than to Idaho Falls (162 miles) for those goods and services that are not readily available locally. Most goods and services brought into the region are transported via Missoula, Idaho Falls, or Boise.

Ongoing mineral development could foster local economic growth (primarily in Salmon and Challis) as population, employment, and disposable income increase as a result of mine construction and operation. Secondary businesses which support the mining operations may develop locally if non-local businesses are not competitive. This could encourage local economic growth in general, with potential for businesses unrelated to the mines (*e.g.*, fast food restaurants) and other services to become established.

Declining beef cattle prices in 1994 recently affected profitability in the agriculture sector (cash sales per cow declined about 17 percent from 1991 levels). This downward trend continued in 1995, and, according to Chuck Lambert, Denver-based chief economist with the National Cattlemen's Association, "cattle prices are expected to remain low at least until late this year [1996] and perhaps into next year" (Kohler 1996). Supplies of cattle are expected to rise through most of the 1990s and put further downward pressure on prices (Gray 1996). Factors contributing to low beef prices and/or an abundance of cattle on the market include higher feed-grain prices and competition from abundant supplies of pork and poultry (*Idaho Outlook* 1995). If profitability declines enough, expenditures for goods and services related to raising beef cattle may decline, with possible negative impacts on the local economy. Profitability in the local livestock industry may also be affected by public policies which establish guidelines for livestock management on public lands, in order to address concerns about the environment.

Statistics indicate the area has developed a substantial economy associated with visitors to the area (22.71% of employment and 14.06% of earnings). Visitor and local resident expenses for hunting or fishing have economic importance on a local, and possibly regional, level (see *Appendix B, Item 6: Economic Values of Select Wildlife Species* and *Item 7: Economic Values of Fisheries Resources,* pp. 605-609). About one-fourth of recreation visits to the Resource Area in 1993 were for hunting (2.9%) or fishing (22.5%) activities (see ***Chapter 3*** - Recreation Opportunities, Visitor Use, and Off-highway Vehicle Use, *Table 3-13: 1993 Recreation Visits to the Challis Resource Area,* p. 262). Lemhi County experienced consistent growth in the service sector from 1969 to 1991; medical, educational, social, recreational, and lodging services doubled during those 22 years. Custer County experienced consistent growth in the retail trade sector during this same timeframe. This trend in the growth of tourism-related business is expected to continue, since the area continues to be a popular vacation spot. Businesses in Salmon, Challis, and Stanley are likely to benefit the most from tourism, since visitors tend to spend money for lodging, groceries, souvenirs, etc. in those communities and just "pass through" the smaller towns. However, growth in this sector would likely have only minimal benefit to the local economy in general, because jobs associated with visitors to the area are generally low wage and seasonal (note the discrepancy

between percent of employment and percent of earnings for this sector).

The local timber industry is affected by fluctuating supplies of logs from local sources (primarily Forest Service timber sales). As recently as 1995, the largest mill in the two-county region closed because of a stated lack of a sufficient, affordable timber supply (*Idaho Employment* 1995). However, the fairly recent substantial increase in the regional price of wood products (due to vastly reduced supplies of timber from the Pacific Northwest) could increase the profitability of local businesses which produce or market wood products (assuming businesses do not incur increased costs to harvest and produce the wood products). (Also see ***Chapter 3*** - Forest Resources, "Local Demand for BLM Forest Products.")

Locally, the Federal government has begun a general trend to downsize, and dozens of employees have chosen to retire early or seek other employment options. Most of the "eliminated" positions were full-time and well-paid, with benefits. However, many of those who retired have remained in the local communities and will be receiving substantial non-wage income (pensions). Some seasonal jobs which have been "eliminated" may be replaced by local contracting, so no net loss in employment may result.

Society and Culture

Most persons interviewed during a recent sociological study of the two-county area expressed a common desire to maintain the existing culture for their children and grandchildren. They highly valued a rural, agrarian lifestyle and felt their communities were good places to raise children. The ability to stay in (or come back to) the area was very important to many respondents. Although residents recognized the benefit of developments such as mines and new home construction and appreciated the contributions made by in-migrants, they wanted to maintain a "small cow-town" atmosphere despite times of "boom" or more steady economic development and population growth. However, respondents differed greatly in how they thought this balance between development (especially in the service sector) and ongoing rural resource use (mining, ranching, timber harvest) should be achieved.

The sociological study identified three predominant attitudes regarding land and resource use. Attitudes "a" and "b" are very similar, but distinctly different from attitude "c."

a) Resources have value when they are used by a society to meet its wants and needs. Customary uses are *assumed* to be rights. The local community should be the locus of control for decisions about resource use.

b) Resources have value when they are used by a society to meet its wants and needs. Current land and water rights have been determined through customary use, and these rights are *codified* through water allocations and grazing allotments, not just assumed. The local community should be the locus of control for decisions about resource use. Persons who live in the community should contribute to the community socially and politically.

c) Resource use is defined within the context of conservation and quality of life. Long term

stewardship and legislated rights are of primary importance, and rights based on customary use are of secondary importance. The locus of control for resource use decisions should be within the extra-local, legal sphere.

The majority of respondents adhered to attitudes "a" or "b," which emphasize either assumed or codified rights through continuing use. Some respondents in the Stanley and Salmon subregions felt that mining, ranching, and timber harvest have been viewed as the only "traditional uses," and recreation should also be recognized as a "traditional" resource since it has had economic value and customary use since at least the 1940s.

As mentioned earlier, the economies of the Pahsimeroi, Big Lost River, and Tendoy-Leadore subregions are primarily agricultural. Ranching determines the community identity in these areas, and ranchers provide the backbone of local merchants' business. Except for the Tendoy-Leadore subregion, which has varying degrees of reliance upon public land, ranchers rely heavily upon public lands for grazing. Persons in these three subregions shared the following attitudes: the right to water allocations and grazing allotments through customary use, the right to participate in decisions which directly affect where they live (*i.e.*, local control of resource decisions), the importance of hard work and self-sufficiency, and a willingness to help one's neighbor.

Although the Challis subregion's economy is predominantly based on mining, ranchers have provided community stability for decades. Most persons felt mining on public lands should not be stopped in the interest of other resource uses. A few indicated that mineral resources are being "given away," with little long term benefit to the local community. This subregion expressed the strongest view that the local community should maintain control over resource allocations. They felt threatened by public policies which alter public land management, and frustrated that decisions about their livelihoods could be made outside the community.

The society of the Stanley subregion differs greatly from the remainder of the two-county region. Persons interviewed felt socially, politically, culturally, and economically isolated from the rest of the region. Although the Stanley subregion used to have a ranching and mining economy, the area is now solely reliant upon tourism and government employment. The population is diverse and seasonally transient -- 90 percent of homes are for seasonal or occasional use. Persons in this area viewed recreation use on public land as a right similar to grazing and mining. They felt it is a nondestructive resource use which should be given precedence, because it produces economic activity without extracting physical resources.

The North Fork subregion has an economic history of mining and timber harvest, but today has a predominantly tourist economy. Recreation (outfitters and guides), timber, and mining are all traditional resource uses of public land that local persons felt are rights, rather than privileges; they indicated that generations have used the land without destroying it. Although the North Fork area experiences considerable visitor traffic flow, many visitors are "just passing through" and spend little or no money in the area.

The Salmon subregion has a diverse economy with a long history of ranching, mining, timber harvest, and guided recreation. Persons associated with the timber industry indicated timber

harvest is a sustainable industry (timber is a renewable resource), has a good record of stewardship, and provides an example of how the needs of people and the environment can be balanced. Ranchers adhere to the attitudes of customary use and legal rights to water and grazing, the importance of sharing labor, equipment, and expertise, and the need to manage resources responsibly and voluntarily. Recent economic changes have made the river-bottom land along the Salmon and Lemhi rivers attractive for home development; as a result, ranches that are sold are often parceled for housing. The persons interviewed did not want Salmon to become "suburbia," but they also recognized the right of ranchers to dispose of their land as they wish. Although statistics indicate Salmon has a substantial tourist economy (24.84% of employment and 19.67% of earnings), only some recognized the area has a growing tourist economy.

Fire Management.

Law, Regulation, and Policy

Major authorities which pertain to fire protection and management include the following:

Protection Act of September 20, 1922 (16 U.S.C. 594).
Taylor Grazing Act of June 28, 1934 (43 U.S.C. 315).
Reciprocal Fire Protection Act of May 27, 1955, as amended (42 U.S.C. 1856, 1856a).
Economy Act of June 30, 1932 (31 U.S.C. 686).
Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*).
Disaster Relief Act of May 22, 1974 (42 USC 5121).
Wildfire Prevention Regulations found in 43 CFR 9212.
Annual Appropriations Acts for the Interior and Related Agencies.
Interagency Agreement among the Salmon District BLM, the Salmon National Forest, and the Challis National Forest (June, 1993); and Annual Operating Plans under that agreement.
Cooperative Fire Protection Agreement (No. 1422-D-910-A-6-0203) among the BLM, National Park Service, Bureau of Indian Affairs, U.S. Fish and Wildlife Service, U.S. Forest Service, and Idaho Department of Lands (April 17, 1996); and Statewide 'Annual Operating Plans under that agreement.

Affected Environment

The BLM's Upper Columbia-Salmon Clearwater Districts (UCSC), Salmon Field Office has an interagency agreement with the Salmon and Challis National Forests to provide initial attack for fires occurring on 700,000 acres (88.3%) of the 792,567 acre Challis Resource Area. Lands in the northern portion of the Resource Area (closer to Salmon, Idaho) are protected by the UCSC Districts, Salmon Field Office, BLM.

Fire activity in the Resource Area due to unplanned ignitions has been low; few acres have been affected and fire intensities have been low. Based on the last fire activity planning cycle (1980-1991), the Challis Resource Area averaged 20 fires per year and 250 acres burned annually. No large fire activity occurred during this planning cycle. The largest fire was 875 acres, and most fires were fewer than 0.5 acres. Forty percent of all unplanned fires were person-caused; these

fires were generally associated with rural dumps and some agricultural burning. The remaining 60% were caused by lightning.

Prescribed fire has been used in the Resource Area on a limited basis. Since 1980, approximately 3,234 acres in 13 prescribed burns have been treated (Source: Rangeland Improvement Projects System database, 1992). Prescribed fire has been used occasionally in the timber program for slash and road debris cleanup following timber sales. Prescribed fires are generally planned ignitions, since only the seven Wilderness Study Areas in the Resource Area are presently managed with a conditional suppression strategy. Because of increased national emphasis on ecosystem management, prescribed fire is expected to be used more in the future in order to sustain healthy ecosystems.

"Fire has played a major role in shaping east-central Idaho ecosystems. These ecosystems are adapted to periodic fire which occurred until fire suppression began in the early 1900s" (USDA 1995). Wright and Bailey (1982) speculated that the probable frequency of fire for sagebrush-grass areas of eastern Idaho would be about 50 years, with fire frequencies for the driest sagebrush communities as low as 100 years. A recent study of the Lost River Range forested types (Haslett 1995) concluded "suppression of fires has prevented the development of moderate to severe fires while keeping their intensities light... Further exclusion of fire within the Lost River Range will continue this trend, changing the natural succession of the forest ecosystems. This could cause extensive fuel loading and overcrowding of the conifer cover types. The resulting effect could cause extensive, severe uncontrollable fires that are an unnatural successional event."

Vegetative habitat conditions in the Challis Resource Area are thought to have changed as a result of reduced acreage burned in low intensity prescribed or wild fires (due to a full suppression strategy since the early 1900s). Sagebrush densities on grassland habitats are believed to have increased, leading to reduced forage quantity and reduced nutritional quality. In forested types, fire suppression is thought to have led to increased ladder fuel buildup; overstocking; poor growth (decadent stands); reduced nutrient cycling due to an increased woody debris layer; increased risk of insect/disease epidemic due to increased competition for soil nutrients, water, and light; changing species composition; and increased risk of stand-replacing fire.

Fisheries.

Law, Regulation, and Policy

Fisheries management on BLM public lands is authorized under the following laws, executive orders, and plans. An expanded description of some of the legislation listed below is provided in *Appendix E, Item 1,* pp. 638-643.

1) Federal Land Policy and Management Act of 1976 (FLPMA).
2) Wild and Scenic Rivers Act of 1968, as amended.
3) Fish and Wildlife Coordination Act of 1958.
4) Sikes Act of 1974.
5) Executive Order 11987 of May 1977.
6) Executive Order 11988 of May 1977.
7) Executive Order 11990 of May 1977.
8) Executive Order 12088 of 1978.
9) National Environmental Policy Act of 1969.
10) Clean Water Act of 1977, sections 303 and 404.
11) Idaho Stream Channel Protection Act (Title 42 Chapter 38, Idaho Code).

Regulations and policies which also apply to fisheries management are generally derived from interpretation and implementation of statutes and executive orders. They include, but are not limited to, the following: Supplemental Program Guidance (Manual Section 6600); *Fish and Wildlife 2000* (BLM National, State, and District policies); Memoranda of Understanding applied to specific situations; Conservation Agreements; Cooperative Agreements; *Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California* (BLM-USFS February 1995); and others. In addition, the BLM manages fisheries habitat and other trust resources in the Challis Resource Area in order to provide opportunities for the Shoshone-Bannock Tribes to satisfy their treaty rights granted in the Fort Bridger Treaty of 1868.

Special Status Fish Species: The above statutes, executive orders, regulations, and policies generally apply to all special status fish species as well. In addition, all threatened, endangered, or sensitive (TES) fish species (see *Glossary*: threatened species (p. 184); endangered species (p. 171); sensitive species (p. 182)) are managed according to the regulatory and policy mandates set forth in 50 CFR 400 and Special Status Species Manual 6840, a derivative of 50 CFR 400. The Endangered Species Act of 1973, as amended, provides for the protection of threatened or endangered species and their habitats, and requires Federal agencies to ensure that the continued existence of listed species is not jeopardized and the designated "critical habitat" of listed species is not destroyed or adversely modified.

Affected Environment

Fisheries Population Distribution, Size, Trend, and Management

The Challis Resource Area contains six resident salmonids -- rainbow trout (*Oncorhynchus mykiss*), westslope cutthroat trout (*Oncorhynchus clarki lewisii*), brook trout (*Salvelinus fontinalis*), bull trout (*Salvelinus confluentus*), kokanee salmon (*Oncorhynchus nerka*), and mountain whitefish (*Prosopium williamsoni*) -- and three anadromous salmonids -- chinook salmon (*Oncorhynchus tshawytscha*), sockeye salmon (*Oncorhynchus nerka*), and steelhead rainbow trout (*Oncorhynchus mykiss*) -- collectively referred to as game species. The Salmon River is also historic habitat for the Columbia River white sturgeon (*Acipenser transmontanus*); however, the current distribution of this species within or adjacent to the Resource Area is not known at this time. The general distribution of known anadromous and resident game species is shown on *Map 2: Anadromous and Resident Fisheries Occupied Habitat* and listed in *Appendix C, Item 1: Game Fish Species Distribution by Drainage and Stream* (pp. 610-612).

The main Salmon River, East Fork Salmon River, and Pahsimeroi River are the major chinook salmon and steelhead trout spawning and rearing waters in the RA. The main Salmon River is also a migration corridor for the sockeye salmon. The East Fork Salmon River is one of the most important tributaries for anadromous fish production in the entire upper Salmon River. Historically, the Pahsimeroi River was a prime spawning and rearing stream for both steelhead trout and chinook salmon. Portions of smaller tributaries in the RA also support limited runs of anadromous fish or have high anadromous fisheries potential (see *Appendix C, Items 1* and *2*, pp. 610-615). Although anadromous fish may not always spawn in these smaller tributaries, they are often used as rearing habitat by young fish seeking relief from large stream conditions such as predators, limited food supply, and warm water temperatures.

Resident salmonid populations are broadly distributed in the RA, reflect low to moderate abundance, and, depending on the stock or population being considered, seem to indicate either downward or relatively stable population trends.

In general, anadromous fish populations reflect low to very low abundance, and show downward population trends. It is likely that sport harvest of all anadromous fish will cease in the near future, as these stocks continue to decline. Chinook salmon and steelhead trout are managed by a combination of natural reproduction and hatchery produced fish. The majority of steelhead trout and chinook salmon destined for the Pahsimeroi River are collected at a hatchery near its mouth and held for egg collection. All natural summer chinook salmon (no fin clip) and all those which are part of the Idaho Supplementation Program (left ventral fin clip) are released above the hatchery to spawn naturally (Idaho Department of Fish and Game, January 6, 1997). The number of wild steelhead rainbow trout remains low. Since 1982, returns of hatchery-produced steelhead rainbow trout have been adequate in most years to support a harvest of 2 to 10 fish per season per licensed fisherman. Chinook salmon, which once provided a viable sport fishery in the upper Salmon River (see *Appendix B, Item 6: Economic Values of Fisheries Resources in the Challis Resource Area*, pp. 605-607), have been at extremely low levels since 1980 (see *Appendix C, Item 3: Counts of Spring Chinook Salmon Redds, 1960 to 1987*, pp. 616-617) and have not been

harvested since 1977. Sockeye salmon migrate through the Resource Area within the Salmon River as both adults and smolts.

Nongame fish species include Pacific lamprey (a State of Idaho listed endangered species); large scale, small scale, and bridge lip suckers; Columbia River squawfish; long nose and speckled dace; shorthead, Piute, and mottled sculpin; and redside shiner. These nongame species are most prominent in the main Salmon River and its larger tributaries, although several of the species are found in most watersheds.

Fisheries Habitat Location and Condition

Seventy-five major fisheries streams totaling 535 miles lie within the RA boundary (see *Map 2: Anadromous and Resident Fisheries Occupied Habitat*). Three hundred two (302) miles cross BLM lands and 233 miles cross either private or State lands. Approximately 172 miles of stream are inhabited by both resident and anadromous fish, and 363 miles have only resident fish. All stream habitats on Federal land are managed by the BLM or Forest Service; fisheries populations are managed by the State of Idaho's Department of Fish and Game.

The approximate habitat condition ratings for the major fishery streams in the RA are <1% excellent, 50% good, 30% fair, and 20% poor. Good condition streams exist primarily along the main Salmon River and its larger tributaries. Most smaller streams are in fair condition and could use some improvement. *Appendix C, Item 4*, pp. 618-619 provides stream ownership information and condition ratings for important fisheries streams of the Challis RA, by drainage. *Appendix C, Item 5*, pp. 620-626 summarizes the fisheries habitat condition of some important drainages in the RA.

Factors Affecting Fisheries Habitat and Production

Limiting factors for anadromous and resident salmonid spawning and rearing are summarized in *Appendix C, Item 6: Anadromous and Resident Fish Life Histories and Habitat Requirements*, pp. 628-631.

Due to the high natural mortality on young fish, good spawning grounds are critical for good resident and anadromous salmonid production. Spawning habitat for resident trout consists of gravels 0.25 to 2.5 inches in diameter, with water velocities ranging from 0.5 to 2 cubic feet per second. Chinook salmon and steelhead trout prefer gravels 3 to 6 inches and 0.5 to 4 inches, respectively. Salmonids avoid heavily silted areas when spawning. Gravels containing in excess of 20% fines are considered less then desirable and are not utilized to any appreciable degree. Egg survival decreases markedly when fines exceed 20%. Substrate embeddedness in the Salmon River and its major tributaries generally falls in the 33% embeddedness category, with only Bayhorse Creek showing significant reaches of <20% embeddedness. Big Hat Creek and Little Hat Creek are rated as 66% and 83% embeddedness, respectively. *Appendix C, Items 2* and *7* (pp. 614-615 and 632-633) provide detailed information on the stream characteristics and existing and potential spawning and rearing habitat conditions for some important fisheries streams within the RA.

Factors limiting resident or anadromous fisheries habitat and production in the RA include (a) fishery losses through unscreened irrigation diversions (particularly outmigrating salmon and steelhead smolts) (*Appendix C, Item 8,* pp. 634-635 provides additional information on irrigation diversion structures and their effects on fisheries resources in the Challis RA); (b) dewatering of stream channels for irrigation; (c) riparian systems which are non-functional or functional-at-risk; (d) stream channel alterations; and (e) siltation. (For a detailed explanation of how the above factors limit fish habitat see ***Chapter 4*** - Fisheries, "Introduction", pp. 357-359.)

Anadromous fish production in a natural environment is primarily limited by two "habitat" requirements and one "population" requirement: (1) suitable spawning gravels must be available for the successful incubation of eggs; (2) the stream habitat (*e.g.* pool quality and quantity, canopy cover, instream cover) must be suitable for rearing fry and smolts to provide adult returns equal to the preceding spawning population; and (3) spawning fish must be available. One or more of these requirements limit the potential value of most of the Salmon River tributaries. More specifically, the factors affecting anadromous fish spawning and rearing *habitat* on the main Salmon River in the Challis Resource Area include (a) surface water depletion from irrigation diversions, (b) riparian degradation and associated loss of rearing habitat, and (c) the loss of outmigrating smolts at unscreened diversions.

Other factors currently limit anadromous fish survival outside Resource Area boundaries. These factors are important to consider, since anadromous fish complete most of their life cycle outside the waters where they are spawned and reared. They spend several weeks migrating to and from the ocean (see *Map 1: Anadromous Fish Migration*) and one to three years of their adult life in the ocean. Examples of factors which dramatically affect anadromous fish mortality outside the RA boundary include (a) adverse migration conditions (*e.g.*, slack water above dams, which lengthens the time needed to complete migration); (b) dam turbines, which kill fish or stun them so they are easily preyed upon downstream; (c) river or ocean fisheries which harvest anadromous fish or the fish species upon which they feed; and (d) degraded river or off-shore water quality (*e.g.*, toxic contamination, siltation). One or more of these factors may affect the availability of spawning fish returning to waters in the Challis Resource Area. These are factors which are beyond the control of the Challis Resource Area. In addition, much of the available habitat in the region is on private land; management of that land is also beyond the control of the BLM. Currently, the Challis Resource Area has more available, adequate spawning habitat than is being utilized by anadromous fish. Even if all the BLM-managed habitat in the Challis Resource Area was in excellent condition, the production capacity of anadromous fish would be limited by the availability of spawning fish.

Sport and Tribal Fisheries

Primary sport and tribal fish species are rainbow trout, steelhead rainbow trout, westslope cutthroat trout, brook trout, mountain whitefish, and kokanee salmon. The RA's most popular resident fisheries streams are the main Salmon River, upper Pahsimeroi River, and Big Lost River. Mackay Reservoir is a very popular year round fishery for rainbow trout and kokanee salmon, and one of the most popular ice fishing spots in east central Idaho. Tributary streams throughout the RA are also used for sport or tribal fishing.

Resident salmonids are fished for during the summer months, and hatchery produced steelhead rainbow trout are fished for from October through April. Some rainbow trout stocking occurs in the area, primarily in the main Salmon River. However, most fishery resources in the RA are managed as wild trout fisheries under State of Idaho general sport fishing regulations.

Wild and natural steelhead trout may not be legally harvested anywhere within the State of Idaho. Hatchery steelhead trout may only be harvested below the confluence of the Salmon River and Redfish Lake Creek. (Note: Natural steelhead (offspring from hatchery fish) and wild steelhead can be distinguished from hatchery fish by their adipose fin. The adipose fin is removed from hatchery-reared smolts prior to being released into the Salmon River.) The spring/summer chinook salmon and sockeye salmon also may not be legally harvested in the RA (except for harvest permitted under Native American treaty rights). The 1994 to 1995 fishing regulations imposed a Statewide closure on the harvest of bull trout. Any white sturgeon caught while sport fishing in the RA must be released.

Each year, anglers fishing streams in the RA spend large amounts of money for fishing-related expenses such as license fees, tackle, food, lodging, fuel, boating, guide services, and camping. The estimated historic and current economic value of resident and anadromous fisheries resources in the Challis Resource Area is described in *Appendix B, Item 6,* pp. 605-607.

Special Status Fish Species

Threatened and Endangered Species:

The National Marine Fisheries Service has listed Snake River spring/summer chinook salmon and steelhead trout stocks as threatened and sockeye salmon as endangered under the provisions of the Endangered Species Act of 1973. Current or historic spawning and rearing habitats for chinook salmon and steelhead trout are located along the main Salmon River, East Fork Salmon River, Pahsimeroi River, Herd Creek, and some smaller tributaries of those rivers (see *Map 2: Anadromous and Resident Fisheries Occupied Habitat* and *Appendix C, Item 1: Game Fish Species Distribution by Drainage and Stream,* pp. 610-612). The main Salmon River is a migration corridor for sockeye salmon which spawn in the upper Salmon River at Redfish Lake.

The bull trout was listed as a threatened species in June of 1998. Bull trout are found in all the tributaries of the Pahsimeroi River from Little Morgan Creek through the two forks of the upper Pahsimeroi River. The upper segment of the drainage is isolated from the rest of the Salmon River system by the natural sinks near Goldburg Creek. This isolation makes this section of the Pahsimeroi River valuable for management and research. Bull trout are also found in the main Salmon River and some tributaries of the East Fork Salmon River. Bull trout are found in conjunction with westslope cutthroat trout throughout most areas of their range in the RA, in approximately equal numbers. Bull trout are especially sensitive to habitat changes, in that they require very cold, high quality water. They are also vulnerable to population alteration in streams which are occupied by brook trout, because both species are fall spawners and cross-breeding produces sterile offspring. The BLM is currently a partner in the State of Idaho's bull trout conservation strategy, which was created to foster quality habitat and population recovery of bull

trout.

Sensitive Species:

Westslope cutthroat trout, the Idaho State fish, is managed as a sensitive species based on the Idaho Department of Fish and Game's Idaho Conservation Data Center data. BLM policy dictates that sensitive species must be managed as though listed under the ESA in any management planning.

Although broadly distributed throughout the RA, westslope cutthroat trout primarily inhabit the more remote tributaries where the competitive rainbow trout is absent. Westslope cutthroat trout and rainbow trout are spring spawners and can readily interbreed in drainages where both species are present. Westslope cutthroat trout are especially vulnerable to habitat changes (such as those imposed by man's land use activities), over-harvesting, and the effects of rainbow trout introductions (competition and cross-breeding).

Forest Resources.

Law, Regulation, and Policy

The Material Disposal Act of July 31, 1947, as amended, provides authority to dispose of timber or other forest products. Authority to enforce this Act and manage forest lands under the principles of multiple use and sustained yield are outlined in the Federal Land Policy and Management Act of 1976 (43 USC, 1701 *et seq.*).

The Public Domain Forest Management Policy Statement (BLM 1991) states that the BLM will "manage to maintain desired forest ecosystems," while striving to "meet public needs for commodity and non-commodity benefits and uses." The Policy also states that these objectives will be met by adhering to these standards: the BLM's planning process will be used to determine objectives; reforestation will be completed in a timely manner; the forestry program will be managed efficiently (both forest management and public service); practices will reflect the long term cycle of forest management; inventories will be maintained; sale offerings will be consistent with public demand, while maintaining even flow over time; fair market value for products will be received; and unauthorized use will be prevented.

The BLM's "Our Growing Legacy" forestry mission statement (1993) declares that the "BLM will manage the public forests and woodlands to maintain and enhance the health, productivity and biological diversity of these ecosystems...consistent with the principles of multiple use and sustained yield."

The Idaho Forest Practices Act, Title 38, Chapter 13, Idaho Code, provides rules and regulations governing forest practices on all lands in Idaho. Rules pertain to timber harvest, road construction and maintenance, reforestation, use of chemicals, slash management, and practices bordering water

quality limited stream segments (see *Glossary,* p. 186).

Affected Environment

The Challis Resource Area contains 58,461 acres of forest lands, based on the most recent (1984) Timber Production Capability Classification (TPCC) inventory. Forest lands account for approximately 7.4 percent of BLM administered lands within the RA. The distribution of forest lands in the RA is shown on *Map D: Forest Lands.* Forest management activities occur irregularly on RA lands because (a) forest lands occupy small, scattered portions of the RA, and (b) all commercial forest lands are in areas which indicate management difficulties: fragile sites, problem reforestation sites, or adverse locations.

Table 3-4: Forest Land Classifications for the Challis Resource Area, displays the acreage within each forest land classification. Forest land is defined as ten or more acres capable of being ten percent stocked by forest tree species, and not currently developed for non-timber use (Timber Production Capability Classification, BLM Manual 5251, 1990). Of the 58,461 acres of forest lands in the RA, 30,987 acres (53%) are classified as *commercial forest land.* Commercial forest land typically provides sawtimber, and this land base is used to determine the annual allowable cut. The remaining forest lands (47%) are classified as *woodland* (27,474 acres). Woodland is used to provide forest resources such as firewood and Christmas trees, and is *not* used in the determination of the annual allowable cut.

Forest Communities

Forest lands usually occupy northerly aspects, particularly at lower elevations which receive less precipitation (because of greater moisture retention on north slopes). Approximately 85% of forest lands in the RA are dominated by pure stands of Douglas-fir (*Pseudotsuga menziesii*), with small inclusions of lodgepole pine (*Pinus contorta*), subalpine fir (*Abies lasiocarpa*), Engelmann spruce (*Picea engelmannii*), whitebark pine (*Pinus albicaulis*) and limber pine (*Pinus flexilis*). Ponderosa pine (*Pinus ponderosa*) occurs rarely in the RA, although attempts were made to plant ponderosa pine in the Thompson Creek area (many of these trees succumbed to porcupine damage). Low elevation woodlands are occasionally comprised of pure stands of Rocky Mountain juniper (*Juniperus scopulorum*), as in Upper and Lower Cedar creeks above Mackay. Limber pine (about 4% of forest lands) is dominant in low elevations on calcareous soils at the edges of forest lands in portions of the Lemhi and Lost River ranges. Quaking aspen (*Populus tremuloides*) and black cottonwood (*Populus trichocarpa)* occupy sites where surface or subsurface water occurs (about 3% of forest lands). The remaining 8% of forest lands are comprised of whitebark pine, which is dominant at high elevations throughout the RA at or near the upper limits of forest vegetation. It often occurs in association with subalpine fir at these elevations, and both tree species often exhibit deformation caused by wind and driven snow. Whitebark and limber pines are probably the oldest trees in the RA, with some trees exceeding 1,000 years. Pure stands of lodgepole pine are occasional throughout the RA in elevations immediately below the subalpine zone, with the largest stands occurring in the Thompson Creek area. The Donkey Hills supports some stands of pure lodgepole pine on north slopes at low elevations, probably regenerated by fires occurring over 150 to 200 years ago. Engelmann spruce dominates some areas around riparian zones,

usually in association with subalpine fir. Both of these species will occur sporadically throughout higher elevation Douglas-fir stands, and their infrequent occurrence at lower elevations usually suggests the presence of subsurface moisture.

Table 3-4: Forest Land Classifications for the Challis Resource Area

COMMERCIAL FOREST LAND		
Fragile Sites		
Soils	161 acres	
Slope Gradient	367 acres	
Ground Water	4 acres	
Hydrology	52 acres	
Geologic Material	1,456 acres	
Combination	7,754 acres	
Total Fragile Sites	9,794 acres	(17%)
Problem Reforestation Sites		
Heat and Drought	3,434 acres	
Inadequate Moisture	8,940 acres	
Debris and Brush	77 acres	
Inadequate Light	84 acres	
Soil Movement	33 acres	
Combination	6,674 acres	
Total Problem Reforestation Sites	19,242 acres	(33%)
Adverse Location	1,951 acres	(3%)
Total Commercial Forest Land	**30,987 acres**	**(53%)**
WOODLAND		
Suitable Woodland		
Non-Commercial Species	8,797 acres	
Low Site	16,308 acres	
Total Suitable Woodland	25,105 acres	(43%)
Non-Suitable Woodland		
Fragile Site	2,026 acres	
Problem Reforestation	343 acres	
Total Non-Suitable Woodland	2,369 acres	(4%)
Total Woodland	**27,474 acres**	**(47%)**
TOTAL FOREST LAND	**58,461 acres**	**(100%)**

Source: *Figures are compiled from the 1984 Timber Production Capability Classification inventory.*

Low elevation Douglas-fir forests are characterized by open, savannah-like stands of Douglas-fir where regeneration is uncommon and the understory is comprised of grasses (primarily bluebunch wheatgrass (*Agropyron spicatum*) and Idaho fescue (*Festuca idahoensis*)) and shrubs. The most common shrub species associated with these dry forest sites are common juniper (*Juniperus communis)*, mountain snowberry (*Symphoricarpos oreophilus*), and curl-leaf mountain mahogany

(*Cercocarpus ledifolius*). Understory vegetation is often nonexistent in areas of heavy overstory cover, due to moisture limitations created by canopy interception loss and tree root competition. The upper layer of the soil is covered by duff comprised of twigs, fir needles, and often cones; in areas where wildfires have occurred, exposed mineral soil is prevalent. Where it occurs, regeneration in low elevation Douglas-fir forests is usually associated with small openings where snow deposition can occur. These are openings that are big enough to allow snowfall through the canopy, yet small enough to maintain shade through the winter and early spring. Large amounts of regeneration can usually be found just inside the windward edges of forested areas, where wind deposits large quantities of snow.

Age and Size Classes

Approximately 85% of forest lands in the RA are comprised of stands dominated by sawtimber size classes with trees greater than 10" diameter breast height (DBH) in varying age classes. Most of the remainder is pole-size material. The majority of forest stands could generally be described as even structured and uneven-aged. Ages of overstory Douglas-fir range from 100 to 400 years old and average approximately 200 years old. Many stands were initiated by catastrophic fire, creating an even-aged stand, but understory burns and ingrowth have introduced more age classes into most stands. In areas where harvesting and recent fires have occurred, stands may be dominated by seedlings and saplings (less than 3" DBH); this is probably less than 5% of forest lands, because most harvested areas still have an intact overstory that dominates. Throughout most of the Douglas-fir forests, Douglas-fir seedlings and saplings commonly occupy small (less than .25 acre) openings throughout the forest canopy. Larger openings often create droughty conditions which are not conducive to natural regeneration. Very small seedlings (less than 4" tall) occur regularly under larger trees, although many of these eventually succumb to moisture stress from the competing overstory. In higher elevations in the Douglas-fir cover type, vigorous subalpine fir seedlings, saplings, and poles occupy much of the understory because they are shade tolerant and increased moisture is available at higher elevations.

Although no inventory data currently exist, it is estimated that up to half (50%) of commercial forest land acres in the RA have old growth characteristics, as stated in the "Characteristics of Old Growth Forests in the Intermountain Region" (USFS Intermountain Research Station, R.C Hamilton editor, 1993). These characteristics include the following: (a) the area contains an average of 10 trees per acre of 18" DBH, greater than 200 years old; (b) two or more diameter classes exist, creating at least two layers in the canopy; (b) snags (usually 2 to 15 per acre, 16" DBH, and 10 feet long) occur throughout; and (d) down, woody material is infrequent. According to these characteristics, even some logged areas in the RA would fit an old growth classification.

Forest Health

Exact forest health conditions are difficult to assess, due to the lack of concurrent inventory and evaluation data.

Insects: Insect infestations are sporadic and, for the most part, insignificant throughout the RA. Occasional outbreaks of Douglas-fir beetle (*Dendroctonus pseudotsugae*) which cause some

mortality have been noted throughout the RA, particularly in the Thompson Creek area; most of these infestations occur in low elevation, non-commercial forest lands. Many outbreaks probably result from stress due to reduced precipitation during the last 5 to 10 years. Western spruce budworm (*Choristoneura occidentalis*) infestations are common in most of the RA, although mortality rarely results. Understory regeneration (or uneven structure) in Douglas-fir stands throughout the RA increases the risk of a spruce budworm epidemic and subsequent reduced vigor or increased mortality. New growth on regeneration can be severely limited or deformed, although climatic conditions affect whether budworm will defoliate (and kill) a tree. Mountain pine beetle (*Dendroctonus ponderosae*) is an occasional cause of mortality in the small areas of lodgepole pine, whitebark pine, and limber pine which occur in the RA, as is spruce beetle (*Dendroctonus rufipennis*) in Engelmann spruce.

Diseases: Less is known about disease conditions in the RA. Dwarf mistletoe (*Arceuthobium douglasii* and *Arceuthobium americanum*) infection of Douglas-fir and lodgepole pine is the major disease problem in the RA. Dwarf mistletoe causes reduced growth, deformation, and often mortality. The reduced vigor caused by dwarf mistletoe can increase susceptibility to secondary agents such as insects, other diseases, or moisture stress, which further reduce vigor or result in mortality. Dwarf mistletoe infections occur on trees throughout the RA, with major infection centers in the Donkey Hills and Morgan Creek. Lodgepole pine populations are probably infected by various fungal rusts, although no data are available. These cause deformation and, in some cases, mortality, particularly in young trees. White pine blister rust (*Cronartium ribicola*), an introduced disease, affects five-needle pines such as whitebark pine and limber pine. It causes cankers which result in topkill or the death of affected trees.

Stand Vigor: The greatest forest health problem in the RA is probably reduced stand vigor because of overstocking. Decreased vigor increases risks of tree or stand mortality because dead or dying trees have greater susceptibility to insects, diseases, or stand replacing fires. Fire risk increases with the accumulation of dead material on the forest floor and the dense stocking that is characteristic of these stands. Large scale stand-replacing fires also pose threats to long term site productivity, because these fires can degrade soils through loss of organic matter, loss of water holding capacity, and destruction of soil biota. Although stand-replacing fires have always occurred in the area, present conditions are such that the scale of stand replacement may be unprecedented.

Overstocking in the RA is mostly a result of fire exclusion since approximately 1910. Arno and Gruell (1983) estimated pre-settlement fire periodicity in similar habitat types in Montana at 41 years. Most (estimated at greater than 95%) forests in the RA have not experienced the thinning and fuel-reducing benefits of non-lethal fire since settlement, and as a result, have declining vigor. Higher elevation Douglas-fir forests are regenerating to understory subalpine fir, causing an unprecedented accumulation of stems. These heavy fuel loads can act as "ladders" to initiate stand-replacing crown fires. Examples of ladder fuel accumulation can be seen in the Thompson and Squaw Creek drainages, as well as on steep north aspects at moderate elevations throughout the RA. These types of forests are probably most adversely affected by the absence of fire.

In most mid and low elevation older (average age greater than 150 years) forests where Douglas-

fir is considered the seral and climax species, hazards due to stocking are generally less, since less understory occurs because of moisture limitations. However, in burn-regenerated areas less than 150 years old (as in Bruno Creek, near the confluence with Squaw Creek), the lack of fire thinning effects has created an overstocked, vigor-reducing condition that could result in catastrophic fire or insect attack.

Site Productivity

Thirteen forest land habitat types have been identified on commercial forest lands in the Challis Resource Area (see *Table 3-5,* p. 233).

A habitat type is defined as the aggregate of land area potentially capable of producing similar plant communities at climax (Steele, *et. al.* 1981). Each habitat type is named for the climax tree species and understory species that would eventually occupy a site at climax, under ideal conditions. In reality, habitat types indicate the *potential* of a site, for many factors (such as fire interval, climate, soil productivity, aspect, and percent slope) will determine the vegetation that occupies a site over time. Habitat types provide a permanent classification based on potential vegetation which can be related to site productivity. Thus, habitat types provide an ecological basis for deciding timber harvest methods and regeneration goals for desired species composition and structure. Other factors, such as fire regime, soil composition, wildlife use, and precipitation have also been shown to be very similar in areas of the same habitat type, regardless of geographic distance from one another. As a result, habitat types can also serve as common ground for discussion among managers of non-forest resources; nearly all agencies in the Intermountain area use the classification system.

The predominant habitat type in the RA is Douglas-fir/mountain snowberry (35% of the commercial forest land in the RA). Estimated yield capability for this habitat type is low - an average of 30 cubic feet/acre/year (cf/ac/yr) - and nearly equal to the average timber capability yield for the RA. Douglas-fir is usually the only tree species present, and creates an open, savannah-like appearance with an open shrub understory of snowberry. Natural regeneration is sporadic, due to the droughtiness of these sites. Artificial regeneration can be ineffective, especially where harvesting opens up the understory to uninterrupted sunlight. Great care must be taken when harvesting to leave adequate shade, while allowing enough moisture to effectively reach the understory without being intercepted by trees.

The majority of RA habitat types are low timber productivity sites (20 to 50 cf/ac/yr). Approximately 1,138 acres are moderate timber productivity sites (greater than 50 cf/ac/yr). These highest productivity sites in the RA are dominated by Douglas-fir, with occasional inclusions of overstories dominated by subalpine fir.

Low elevation, shrub/open forest communities occupy the lowest timber productivity sites in the RA (estimated yield of 20 cf/ac/yr or less). Approximately 2,502 acres of commercial forest land in the Douglas-fir/common juniper habitat type occupy these lowest productivity sites. These sites are dominated by open stands of limber pine or Douglas-fir. Understory vegetation is usually sparse and dominated by Idaho fescue and occasional shrubs, such as curl-leaf mountain

mahogany or common juniper. These sites receive limited moisture and require conservative timber harvest prescriptions which retain shade. Timber harvesting should be guided by the patterns and frequency of regeneration observed in the stand (Steele, *et. al.* 1981).

Table 3-5: Commercial Forest Land Habitat Types in the Challis Resource Area

Habitat Type	Acres	Percent
ABLA/CAGE	55	0.2
ABLA/JUCO	1,564	5.0
ABLA/ARCO	1,082	3.5
ABLA/RIMO	322	1.0
PICO/FEID	268	0.9
PICO/JUCO	80	0.3
PSME/AGSP	2,194	7.1
PSME/ARCO	6,737	21.7
PSME/CARU	1,044	3.4
PSME/FEID	4,226	13.6
PSME/JUCO	2,502	8.1
PSME/PHMA	39	0.1
PSME/SYOR	10,874	35.0
Total	**30,987**	**100.0**

Climax Species
ABLA = subalpine fir (*Abies lasiocarpa*)
PICO = lodgepole pine (*Pinus contorta*)
PSME = Douglas-fir (*Pseudotsuga menziesii*)

Understory or indicator species
AGSP = bluebunch wheatgrass (*Agropyron spicatum*)
ARCO = heartleaf arnica (*Arnica cordifolia*)
CARU = pinegrass (*Calamagrostis rubescens*)
CAGE = elksedge (*Carex geyeri*)
FEID = Idaho fescue (*Festuca idahoensis*)
JUCO = common juniper (*Juniperus communis*)
PHMA = mallow ninebark (*Physocarpus malvaceus*)
RIMO = prickly currant (*Ribes montigenum*)
SYOR = mountain snowberry (*Symphorocarpos oreophilus*)

Commercial Forest Lands

Commercial forest lands are defined as lands capable of yielding at least 20 cubic feet of wood per acre per year of commercial tree species (Timber Production Capability Classification, BLM Manual Section 5251, 1990). These species are, in order of occurrence and commercial importance: Douglas-fir, lodgepole pine, Engelmann spruce, subalpine fir, and whitebark pine. Whitebark pine is considered of commercial value when it occurs in dense stands with lodgepole pine. Estimated average yield capability of commercial forest lands in the Resource Area is 29 cf/ac/yr. Actual harvestable yield capability is estimated at approximately 9 cf/ac/yr; this accounts for mortality or reduced vigor caused by agents such as competition, insects, diseases, or fire, and the loss of yield due to less than optimal growing conditions that result from shade requirements

for natural regeneration. The estimate of 9 cf/ac/yr is from extensive inventory information presented in 1978, which describes the productivity of all eastern Idaho BLM forest lands. The diversity of yields averaged from all of eastern Idaho may mean that in any given area, actual harvestable yield quantities may differ significantly from those estimated.

The existing allowable level of harvest was determined by the allowable cut calculation for the Eastern Idaho Sustained Yield Unit from data collected during the 1978 extensive forest inventory. According to inventory information, the RA could provide a sustained yield cut of 9.22 million board feet (MMBF) per decade. Actual harvest quantities since 1955 (the beginning of a local timber sales program) average approximately 440 thousand board feet (MBF) per year (or 4.4 MMBF per decade). Since 1955, approximately 5,500 acres have been partially cut, and about 400 acres have been clearcut. Average assumed rotation age is 120 years.

According to the "Interim Management Policy and Guidelines for Lands Under Wilderness Review" (BLM Manual H-8550-1, 1995), timber harvesting will not be permitted in Wilderness Study Areas (WSAs) in the RA unless they are released from wilderness review. Thus, 6,209 acres of commercial forest land are currently exempt from any management or harvest. However, the allowable harvest level of 9.22 MMBF per decade has not been changed to reflect this acreage reduction. As a result, the allowable harvest level must be taken from non-WSA lands; if the entire allowable harvest level is harvested annually, those areas could be excessively logged. Necessary shade and seed sources would be removed, and in turn, cause disruption of sustainable yields.

The primary commercial tree species in the RA is Douglas-fir (*Pseudotsuga menziesii*). Until about 1985, the main objective for harvesting was volume removal. Where harvesting occurred, diameter limit cutting predominated, with nearly complete removal of all trees greater than 20 inches DBH. Little was done to promote natural regeneration of stands, although many stands did adequately regenerate, since trees marked for harvesting were well interspersed with those that remained. This left adequate shade and seed for natural regeneration in some areas. Other areas did not fare as well. Overcutting created droughty situations in some stands, while undercutting in other areas left too much overstory to allow moisture to accumulate on the forest floor. In some areas near drainage bottoms, nearly all trees were cut, since all of the trees grew large in the presence of surface or subsurface water.

Currently, the main emphasis is to provide a sustained yield of sawtimber. From 1984 to 1994, 1,306 MBF of sawtimber (approximately 98% Douglas-fir on 351 acres) has been harvested. This is significantly lower than the sustained yield average, due to the Salmon District-wide emphasis on reforestation of unregenerated, harvested lands. This emphasis was intended to ensure that previously harvested lands maintain productivity and contribute to sustained yield. Most of the reforestation efforts occurred in the Lemhi Resource Area, although 40 acres were planted in the Thompson Creek area in 1994. Several heavily-harvested areas (about 210 acres) remain inadequately stocked in the RA; planting is not planned in these areas due to anticipated problems with plantation survival (such as drought).

Timber harvesting in the RA utilizes shelterwood marking prescriptions to promote natural regeneration. Shelterwoods implemented in the RA leave approximately 40% of the overstory intact for seed, shade, and wildlife use. Areas that have not adequately regenerated to approximately 200 trees per acre within 15 years are planted to predominantly lodgepole pine stock appropriate by zone and elevation. When regeneration is established, 70 to 80% of the overstory is removed, leaving both vigorous trees that will still put on significant volume, and trees that are important for wildlife habitat. Slash is lopped and scattered concurrently with logging operations. Mistletoe-infected trees are selected for removal, unless they are required to meet shade, seed, wildlife, or watershed objectives. In areas which are heavily infected by mistletoe, clearcutting has been undertaken followed by planting to non-host species. Fewer than 100 acres have been treated this way Resource Area-wide. Special prescriptions for immediate down tree removal are enforced in areas infested or at high risk of infestation by Douglas-fir beetle.

In 1987, site preparation by dozer scarification for natural regeneration was employed on 200 acres in the Dry Canyon area on an experimental basis. Logged areas in Dry Canyon currently lack natural regeneration, and it was thought that competition from grasses, shrubs, and an overstocked overstory were the problems. Thinning removed approximately 30% of the non-merchantable overstory and dozer scarification removed about 40% of the understory competition. It remains to be seen whether regeneration will result; since that time, no other scarification has been planned or implemented in the RA.

No precommercial thinning projects (other than discussed above in Dry Canyon) have been employed in the RA, because there is currently very little stock in age classes which need thinning. Most of the established regeneration that resulted from logging is still spaced to allow maximum growth. Most stands of pole-sized Douglas-fir that regenerated following burns or insect mortality are already stagnated beyond the point where thinning would provide a cost-effective return on the investment of labor and materials to do the work.

No prescribed burning in the RA has occurred as part of site management, except some slash burning following timber harvest.

An average of 0.5 miles of road have been constructed per year in conjunction with RA timber sales. New road mileage construction has decreased in recent years because harvest levels have been reduced and timber harvests have used existing roads (much of the existing access to forested lands has been created by mining or other activities). Newly constructed logging roads are closed within two years of timber sale completion.

Woodlands

Forest lands that are not capable of producing 20 cf/ac/yr, or produce only non-commercial tree species, or are incapable of long term timber production (fragile nature or inability to adequately reforest) are classified as woodlands and are not included in the commercial forest land allowable cut base. Actual woodland productivity in the RA is unmeasured, although it is estimated at approximately 10 cf/ac/yr. Woodlands in the RA consist of forest land which is incapable of

sustained long-term production due to the fragile nature of the site (*e.g.*, rocky soils, droughtiness) and/or the site's inability to produce adequate growth per acre. Locally non-commercial tree species such as aspen, cottonwood, and Rocky Mountain juniper also fall into the woodland classification. All other species occupy the low productivity woodland sites, although Douglas-fir dominates.

Local Demand for Forest Products

Historically, the majority of timber harvested from the Challis and Lemhi Resource Areas was purchased by a local sawmill in Salmon, Idaho; however, this mill closed in 1995. The Salmon Intermountain sawmill processed 20 to 22 million board feet of lumber per year. The local economy in Salmon was somewhat linked to the operation of this sawmill, and the mill was very dependent upon a supply of timber from Lemhi County and surrounding counties. However, most timber purchased by the Salmon mill was harvested from U.S. Forest Service lands; less than 5% of the mill's annual demand could be met through timber from Challis RA lands (assuming the entire average annual harvestable yield for the RA is both harvested and purchased).

Presently, timber sales offered by the Challis Resource Area are likely to be purchased by small local sawmills or by non-local mills in the Boise, Idaho area or southwestern Montana. Three small sawmills operate in the Challis, Idaho area. These mills purchase small quantities of timber from BLM lands, although the exact volume is unknown.

Currently, there is little demand for fuelwood or other woodland products (such as posts, Christmas trees, or pine cones) from Challis RA forest lands. No BLM fuelwood permits were sold in the RA during 1993 and 1994. Prior to 1993, 0 to 3 permits for two cords each were sold. The low demand for woodland products may have been because people had to drive to Salmon to acquire a permit; this is rectified now that the Challis National Forest handles RA fuelwood sales on BLM administered lands. In addition, fuelwood and other woodland products are relatively abundant and available for the same price on adjacent Salmon and Challis National Forest lands.

Hazardous Materials Management.

Law, Regulation, and Policy

Major authorities for the Challis Resource Area's hazardous materials management program include the following:

Comprehensive Environmental Response, Compensation, and Liability Act (1980, as amended) (42 U.S.C. 9601 *et seq.*)
Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 *et seq.*)
Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C. 11001)
Pollution Prevention Act of 1990 (42 U.S.C. 13101)
Toxic Substances Control Act of 1976 (15 U.S.C. 2601 *et seq.*)
Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*)
Clean Water Act of 1972, as amended (33 U.S.C. 1251 *et seq.*)
Clean Air Act of 1970, as amended (42 U.S.C. 7401 *et seq.*)
Uranium Mill Tailings Radiation Control Act of 1978, as amended (42 U.S.C. 2014 *et seq.*)
Safe Drinking Water Act of 1974, as amended (42 U.S.C. 300 *et seq.*)
Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101 *et seq.*)
Transportation Safety Act of 1974; Hazardous Materials Transportation Act amendments of 1976 and 1990 (49 U.S.C. 1801 *et seq.*)
Atomic Energy Act of 1954 (42 U.S.C. 2001f)
Federal Insecticide, Fungicide and Rodenticide Act of 1975 (7 U.S.C. 136 *et seq.*)
Recreation and Public Purposes Act of 1926, as amended in 1988 (43 U.S.C. 869)
Occupational Safety and Health Act of 1970 (29 U.S.C. 651 *et seq.*)
National Environmental Policy Act of 1972 (42 U.S.C. 4321)
Salmon District BLM Hazardous Materials Contingency Plan (1994).

Affected Environment

The goals of the Idaho BLM hazardous materials management program are to (a) prevent the occurrence of hazardous materials/waste incidents on public lands, (b) prevent illegal dumping of hazardous wastes on public lands, (c) ensure protection of human health and the environment when dealing with hazardous materials/wastes on public lands, and (d) minimize the generation or release of hazardous wastes and pollution on BLM public lands and BLM facilities.

The Challis Resource Area's proactive efforts to prevent hazardous waste incidents include educational and enforcement programs. As required by OSHA, all Resource Area employees annually receive a minimum 8-hour hazardous material awareness training. Employees who are more "field-work" oriented receive 24 hours of training, hazardous materials coordinators receive 40 hours of training, and employees who handle pesticides must be State certified. An 8-hour refresher course is given annually to employees with 24-hour, 40-hour, and/or pesticide certification. Public education efforts include press releases explaining the high costs of illegal dump cleanup and signing of closed dump sites. Closed dump sites are patrolled regularly; violators may be issued citations.

An inventory of sites that may contain hazardous material was implemented in 1991 and is

ongoing. The Challis Resource Area is inventorying abandoned mine sites, lease and permit sites, rights-of-way, and any other activities that may have produced a hazardous materials incident on public lands. To date, 130 sites have been inventoried for the presence of hazardous material. These sites include 78 lands-related activities (less than 1 to 400 acres; Desert Land Entries, rights-of-way, exchanges, sales), 28 unauthorized dumps (.1 to 3 acres), and 24 abandoned mines (less than 1 to 3 acres). No hazardous materials were found on the 78 lands activity sites. One of the 28 unauthorized dumps contained hazardous material. About 600 pounds of outdated pesticide and contaminated soil were removed from the site and incinerated at a certified facility at a cost of approximately $20,000. Old, unstable dynamite was discovered at one of the abandoned mine sites. An explosives expert was contracted to dispose of the old dynamite at a cost of approximately $5,000.

The Challis Resource Area has three mining districts which contain three active mines, many inactive mines and prospects, and 24 known abandoned mines. If any other mine sites exist, they are estimated to be very few. Abandoned mine sites have often been looted and very few items remain at these sites. If any contaminants are found, the typical products include explosives, fuels, and lubricants. Generally, these sites are not signed. There are no Superfund Sites within the Resource Area boundary.

The Resource Area has one active landfill lease (the City of Challis landfill). Since 1991 this site has only accepted construction debris; prior to 1991 the site accepted general household waste. Ground water contamination is an environmental threat at this site because this landfill is on non-suitable soil types (gravelly, with limited clay). However, the site is being monitored by the Idaho Department of Environmental Quality using monitoring wells.

Containment of hazardous materials on some private lands is a concern on some nearby Resource Area public lands. The BLM has no authority to contain or remove hazardous materials on private lands; however, it is possible that hazardous materials on private lands may affect resources on public lands (*e.g.*, soils, water quality).

Typical unauthorized dump which may contain hazardous materials. Cleaned up in 1993 at a cost of $10,950.

Land Tenure and Access.

Law, Regulation, and Policy

Until passage of the Federal Land Policy and Management Act (FLPMA) on October 21, 1976, there was no clear mandate for the retention or management of public lands administered by the BLM. FLPMA states that public land will remain in public ownership and be managed by the BLM under the principles of multiple use. FLPMA does, however, allow for disposal of tracts that meet criteria listed in Section 203 of the Act. These tracts must be specifically identified during the land use planning process. (For a list of sale tracts identified for potential disposal, see PRMP, Land Tenure, Goal 2, #3, p. 55 and *Attachment 17: Tracts Considered for Sale*, p. 151.) BLM authority for obtaining public access is derived primarily from Sections 202 and 205 of FLPMA (43 U.S.C. 1701, 1732; and 43 CFR 2130). BLM authority for entering into land exchanges is contained in Section 206 of FLPMA.

Under the Recreation and Public Purposes Act (R&PP) (July 25, 1979), the BLM has authority to lease or patent public land to local governments or nonprofit entities for public parks and recreation sites, building sites, schools, or other public purposes. Landfill sites are not to be leased under the R&PP Act, but may be patented under the Act.

Affected Environment

Land Status: The Challis Resource Area contains 792,566.87 surface acres of public land under BLM administration. (The BLM also administers the subsurface estates for all Federal lands.) *Table 3-6* shows surface land ownership and status within the RA, by county. No tribal lands are located within the RA boundary, although Federally recognized Indian tribes (especially the Shoshone-Bannock Tribes) have tribal treaty rights on BLM public lands within the Challis RA. These rights afford tribal members the opportunity to fish, hunt, and gather natural resources on BLM lands. The majority of power site withdrawals are along the Salmon River. State of Idaho lands include 239.70 acres owned by the IDFG and 47,192.22 acres in State School Land Grants. The land ownership pattern is primarily private lands at lower elevations and along water courses, BLM lands at mid elevations, and USFS lands at higher elevations (see *Map E: Land Ownership*).

Table 3-6: Land Status in the Challis Resource Area, in Surface Acres and Percent, by County

Ownership	Custer County		Lemhi County		Total	
	acres	percent	acres	percent	acres	percent
BLM	702,073.95	71.4	77,723.64	7.9	779,797.59	79.3
USFS	136.79	0.0	0.00	0.0	136.79	0.0
Power Site withdrawals	11,815.92	1.2	1,376.57	0.1	13,192.49	1.3
State of Idaho	43,812.15	4.5	3,621.77	0.4	47,433.92	4.8
Private	119,123.95	12.1	23,116.61	2.4	142,240.56	14.5
Totals	876,962.76	89.2	105,838.59	10.8	982,801.35	99.9*

*column does not total to 100.0 because of rounding error (percents are only rounded to tenths of a percent).

Land Use Authorizations: Land use authorizations within the Challis Resource Area include rights-of-way grants for utility systems, transportation systems, irrigation systems, and communication sites; Recreation and Public Purposes leases; and public works leases. The Automated Land and Minerals Record System (ALMARS) lists 248 rights-of-way cases in the Challis RA (ALMARS July 15, 1993). No designated right-of-way corridors are located in the RA at present.

Six communication sites are authorized in the RA (see *Map 19: Communication Sites*); each site uses approximately 10 acres. These sites have from one to three users each, for either two-way radio communication, TV translators, microwave relays, or telephone microwave.

Five Recreation and Public Purposes (R&PP) leases have been issued in the RA during the past 25 years. The Recreation and Public Purposes Act of July 25, 1979, as amended, provides guidelines and procedures for transferring certain lands under the Act to states or their political subdivisions, and to non-profit corporations and associations for recreational or public purposes. The parcels are either classified suitable or nonsuitable for the action proposed. A total of approximately 250 acres have been classified as suitable lease sites. A landfill lease to the City of Challis for the Challis facility (40 acres) was issued in 1983 for a 20 year term. In 1987 Custer County was issued a 25 year R&PP lease for a 2.5 acre fire station on Barton Flat north of Mackay. In 1981 Custer County received a 25 year R&PP lease for an 80 acre rifle range north of Challis. A lease issued to Custer County for a landfill in the Mackay area was never utilized; the lease was issued for 20 years, was relinquished in 1994, and the file closed in 1995. In 1964 the Idaho Department of Fish and Game was issued a lease for a recreation site near Ellis. The lease has been renewed twice; it expired and was relinquished in 1994.

Public works leases are issued to Federal agencies for certain activities on public lands. Two airport leases have been issued in the RA for remote airstrips (one for about 125 acres in Lemhi County, near May, Idaho; the other for about 60.00 acres in Custer County, along the Trail Creek Road between Mackay and Sun Valley, Idaho). These leases may be renewed under FLPMA when they expire.

Land Disposal and Acquisition: Land tenure adjustments are the disposal of Federal lands and/or the acquisition of private lands or interests. Historically, the primary forms of land tenure adjustment in the Challis RA are sales, R&PP patents, and exchanges pursuant to FLPMA, Sections 202, 203, 206, 207, 209, 210, and 212. Some lands have also been disposed of through desert land entry patents. The Desert Land Entry Act of March 3, 1877, as amended, provides for desert land entries on BLM public lands of the thirteen western states. The purpose of the statute is to encourage reclamation (by irrigation) of arid and semi-arid lands through individual efforts and private capital. FLPMA, as amended, stresses management of public lands rather than disposal. According to existing land use plans (MFPs), very few lands in the Challis RA meet the present criteria for disposal within the authority of the Desert Land Entry Act. Over 13,000 acres have been determined nonsuitable for disposal as Desert Land Entries.

Table 3-7 lists land tenure actions completed since the Challis (1978), Mackay (1982), and Ellis-Pahsimeroi (1983) Management Framework Plans were approved:

Table 3-7: Land Tenure Actions Since 1978

# of Actions	Type of Action	Approximate Acreage
8	desert land entry patent	306
5	public sale	86
1	mineral patent	265
4	exchanges patent	192
2	acquisition	382
1	donation	20
Total Acreage (disposal and acquisition):		**1,251**

Trespass: Unauthorized use or trespass areas have been identified, and 128 suspected or verified cases have been serialized and are pending. These trespass cases include a wide variety of unauthorized uses, such as agricultural development, irrigated pasture, occupancy, fences, illegal dumps, access roads, utility lines, and water systems. Current information on trespass cases for the RA is available through the Automated Land and Minerals Record System.

Withdrawals: *Table 3-8* summarizes the acreage withdrawn by the BLM and other agencies in the Challis RA. The narratives following the table explain the types of withdrawals.

Table 3-8: Withdrawal Status of Lands in the Challis Resource Area, by Type of Withdrawal, County, and Land Ownership
(acres withdrawn)

Action	Custer County			Lemhi County		
	BLM	State	Private	BLM	State	Private
Recreation Sites	1,286.73	-	-	164.03	-	-
Public Water Reserve	1,900.39	-	-	-	-	-
USFS Administrative Site	136.79	-	-	-	-	-
Federal Energy Regulatory Commission	884.45	-	-	-	-	-
Power Site Reservation 8	327.75	-	135.27	1,376.57	47.75	607.02
Power Site Reservation 223	8,675.81	-	1,131.86	-	-	-
Power Site Classification 17	268.10	-	-	-	-	-
Power Site Classification 169	39.64	-	160.00	-	-	-
Power Site Classification 336	2,236.79	-	40.00	-	-	-
Power Site Classification 424	267.83	-	-	-	-	-

Recreation Sites: During the process of preparing prior MFPs, the Challis RA published documentation in the *Federal Register* segregating campgrounds in the RA from acquisition by the general public under the general land and mining laws and regulations. These campground and recreation site locations and acreage are listed in *Appendix D, Item 1.*

Public Water Reserve: Public water reserve sites are spring areas set aside and maintained for public use; they cannot be patented for private use.

USFS Administrative Site: The U.S. Forest Service has acquired administration sites outside Forest Service boundaries either by fee purchase, gift, or an administrative site withdrawal from the BLM. The two USFS administrative site withdrawals within the Challis RA include the Yankee Fork Ranger Station and the Challis Ranger District office in Challis, Idaho. These sites will remain as administrative sites in perpetuity, or until relinquished.

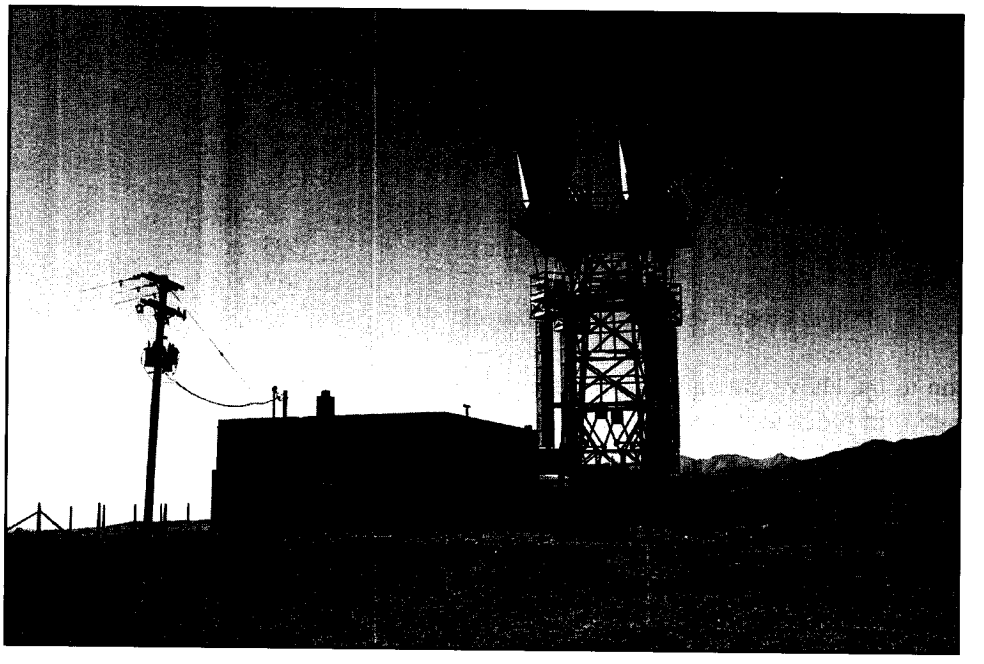
Federal Energy Regulatory Commission Withdrawal: When the Federal Energy Regulatory Commission applies for a low-head hydro-power project, the agency files a withdrawal with the appropriate BLM state office for the area affected by the project. The BLM has very little, if any, input and responds through the U.S. Forest Service or the U.S. Fish and Wildlife

Service on the environmental impacts of the project.

Power Site Reservation or Classification: Numerous withdrawals within the RA have set aside lands along the Main Salmon River and East Fork Salmon River to provide the Federal Energy Regulatory Commission with possible future sites for hydro-power projects. These power site reservations and classifications were executed by Secretarial Order in the 1920s and are in effect until each withdrawal is reviewed for validity (by order of the 1992 Federal session of Congress). Under section 204(a) of the Federal Land Policy and Management Act of 1976, the Secretary of the Interior is authorized to make, modify, extend, or revoke withdrawals. Field offices of the BLM analyze withdrawal proposals and make review recommendations to the Secretary. All power site reservation and classification withdrawals in the RA are expected to be relinquished upon review.

Access: Not all roads under BLM jurisdiction have legal access across private and State lands; however, some current land owners allow public and BLM access. *Table 3-19* in ***Chapter 3*** - Transportation, p. 274 lists the easements allowing access across private and State land to BLM public lands. These easements provide for either public use or administrative access. Approximately 99% of BLM lands in the RA are accessible by foot or vehicle across other BLM lands, U.S. Forest Service lands, or State lands. Very few tracts in the RA are isolated by private lands. The PRMP, Land Tenure, Goal 5, #1-2, p. 58, identifies the types of legal access that would be needed to ensure public access.

Additional information on transportation facilities which provide access to BLM lands is provided in ***Chapter 3*** - Transportation on pp. 272-275.



Land Use Authorization - Communication Site

Livestock Grazing.

Law, Regulation, and Policy

The principal authorities for livestock grazing on public land are the Taylor Grazing Act of 1934, as amended (43 U.S.C. 315 (a)-(r)) and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*) as amended by the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 *et seq.*). Grazing regulations are found in 43 CFR 4100. *State of the Public Rangelands* (BLM 1990), a national strategic planning document for BLM rangelands, identifies the following objectives: (a) Achieve late seral to potential natural community stage on 75% of BLM riparian areas by 1997; (b) increase the area in late seral to potential natural community stage to 40% (68 million acres) by 2009; and (c) reduce the area in early seral stage to 10% (17 million acres) by 2009. Livestock grazing in the Challis Resource Area was analyzed in the Final Supplemental Environmental Statement-Revised Range Management Program for the Challis Grazing Unit (1979), the Ellis-Pahsimeroi Final Grazing Environmental Impact Statement (1982), and the Big Lost-Mackay Grazing Final Environmental Impact Statement (1983).

Affected Environment

Approximately 771,224 acres (97.3%) of the 792,567 acres of BLM-administered public lands in the Challis Resource Area are currently allocated for livestock grazing. The area allocated for livestock grazing is divided into 62 grazing allotments for administrative purposes (see *Map B: Allotment Boundaries*). Currently, the following areas are closed to livestock grazing:

Cronk's Canyon Bighorn Sheep Pasture	1,496	acres
Morgan Creek Bighorn Sheep Pasture	3,642	acres
Bruno Creek Allotment (mining)	2,378	acres
Sand Hollow Area (watershed)*	3,332	acres
Malm Gulch Area (watershed)*	9,136	acres
East Fork Salmon River Bench (ACEC)	78	acres
Summit Creek exclosure (plants)	305	acres
	20,367	acres

*also closed to wild horses/burros

In addition to the above grazing closures, the following areas have restrictions on livestock water development, in order to protect wildlife habitat:

Garden Creek and Bayhorse Allotments (bighorn sheep)	1,000	acres
Eastfork Allotment (bighorn sheep)	4,493	acres
Spud Creek Allotment (bighorn sheep)	297	acres
Willow Creek Allotment (elk)	2,200	acres
	7,990	acres

Approximately 84 livestock operators have permits to graze their livestock on public lands within

the Resource Area. Each allotment has a specific area and season of use, class of livestock permitted, and established grazing preference. Allotments are placed into one of three categories for priority of management and expenditure of range betterment funds, with 30 allotments in the improve (I) category, 25 in the maintain (M) category, and 7 in the custodial (C) category (see *Appendix F, Item 2*, and *Glossary* definition: allotment categorization).

The majority of livestock use within the Resource Area consists of cow/calf operations, with a few yearling operations. A few permittees graze sheep (4 permits for 3,700 sheep and 3,056 AUMs in 5 allotments), and some graze horses, primarily as a part of their livestock operations. The season of use varies by area. Much of the Resource Area consists of BLM land situated on foothills above privately owned valley bottoms, adjacent to National Forest lands which are mostly forested high country. Most of the allotments in the Pahsimeroi Valley and the Mackay area fall into this category. These allotments are primarily used for spring and fall use before and after summer grazing on the adjacent National Forests. Several allotments in the middle of the Pahsimeroi Valley and the areas around Challis are used for season-long grazing, beginning around May 15 and running as late as November 15. Winter use is rare, with only 3 allotments permitted for winter use. Due to the land ownership pattern within Lemhi and Custer counties, livestock permittees are very dependent on public range for summer grazing. A very limited amount of private land is available for hay production, and livestock are typically off hay croplands during the summer months (when hay is being produced).

Allotment Management Plans

Livestock grazing in 40 of the 62 allotments is managed under the terms and conditions of an Allotment Management Plan (AMP). Each AMP contains management objectives for the allotment, prescribes the manner and extent of grazing allowed, describes range improvements necessary to implement grazing practices, and details a monitoring system to determine whether the objectives are being met. Grazing systems vary from a simple seasonal system to complex multi-pasture systems involving rest, deferment, and rotation among many pastures. *Table 3-9: Grazing Systems on AMP Allotments* describes the category, grazing system, and season of use for each allotment with an AMP.

The resource objectives detailed in the 40 AMPs follow goals and objectives stated in the Challis, Ellis-Pahsimeroi, and Mackay grazing Final Environmental Impact Statements (EISs). Normally, AMPs are evaluated periodically and revised as necessary, to ensure they continue to meet land use plan goals and objectives. In the Challis Resource Area AMPs have been revised at the rate of about 1 to 2 per year. Many AMPs were completed in the early 1980s, before amendments to the Clean Water Act, listing of the sockeye salmon as endangered and the chinook salmon and steelhead trout as threatened, and the current emphasis on riparian improvement. In order to address these concerns, most of the existing AMPs guiding livestock management on 40 allotments within the Challis Resource Area would be revised (see PRMP, Livestock Grazing, Goal 1, #4, p. 60).

Table 3-9: Grazing Systems on AMP Allotments

Allotment Number/Name	Category[1]	Grazing System[2,3]	Season of Use[3]
4409 Allison Creek	M	1S; 2DR; 3RR; 2DR	5/1-10/31
4410 Hat Creek	I	4 Area DR	5/10-6/25;10/11-10/28
4411 Morgan Creek	I	3 Pasture RR	5/1-5/30; 11/1-12/30
4412 Lawson Creek	M	Seasonal	5/1-6/15; 10/7-10/16
4502 Spud Creek	I	3 Pasture DR w/USFS	5/8-7/15
4504 Hamilton	I	2 Pasture DR	5/11-7/10
4505 Mahogany Creek	M	3 Pasture DR	5/10-9/30
4506 Patterson Creek	I	1 Pasture Seasonal	5/1-6/6
4508 Meadow Creek	M	4 Pasture DR w/USFS	5/6-6/5
4509 Countyline	I	3 Pasture DR	5/5-6/15
4513 Bear Creek	M	5 Pasture DR	5/16-9/30;11/1-11/30
4518 Rock Creek	M	4 Pasture DR w/USFS	6/1-10/15
5601 Round Valley	M	2 Pasture DR	5/15-9/14
5602 Garden Creek	M	3 Pasture RR	5/15-6/22
5603 Warm Springs	I	3 DR; 2-2 DR; 1Trail	5/15-10/31;12/16-1/15
5604 Squaw Creek	M	3 Pasture DR	5/21-6/15;10/1-10/15
5605 Eastfork	I	3 Pasture RR	5/21-6/10
5606 Bayhorse	I	2 Pasture RR	5/15-7/15
5607 Bald Mountain	M	1 Fall; 2 Past RR	5/15-7/15;10/1-10/15
5608 Bradshaw Basin	M	4 Pasture DRR	5/15-7/15
5609 Bradbury Flat	I	2 Pasture RR	5/16-9/27
5610 Mtn Spgs. (San Felipe)	I	5DR;7RR	5/21-11/15
5611 Road Creek	M	2 Pasture RDR	5/16-10/8
5612 Herd Creek	I	3 Pasture RR w/ USFS	6/15-10/31
5613 Stanley Basin Trail	C	Trailing Use Only	Trailing Use Only
5615 Challis Creek	M	4 Pasture RR w/USFS	5/15-9/15
5616 Lime Creek	C	5 Pasture RR w/USFS	5/15-10/15
5617 Pennal Gulch	I	2 Pasture DR	5/15-9/12
5618 Spud Creek	M	2 Pasture DR; 1S	5/10-7/12
5609 Thompson Creek	I	4 Pasture RR w/USFS	5/25-10/15
5621 Pine Creek	M	2 Pasture DR	6/5-7/18
5622 Sullivan Creek	C	2 Area DR w/ USFS	5/11-8/30; 10/1-10/15
5623 French Creek	C	Seasonal w/ rotation	unallotted
5624 Split Hoof	M	2 Pasture DR	5/15-6/15
5701 Arentson Gulch	M	6 Pasture DR w/USFS	5/20-9/25
5702 Dickey	M	5 Pasture DR w/USFS	5/18-9/30
5703 Whiskey Springs	I	3 Pasture RR	5/10-7/8; 10/1-10/10
5704 Mackay	I	Seasonal	5/1-12/15
5709 Wildhorse	I	2 Pasture DR	5/7-7/8
5712 Thousand Springs	I	1S; 2RR; 1DR	5/1-7/9; 11/11-12/25

[1] Categories: M = maintain, I = improve, C = custodial (see *Glossary*: allotment categorization, p. 166).

[2] S = seasonal, RDR = rest-deferred rotation, DR = deferred rotation, RR = rest rotation (see *Glossary*: grazing system, p. 173); w/ USFS = AMP is jointly managed with the Forest Service, and the number of pastures includes USFS pastures; trail = trailing use pasture

[3] Grazing System and Season of Use were taken directly from AMPs and may not exactly match grazing permit dates.

Forage Allocation

The current active preference within the Challis Resource Area is 51,069 AUMs, with an additional 3,872 AUMs of suspended preference (see *Glossary* definition: grazing preference). *Appendix F, Item 1: Allotment Summary*, pp. 644-645, shows the current preference for each allotment, in addition to other allotment information (permit class (cattle, horse, or sheep), acres, category, season of use, date AMP was approved (if an AMP exists), and number of permittees). When the Ellis-Pahsimeroi, Challis, and Mackay grazing EISs were prepared, they were preceded by a vegetative inventory to allocate forage among users. The inventory determined the average total annual production of vegetation. A factor was used to provide for plant maintenance and watershed protection, and the remaining vegetation was considered forage available for allocation to consumptive users, including livestock, wild horses, and wildlife. The inventory for all EIS areas showed a total livestock grazing capacity of 42,734 AUMs. After balancing the needs of all users, BLM planning established an initial livestock carrying capacity of 44,825 AUMs. Due to installation of range improvements and a number of other factors, the current grazing preference is 51,069 AUMs. For further information on livestock grazing allocations, see the Challis Rangeland Program Summary (RPS) update (1985), the Ellis-Pahsimeroi RPS update (1987), and the Mackay RPS update (1988).

From 1979 to 1990, an average of 43,769 livestock AUMs have been used annually. The amount of livestock preference that is actually used each year varies, based on climatic conditions, livestock markets, individual ranch considerations, and so forth. In some years, good growing conditions provide extra forage production. Livestock permittees can apply for extra use above their recognized grazing preference under provisions of the Federal grazing regulations. Permittees can also apply for additional use above their preference if other permittees cannot use their full preference. In other years drought conditions, fire, insects, or other causes provide less forage production than normal years. Under these conditions permittees sometimes use less forage than their preference by reducing the number of livestock they turn out onto public range, shortening the grazing season, or both.

The condition and trend of rangeland vegetation are directly related to management of the livestock, wild horses, and wildlife that utilize forage. Livestock management especially affects rangeland condition and trend, since the majority of allocated forage (51,069 AUMs) is allocated to livestock grazing, compared to only 3,795 AUMs allocated to wild horses and 10,425 AUMs allocated to big game. The remainder of vegetative biomass (approximately one-half) is left for watershed protection, plant maintenance, and other non-consumptive uses.

Rangeland Inventory

Rangeland vegetation in the Challis Resource Area is primarily shrub-grassland, with bluebunch wheatgrass and Idaho fescue as the primary forage species. A complete description of upland vegetation is provided in ***Chapter 3*** - Vegetation, pp. 278-296.

The ecological status of public rangelands in the Challis Planning Unit was inventoried in 1977 using the Ecological Site Inventory (ESI) methodology. The Ellis-Pahsimeroi Planning Unit was

inventoried in 1979 using the Soil-Vegetative Inventory Method (SVIM), and the Mackay Planning Unit was inventoried in 1981 using the SVIM. The findings of those inventory methods are summarized by allotment category in *Table 3-10* below, and by allotment in *Appendix F, Item 2: Range Condition Summary by Allotment*, pp. 646-647. Range condition for the Resource Area is also shown on *Map F*. The figures in *Table 3-10* below include only BLM public lands and have been adjusted from the original inventories to account for the Donkey Hills State land exchange (8,480 acres of BLM land exchanged for 8,716.12 acres of State land) and other allotment boundary changes that have taken place since the original inventories.

These vegetative inventories vary from 15 to 19 years old, and many changes have occurred in livestock management and resource conditions since the inventories were completed. Livestock grazing management has been much more intensive on most grazing allotments in the years since the inventories were done. Many range improvement projects have been constructed to improve livestock distribution and improve riparian and upland conditions. The positive impacts of these actions may have been offset by several years of back-to-back drought in the late 1980s. Vegetative inventories such as these are extremely expensive and take several years to complete, analyze, and interpret. Therefore, it was determined that these inventories are sufficient for the purposes they will be used for in the Challis RMP, and it was not necessary to update them for the RMP. An inventory for the Mountain Springs (San Felipe) allotment was redone during the course of RMP preparation to address specific management concerns within that allotment; results of this updated inventory are reflected in *Table 3-10* and *Appendix F, Item 2*.

Table 3-10: Ecological Status[1] of the Challis Resource Area by Management Category

Mgmt. Category[2]	# Allot-ments	PNC[3] (acres)	Late Seral (acres)	Mid Seral (acres)	Early Seral (acres)	Unclassified (acres)	TOTAL (acres)
M	25	2,126	72,006	75,245	37,099	27,548	214,024
I	30	25,539	184,400	192,259	87,700	37,618	527,516
C	7	0	2,088	3,503	696	2,505	8,792
None	n/a	550	7,367	6,271	3,138	24,909	42,235
TOTALS	62	28,215	265,861	277,278	128,633	92,580	792,567
% totals		3.6	33.5	35.0	16.2	11.7	
Totals from prior inventories (1979-1981))	62	5,971	220,198	304,598	169,102	92,693	792,567
% totals		0.8	27.8	38.4	21.3	11.7	

[1]See *Glossary*: ecological status, p. 170.
[2]Management categories: M = maintain, I = improve, C = custodial (see *Glossary*: allotment categorization, p. 166).
[3]PNC = potential natural community (see *Glossary*, p. 179).

These vegetative inventories were designed to determine the ecological status of upland vegetation and were not of sufficient detail to map or inventory the status of riparian zones. However, inventories conducted from 1994 through 1995, and observations made since 1995 indicate riparian zones throughout the Resource Area are in the following functional condition (also see PRMP, *Attachment 1: Riparian-Wetland Area Function Classification,* pp. 101-102):

Functional	487.0	acres
Functional-at-risk	757.7	acres
Non-functional	115.7	acres
Total Riparian Habitat:	1,360.4	acres

Rangeland Monitoring and Evaluation

The BLM conducts rangeland monitoring to determine whether land use plan objectives (such as those in the Challis, Ellis-Pahsimeroi, and Mackay MFPs) are being met. Some of the monitoring methods used by the BLM include trend, utilization, cover, climate, actual use, and photographs. These monitoring studies are read on a periodic basis, with the frequency of re-reading depending on such things as the land use plan objectives being monitored and how rapidly a change in conditions can be expected to occur.

In March, 1992, BLM staff evaluated monitoring data from 59 allotments in the Resource Area in order to determine current rangeland trend. Data evaluated included close-up and general aspect photographs of 3' x 3' photoplots, and nested frequency data when available. Seventy-six (76) studies were inconclusive due to insufficient data, 3 studies showed downward trend, 35 showed static trend, and 6 showed an upward trend. Five of the upward trend allotments were attributed to reduced wild horse numbers and one was attributed to livestock non-use. These data seemed to indicate that management applied up to 1992 did not meet existing land use plan objectives to *improve* range condition in the Resource Area. Four reasons may have accounted for this lack of improvement: (a) grazing systems may not have been fully implemented as planned, (b) overstocking, (c) seasons of use that are incompatible with improving the vigor of desired species and (d) insufficient grazing management changes in response to drought conditions.

a) Allotments with an AMP are to be managed under the grazing system described in the AMP. However, permittee compliance with grazing systems varies by allotment. On some AMP allotments the range improvements needed to fully implement grazing systems were not constructed due to insufficient funding or because of Wilderness Study Area constraints. Grazing systems on other AMP allotments have proven to be more difficult to implement than planned when the AMP was written.

b) Under existing management, stocking levels on several allotments are above the capacity defined in the latest range survey. Fourteen allotments (Allison Creek, Mahogany Creek, Burnt Creek, Garden Creek, Bayhorse, Challis Creek, Warm Springs, Squaw Creek, Eastfork, Bald Mountain, Bradshaw Basin, Bradbury Flat, Mountain Springs (San Felipe), and Split Hoof) currently have grazing preference more than 30% over the inventoried

grazing capacity. Utilization levels on many allotments within the Resource Area have been periodically measured above the 50% limit prescribed by the land use plans. Even the livestock grazing capacity defined in the Challis Planning Unit EIS (based on the 1977 inventory) may be above the true capacity of the range; suitability criteria were essentially eliminated from the draft proposed action because the recommended stocking level decreases were considered too great a financial hardship for the permittees.

c) Season-of-use in the Resource Area is generally May through October (see *Appendix F, Item 1: Allotment Summary*, pp. 644-645). Nearly all allotments are used during the most critical growing season of May through June. Research has shown that continued heavy use of the key grass species bluebunch wheatgrass will result in declined vigor and eventual mortality of this species. Furthermore, rest from use for one or two years has not been shown to be effective in countering the negative effects of heavy grazing during the used year (Anderson 1991).

d) Drought and other climate-related impacts hindered perennial plant production, vigor, and seedling development on upland range sites. Appropriate responses to drought (such as lower stocking rates, shorter seasons of use, more frequent rest of pastures, and adjusting herd sizes for the lesser amounts of surface water available due to low stream flows and dry springs and seeps) were not always implemented in a timely manner, or in a fashion commensurate with the severity of the drought.

Big game populations have increased during the past 15 years, and some persons attribute poor range condition to increased use by wildlife. Although big game use may have an impact in localized areas, far fewer wildlife utilize the range than do livestock (10,425 AUMs for wildlife, versus 51,079 AUMs for livestock). Big game also use areas that are not considered suitable for livestock (*e.g.*, steep slopes).

Starting in about 1993, livestock grazing management on 14 allotments was modified due to the ESA listing of chinook and sockeye salmon. The improved grazing management resulted in observable improvement in resource conditions. During the past three years (1995-1997) the BLM has performed monitoring and data analysis on an average of 25 allotments each year. Many of the same allotments are evaluated from year to year. The magnitude and extent of data collected varies from one key area or photo point, usually located in smaller allotments, to ten or more key areas and/or studies locations within several pastures of larger allotments.

The type of data collected (besides climate and actual use) includes upland utilization and use pattern mapping, riparian vegetation stubble heights, photo points, riparian greenline trend, nested frequency (upland) trend, woody age structure, woody use, bank stability, and various other aquatic habitat parameters.

Of thirty-eight (38) studies re-read since 1992, 32% of the studies revealed an upward trend, 37% were static, and 26% showed a downward trend. The remainder (5%) were initial readings or relocated studies from which trend could not be determined.

Rangeland Improvements

To facilitate the management of livestock and allow for protection of public rangelands, a number of rangeland improvements have been installed. These include nonstructural range improvements such as seedings, prescribed burns, herbicide spraying to reduce shrubs, and chaining, as well as structural range improvements such as fences, reservoirs, spring developments, pipelines, and cattleguards. The following priority has generally been followed for construction of range improvements: (1) maintain or reconstruct existing projects, (2) complete projects needed to fully implement existing AMPs, and (3) initiate projects and treatments needed to implement new AMPs. The priority for funding new range improvements has been based on the allotment categorization process explained in the *Glossary* definition: allotment categorization, p. 166. Existing range improvements within the Resource Area are shown in *Table 3-11* (source: Rangeland Improvement Projects System, Challis RA, January 1992).

Table 3-11: Summary of Existing Range Improvements

Type of Range Improvement	Number of Improvements	Total Size of Improvements
Seeding	27	20,470 acres
Spraying	6	9,166.2 acres
Prescribed burns	14	3,384 acres
Chaining	2	520 acres
Fences	222	514.1 miles
Spring developments	190	--
Pipelines	132	190.5 miles
Reservoirs/waterholes	162	--
Detention dams	6	99,748 cu. yd.
Dikes/diversions	3	17,200 linear ft.
Earthen check dams	5	1,807 cu. yd.
Wells	2	--
Cattleguards	105	--
Exclosures	25	--
Wildlife guzzlers	13	--
Other (bridges, trails)	13	--

The current condition of these range improvements varies greatly. Generally, structural range improvements are maintained by grazing permittees or others under cooperative agreement with the BLM. Nonstructural improvements and wildlife projects (such as guzzlers and some exclosures) are maintained by the BLM. Although permittees are required to maintain range improvements under the terms and conditions of their grazing permits and the cooperative agreements authorizing the range improvements, the range improvements are often not maintained to BLM standards. Because of personnel limitations, the BLM cannot adequately assess the maintenance status of all improvements.

Vegetation manipulations such as seeding, burning, and chaining (for shrub control) have been implemented primarily to increase forage for livestock. Chaining has not been used for over 10 years, has been demonstrated to be of limited effectiveness, and will probably not be used in the future. Although prescribed burns, seeding, and spraying projects can temporarily increase forage for livestock by releasing grasses from competition with shrubs, BLM monitoring data suggest that re-establishment of target shrub species can take place within 10 to 12 years under existing levels of use, depending on climate and management. Generally, the treated area requires 2 to 3 growing seasons of rest after treatment. Thus, the net benefit of these more expensive treatments is variable.

Factors Affecting Livestock Management

The following four factors currently affect, and may constrain, livestock management in the Challis Resource Area.

Ecological Status Goals: The goals stated in the Ellis-Pahsimeroi, Mackay, and Challis grazing EISs to improve ecological status have not been met to date. Riparian condition and function assessments made by Challis Resource Area staff indicate some riparian zones throughout the Resource Area are below functioning condition. Due to the topography of the Resource Area, with perennial or intermittent streams adjacent to steep, often deeply dissected canyons and valleys, livestock use tends to congregate in riparian zones unless intensively managed. Development and revision of AMPs to correct intensive livestock use of riparian areas is ongoing. However, due to very limited budgets, progress is very slow, and the riparian resource continues to function below its potential. In many parts of the Resource Area, the riparian resource has sustained damage that may take years of intensive management to rectify.

Range Suitability Criteria: As the draft Challis, Ellis-Pahsimeroi, and Mackay grazing EISs were prepared, they all contained criteria for range suitability. (Suitability for grazing takes into account such things as slope and distance from water and/or site productivity. See Glossary: suitable ranges, p. 183.) For a variety of reasons, the suitability criteria were not used in the final Ellis-Pahsimeroi and Mackay grazing EISs. Suitability is still a valid range concept and maps are available for each planning unit in the Resource Area. Since the current grazing preferences will be used for the RMP without adjustment for factors such as suitability, suitability criteria will probably be most useful in targeting areas where review of the stocking rate may be appropriate and/or to identify physical barriers to livestock movement.

Noxious Weeds: As noxious weeds spread, they displace forage suitable for livestock. Current inventories show that noxious weeds continue to spread within the Resource Area, especially adjacent to major and secondary roadways and along the Salmon River (infestations are generally associated with vehicle traffic and/or ground disturbing practices). Custer County and the BLM currently provide educational information to the public concerning the spread of exotic species within the Resource Area. Of particular concern are spotted knapweed (*Centauria maculosa*) and leafy spurge (*Euphorbia esula*). For a further description of noxious weeds in the Resource Area, see related sections of ***Chapter 3*** - Vegetation, pp. 278-296.

Allotment Size and Shape: Due to their topography, shape, and/or small size, some grazing allotments are difficult to manage to meet land use plan goals and objectives. For example, some allotments are too small to divide into pastures to manage riparian areas or other special management areas. In order to meet RMP objectives, livestock may need to be removed from the allotment for a period of time, because there is no alternative pasture to place them in temporarily.

Minerals - Locatable, Saleable, and Leasable.

Law, Regulation, and Policy

Locatable Minerals: Locatable mineral development on BLM-managed public lands is subject to 43 CFR 3809 regulations authorized by FLPMA (43 USC 1731) and the General Mining Law of 1872 (17 Stat. 91). Three types of development are recognized: casual use, notice level, and plan of operations level. Casual use level operations are those activities which cause no or minimal surface disturbance (such as staking and work with hand tools). Operations in excess of casual use are required to file a "Notice" to the BLM at least 15 days prior to the start of operations. The BLM does not approve or disapprove a properly submitted Notice, but merely reviews the Notice and informs the miner how to avoid "unnecessary or undue degradation" of the public lands and resources. Mining operations which require plans of operations are: surface disturbance in excess of five acres, non-casual use operations on special category lands (see PRMP, *Attachment 5: Standard Operating Procedures* - Minerals, #6, p. 110), and non-complying miners operating under a Notice. The filing of a plan of operations requires that the BLM prepare an environmental assessment prior to the start of mining. Mitigation measures and reclamation bonding are often required as part of plan approval. All operations are required to prevent unnecessary and undue degradation of the public lands and resources and to abide by all applicable Federal, State, and local laws and regulations.

Saleable Minerals: The Materials Act of 1947 (61 Stat. 681), further defined by 43 CFR 3600, authorizes discretionary disposal by sale of certain common variety minerals such as sand and gravel, stone, clay, pumice, and volcanic cinders from BLM public lands and the Federal mineral estate. The designation of a community pit site constitutes a superior right to remove the material against any subsequent claim or entry of the lands (43 CFR 3604.1b). These mineral materials are sold at fair market value. Free use of these minerals can be permitted for noncommercial use

by government and nonprofit agencies.

Leasable Minerals: The Mineral Leasing Act of 1920 (41 Stat. 437) makes deposits of coal, oil and gas, sodium, phosphate, and oil shale subject to a leasing system. The Mineral Leasing Act specifies rental and royalty rates, lease size, and terms for each leasable mineral, and requires prospecting permits and competitive bidding for certain deposits. Leasing of minerals under this act is discretionary, and the Secretary of Interior is given broad discretion in granting leases and permits. Federal regulations 43 CFR 3100 regulate oil and gas leasing, the type of mineral leasing most likely to be permitted in the Challis Resource Area.

Affected Environment

Locatable Minerals

Under current management, the Federal mineral estate within the Challis Resource Area is open to mineral entry, except for recreation sites (1,450.76 acres) withdrawn or otherwise segregated from mineral entry (see *Appendix D, Item 1,* pp. 636-637). Implementation of the Clean Water Act and legislation protecting cultural resources or threatened or endangered species may impose additional restrictions on surface disturbing activities on a case-by-case basis, including exploration for and mining of locatable minerals. Locatable mineral resource occurrence is summarized below, shown on *Map 30: Locatable Mineral Land Classification,* and described in detail in *Appendix G, Item 1,* pp. 648-651. Minerals extracted or identified in the past include tungsten, molybdenum, silver, copper, lead, barite, opaline material, and uranium. Current locatable mineral production in the RA is limited to the Thompson Creek molybdenum mine in the extreme western part of the Bayhorse Mining District, and a very small decorative stone operation (uncommon variety of stone) near the mouth of the East Fork Salmon River. Employment at the Thompson Creek mine has been variable; approximately 180 people are currently employed. The mine's facilities are designed to process up to 25,000 tons of ore daily. Approximately 1,000 active mining claims are located in the RA; these claims generate a variable amount of exploration and development activity.

Pahsimeroi Valley and the Ellis Area: Geologically, the area is underlain by a faulted and fractured sequence of sedimentary and metamorphic rocks of Precambrian and Paleozoic age. The Precambrian rocks are made up of the Belt Series quartzites, which were all formed by metamorphism of sandstones and shales. Bedded marine sedimentary rocks of Paleozoic age (limestones, sandstones, and argillites) overlay the Precambrian Belt Series formation. Felsic tuffs, lavas, and ash of the Challis volcanics overlay the older rock sequences.

Challis Area: Geologically, this area is underlain by a faulted and folded sequence of sedimentary and metamorphic rocks of Paleozoic age intruded by granitic outlines of the Idaho Batholith of late Mesozoic age. Felsic tuff, lava, and ash of the Challis volcanics cover older rocks in the area. Most of the ore deposits discovered since the 1870s consist of vein or replacement type deposits in the bedded Paleozoic rocks, with the exception of molybdenum, which is most abundant in a granitic stock.

The Bayhorse and Boulder Creek Mining Districts cover much of the area west of the Salmon River between Challis and Clayton, Idaho. However, no production from the Boulder Creek Mining District occurred on BLM lands. The Bayhorse Mining District has realized $5,587.3 million in gold, silver, copper, lead, zinc, molybdenum, and tungsten production since inception of mining in the 1800s (USDI Bureau of Mines 1988).

Locatable mineral resources are known to occur in nine areas around Challis, Idaho. Locatable minerals produced or identified in the Challis area include tungsten, molybdenum, lead, silver, zinc, copper, cadmium, fluorite, and gold.

Mackay Area: Geologically, the area is underlain by a faulted and fractured sequence of sedimentary and metamorphic rocks of Precambrian and Paleozoic age. The Precambrian rocks are made up of the Belt Series quartzites, which were all formed by metamorphism of sandstones and shales. Bedded marine sedimentary rocks (limestones, sandstones, and argillites) of Paleozoic age overlay the Precambrian Belt Series formations. Felsic tuffs, lavas, and ash of the Challis volcanics overlay the older rock sequences.

Locatable mineral resources are known to occur in two areas, both within the Alder Creek Mining District which lies west of the town of Mackay, Idaho. Over $16,286.8 million in gold, silver, copper, lead, zinc, iron, and tungsten has been produced from this area (USDI Bureau of Mines 1988). Two additional areas have received active exploration and are located northwest of Mackay. Delineated areas are considered potentially valuable for locatable mineral resources.

Saleable Minerals:

Stream sands and gravels, alluvial fan material, and talus material make up the saleable material resources in the Challis Resource Area. State and county road departments and independent contractors depend in part on saleable materials supplied from community pits located on BLM public lands. However, the annual quantities of the material sold are relatively small (approximately 50,000 cubic yards annually). Thirteen materials sites are located in the Challis Resource Area. The location of these sites, along with the general distribution of mineral material resources, is shown on *Map 37: Saleable Minerals Land Classification.* The sites are further described in *Appendix G, Item 1,* pp. 648-651.

Leasable Minerals:

This discussion of the affected environment for oil, gas, and geothermal minerals is based upon reports submitted in March 1992 for the Challis RMP by Steve Moore and Robert Mallis of the BLM - Idaho State Office (see Planning Record). Fluid energy leasable mineral resources in the RA include oil, natural gas, and geothermal resources. There are no known deposits of non-energy (solid) leasable minerals (coal, oil shale, phosphate, sodium, potassium, sulphur, or gilsonite). Some minor economic benefits are derived from exploration for leasable mineral resources in the RA.

Oil and Natural Gas: Most lands within the Challis Resource Area are underlain by a thick sequence of bedded marine sedimentary rocks of Paleozoic age, overlain in part by felsic tuffs, lavas, and ash of the Challis volcanics of Tertiary age. Paleozoic sediments of similar lithology have produced petroleum and natural gas in other areas of the country. Paleozoic rocks located west of the Salmon River and East Fork Salmon River have been altered, deformed, and intruded by igneous rocks, which could have destroyed any hydrocarbon reservoirs which may have existed.

Most of the Challis Resource Area and adjacent region have low potential for the discovery of petroleum resources (see *Map 34: Oil and Gas Potential*). While thrust-faulted, thick sequences of Paleozoic marine strata exist, source rocks are thermally overmature. In the 1970s and 1980s the east-central Idaho region (as well as much of Idaho) experienced a relatively high number of non-competitive oil and gas lease applications. The motivation for this surge of speculation is varied, but is usually associated with the fervor of oil and gas exploration during the late 1970s to early 1980s in the Overthrust Belt in Wyoming. Since the early 1980s oil and gas leasing activity has declined to virtually zero in the area as well as the remainder of Idaho. A high level of oil and gas leasing activity is not expected in the Challis Resource Area in the near future.

The drilling operation closest to the Challis Resource Area includes a well with a total depth of 6,700 feet in the Lemhi Valley to the east. A stratigraphic test well with a total depth of 3,600 feet, located over 20 miles south of the RA, did not reveal any evidence that would suggest a significant potential for oil and gas deposits.

Geothermal Resources: The geothermal potential of the Challis Resource Area is rated as low, except for the immediate areas surrounding known hot springs and wells (see *Map 26: Geothermal Potential*). Six thermal springs and one thermal well are located in the Challis Resource Area. The surface temperatures of these springs and the well range from 28° C to 46° C. Available geothermometry of thermal springs in the area indicate that subsurface temperatures are less than 100° C. Thermal springs in the area generally are low in dissolved solids and have high pH. Geothermal resources having temperatures 100° C or less are suitable for limited direct use applications such as spaceheating, greenhouse operation, and aquaculture. The only known uses of geothermal resources in the Challis Resource Area at present are for recreation and fish-farming. No geothermal lease applications have ever been received and no geothermal leases have ever been authorized on lands within the Challis Resource Area.

Paleontological Resources.

Law, Regulation, and Policy

Legislative, regulatory, and policy direction for the management of paleontological resources is not extensive, but general direction is provided by NEPA and FLPMA. Regulations for paleontology are being restructured to bring them together in a single section that covers the rules for collecting plant, invertebrate, and vertebrate fossils. Bureau policy on issuing Paleontological Resource Use permits was issued in late 1994 (WO IM-95-51); policy on mitigation and planning standards was issued in 1996 (WO IM-96-67). NEPA and FLPMA require that paleontological resources be given full consideration in the environmental assessment and planning process, and allow for the issuance of permits to manage the collection of scientifically significant resources such as vertebrate fossils.

Affected Environment

The Challis Resource Area demonstrates a wide variety of geological formations which are of fossil-bearing nature, although only a limited number of localities have been identified. Paleontology areas of special note are further described in *Appendix H, Item 1,* p. 642. A formal inventory of paleontological resources has not been conducted in the RA, and the supply of fossil remains is therefore unknown. The potential for discovery of additional paleontological resources is moderate, given the geologic nature of the RA.

Erosional processes, fossil collecting, and off-highway vehicle activity are detrimental to known paleontological resources, resulting in a degraded condition and downward trend. Significant removal of material by collectors is documented at one well-known site. The Challis Resource Area attempts to protect or mitigate impacts on known or discovered values.

Collecting, research and scientific studies, educational use, and visitation/viewing of paleontological resources are the major demands on these values. However, demand for these resources in the Challis RA appears to be low, based on issued permits and tourist requests. There are no data to determine the amount of unauthorized collecting and subsequent sale of material from the RA.

Fossilized tree stump in the Challis Resource Area

Recreation Opportunities, Visitor Use, and Off-highway Vehicle Use.

Law, Regulation, and Policy

The more significant authorities for management of the BLM's outdoor recreation program include the following:

Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-1782)
Land and Water Conservation Fund Act, as amended (16 U.S.C. 4601-4604)
National Trails System Act (16 U.S.C. 1241-1249)
National Wild and Scenic Rivers Act (16 U.S.C. 1278-1287)
National Parks and Recreation Act of 1978 (16 U.S.C. 1242-1243)
Federal Cave Resource Protection Act of 1988 (P.L. 100-691)
Wilderness Act of 1964 (16 U.S.C. 1131)
Recreation and Public Purposes Act of 1926 (43 U.S.C. 869 *et seq.*)
Federal Water Projects Recreation Act (16 U.S.C. 4601 *et seq.*)
Clear Water Act of 1977.
Executive Order 11644, Use of Off-Road Vehicles on Public Lands (37 FR 2877; Feb. 9, 1977)
Executive Order 11989, Off-Road Vehicles on Public Lands (42 FR 26959; May 25, 1977)
Upper Salmon River Recreation Area Management Plan (1986)
Mackay Reservoir Recreation Area Management Plan (1984)
Salmon District Recreation Marketing Plan (1993).

Major authorities pertaining to off-highway vehicle (OHV) use on public lands consist of these acts and executive orders:

National Trails System Act (16 U.S.C. 1241-1249)
Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*)
Taylor Grazing Act (43 U.S.C. 315a)
Endangered Species Act (16 U.S.C. 1531 *et seq.*)
Wild and Scenic Rivers Act (16 U.S.C. 1281c)
Act of September 15, 1960 as amended (16 U.S.C. 670 *et seq.*)
Land and Water Conservation Act (16 U.S.C. 1241 *et seq.*)
Executive Order 11644, Use of Off-Road Vehicles on Public Lands (37 FR 2877; Feb. 9, 1977),
Executive Order 11989, Off-Road Vehicles on Public Lands (42 FR 26959h; May 25, 1977).

Three OHV plans designate use throughout the Challis RA:

The Interim Management Plan for Off-Road Vehicle Use in the Challis Planning Unit (1982)
The Interim Management Plan for Off-Road Vehicle Use in the Pahsimeroi Planning Unit (1983)
The Management Plan for Off-Road Vehicle Use in the Mackay Planning Unit (1984).

Affected Environment

The major recreation uses of BLM public lands in the Challis Resource Area are floating, boating, fishing, hunting, camping, hiking, nature study, photography, picnicking, wildlife viewing, backpacking, rockhounding, mountain biking, cross country skiing, and OHV use. Challis RA public lands support these recreation resources: 16 BLM developed, undeveloped and managed recreation sites, 3 miles of developed hiking/horseback riding trail, 64 miles of National Scenic Byway, 141,260 acres of Wilderness Study Areas (38,930 acres recommended as suitable for wilderness designation), almost 100 miles of floatable rivers, and approximately 50 miles of wildlife viewing routes. Almost 790,000 acres are legally accessible to the public for various recreational pursuits. High quality natural and aesthetic values dominate the RA viewsheds.

Most recreation activity is concentrated in developed recreation sites within the Resource Area's two Special Recreation Management Areas (SRMAs), but some recreation use is dispersed within the Challis Extensive Recreation Management Area (ERMA) (see *Map 3-2: Existing Special Recreation Management Areas*). The SRMAs tend to provide developed recreation opportunities, while the ERMA provides the majority of more primitive recreation opportunities.

Currently, OHV use in the RA is primarily for multiple use management activities and hunting. Although 71% of the RA is open to OHV use (see *Glossary*: off-highway vehicle use categories), the RA is "naturally" restricted due to rugged topography. Existing OHV designations for the RA are summarized in *Table 3-12* and shown on *Map 3-3: Existing OHV Use Designations*.

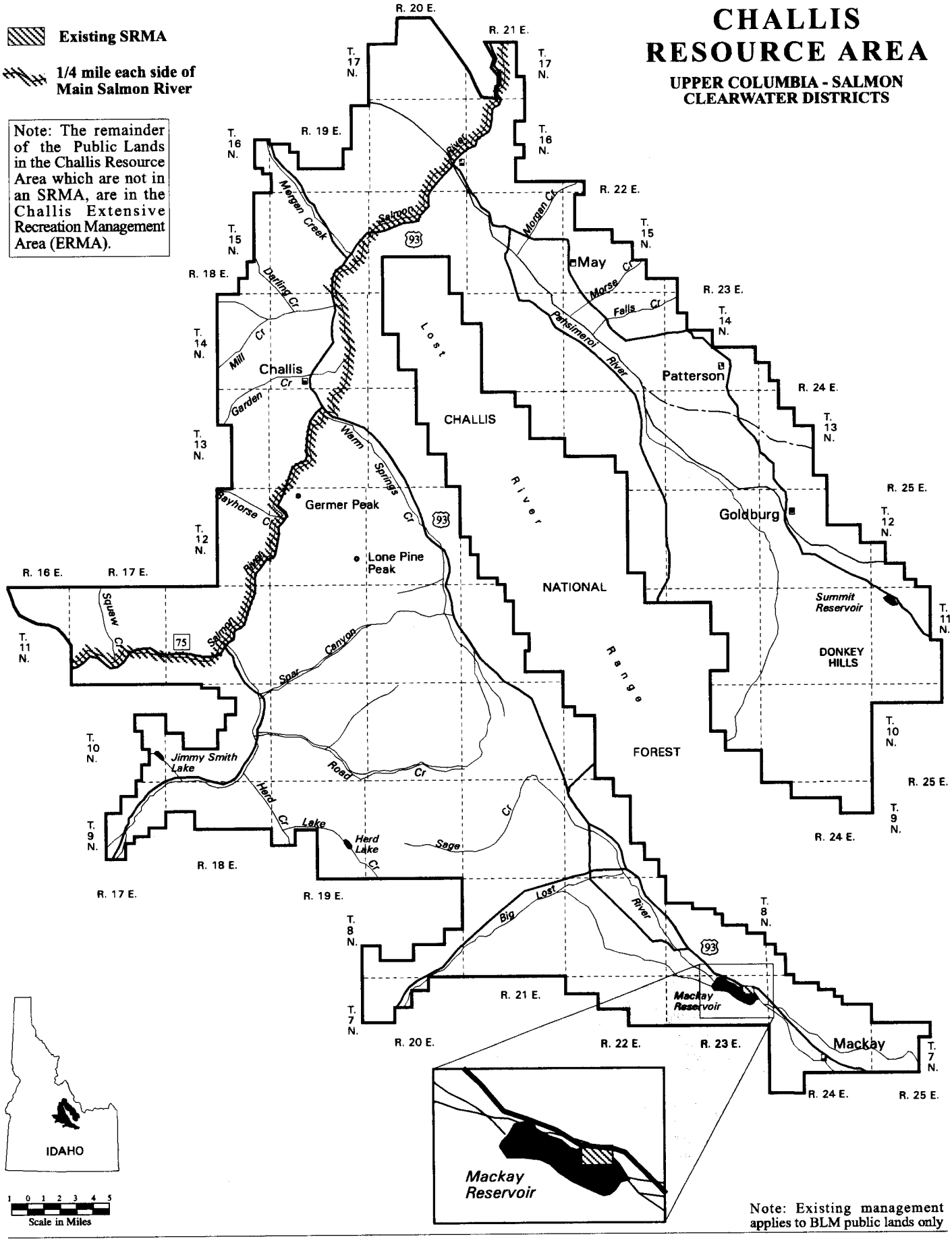
Table 3-12: Off-highway Vehicle Use Designations for the Challis RA*

OHV Use Designation	Challis OHV Plan (acres)	Pahsimeroi OHV Plan (acres)	Mackay OHV Plan (acres)	Total (acres)	Percent of Challis RA
Open[1]	185,756	294,889	83,628	564,273	71
Limited[1]	120,635	43,710	50,300	214,645	27
Closed[1]	14,302	0	0	14,302	2
Total	320,693	338,599	133,928	793,220	100

*Acres are approximations from the Challis, Ellis-Pahsimeroi, and Mackay Management Framework Plans, and therefore do not equal the total acreage for the Challis Resource Area (792,567 acres).

[1]See *Glossary* definition: off-highway vehicle use designations.

Motorized travel visits include sightseeing, wildlife viewing, hunting and fishing, visiting interpretive sites, gaining access for nonmotorized recreational activities and others. Nonmotorized travel visits include hiking, backpacking, horse packing, hunting and fishing, horseback riding, bicycling, and overnight camping. Currently, 12 outfitters have special recreation use permits for upland guiding, river floating, and fishing guiding.


CHALLIS RESOURCE AREA
UPPER COLUMBIA - SALMON CLEARWATER DISTRICTS
Existing SRMA
1/4 mile each side of Main Salmon River
Note: The remainder of the Public Lands in the Challis Resource Area which are not in an SRMA, are in the Challis Extensive Recreation Management Area (ERMA).
R. 20 E.
R. 21 E.
R. 19 E.
R. 22 E.
R. 18 E.
R. 23 E.
R. 24 E.
R. 25 E.
R. 16 E.
R. 17 E.
T. 17 N.
T. 16 N.
T. 15 N.
T. 14 N.
T. 13 N.
T. 12 N.
T. 11 N.
T. 10 N.
T. 9 N.
T. 8 N.
T. 7 N.
Challis
May
Patterson
Goldburg
Germer Peak
Lone Pine Peak
Jimmy Smith Lake
Herd Lake
Mackay
Mackay Reservoir
Summit Reservoir
CHALLIS
NATIONAL
FOREST
DONKEY HILLS
Range
River
Lost
Salmon River
Morgan Creek
Darling Cr
Mill Cr
Garden Cr
Warm Springs Cr
Bayhorse Cr
Squaw Cr
Spar Canyon
Herd Cr
Herd Lake Cr
Sage Cr
Road Cr
Morse Cr
Falls Cr
Pahsimeroi River
Big Lost River
93
75
IDAHO
1 0 1 2 3 4 5
Scale in Miles
Note: Existing management applies to BLM public lands only

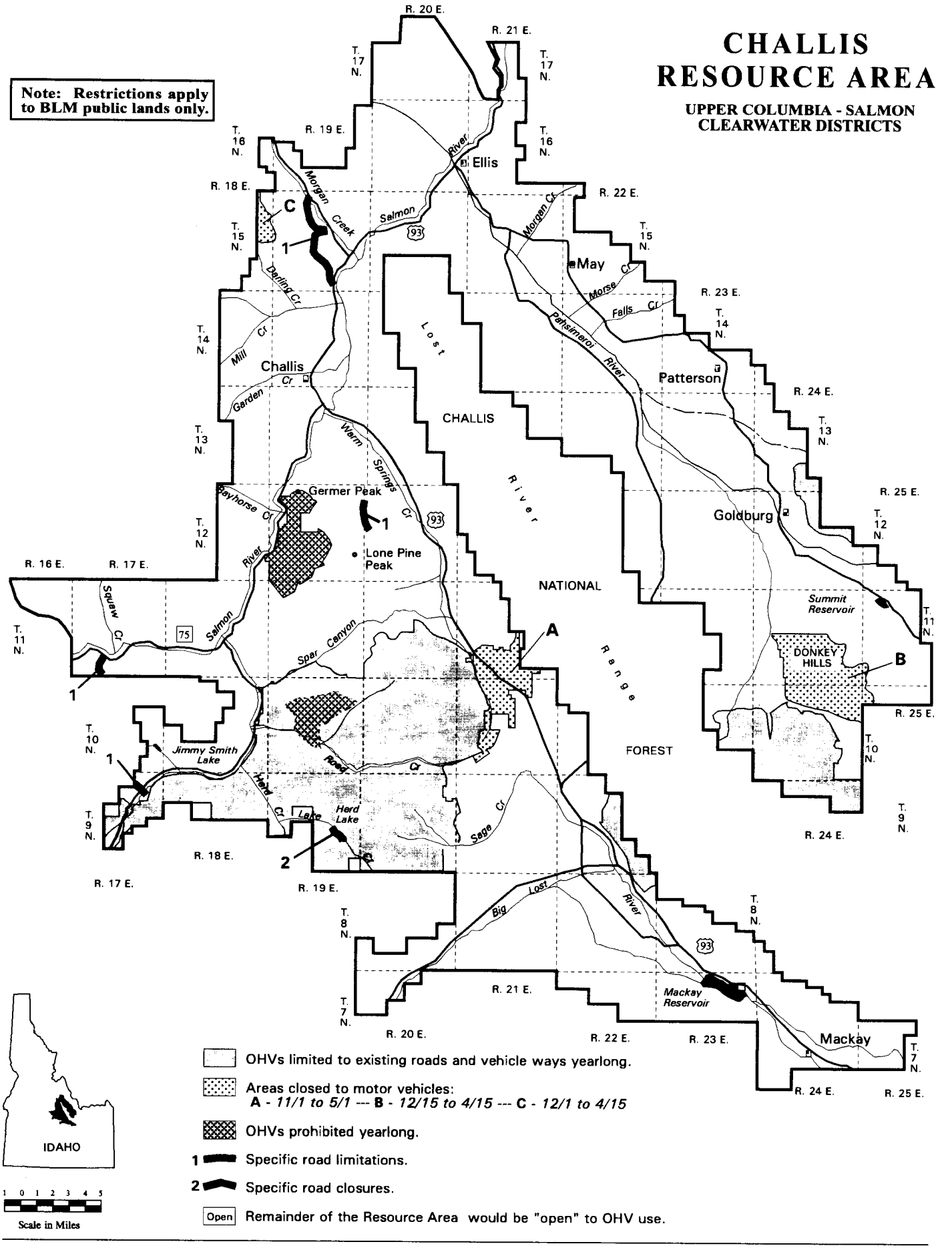

CHALLIS
RESOURCE AREA
UPPER COLUMBIA - SALMON
CLEARWATER DISTRICTS
Note: Restrictions apply to BLM public lands only.
R. 20 E.
R. 21 E.
R. 19 E.
R. 18 E.
R. 22 E.
R. 23 E.
R. 24 E.
R. 25 E.
R. 16 E.
R. 17 E.
T. 17 N.
T. 16 N.
T. 15 N.
T. 14 N.
T. 13 N.
T. 12 N.
T. 11 N.
T. 10 N.
T. 9 N.
T. 8 N.
T. 7 N.
Ellis
May
Patterson
Challis
Goldburg
Germer Peak
Lone Pine Peak
Jimmy Smith Lake
Herd Lake
Mackay
Mackay Reservoir
Summit Reservoir
DONKEY HILLS
CHALLIS NATIONAL FOREST
Lost River Range
Salmon River
Morgan Creek
Morgan Cr.
Darling Cr.
Mill Cr.
Garden Cr.
Warm Springs Cr.
Bayhorse Cr.
Squaw Cr.
Spar Canyon
Rock Cr.
Herd Lake Cr.
Sage Cr.
Pahsimeroi River
Morse Cr.
Falls Cr.
Big Lost River
93
75
A
B
C
1
2
OHVs limited to existing roads and vehicle ways yearlong.
Areas closed to motor vehicles:
A - 11/1 to 5/1 --- B - 12/15 to 4/15 --- C - 12/1 to 4/15
OHVs prohibited yearlong.
Specific road limitations.
Specific road closures.
Open Remainder of the Resource Area would be "open" to OHV use.
IDAHO
1 0 1 2 3 4 5
Scale in Miles

Table 3-13 summarizes recent recreation use of the Resource Area by local and non-local visitors.

Table 3-13: 1993 Recreation Visits to the Challis Resource Area[1]

Recreation Use Category	*Percent of Total Visitation*	*Recreation Visits*
Fishing	22.5	26,775
Camping	15.3	18,100
Boating	6.0	7,160
Other Water Based Visits	3.1	3,625
Hunting	2.9	3,425
OHV Use	2.6	3,050
Winter Sports Visits	0.4	450
Other Land-Based Visits	47.2	55,950
Total Visits	**100.0**	**118,535**

[1]**Source:** Recreation Management Information System (RMIS).

Upper Salmon River SRMA

The Upper Salmon River Special Recreation Management Area (SRMA) includes approximately 42,160 acres under the following land ownership: 45 percent (18,860 acres,) is under BLM administration, 54 percent (22,790 acres) is privately owned, the Idaho Department of Fish and Game manages 250 acres, and the Idaho Department of State Lands (IDSL) manages 260 acres. The Recreation Opportunity Spectrum (ROS) evaluation of the Upper Salmon River SRMA designates 11,875 acres (63%) as roaded natural and 6,985 acres (37%) as rural (see *Glossary*: recreation opportunity spectrum, p. 180).

The Upper Salmon River SRMA lies within the Northern Rocky Mountain physiographic province. The upper Salmon River winds through a narrow gorge which opens out periodically in a series of basins. The interspersed canyon sections rise in multicolored cliff walls and eroded, steep slopes. The most dramatic canyon section is Cronk's Canyon, a narrow defile of sheer rock walls located just north of the mouth of the Pahsimeroi River. Portions of highways 75 and 93 which generally follow the Salmon River are designated as part of the Salmon River Scenic Byway.

Recreation opportunities include float boating on relatively swift Class I and II water; fishing for trout; hunting; camping; hiking; nature study, and photography. Scenic vistas include pastoral settings backdropped with mountain ranges, canyons with almost sheer rock walls, and densely vegetated islands. All recreation activities are enhanced by excellent scenery and unique fish and wildlife resources.

One hundred seventy-seven (177) miles of the Upper Salmon River and 20 miles of the East Fork Salmon River are listed in the *Nationwide Rivers Inventory* (National Park Service, 1982), which identifies potential additions to the National Wild and Scenic Rivers System. The 64 miles of the Salmon River being managed under this RMP are within the 177 mile stretch and are tentatively classified as "recreational" under the National Wild and Scenic Rivers Act classification system (see *Glossary* definition: Wild and Scenic River classifications). Additional information on the Wild and Scenic Rivers in the Challis Resource Area is provided in ***Chapter 3*** - Wild and Scenic Rivers, pp. 327-328, and in the PRMP, Wild and Scenic Rivers, pp. 98-100.

The BLM manages three developed recreation sites within the Salmon River corridor (see *Table 3-14* below). These sites have potable water, handicap-accessible sanitary facilities, and regular garbage collection. Six undeveloped sites on BLM lands have limited or no facilities (some sites have vault toilets, most of which are not handicap-accessible).

Table 3-14: Salmon River Corridor Developed Recreation Sites

Site	# of Campsites	Potable Water	Boat Access	Management Responsibility
East Fork	14	yes	no	BLM
Bayhorse	11	yes	no	BLM
Cottonwood	14	yes	yes	BLM/IDFG

Table 3-15 lists the name, location, and management responsibility of undeveloped access points considered to be important or heavily used.

Table 3-15: Undeveloped Salmon River Recreation Site Access Points

Site	Location	Boat Access	Management Responsibility
Deadman Hole	T12N, R19E, Sec. 10	excellent	BLM
Dugway	T12N, R19E, Sec. 6	poor	BLM
Challis Bridge	T13N, R19E, Sec. 10	good	BLM
Cottonwood	T15N, R20E, Sec. 10	fair	IDFG/BLM

Visits to the Upper Salmon River SRMA occur throughout the year. Steelhead trout fishermen arrive as soon as the ice breaks up in late winter or early spring. The end of spring steelhead season marks the start of the general trout season, floating season, and general tourist season when many visitors camp, fish, float, and sightsee. In the fall, big game hunters use the river corridor for base camps and, as the steelhead arrive, fishermen are again out until the river freezes. During the fall waterfowl hunters also find the river inviting.

Because of its narrow, steep, topographic configuration and the existence of established roads and

highways, off-highway vehicle (OHV) use is minimal within the Salmon River corridor. The two existing OHV plans have designated the SRMA as "open" to OHV use (see *Glossary*: off-highway vehicle use designations and *Map 3-3: Existing OHV Use Designations*). Motorized travel visits include activities such as sightseeing, wildlife viewing, hunting, and fishing. Nonmotorized travel visits include hiking, backpacking horse packing, hunting and fishing, bicycling, and overnight camping. Currently, ten outfitters have fishing and/or floating guide permits along the Salmon River. All river outfitters operate under a Special Recreation Use Permit on a day-use basis.

Recreation facilities in the Salmon River SRMA are in worsening condition. Increased recreation pressure (including overuse and abuse of resources and facilities during heavy use seasons), combined with age of development and an inability to properly maintain sites, is damaging the facilities at an increasing rate.

Mackay Reservoir Recreation Site SRMA

The Mackay Reservoir Recreation Site SRMA lies on the north shore of the 1,341-acre Mackay Reservoir. The SRMA consists of 80 acres of public land that were withdrawn in 1966 from all forms of appropriation. Recreation facilities were constructed in 1968 and expanded in 1986 (see the *Mackay Reservoir Recreation Area Management Plan* (1984) and the *Mackay Reservoir Recreation Project Plan* (1985)). These facilities are the only major recreation developments adjacent to the reservoir, so most recreation activities center around the recreation site.

Most of the shore and surface of the reservoir are owned by the Big Lost Irrigation District. Local ranchers own a small amount of shoreline, with the remainder under BLM jurisdiction. Because of this ownership pattern, the shoreline is essentially in a natural state. Drawdown of the reservoir reaches its low point in late summer when downstream demand for irrigation is greatest.

Forty acres of the 80-acre SRMA have been developed with a full range of facilities to accommodate recreationists. This campground provides boating and access to the reservoir. There are 57 pull-through or back-in campsites with tables and grills. Some sites have sun shelters, and 18 sites have been developed to accommodate larger recreational vehicles. A small designated picnic area consists of four tables and one shelter for day use activities. There are seven double-vault handicap-accessible toilets and a trailer dump station on the site. A pressurized water system, operational from early May to mid-October, provides potable water. Garbage is picked up and toilets are cleaned once a week during the heavy use season. The boat launching facility is owned by the Irrigation District and includes a wide concrete ramp and two floating docks; the BLM offers a vehicle parking area. The docks are designed so they can adjust automatically to water levels.

A $6 per night fee is charged for camping (including trailer sewage dump access) and a $2 fee is charged to non-campers for dump station use.

There are three distinct use seasons: summer, fall and winter. Most recreation use occurs during the summer. Picnicking, camping, fishing, boating, and waterskiing are the most popular

activities. During the summer months, a volunteer camp host is solicited and a camp host site (with water, electricity, sewage dump, and BLM radio) is provided. During the fall, recreationists use the SRMA for fishing and hunting base camps. Ice fishing on the reservoir began in 1984, when the Idaho Department of Fish and Game established a two-month (January and February) ice fishing season. The recreation site is used primarily as a convenient access to the reservoir.

Overall, the Mackay Reservoir Recreation Site SRMA is in fair condition. However, the site shows a downward trend because limited funding does not permit the BLM to adequately maintain the site or supervise its use; campers often complain about a lack of maintenance and security. Since the SRMA does not have regular law enforcement protection, the area has become a local "party" spot which disturbs and frightens other visitors.

Challis ERMA

The Challis Extensive Recreation Area Management Area (ERMA) is made up of approximately 750,000 acres of public lands that are not within an SRMA. The Challis ERMA ranges in elevation from about 4,200 feet near the Salmon River to over 10,000 feet at Jerry Peak and includes drainages of the Big Lost River, the upper Salmon River, the East Fork Salmon River, the Pahsimeroi River, and a small portion of the Little Lost River. Vegetation includes sagebrush, mountain mahogany, cottonwood, aspen, and coniferous forest ecosystems. The ERMA is used for hiking, fishing, hunting, boating, camping, rockhounding, four-wheeling, motorcycling, mountain biking, cross country skiing, snowmobiling, nature study, photography, bird watching, and many more recreational pursuits.

The three existing OHV plans designate portions of the ERMA as open, limited, or closed to OHV use (see *Glossary* definition: off-highway vehicle use categories). Motorized travel visits include sightseeing, wildlife viewing, hunting and fishing, and others. Nonmotorized travel visits include hiking, backpacking, horse packing, hunting and fishing, bicycling, and overnight camping.

Demand for primitive recreation opportunities in the ERMA is increasing in popularity, especially for general recreation and hunting. Two outfitters offering hunting, fishing and back country horse trips operate under a Special Recreation Use Permit in upland areas, including the WSAs. Seven WSAs totaling 141,260 acres are located in the ERMA; 38,930 acres have been recommended suitable for wilderness designation.

Generally, conditions within the ERMA seem to be satisfactory, except for the designated recreation sites listed in *Table 3-16* below. Most of these sites are in unsatisfactory condition. Toilets, fire-grills, and tables are deteriorating, while recreation resource use of the Challis ERMA is increasing. If current funding levels continue, some of the sites may have to be abandoned, since most toilets do not meet standards for health, safety, and access. The estimated current balance between supply and demand for recreational resources in the ERMA is shown in *Table 3-17.*

Table 3-16: Challis ERMA Designated Recreation Sites

site	# campsites	potable water	sanitation
Morgan Creek	5	no	yes
Summit Creek	9	no	yes
Barney Hot Springs	0	no	no
Garden Creek	0	no	no
Deep Creek	0	no	no
Black Daisy	0	no	no
Ziegler Hole	0	no	no
Jimmy Smith Trailhead	3	no	yes
Little Boulder Creek	3	no	yes
Herd Lake	3	no	yes
Herd Lake Overlook	0	no	yes
Upper Lake Creek	6	no	yes

Table 3-17: Estimated Supply and Demand for Recreation Activities in the Challis ERMA

Activity	*Supply*	*Demand*
OHV Recreation	High	Low
Hiking and Backpacking	High	Low
Camping (developed sites)	Moderate	Moderate
Camping (undeveloped sites)	High	Moderate
Fishing	Moderate	Low
Hunting	Moderate	Moderate
Mountain Biking	Moderate	Moderate
Winter Recreation	Low	Low

Source: Recreation Management Information System and professional judgement.

The following areas within the Challis ERMA receive special attention by recreationists or have quality recreation potential.

East Fork Salmon River

Located approximately 20 miles south of Challis, the East Fork Salmon River offers diverse recreational opportunities including fishing, hunting, wildlife viewing, camping, backpacking, photography, rockhounding, nature study, mountain biking, cross country skiing, and limited opportunities for motorized recreation (snowmobiling, motorcycling, all-terrain vehicles, and four-wheel drive vehicles).

A 20-mile segment of the East Fork Salmon River is recognized as "eligible" for a study to determine if the river is suitable for possible inclusion in the National Wild and Scenic Rivers (WSR) system (NPS, 1982; updated in 1991). The river currently has a tentative "recreational" WSR classification. The East Fork and Big Boulder Creek roads are designated by the BLM as Wildlife Viewing Routes.

The Road Creek, Dry Canyon, and Spar Canyon roads have been nominated as a potential addition to the BLM's Back Country Byway program. Proposed as "Wild Horse" Back Country Byway, the 40-mile road loop offers vast scenic vistas of roadless areas and opportunities to see the Challis wild horse herd and various range, wildlife, and riparian projects.

Four trailheads exist in this area. The Little Boulder Creek trailhead offers access into the Boulder-White Clouds, a vast USFS roadless area. The Sheep Creek trailhead offers access up Sheep Creek. The Jimmy Smith Lake trailhead and trail offers access to Jimmy Smith Lake and beyond. The Herd Creek trailhead offers access into the Jerry Peak and Jerry Peak West WSAs as well as adjacent Forest Service lands. In order to protect the resource and satisfy user needs, trailheads need further development and trail maintenance.

Big Lost River Valley

The Big Lost River Valley offers outstanding opportunities for wildland recreation, especially hunting, fishing, floating, wildlife viewing, camping, and mountain biking. A little-known 7.5 mile stretch of the Big Lost River jointly administered by the USFS and BLM is of exceptional scenic, recreational, fishery, geologic, cultural, and ecological values. The Mackay Reservoir, a designated wildlife viewing area with both developed and undeveloped recreation opportunities, is along the Big Lost River's course. The Chilly Slough and Thousand Springs Creek area is another designated wildlife viewing area. Waterfowl abound in this area and its proximity to Highway 93 creates an outstanding viewing opportunity.

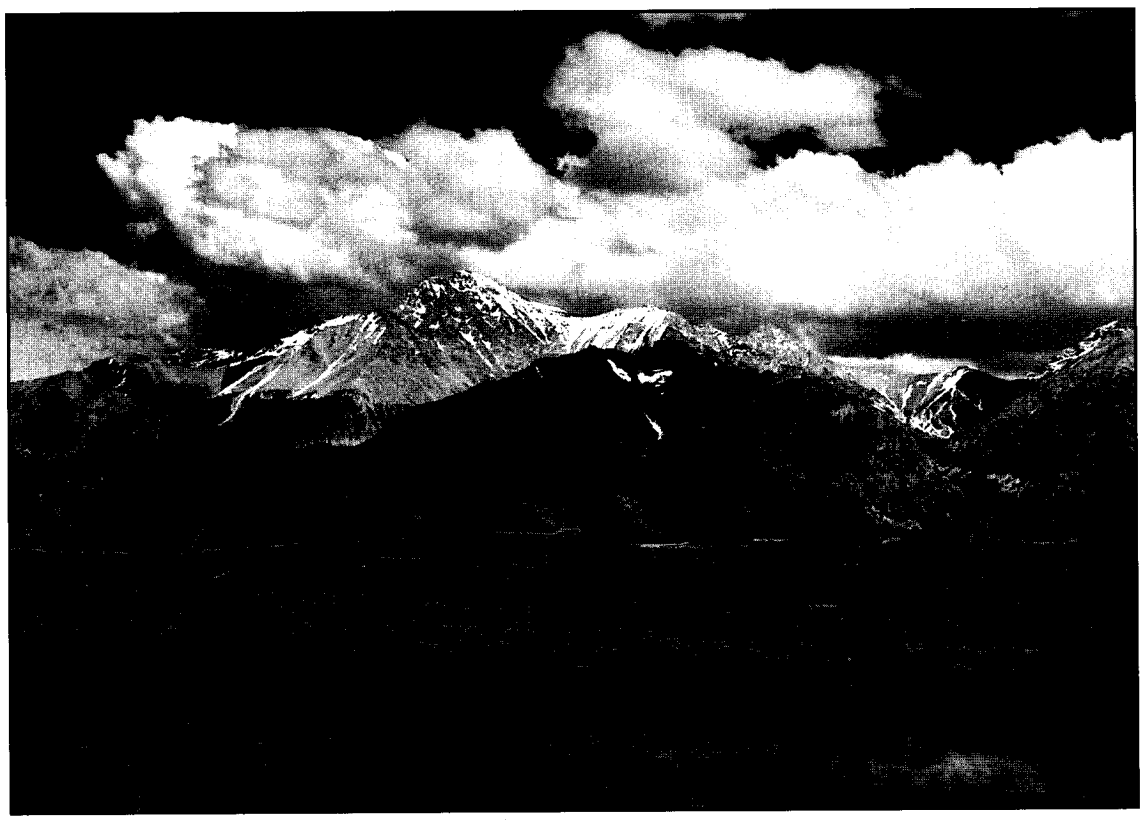
The "White Knob Challenge," a 19 mile mountain bike race which originates in the town of Mackay, Idaho and climbs 2,600 feet into the White Knob mountains, is rapidly becoming one of the premier mountain bike races in the Northwest. In 1991 over 400 racers

endured the grueling climb. This race and casual use by bicyclists is bringing over $150,000 in business to Mackay each summer (McKelvey 1990).

The Mount Borah trailhead located on the BLM/USFS boundary offers access to the proposed Borah Peak Wilderness (USFS RARE II and the BLM Borah Peak WSA). The Borah Peak trailhead offers access to Borah Peak, the highest point in Idaho at 12,655 feet.

Upper Salmon River Valley not within the Upper Salmon River SRMA

This portion of the Upper Salmon River Valley is primarily an upland environment with sheer steep cliffs bisected by small to moderately sized tributaries. This canyon environment is often the background viewshed for the river, and is therefore important to the integrity of the SRMA and the National Scenic Byway.



Mount Borah, highest point in Idaho (elevation 12,655 feet), located on U.S. Forest Service lands adjoining the Challis Resource Area.

Soils.

Law, Regulation, and Policy

The BLM's Soil Resource Management Program is conducted under the following major authorities:

The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*)
Desert Land Act of 1977, as amended (43 U.S.C. 321 *et seq.*)
Soil Conservation and Domestic Allotment Act of 1935, as amended (49 Stat. 163)
Soil Info. Assistance for Community Planning and Resource Devel. Act of 1966 (42 U.S.C. 3271 *et seq.*)
Soil and Water Resources Conservation Act of 1977 (16 U.S.C. 2001 *et seq.*)
Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 *et seq.*).

Affected Environment

The Challis Resource Area is generally characterized by broad valleys and steep-sided, narrow mountain ranges. Soils vary with local geology, topographic relief, and climate. Many soils in the RA are residual (developed in place), and formed from weathered sedimentary bedrock (dolomite, limestone, quartzite, and argillites) and the Challis volcanics (Germer tuffaceous material and basalt). Some soils in the Challis Resource Area are alluvial (deposited by running water). Alluvial soils are developed from a variety of materials washed from the uplands and high landscapes and redeposited as alluvial fans or redeposited along stream courses. Stream courses occupy the comparatively narrow, elongated, continuous or broken strips along most of the major drainages. Soluble salts are present in varying quantities in most alluvial soils.

Third order soil surveys were conducted by the USDA Soil Conservation Service in 1981 (Mackay Planning Unit) and 1982 (Challis and Pahsimeroi Planning Units). Third order surveys are made for land uses spanning a broad geographical area (*e.g.*, range, forestry, recreation, or residential communities) that do not require precise knowledge of small areas or detailed soils information. One product of a third order soil survey is a general soils map that describes major soil groups within large mapping units. *Table 3-18* summarizes the major soil series groupings in the RA and is indexed to *Map 39: Soils.*

On gently rolling uplands (0 to 30% slope), slightly altered bedrock is often more than 40 inches below the surface. On more rolling lands (20 to 50% slope), the depth to bedrock is about 20 to 40 inches. On steep slopes (30 to 60%), soil depths range from less than 10 inches to 20 inches and overlie partly weathered bedrock. Rock outcrops are common on steeper slopes with little or no soil development.

Soils management problems may arise in the RA, depending on a combination of factors: soils type, climate, geologic setting, and vegetative cover. In general, soils in the RA have relief and physical properties capable of absorbing nearly all the precipitation in the area, except for the

occasional convective thunderstorm. However, overland flow and sediment transportation into streams are pronounced during periods of intense thunderstorms. (See *Table 3-31,* p. 301 for a description of the watershed erosion susceptibility for the RA.) Although vegetation is sparse in much of the RA due to the short growing season and distribution of effective moisture, the productive capacity ranges from 100 pounds per acre on the rough, broken lands to 3,000 pounds per acre on wet meadows. Surface disturbing activities (such as road construction, mineral resource development, or grazing) on soil series groups 8 and 11 can be sources of accelerated erosion. These soils have limited stability and are at risk of erosion if protective vegetative cover is not maintained, especially on steeper slopes. Soil series groups 10 and 17 also pose erosion risks due to naturally occurring sparse vegetation, often compounded by steep topography.

Table 3-18: Summary of Soils in the Challis Resource Area

Soils Series/Name	Description	Elevation (feet)	FFS* (days)	AAP** (inches)	Hazard Rating for Erosion/Compaction
1/ Pahsimeroi-Whiteknob-Zer	Gravelly sandy and gravelly loamy, nearly level to rolling, very deep, somewhat excessively drained soils on outwash fans and fan terraces derived from alluvium (or dominantly from quartzite).	4,800-6,300	50-90	8-11	slight to moderate
2/ Whitecloud-Simeroi	Gravelly sandy and gravelly loamy, very deep, somewhat excessively and well drained soils on outwash fans and fan terraces derived dominantly from limestone alluvium.	4,800-6,300	50-90	8-11	slight
3/ Ringle-Snowslide	Gravelly sandy and gravelly loamy, nearly level to rolling, very deep, somewhat excessively drained soils having little organic matter on outwash fans and fan terraces derived dominantly from limestone alluvium.	4,000-6,300	50-90	6-8	slight to moderate
4/ Keele-Perreau-McDevitt	Loamy over gravelly sandy, loamy and clayey, nearly level to rolling, deep, poorly to well drained soils on stream terraces and valley bottoms derived from alluvium.	3,900-6,300	50-100	8-13	moderate
5/ Chamberlain-Wiggleton-Firebox	Gravelly sandy and gravelly loamy, nearly level to rolling, very deep, well and somewhat excessively drained soils on outwash fans and fan terraces derived from alluvium.	6,500-7,500	20-40	13-16	slight
6/ Arbus-Mountainboy-Fandow	Gravelly sandy and gravelly loamy, nearly level to rolling, very deep and shallow to a duripan, somewhat excessively and well drained soils on outwash fans and fan terraces derived from limestone alluvium.	6,300-7,200	30-50	8-14	slight
7/ Thousand-Redfish-Copperbasin	Nearly level or gently undulating, very deep, very poorly to somewhat poorly drained soils on valley floors derived from alluvium.	6,000-7,400	10-40	8-13	slight

Soils Series/Name	Description	Elevation (feet)	FFS* (days)	AAP** (inches)	Hazard Rating for Erosion/Compaction
8/ Cryoborolls-Cryochrepts-Koffgo	Gravelly loamy, steep to extremely steep, shallow through very deep, well drained soils on mountains derived dominantly from quartzite and extrusive igneous rocks.	6,000-10,000	10-30	15-35	moderate to severe; severe on slopes greater than 35%
9/ Zeebar-Friedman-Donkeyhill	Gravelly loamy and gravelly clayey, shallow to very deep, well drained soils on mountains and foothills derived from extrusive igneous rocks.	6,000-9,000	10-50	12-22	moderate
10/ Heathcoat-Escarlo	Clayey and loamy, undulating to steep, very deep, well drained soils on foothills derived from lacustrine sediments.	6,500-7,500	30-50	11-16	slight to moderate
11/ Lag-Klug-Povey	Gravelly loamy, very deep, well drained soils on mountains and foothills derived dominantly from quartzite, phylite and slate.	6,000-9,300	10-50	13-23	moderate to severe; severe on slopes greater than 35%
12/ Zeale-Meegero-Zeelnot	Gravelly loamy, very deep, well drained soils on mountains and foothills derived dominantly from limestone.	6,000-8,500	10-50	11-19	slight to moderate
13/ Gany-Skibo	Gravelly loamy and stony loamy, hilly to very steep, very deep, well drained soils on mountains derived dominantly from limestone.	6,000-9,000	10-50	13-23	moderate
14/ Orthids-Dawtonia-Cronks	Gravelly loamy, hilly to extremely steep, shallow to very deep, well drained soils on mountains and foothills derived dominantly from extrusive igneous rocks and quartzite.	3,800-6,500	45-100	8-13	slight to moderate
15/ Dawtonia-Frailton-Gradco	Gravelly loamy, hilly to very steep, shallow to very deep, well drained soils on mountains and foothills derived dominantly from extrusive igneous rocks.	4.300-6,000	60-90	8-11	sight to moderate
16/ Farvant-Mitring-Bayhorse	Gravelly loamy, rolling to steep, shallow and moderately deep, well drained soils derived dominantly from extrusive igneous rocks.	5,000-6,000	60-90	7-11	slight to moderate
17/ Millhi-Lacrol-Kehar	Clayey, undulating to steep, very deep, moderately well drained soils on foothills and in basins derived from lacustrine sediments.	3,900-6,800	50-100	7-16	slight to moderate

*Frost-free season
**Annual average precipitation

Source: USDA Soil Conservation Service third order soil surveys for the Mackay Planning Unit (1981) and the Challis and Pahsimeroi Planning Units (1982).

Transportation.

Law, Regulation, and Policy

BLM authority for transportation management is primarily derived from the following sources:

Federal Land Policy and Management Act of 1976 (43 U.S.C. 1715, 1737, 1762).
National Trails System Act, as amended (1968) (16 U.S.C. 1241 *et seq*).
Wild and Scenic Rivers Act, as amended (1968) (16 U.S.C. 1271 *et seq*).
The Federal-Aid Highway Act of 1962, as amended (23 U.S.C. 214).
The Federal-Aid Highway Act of 1968, as amended (23 U.S.C. 116).
The Federal-Aid Highway Act of 1973, as amended (23 U.S.C. 217).
Timber Access Road Act of 1955 (69 Stat. 374).
The Sustained Yield Act of 1937 (43 U.S.C. 1181a *et seq*).
Highway Safety Act of 1966, as amended (23 U.S.C. 401, 402, 403).
National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321, *et seq*).
Endangered Species Act of 1973, as amended (16 U.S.C. 1531, *et seq*).
Archeological and Historic Preservation Act of 1974, as amended (16 U.S.C. 469).
Clean Water Act of 1977 (33 U.S.C. 1288, 1323, 1342, 1344).
Surface Transportation Assistance Act of 1982 (P.L. 97-424, Section 126(d)).

Affected Environment

The Challis Resource Area contains 718 miles of inventoried roads (see *Map 22: Existing Maintained Roads*). These roads provide physical access to public, State, and private lands throughout the Resource Area. Demands for transportation in the Resource Area are directly related to the natural resources found on public lands. A transportation system is needed for (a) the public's commercial activities (*e.g.,* livestock grazing, timber harvest, minerals development, outfitting) and noncommercial activities (*e.g.,* OHV use, hunting, fishing, rafting, camping, other recreational uses, firewood gathering), and (b) BLM administrative use to manage resources and programs.

State Highway 75 and U.S. Highway 93 pass through the Resource Area and account for approximately 112 miles of the roads identified by the BLM. These highways are under State of Idaho jurisdiction and the State is responsible for their maintenance and liability. The highways are hard surfaced with asphalt paving, highly developed, and well maintained.

Custer County and the Lost River Highway District are responsible for 213 miles of the roads identified as crossing BLM administered lands within the RA. County roads serve as major collectors and artery roads for the regional transportation system by providing access between the State highways and from the State highways to privately owned land and homes in the rural areas. County roads are generally two lane and are either asphalt paved or graveled. Essentially all of these roads are easily accessible by two wheel drive vehicles during good weather. Custer County and the Lost River Highway District are responsible for maintaining both the roads and any

facilities associated with the roads (*e.g.,* bridges, culverts, and cattleguards). These roads are generally well maintained, and most of them are kept open yearlong.

The Salmon and Challis National Forests are responsible for maintaining 54 miles of roads on BLM administered lands within the RA. These roads cross BLM lands and provide access to Forest Service administered lands. They are generally dirt, single lane roads without gravel or asphalt surfacing. During dry summer weather, about half of the roads are easily accessible by two wheel drive vehicles; four wheel drive vehicles are recommended for the other roads. Most of the roads are maintained on a regular basis. None of the roads are kept open yearlong by the Forest Service.

BLM roads account for 339 miles of inventoried roads within the RA. These roads are secondary in nature and provide access to public lands administered by the BLM. Almost all of the roads are single lane. All are dirt roads; none are paved or graveled. Many of the BLM roads within the RA are in poor condition due to (a) limited maintenance and (b) use during saturated soil conditions when the roads are most susceptible to damage. On the average 20 miles of BLM roads are maintained annually by BLM force account crews.

Existing easements providing access to BLM lands are shown in *Table 3-19.* However, not all BLM roads have legal access for public use. Twenty-six (26) roads have been identified as needing 41 easements - 28 across private land and 13 across State land (see *Table 3-20*). As funding and priorities allow, these easements are being pursued. On the average, one road easement every 3 years is being obtained within the Resource Area.

One hundred three (103) miles of BLM roads are currently classified for Level 3 maintenance. This level is for roads with average daily traffic of 15 vehicles which are open seasonally or occasionally yearlong (for example, the Road Creek, Dry Canyon, and Peck's Canyon roads). Maintenance is on a regularly scheduled interval of two to four years, with goals of keeping drainage functional, maintaining roadway prism shape and sight distance, and considering driver safety and convenience. Level 3 roads are fairly evenly distributed through the Resource Area. Most Level 3 roads are readily accessible by two wheel drive vehicles during good weather.

Two hundred and twenty (220) miles of BLM roads are assigned Level 2 maintenance. Level 2 maintenance is on an "as-needed" basis, generally only when required to repair flood damage, correct public safety problems, or correct or avoid extensive resource damage. Level 2 roads are open seasonally and receive moderate to light use. Maintenance involves brush and obstruction removal, maintenance of drainage facilities, and minimum maintenance of road prism. Level 2 roads either typically receive relatively low use and are located in good soils that hold up well to the test of time and weather, or are primitive two track roads (only suitable for four wheel drive vehicles) which require an extensive amount of work and ground disturbance to maintain (generally, the two track roads are not important enough to justify those actions). About half of the Level 2 roads are easily accessible by two wheel drive vehicles during good weather.

Table 3-19: Easements Allowing Access to Public Lands

Road Name	Road Number	Easement Number	Type of Easement[1]
Herd Creek	1901	IDI-20990	Exclusive
Herd Creek	1901	IDI-20993	Exclusive
Herd Creek	1901	IDI-016844	Exclusive
Road Creek	1902	IDI-14714	Exclusive
Road Creek	1902	IDI-17484	Exclusive
Road Creek	1902	IDI-14713	Exclusive
Dry Gulch	1909	IDI-14714	Exclusive
Dry Gulch	1909	IDI-27586	Exclusive
Darling Creek	1920	IDI-13664	Exclusive
Darling Creek	1920	IDI-15275	Exclusive
Darling Creek	1920	IDI-20995	Nonexclusive
Broken Wagon	1928	IDI-15276	Exclusive
Grouse Creek	1937	IDI-19432	Exclusive
Donkey Creek	1939	IDI-22062	Exclusive
Poverty Flat	1992	IDI-22063	Exclusive
Little Morgan	3061	IDI-4914	Exclusive
Falls-Patterson Creek	30104	IDI-8406	Exclusive

[1] Exclusive easements are for both public and BLM access. Nonexclusive easements are for BLM use only.

Sixteen (16) miles of BLM road are designated for Level 1 maintenance; all road mileage is within five roads. Level 1 maintenance is done to provide access for emergency cases only, such as for a major wildfire or an aircraft crash. Level 1 roads are normally blocked or open only for restricted traffic. Maintenance, if any, entails maintaining culverts and other drainage facilities. Slides, fallen trees, and brush are left unless they affect roadbed drainage or totally block the road. Four wheel drive vehicles are recommended for all Level 1 roads.

The Resource Area has three trails, totaling 3 miles, that the BLM administers and maintains. Two of the trails, Herd Lake (1.5 miles) and Jimmy Smith Lake (0.5 mile), provide access from parking and camping areas to lakes. The third trail, Boulder Creek (1.0 mile), provides access across BLM public lands to the White Cloud trail system. The trails are not on a regular maintenance schedule, but are maintained as needed.

Two authorized airstrips are located on BLM-administered lands within the Resource Area - one near May, in the Pahsimeroi Valley, and the other along the Trail Creek Road, near Twin Bridges. Neither airstrip has permanent buildings or hard surface runways. Both airstrips are only suitable for light aircraft.

Access to boat ramps is available on BLM-administered lands within the Resource Area at several locations along the Salmon River. Developed boat ramps are located at three recreation sites:

Deadman Hole, Steel Bridge, and Cottonwood. Primitive boat ramps are available near the East Fork recreation site and near the Bayhorse recreation site ("Dugway").

Table 3-20: Easements Needed to Ensure Public Access, by Ownership

Road Name	Road #	Number of Easements Needed		Miles of Easement	Township	Range	Section
		Private	*State*				
Road Creek	1902	1	0	1.0	9 N	20 E	1, 12
Malm Gulch	1905	0	1	0.1	12 N	19 E	19
Lone Pine	1916	1	1	1.3	11 N	20 E	3
					13 N	19 E	36
Lower Cedar Creek	1918	2	0	0.5	7 N	24 E	14, 23, 27
Jones-Cedar Creek	1919	1	0	0.5	8 N	23 E	22
Bear Wallow-Gossi Spring	1925	0	1	1.3	11 N	19 E	36
Broken Wagon	1928	2	0	1.0	11 N	20 E	19, 35
					11 N	21 E	30
Meadow Creek	1931	1	0	0.3	14 N	21 E	25
Pahsimeroi	1934	1	0	1.0	11 N	23 E	14
West Donkey	1935	0	1	1.0	12 N	23 E	36
Howell Canyon	1944	0	1	1.0	9 N	20 E	36
Cedar Creek Loop	1947	1	1	1.8	9 N	22 E	16, 21
Substation	1951	1	0	0.3	13 N	20 E	19
Gooseberry-Sheep	1955	1	1	2.0	11 N	21 E	16, 20, 21, 22
Hillside	1962	1	0	1.5	12 N	24 E	16, 23
Bradbury Flat SW	1970	0	1	0.8	13 N	19 E	36
Camp Creek	1980	3	0	0.75	13 N	19 E	12
					13 N	20 E	6, 7
Centennial Flat	1991	1	0	1.2	12 N	19 E	18, 19
					12 N	18 E	24
South Butte	1994	1	1	2.0	11 N	17 E	16, 21
Sink Creek	1995	2	0	1.8	11 N	18 E	1, 2, 11, 14
					12 N	18 E	35, 36
Donkey Timber	1996	1	0	0.3	11 N	25 E	8
Elkhorn	1998	0	1	1.3	11 N	24 E	36
Bartlett Point A	19143	1	1	2.0	8 N	21 E	11, 14, 36
Mill Creek	30100	2	1	1.0	13 N	23 E	2
					13 N	24 E	16, 21
Falls-Patterson Creek	30104	1	0	1.0	14 N	23 E	7, 18, 20
Big Creek	30150	3	1	2.0	13 N	22 E	1
					14 N	22 E	36
					13 N	23 E	6

Tribal Treaty Rights.

Law, Regulation, and Policy

BLM coordination or consultation with Native Americans which pertains to treaty rights and trust responsibility is conducted pursuant to the following direction:

Idaho Manual Supplement 1127 - Public Participation (Release 1 - 243; July 2, 1985).

Bureau Manual Handbook H-8160-1 - General Procedural Guidance for Native American Consultation (Washington Office Information Bulletin No. 95-57; November 15, 1994).

Government-to-Government Relations with Native American Tribal Governments (Memorandum signed by President Clinton; April 29, 1994).

Order No. 3175 - Departmental Responsibilities for Indian Trust Resources (Section 2 of Reorganization Plan No. 3 of 1950 - 64 Stat. 1262; November 8, 1993).

Treaties are negotiated contracts made pursuant to the Constitution of the United States and are considered the "supreme law of the land." They take precedence over any conflicting state laws by reason of the supremacy clause of the Constitution (Article 6, Clause 2). Treaty rights are not gifts or grants from the United States, but are bargained-for concessions. These rights are grants-of-rights *from* the tribes, rather than to the tribes. The reciprocal obligations assumed by the Federal government and Indian tribes constitute the chief source of present-day Federal Indian law.

The United States and represented agencies, including the BLM, have a special trust relationship with Indian tribes because of these treaties. As a Federal land managing agency, the BLM has the responsibility to identify and consider potential impacts of BLM plans, projects, programs, or activities on Indian trust resources (*e.g.,* fish, game, and plant resources - see *Glossary*). When planning any proposed project or action, the BLM must ensure that all anticipated effects on Indian trust resources are addressed in the planning, decision, and operational documents prepared for each project. The BLM also has the responsibility to ensure that meaningful consultation and coordination concerning tribal treaty rights and trust resources are conducted on a government-to-government basis with Federally recognized tribes.

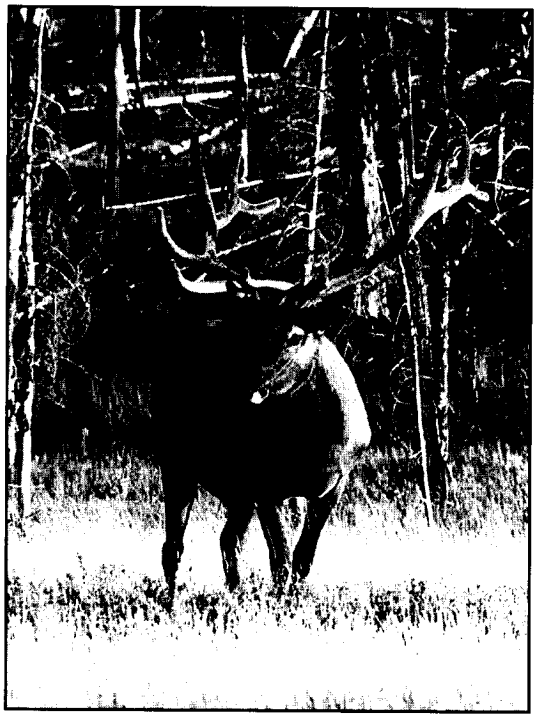
Affected Environment

Native American Indians inhabited central Idaho, including lands now known as the Challis Resource Area, for thousands of years prior to European contact. They hunted, fished, gathered plant foods, buried their dead, and conducted religious ceremonies on lands within current RA boundaries since time immemorial. Their lives and culture were dismantled by settlement of America when large numbers of immigrants seeking land tried to displace the tribes. During the 1850s and 1860s treaties were negotiated with the tribes in the northwestern United States in order

to acquire Indian lands for homesteading. The settlement of the northwestern United States by non-Indians led to the collapse of the Tribal Nations as they were previously known, including their economic, social, cultural, religious, and governmental systems.

On July 3, 1868 the Eastern Band Shoshone and Bannock Tribes and the United States signed the *Treaty with the Eastern Band Shoshoni and Bannock, 1868*, commonly referred to as the Fort Bridger Treaty (15 Stat. 673). In the Fort Bridger Treaty the Tribes relinquished ownership of approximately 20 million acres to the United States. The Challis Resource Area is entirely comprised of aboriginal, traditional, or unoccupied lands for which the Tribes' right to use such lands was negotiated in the Fort Bridger Treaty. Among other items of agreement, the Fort Bridger Treaty guarantees a permanent homeland for the Shoshone and Bannock people, which has become known as the Fort Hall Indian Reservation in southeastern Idaho. The Treaty also retains the Tribes' rights to hunt, fish, and gather natural resources, and provides other associative rights necessary to effectuate these rights on unoccupied lands of the United States.
Since the BLM manages portions of the "unoccupied lands" that are mentioned in the Treaty, the BLM has a trust responsibility to provide the conditions necessary for Indian tribal members to satisfy their treaty rights. Treaty rights in the Challis RA are extended not only to the Shoshone-Bannock Tribes, but also to other Federally recognized tribes which may have treaty language that extends their rights to lands in this area.

Members of the Shoshone-Bannock Tribes and other Federally recognized tribes exercise their hunting, fishing, and gathering rights on at least state and Federal lands outside the boundaries of their reservations. Currently, Native American tribes are not dependent on commodity resources from the Challis RA for their economic livelihood. However, they do rely on BLM public lands resources for subsistence and cultural purposes. Tribal treaty rights pursued on public lands within the Challis Resource Area include fishing for anadromous and resident game fish species, hunting both large and small game, and gathering various natural resources for both subsistence and medicinal purposes. Little specific information is available on the exact species sought or locations used by Native Americans exercising their treaty rights in the RA.



Elk are utilized by tribes with treaty rights to hunt, fish, and gather natural resources in the Challis Resource Area.

Vegetation.

This section discusses the affected environment for several components of the topic "vegetation": upland vegetation; riparian/wetland vegetation; special status plant species; and noxious weeds. Vegetation manipulations are discussed in ***Chapter 3*** under the section "Livestock Grazing - Range Improvements. Forested habitat is primarily described in the "Forest Resources" section.

Vegetation may be considered many resources: the condition and use of vegetation determines its resource state, the demand made upon the vegetation, and its ability to supply that demand. Vegetation in the Challis Resource Area has the following uses/demands as a resource: forage for livestock; forage for wild horses; forage and habitat (*e.g.*, nesting areas, thermal protection, hiding cover) for huntable wildlife; forage and habitat (*e.g.*, display areas) for non-huntable wildlife; watershed protection (*e.g.*, erosion reduction); recreation/aesthetics (*e.g.*, shade, naturalness); water quality protection (*e.g.*, sediment reduction); and fisheries habitat (*e.g.*, nutrient input and cycling, temperature moderation).

Law, Regulation, and Policy

Upland Vegetation: Guidance for management of upland areas is generally found in three laws: (a) the Taylor Grazing Act of 1934 (43 U.S.C. 315), which directs the Secretary of the Interior to stop injury to public lands, (b) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701), and (c) the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901), which calls for an intensive public rangelands maintenance, management, and improvement program to address and correct unsatisfactory conditions. BLM policy on upland range vegetation is contained in *The State of the Public Rangelands 1990, The Range of Our Vision* (BLM 1990) and *Rare Plants and Natural Communities* (BLM 1992). *The State of the Public Rangelands 1990* establishes a goal of increasing the area in late seral to potential natural stage to 40% (68 million acres nationwide) by 2009 and reducing the area in early seral stage to 10% (17 million acres nationwide) by 2009.

Riparian/Wetland Vegetation: Management of riparian/wetland areas on public lands is conducted under several laws and executive orders. An expanded description of these laws and executive orders is provided in *Appendix E, Item 1,* pp. 638-643.

1) The Taylor Grazing Act of 1934 (43 U.S.C. 315).
2) Land and Water Conservation Fund Act of 1964 (16 U.S.C. 460 (4-11) and 23 U.S.C. 120).
3) Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq*).
4) Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701).
5) Clean Water Act of 1977 (33 U.S.C. 404).
6) Food Security Act of 1986 (7 U.S.C. 1281 note).
7) Emergency Wetland Resources Act of 1986 (16 U.S.C. 3901).
8) Water Quality Act of 1987 (33 U.S.C. 1251).
9) Executive Order 11988.
10) Executive Order 11990.

Department of the Interior Manual 520 provides policy on preservation, protection, and acquisition of riparian/wetland areas. BLM Manual 1737 provides guidelines for protecting and acquiring riparian/wetland areas as needed to protect this habitat type.

Special Status Plant Species: Rare species are afforded protection under the Endangered Species Act of 1973, as amended, and under BLM regulations. The mandates of the Endangered Species Act only apply to rare species that have been officially listed as threatened or endangered, are proposed for listing, or are candidates for listing (BLM Manual 6840). The BLM is required to consult with the U. S. Fish and Wildlife Service (USFWS) on potential impacts to listed plant species. The USFWS also suggests the BLM consult with them informally when assessing projects that may impact candidate species.

BLM sensitive species are designated by the State Director under 16 U.S.C. 1536 (a)(2). Sensitive species shall be managed so they will not need to be listed as proposed, threatened, or endangered, with the same level of protection as candidate species (BLM Manual 6840). Sensitive plant species are also identified by other agencies (*e.g.*, USFS Regional Offices, the Idaho Natural Heritage Program (now Conservation Data Center), and the Idaho Native Plant Society). Management of one sensitive species, the wavy leaf thelypody (*Thelypodium repandum*), is guided by a Conservation Agreement with the USFWS (USDI-BLM 1990c).

Wavy Leaf Thelypody

Noxious Weeds: Two Federal laws explicitly direct that infestations of weeds on Federal land will be controlled: (a) the Federal Noxious Weed Act of 1974 (7 U.S.C. 2801-2813), as amended by Section 15, Management of Undesirable Plants on Federal Lands, 1990, and (b) the Carson-Foley Act of 1968 (PL 90-583). Idaho's noxious weed law (Chapter 34, Idaho Code) places responsibility for noxious weed control on Federal lands with the Federal government. The *Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States* (USDI-BLM 1991) analyzes treatment of undesirable plants for all BLM lands in the 13 Western states. This document specifies the following vegetation management priorities: (1) take preventative actions to minimize the need for control; (2) use effective non-chemical methods when and where feasible; and (3) use herbicides after considering the effectiveness of all potential methods or in combination with other methods of control. The EIS also identifies several actions that are to be implemented as standard design features for weed control projects (see PRMP,

Attachment 5: Standard Operating Procedures - Noxious Weeds, p. 110). Noxious weed control was analyzed by the BLM in the *Northwest Area Noxious Weed Control Program Final EIS* (USDI-BLM 1985, supplemented 1987). This EIS described and analyzed the environmental impacts of implementing a five-state program for the control of noxious weeds. A worst-case analysis of impacts on human health from herbicide use was included. An environmental assessment which tiers to this EIS is prepared by the Salmon District BLM each year to describe and assess the local impacts of noxious weed treatments.

Affected Environment

The following sub-sections generally describe vegetation in the Challis Resource Area by habitat and community type, species composition, and condition and trend (where that information is known).

Upland Vegetation

The Challis Resource Area lies within the Northern Rocky Mountains physiographic region (BLM Manual 6602). The "potential natural vegetation" of the area was classified by Küchler (1964) as "western shrub and grassland," which is further categorized as follows.

Sagebrush Steppe (*Artemisia-Agropyron*): Dense to open grasslands with a dense to open shrub component. Dominant vegetation includes bluebunch wheatgrass (*Agropyron spicatum*) and big sagebrush (*Artemisia tridentata*). Other vegetative components include *Artemisia arbuscula, A. nova, Balsamorrhiza sagittata, Festuca idahoensis, Lithospermum ruderale, Lupinus sericeus, Oryzopsis hymenoides, Phlox* spp., *Poa nevadensis, P. secunda, Purshia tridentata,* and *Sitanion* spp. Microbiotic soil crusts provide for nutrient cycling and erosion control.

Western Ponderosa Forest (*Pinus*): Medium dense to open forest of tall needleleaf evergreen trees with a fairly open ground cover of grasses and occasional shrubs. Dominant vegetation includes Ponderosa pine (*Pinus ponderosa*). Other vegetative components include *Achillea millefolium* var. *lanulosa, Agropyron spicatum, Arctostaphylos nevadensis, A. uva ursi, Carex geyeri, Festuca idahoensis, Hieracium* spp., *Lupinus* spp., *Poa secunda, Purshia tridentata,* and *Symphoricarpos albus.*

Grand Fir/Douglas-fir Forest *(Abies-Pseudotsuga)*: Tall, needleleaf evergreen forest. Dominant vegetation includes Grand fir (*Abies grandis)* and Douglas-fir (*Pseudotsuga menziesii).* Other vegetative components include *Larix occidentalis, Pinus monticola,* and *Populus tremuloides.*

Western Spruce/Fir Forest (*Picea-Abies)*: Dense to open forests of low to medium tall needleleaf evergreen trees; open forests with a component of shrubs and herbaceous plants. Dominant vegetation includes subalpine fir (*Abies lasiocarpa)* and Englemann spruce (*Picea engelmanii*). Other vegetative components include *Arctostaphylos uva ursi, Arnica cordifolia, Calamagrostis canadensis, Carex* spp., *Larix lyallii, Menziesia ferruginea, Pinus*

albicaulis, P. contorta, Populus tremuloides, Pseudotsuga menziesii, Shepherdia canadensis, Symphoricarpos albus, Tsuga mertensiana, Vaccinium spp., and *Xerophyllum tenax.*

Vegetative inventories have been conducted for all BLM public lands within the Challis Resource Area. *Table 3-21: Vegetation Summary for the Challis Resource Area* presents acreage figures for the major vegetation types in the Resource Area and their major subtypes. *Map G: Vegetation* illustrates the extent and location of major vegetation types. Range condition and trend are discussed in ***Chapter 3*** - Livestock Grazing under the subsections "Rangeland Inventory" and "Rangeland Monitoring and Evaluation", pp. 247-249.

Riparian/Wetland Vegetation

A riparian area is defined as "an area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lake shores and stream banks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil." (BLM, 1990). Riparian zones within the Resource Area can generally be identified by the existence of riparian dependent vegetation such as cottonwoods (*Populus spp.)*, willows (*Salix spp.*), sedges (*Carex spp.*), and rushes (*Juncus spp.*).

Stream vegetation types of the Challis Resource Area are based on Youngblood *et al.* (1985), Tuhy and Jensen (1982), Hansen *et al.* (1988a), Hansen *et al.* (1988b), Hansen *et al.* (1989), and Padgett *et al.* (1989). A riparian vegetation type classification has not been completed for central Idaho, but the areas covered by the above documents surround the Resource Area. These classifications were primarily completed for the Forest Service, and thus focus on elevations above those found in the Challis Resource Area. Low elevation types are recognized, but the classification is based on fewer samples. With inventory work, additional low elevation types will likely be identified.

Major riparian types are summarized in *Table 3-22: Riparian Community Types.* Choice of which sites are appropriate for this area is based on the RMP ID team's professional judgement and knowledge of streams of the Resource Area.

Appendix I, Item 1 (pp. 653-655) shows all riparian species known or thought to occur in the Resource Area. This list is based on collections housed in the Salmon BLM Herbarium, literature review, and professional observation. Some riparian species may be classified as "desirable," because they are (a) unusual or uncommon, and therefore may be biodiversity indicators; (b) important for riparian function; (c) native riparian species; or (d) known indicators of riparian function, for they seem to be eliminated from low- to non-functioning riparian areas. *Table 3-23: Riparian Species Function and Management* identifies some common desirable riparian species which are especially important to riparian function. Other common riparian species are classified as "undesirable" because they are indicators of reduced functioning or they replace species with high functional values. *Table 3-24* identifies the undesirable riparian species of the Challis RA.

Table 3-21: Vegetation Summary for the Challis Resource Area*

	Big Lost-Mackay[1]	Ellis-Pahsimeroi[2]	Challis[3]
Shrub/grassland			
Mountain mahogany (*Cercocarpus ledifolius*)	18,463		4,085
Shadscale (*Atriplex confertifolia*)	1,230	38,212	32,909
Saltbush (*Atriplex nuttallii*)			1,934
Chicken Sage (*Tanacetum nuttallii*)	5,505	3,716	11,857
Three-tip sagebrush (*Artemisia tripartita*)		31,622	23,332
Big sagebrush (*A. tridentata*)		203,398	
Basin big sagebrush (*A. tridentata tridentata*)			2,298
Mountain big sagebrush (*A. tridentata vaseyana*)	96,911		72,920
Wyoming big sage (*A. t. wyomingensis*)	78,460		118,151
Low sagebrush (*A. arbuscula*)	56,745	61,310	2,081
Black sagebrush (*A. nova*)	41,609		12,312
Fringe sagebrush (*A. frigida*)	2,945		
Other	581		
Woody			
Coniferous forest (*Psuedotsuga menziesii*)	4,666	18,593	22,492
Juniper (*Juniperus communis*)	993		
Riparian			
Aspen (*Populus tremuloides*)	649		
Semi-wet meadow			424
Riparian (includes woody)			519
Sedge (*Carex* spp.)	578		
Rock (includes windswept ridge)	11,370	16,594	24,619
Lava Flows	7,469		
Talus	1,088		
Seedings	15,067	4,710	3,116
Burns			189
Goldburg		1,647	
Total	**351,582**	**380,458**	**333,238**

*This summary of vegetation found in the planning units is based on classifications used in earlier planning documents:

[1] Big Lost-Mackay Grazing Draft EIS, 1983, Chapter 3, p. 39 (includes the Mackay area and the Big Lost area, Idaho Falls District).

[2] Ellis-Pahsimeroi Draft Grazing EIS, 1981, pp. 3-7.

[3] Final Supplemental Environmental Statement on a Revised Range Management Program for the Challis Planning Unit, (1979), pp. 2-3.

Table 3-22: Riparian Community Types[1]

USFS, Intermountain Region	**Montana Riparian Association**
Conifer	Conifer
Calamagrostis canadensis c.t.	
Deschampsia cespitosa c.t.	None really appropriate
Poa pratensis c.t.	
Populus tremuloides	*Populus tremuloides*
Poa pratensis c.t.	*Poa pratensis*
Betula occidentalis c.t.	
	Salix geyeriana
Populus angustifolia	*Populus angustifolia*
Rosa woodsii c.t.	
Poa pratensis c.t.	*Poa pratensis*
Alnus incana	*Alnus incana*
mesic forb	No subcommunities
mesic graminoid	
Betula occidentalis	*Betula occidentalis*
mesic forb	No subcommunities
Poa pratensis	
Salix boothii	*Salix bebbiana*
Carex aquatilis	Most of Challis RA *S. boothii* and *S. bebbiana*
Carex rostrata	meadows would probably key to here under this
Carex nebrascensis	classification.
Poa pratensis	
mesic forb	
(*Mertensia, S. stellata, H. lanatum*)	
mesic graminoid	
(*C. lanuginosa, J. balticus, Glyceria striata*)	
Salix geyeriana	*Salix geyeriana*
Carex aquatilis	
Carex rostrata	*Carex rostrata*
Calamagrostis canadensis	*Calamagrostis canadensis*
Deschampsia cespitosa	*D. cespitosa (Juncus balticus)*
mesic graminoid	*Poa pratensis*
(*P. pratensis, C. lanuginosa, C. praegracilis*)	
Salix exigua	*Salix exigua*
mesic forb	No subtypes identified
mesic graminoid	
Poa pratensis	
Potentilla fruiticosa/Poa pratensis	*Potentilla fruiticosa/Poa pratensis*
Carex Communities	*Carex* Communities
C. aquatilis	*C. aquatilis*
C. rostrata	*C. rostrata*
C. simulata	*C. simulata*
C. nebrascensis	*C. nebrascensis*
Deschampsia cespitosa	*Deschampsia cespitosa*
Juncus balticus	*Juncus balticus*
Poa pratensis	*Poa pratensis*

[1]Two general riparian classifications are available for application to the Challis Resource Area. Padgett, Youngblood and Winward (1989) *Riparian Community Type Classification of Utah and Southeastern Idaho* and Youngblood, Padgett and Winward (1985) *Riparian Community Type Classification of Eastern Idaho and Western Wyoming* were developed by the Forest Service Intermountain Region and cover the area generally to the south of the Resource Area. The Montana Riparian Association documents (Hansen *et al.*, 1989; Hansen *et al.*, 1988a; Hansen *et al.*, 1988b) cover an area to the east of the Resource Area. Both classifications contain descriptions of community types that are found in the Challis Resource Area.

Table 3-23: Riparian Species Function and Management[1]

SPECIES	FUNCTION	MANAGEMENT
	RIPARIAN TREE SPECIES	
Populus angustifolius Black cotton-wood	Forms small stands along small, moderately steep gradient streams rather than extensive gallery forests (see *P. tricocarpa*, below). Important wildlife habitat; provides shade, bank protection, and erosion buffering.	Livestock use and recreational activity can reduce juvenile recruitment. Likely requires some flooding event to expose suitable colonizing substrate.
Populus tremuloides Quaking aspen	Important wildlife habitat, especially for beaver. Of limited distribution in the Challis RA, forming in areas of subsurface moisture (CE). Some stands along perennial stream channels provide important bank stability and shading functions.	Livestock browsing of young suckers combined with trampling and soil compaction can reduce the ability of the colony to rejuvenate (Mueggler 1985). Livestock use of juveniles combined with beaver use of adults can eliminate the stand. Management at Short Creek included a strategy of livestock exclusion and overstory removal.
Populus trichocarpa Black cotton-wood	Main gallery forest species along the main Salmon River (CE). Provides important habitat for wildlife, attractive recreation sites, erosion buffering from adjacent upland activities.	Livestock use and recreational activity can reduce juvenile recruitment. Hansen *et. al.* (1988) states that this species and type is early seral, but work conducted in Colorado (Friedman, personal communication) suggests otherwise, although continued disturbance by flooding and deposition is important to maintaining stands. This species is a floodplain species; thus, locating recreation sites in these areas, however attractive, is risking damage to facilities by flooding.
	RIPARIAN SHRUB SPECIES	
Alnus incana Thinleaf alder	Generally found on narrow, relatively steep riparian areas in the Challis RA. Provides bank stability, shade, wildlife habitat. Streams lined with this species develop deep narrow channels with excellent fisheries habitat. Species usually reduces understory production, so communities dominated by this species are of limited forage value.	Species is rarely browsed by livestock, but juveniles can suffer trampling damage. Channel downcutting and lowering of water table will also cause loss of this species. Resprouts readily when cut.
Betula occidentalis Water birch	Found along narrow, relatively steep riparian areas (CE), also at Summit Creek (unusual). Dense stands provide excellent thermal and hiding cover for wildlife, and enhance fisheries through bank stabilization and shading. Little value for forage.	Can be damaged by recreational and livestock trampling. Good sprouter, and easily established in revegetation efforts.
Cornus sericea Red Osier dogwood	Of limited distribution in the Challis RA, but found on relatively steep gradient, larger streams (Morgan, Thompson, Squaw creeks) (CE). Thick, extensive root system is especially effective for bank stabilization. Dense flexible twigs slow floodwater during extreme events.	Rarely utilized by livestock, and dense growth makes even trampling unlikely. Species may have use in revegetation work on degraded streams. Note that the species is most common on those streams recognized for anadromous fisheries potential.
Potentilla fruiticosa Shrubby cinquefoil	The species is most commonly found in moist alkaline meadows, and appears to be an indicator of relatively high water tables (CE). Of limited value for bank stabilization since rarely found on banks, but important for structural diversity in meadows.	Species is browsed by livestock and game, and is used as an indicator of range condition (Davis 1952).
Prunus virginiana Choke cherry	Generally found along moderately steep, narrow riparian areas, sometimes as an understory to aspen or other trees.	Can be poisonous to livestock, especially during drought, on overgrazed ranges, or after leaves have been frosted (USDA 1968, Budd 1979).
Rosa woodsii Wood's rose	Wildlife habitat and food (hips) for small mammals and birds. Stabilizes seepage areas, but of limited occurrence on streambanks.	Strongly grazing tolerant, thus potentially an increaser under heavy use (CE). Readily sucker and easy to establish through planting. Potential for use as a barrier (CE) to manage riparian zones.

SPECIES	FUNCTION	MANAGEMENT
Salix bebbiana, S. boothii, S. geyeriana, S. drummondiana willows	All four of these willow species are critical for bank stabilization. Streams supporting these species are generally not armored by rocky banks or bottoms; thus, the shrubs become more critical for reducing side- and head-cutting. They also provide thermal and hiding cover for wildlife, forage for native ungulates and beaver, and non-game habitat. It is likely that especially *S. boothii* colonizes and stabilizes beaver dam areas, an important function in raising water tables, widening riparian areas, and creating additional bank storage.	Streams supporting these species have the most potential for development of wide riparian areas and wet meadows. Because of the lack of protective rock substrate, these are also the most susceptible to livestock impact, with associated downcutting.
Salix exigua Sandbar willow	Common colonizer of recently deposited gravels and sediments. This species is an excellent stabilizer in riparian areas, providing bank stabilization and trash and sediment trapping. It appears to act as a facilitator species for establishment of other riparian vegetation. Loss of this species often results in rapid erosion of the stream channel.	Wildlife and livestock can over-utilize this species. Trampling reduces establishment. Plants are easily established through cuttings, and will spread vigorously via underground runners once established (CE).
RIPARIAN GRAMINOID SPECIES Only the most common and desirable graminoid species are included in this list.		
Carex aquatilis Water sedge	This species requires a constant high water table. It provides excellent stabilization of seepage areas, wet meadows, and stream banks on low gradient streams. The dense sod forms overhanging mats providing valuable fish cover.	Livestock rarely use this species unless the soil surface dries out enough to allow easy footing. During a season-long grazing season, however, livestock will damage plants and compact soils. Loss of this species may result in destabilization of banks and downcutting. Once the water table lowers, this species will no longer occupy the site.
Carex nebrascensis Nebraska sedge	One of the most common of the coarse sedges, requiring less moisture than *C. rostrata* or *C. aquatilis*. The species is highly palatable to cattle, horses, and wildlife. Its thick rhizomes provide excellent bank stabilization and will develop bank overhangs.	This species appears to be able to withstand heavy utilization, but under continuous use during growth will lose vigor (Steele *et. al.* 1984). The species is also susceptible to human and ungulate trampling damage early in the season when soils are saturated. This is one of the species that forms hummocks under trampling.
Carex rostrata Beaked sedge	Another very common coarse sedge, occurring on moister sites than *C. nebrascensis*, often in seeps and riparian meadows. Beaked sedge has thick dense rhizomes, thus providing excellent bank and soil stabilization. Overhanging mats, while creating excellent fisheries habitat, are also susceptible to trampling damage and "calving." Since this species forms thick organic layers, it may be important for developing water-holding capacity within the banks.	Trampling damage by humans and ungulates is the most extensive impact. The species is of low palatability, and is generally used only lightly. Beaked sedge plugs have been transplanted successfully (Corral Basin).
Deschampsis cespitosa Tufted hairgrass	This species is common in moist meadows and as a colonizing species on gravel bars. The species may also replace *Carex* as the water table drops, and be replaced by *Poa pratensis* (Kentucky bluegrass) as the water table drops below one meter.	Sustained grazing decreases the vigor of this species (Volland 1985) and it is generally replaced by *Poa pratensis*. Livestock graze this species preferentially (Leege *et. al.*, 1981). Proper use levels are light to moderate. The species has little value for bank stabilization, but, as a colonizing species, will facilitate establishment of more stabilizing species (CE).
Juncus balticus Baltic rush	This species can tolerate a lowered water table and trampling by both livestock and recreationists. Its long tangled roots provide good bank stabilization. The species does not form overhanging banks (CE). It is generally an increaser under moderate livestock use, sometimes replacing *Carex*. Because of low biomass production, it does not develop organic deposits (CE).	While this species will help to stabilize banks, it does not contribute to other riparian vegetation functions such as overhanging banks and shading. It can be found even on deeply incised channels (up to 12 feet above the water table (CE)); thus, the roots can likely grow to remain in contact with water as the water table drops. However, such plants have little vigor and likely little bank stabilization function.

[1]Summary of management and ecological function of desirable riparian species. Information is generally based on Padgett *et. al.* (1989), Hansen *et. al.* (1988) and Youngblood *et. al.* (1985) unless referenced. Statements followed by (CE) are based on observations by the author of this table, Dr. Caryl Elzinga, Salmon District botanist from 1990 to 1993.

Table 3-24: Undesirable Riparian Species[1]

Scientific Name	Common Name	Reason(s) Why an Undesirable Riparian Species
Agropyron repens	Quackgrass	An undesirable weedy species and aggressive competitor. The rooting system is rhizomatous, but shallow, providing little stabilization.
Agrostis stolonifera	Carpet bentgrass	Similar in form and ecology to Kentucky bluegrass, but not as abundant.
Bromus inermis	Smooth brome	An increaser under heavy grazing.
Centaurea maculosa	Spotted knapweed	A noxious weed that can invade riparian areas.
Cirsium arvense	Canada thistle	A noxious weed that will invade heavily grazed riparian areas.
Dactylis glomerata	Orchardgrass	A beneficial forage species in cultivated riparian areas; however, it does not provide the needed streambank stabilization.
Hordeum jubatum	Foxtail barley	An increaser under heavy grazing; poor stabilization; very low forage value; does not provide needed streambank stabilization.
Iris missouriensis	Rocky Mountain iris	An increaser under heavy grazing; no forage value.
Melilotus alba	Sweetclover	An increaser under grazing, and a colonizer of disturbed sites. These annual species provide very little for riparian stabilization (also *M. officinalis*).
Phleum pratense	Timothy	Another valuable pasture grass that does not provide desired riparian functions in natural systems.
Poa pratensis	Kentucky bluegrass	This rhizomatous low growing species is extremely resistant to grazing and trampling and has been shown to be an increaser under heavy grazing (Costello 1944; Schulz and Leininger 1990). This species is the most common replacer of more desirable riparian vegetation in the RA. Although rhizomatous, the roots are very shallow, thus providing little streambank stabilization. As a sod former, once established the species is quite competitive. While this species is not in itself an indicator of lowering water tables (it can occur in very wet sites), the dominance of this species in a riparian area will destabilize banks and make streams susceptible to downcutting. This species can tolerate a lower water table than more desirable *Carex* species listed in *Table 3-23*.
Taraxacum officinale	Dandelion	An increaser under grazing and an indicator of lowering water tables; does not provide needed streambank stabilization.
Trifolium repens	White clover	Because of its low structure, generally an increaser under grazing; does not provide needed streambank stabilization.

[1]Most of the information in this table is based upon the observations and general knowledge of Dr. Caryl Elzinga, Salmon District botanist from 1990 to 1993.

Special Status Plant Species

Twenty-seven special status plant species are known to occur on Salmon District BLM public lands, and six more species are suspected to occur. The general location of sensitive plant species is shown on *Map 38: Sensitive Plant Species.*

The special status species known or very likely to occur in the RA are described in *Table 3-25: Special Status Plant Species Known or Very Likely to Occur in the Challis Resource Area* and *Table 3-26: Habitat and Location Information for Known Special Status Plant Species.* The two globally rare species (wavy leaf thelypody and alkaline primrose) occur with several sensitive species, suggesting that the habitat itself is rare. The habitat areas associated with these two globally rare species are described more fully in *Appendix I, Item 2: Habitat Areas Associated with the Alkaline Primrose and Wavy Leaf Thelypody,* p. 656.

Inventory of special status and rare plants in the RA is ongoing, and new populations and species continue to be identified. *Table 3-27: Rare and Endemic Plant Species Known or Likely to Occur* lists additional species that may occur within the Challis Resource Area. Some of these species are not listed as sensitive by the BLM, because they are not known to occur on BLM lands. Other species in this table are known to occur in the Lemhi Resource Area of the Salmon District BLM, and may also occur in the Challis RA. Still others are endemic to central Idaho, but are so common that they are not treated as sensitive.

Little is known about the distribution, size, and trend of special status vascular plant species populations in the RA, and no data exist for non-vascular plants (lichens, mosses, fungi, and algae). The uniqueness of vascular flora in the Challis area suggests there may be unique non-vascular flora as well. Two sites in the RA (the Malm Gulch area and the Summit Creek area) are currently designated as Areas of Critical Environmental Concern in order to protect their unique plant values.

Information on the condition of special status plant species in the RA is limited to habitat and population structure information collected with new species locations. This information is insufficient to determine condition. However, no evidence indicates that individual populations are increasing in size. Population sizes may in fact be decreasing due to the effects of surface disturbing activities such as rangeland improvements, mining activity, off-highway vehicle use, and road maintenance. In addition, other uses may be affecting rare and sensitive plants. For example, three years of monitoring the alkaline primrose has shown that livestock reduce the annual seed production of the primrose when they consume flower stalks. However, a four-year demographic study indicated that alkaline primrose may benefit in other ways from some grazing. Three other sensitive species (*Astragalus leptaleus*, *Elaegnus commutata*, and *Salix candida*) occur in riparian areas and may be affected by the concentration of livestock in these areas.

Use of the special status plant species known or suspected to occur in the Challis RA is presently limited to scientific and recreational observation. No known commercial uses for these species exist at this time. (**Note:** The cushion cactus is on the sensitive plant list to protect this species from commercial collecting.)

Table 3-25: Special Status Plant Species Known or Very Likely to Occur in the Challis Resource Area

Species status given by: BLM (1996 list), Forest Service (1994 Region 4 list), Idaho Native Plant Society (Idaho Native Plant Society 1998), Idaho Conservation Data Center (12/96 list). Status codes: T=Threatened, S=Sensitive, SS=State Sensitive, S1=State Priority 1, SC=Species of Concern (see *Glossary*: sensitive species, threatened species). Distribution codes: P-peripheral, D-disjunct, CI-Central Idaho endemic, CE-Challis endemic, L-limited in distribution, but not truly disjunct or peripheral. Additional Idaho Native Plant Society (INPS) status codes are defined as a footnote to this table.

Scientific Name	Family	Common Name	BLM	FS-R4	INPS[1]	Fed.	Distr.
Astragalus amblytropis	Fabaceae	Challis milkvetch	S		G3, 11		CE
Astragalus amnis-amissi	Fabaceae	Lost River milkvetch		S	G3, 11		CI
Astragalus aquilonius	Fabaceae	Lemhi milkvetch	S	S	G3, 5		CI
Astragalus diversifolius	Fabaceae	Meadow milkvetch	S	S			L
Astragalus leptaleus	Fabaceae	Park milkvetch	S				L
Astragalus paysonii	Fabaceae	Payson's milkvetch	S			SC	CI
Astragalus vexilliflexus var. *nubilus*	Fabaceae	White Clouds milkvetch		S	G4/T2,12	SC	L
Bouteloua gracilis	Gramineae	Blue gramma	S		S1		D
Chrysothamnus parryi var. *montanus*	Asteraceae	Centennial rabbitbrush	S			SC	L
Coryphantha vivipara	Cactaceae	Cushion cactus	S				L
Cymopterus douglasii	Umbelliferae	Douglass' wavewing		S	G3, 11	SC	CI
Cymopterus ibapensis	Umbelliferae	Ibapah wavewing	S		SS		CI
Draba incerta	Cruciferae	Silvery draba	S		SS		CI
Draba trichocarpa	Cruciferae	Stanley whitlow-grass		S	G2, 11		CE
Eatonella nivia	Asteraceae	White eatonella	S		SS		D
Elaegnus commutata	Elaeagnaceae	American silverberry	S				P
Epipactis gigantea	Orchidaceae	Giant helleborine	S		S1		L
Erigeron salmonensis	Asteraceae	Salmon River fleabane				SC	CI
Eriogonum capistratum var. *welshii*	Polygonaceae	Welsh's buckwheat	S	S	G4/T2, 9		L
Eriogonum maledonum	Polygonaceae	Guardian buckwheat		S	G1, 11		CE
Haplopappus insecticruris	Asteraceae	Bugleg goldenweed	S			SC	L
Lomatogonium rotatum	Gentianaceae	Marsh felwort	S		S1		D
Oxytropis besseyi var. *salmonensis*	Fabaceae	Challis crazyweed	S	S	G5/T3,12		CE
Penstemon lemhiensis	Scrophulariaceae	Lemhi penstemon	S	S		SC	CI

Scientific Name	Family	Common Name	BLM	FS-R4	INPS[1]	Fed.	Distr.
Physaria didymocarpa var. *lyatra*	Brassicaceae	Salmon twin bladderpod	S			SC	CI
Poa abbreviata var. marshii	Gramineae	Marsh's bluegrass		S	G5/T2,12		
Primula alcalina	Primulaceae	Alkali primrose	S		G1, 8	SC	CI
Salix candida	Salicaceae	Hoary willow	S		SS		P
Spiranthes diluvialis	Orchidaceae	Ute Ladies'-tresses				T	L
Sullivantia hapemanii var. *hapemanii*	Saxifragaceae	Hapeman's sullivantia				SC	CI
Thelypodium repandum	Cruciferae	Wavy leaf thelypody	S	S	G3, 11	SC	CE
Thlaspi idahoense var. *aileeniae*	Brassicaceae	Stanley thlaspi		S	G4/T3,12		CI
Xanthoparmelia idahoensis	Parmeliaceae	Idaho range lichen	S		G2, 8		CI

[1]GLOBALLY RARE SPECIES

Globally Rare species are assigned to one of four categories: Globally Extinct (GX), Global Priority 1 (G1), Global Priority 2 (G2), or Global Priority 3 (G3). Global ranks are defined below. In addition, each globally rare species that is not currently listed as Endangered or Threatened under the Endangered Species Act receives a Threat Priority rank. This one-through-twelve rank is based on the old USFWS Listing Priority criteria and is explained below. The INPS will continue to recommend species for the federal Candidate list, and also for Conservation Agreements, as part of the Idaho Conservation Effort.

Global Rank:

G = Global rank indicator; denotes rank based on rangewide status.
T = Trinomial rank indicator; denotes rangewide status of variety or subspecies.
X = Considered extinct throughout its range.

1 = Critically imperiled because of extreme rarity or because of some factor of its biology making it especially vulnerable to extinction (typically 5 or fewer occurrences.
2 = Imperiled because of rarity or because of other factors demonstrably making it very vulnerable to extinction (typically 6 to 20 occurrences).
3 = Rare or uncommon, but not imperiled (typically 21 to 100 occurrences).
4 = Not rare and apparently secure, but with cause for long-term concern (usually more than 100 occurrences).
5 = Demonstrably widespread, abundant, and secure.

Threat Priority:

Priority	Taxonomy	Threat	
		Magnitude	Immediacy
1	Monotypic genus	High	Imminent
2	Species		
3	Subspecies/Variety		
4	Monotypic genus		Non-imminent
5	Species		
6	Subspecies/Variety		
7	Monotypic genus	Low	Imminent
8	Species		
9	Subspecies/Variety		
10	Monotypic genus		Non-imminent
11	Species		
12	Subspecies/Variety		

Idaho Native Plant Society, 1998.

Table 3-26: Habitat and Location Information for Known Special Status Plant Species

Scientific Name	Location	Habitat	Soils	Community
Astragalus amblytropis	Salmon River from the East Fork to Ellis, and the East Fork Salmon River, especially Road Cr., Herd Cr., and Spar Canyon.	Steep erosive slopes, little vegetated, south facing, dry.	Challis volcanic weatherings including rhyolitic and andesitic weatherings.	*A. confertifolia, O. hymenoides, A. tridentata wyomingensis, C. nauseosus., E. nudicaulis, S. hystrix.*
Astragalus amnis-amissi	Near Mackay, Idaho in canyons of the Lost River Range.	Steep canyons, in moist cracks and ledges.	Limestone, calcareous.	
Astragalus aquilonius	Round Valley and Bradshaw Flat, as well as associated with *T. repandum.* Also at southern end of the Lemhi and Lost River Ranges.	Most abundant on the gentle slopes near Challis, Idaho but also on steep erosive slopes and in washes; generally south facing, dry.	Challis volcanic weatherings, limestone gravelly slopes and shallow sandy loams.	*A. tridentata wyomingensis, P. secunda, S. hystrix, C. viscidiflorus, A. confertifolia, A. spicatum, E. ambiguus salmonis.*
Astragalus diversifolius	Thousand Springs wetland	Alkaline wet meadows	Soils often alkaline with obvious whitish deposits.	*Salix spp., Carex spp.*
Astragalus leptaleus	Most populations known from along the Big Lost River above the confluence with Thousand Springs Cr. Also along Road Creek and tributaries.	Riparian, at the edge of the riparian area or beneath shrubs; usually where moist, but not saturated.	Various. Soils often alkaline with obvious whitish deposits.	*S. geyeriana, S. boothii, P. pratensis, O. deflexa, D. cespitosa, A. eucosmus, A. alpinus, S. debilis, J. balticus, Sisyrinchium idahoense.*
Astragalus vixilliflexus var. *nubilus*	White Cloud Mountains, Thompson Creek area.	Subalpine/alpine.	Weatherings of Challis volcanics.	*A. tridentata vaseyana, F. idahoensis.*
Coryphantha missouriensis *Coryphantha vivipara*	These species are fairly common throughout the RA.	Generally in dry sage/grass habitats on gentle slopes.	Sandy loam to loam.	*A. tridentata wyomingensis, P. secunda, A. arbuscula, S. hystrix, A. spicatum.*
Cymopterus douglasii	Lost River Range.	Alpine and subalpine meadows above 9,500 feet elevation.	Calcareous or dolomitic substrates.	*Forb and grass types.*
Cymopterus ibapensis	Mouth of Railroad Canyon (Lemhi County).	Gravelly slopes, valley bottom to timberline.	Limestone.	*A. tridentata wyomingensis, A. arbuscula nova, P. sandbergii.*
Draba incerta	One BLM location is known near Jerry Peak within the Lake Creek ACEC.	Northwest facing, 50% slope.	Moderately deep gravelly moist soil derived from Challis volcanics.	*Phlox pulvinata, Cymopteris bipinnatus, Sedum lanceolatum, Potentialla diversifolia.*
Draba trichocarpa	Stanley Basin.	Windswept lithic knobs and ridges.	Decomposed granitics.	*A. tridentata vaseyana.*
Eatonella nivia	One location known within the Malm Gulch ACEC. The species is disjunct from the Great Basin.	Mid-elevation desert.	Sandy to gravelly thin soil, often on basalt.	*A. tridentata wyomingensis.*
Elaegnus commutata	Small population occurs along the Salmon River within the Bayhorse Campground.	Riparian, edge riparian.	Floodplain alluvium.	*Salix geyeriana, Salix exigua, Populus tremuloides.*
Epipactis gigantea	Elk Bend, hot springs	Springside, thermal springs.	Limestone weatherings.	*Carex, Juncus.*

Scientific Name	Location	Habitat	Soils	Community
Eriogonum capistratus var. *welshii*	Antelope Flat, east of Mackay, ID.	Alluvial fans of Big Lost River Range.	Calcareous gravels.	*A. arbuscula nova*
Eriogonum maledonum	Sawtooth National Recreation Area.	Unstable scree slopes.	Granitics.	*A. tridentata vaseyana*
Gymnosteris parvula	No populations are known, but a record is suspected near Friday Spring in Round Valley.	Sandy-loam flats.	Sandy.	*A. tridentata tridentata*
Lomatogonium rotatum	Summit Creek ACEC, Thousand Springs wetland.	Spring-fed calcareous headwaters system.	Highly alkaline clay.	*Salix boothii, B. occidentatlis, P. pratensis, J. balticus, C. microptera, Sysirinchium idahoense, Phlox kelsyi.*
Oxytropis besseyi var. *salmonensis*	A Challis endemic, this species is relatively common in the Challis, Idaho area, along the East Fork Salmon River, and along the Salmon River to Ellis, Idaho.	Steep (30%) to more gentle slopes, generally south facing, or in washes. Usually dry, sparsely vegetated, open communities.	Sandy to gravelly erosive substrates derived from Challis volcanics.	*O. hymenoides, A. spicatum, A. tridentata wyomingensis, A. confertifolia, P. secunda, S. hystrix, E. nudicaulis, E. ambiguus salmonis.*
Primula alcalina	Summit Creek ACEC.	Spring-fed calcareous headwater wetland systems.	Highly alkaline clay.	*Salix boothii, B. occidentatlis, P. pratensis, J. balticus, C. microptera, Sysirinchium idahoense, Phlox kelsyi.*
Salix candida	Summit Creek ACEC.	Spring-fed calcareous headwater wetland systems.	Highly alkaline clay.	*Salix boothii, B. occidentatlis, P. pratensis, J. balticus, C. microptera, Sysirinchium idahoense, Phlox kelsyi.*
Stipa pinetorum	The species is known from Custer and Clark counties, generally at higher elevations than BLM lands.	Dry rocky areas, from sagebrush to higher elevations.	No information.	No information.
Thelypodium repandum	Salmon River from the East Fork Salmon River to Ellis, Idaho, and the East Fork Salmon River, especially Road Cr., Herd Cr. and Spar Canyon.	Steep erosive slopes, little vegetated, south facing, dry.	Challis volcanic weatherings, including rhyolitic and andesitic weatherings.	*A. confertifolia, O. hymenoides, A. tridentata wyomingensis, C. nauseosus., E. nudicaulis, S. hystrix.*
Xanthoparmelia idahoensis	No populations known in Custer County; only known populations occur in Lemhi County, near the town of Salmon.	Bare bentonite outcrops.	Lacustrine ash deposits.	Occurs on bare slopes. Surrounding area: *Atriplex confertifolia, Sarcobatus vermiculatus.*

Table 3-27: Rare and Endemic Plant Species Known or Likely to Occur in the Challis Resource Area, by Distribution

NOTE: Species known only from the Challis area are identified with an asterisk. Other species are endemic to central Idaho, but do not have as restricted a distribution as the Challis endemics. Species that are also considered sensitive are listed in *Table 3-25: Special Status Plant Species Known or Very Likely to Occur in the Challis Resource Area.*

Scientific Name	Common Name	BLM[1]	Distribution[2]
Allium simillimum	Dwarf onion	Y	CI
Astragalus adanus	Boise milkvetch	Y	P
Astragalus platytropis	Broad-keeled milkvetch	Y	L
Carex eurycarpa	Wide-fruited sedge	L	D
Castilleja crista-galli	Cockscomb paintbrush	M	P
Castilleja longispica	Yellow paintbrush	L	L
Chaenactis evermannii	Evermann's fleabane	Y	I
Chrysothamnus parryi salmonensis	Salmon River rabbitbrush	Y	CE
*Cryptantha salmonensis**	Salmon River cryptantha	Y	CE
Cryptantha scoparia	Desert cryptantha	Y	P
Draba hitchcockii sp. *nov*	Hitchcock's draba	M	CI
Draba oreibata	Limestone draba	Y	D
Elymus ambiguus var. *salmonis*	Salmon River wild rye	Y	CI
Encelopsis nudicaulis	Naked sunray	Y	D
Eriastrum sparsiflorum wilcoxii	Eriastrum	Y	D
Erigeron asperugineus	Rough fleabane	Y	L
Frasera montana	White frasera	Y	CI
Gilia leptomeria	Great Basin gilia	Y	P
Gilia spicata	Spicate gilia	Y	P
Haplopappus greenei	Greene's haplopappus	L	D
*Hymenopappus filiformis idahoensis**	Hymenopappus	Y	CE
Kelseya uniflora	Kelseya	L	L

Scientific Name	Common Name	BLM[1]	Distribution[2]
Langloisia setosissima	Langloisia	M	D
Lesquerella carinata	Keeled bladderpod	Y	CI
Lithophragma tenella thompsonii	Slender fringecup	Y	K
Lomatium idahoense	Idaho biscuitroot	L	CI
Penstemon payettensis	Payette penstemon	L	P
Phacelia idahoensis	Idaho phacelia	M	CI
Phacelia incana	Hoary phacelia	M	P
Phlox albomarginata	White margined phlox	Y	CI
Phlox austromontana	Desert phlox	L	L
Physaria geyeri var. *purpurea*	Geyer's twinpod	Y	CI
Ribes hendersonii	Henderson's gooseberry	Y	CI
Syntheris pinnatifida canescens	Cutleaf synthyris	L	L

[1] BLM = potential for occurrence on BLM public lands (Y = yes, L = likely, M = maybe).
[2] Distribution: D = disjunct, P = peripheral, L = limited, CI = central Idaho, CE = Challis endemic.

Noxious Weeds

Table 3-29: Noxious Weed List for the State of Idaho (see page 145) lists all weeds identified as noxious under the Idaho State Weed Law (Chapter 34, Idaho Code) (noxious weed species known to occur in the Challis Resource Area are highlighted, and species likely to spread to the RA during the life of the RMP (approximately 20 years) are marked with an asterisk). Other weedy and poisonous species which present management challenges in the RA but are not on the Idaho Noxious Weed List are presented in *Table 3-28: Undesirable Species Known to Occur in the Challis Resource Area.* These species are not included on the State list for various reasons, such as they are (a) too widespread to mandate treatment, (b) not a significant agricultural threat, or (c) troublesome, but not noxious. One undesirable species of concern is cheatgrass (*Bromus tectorum).* This annual grass was introduced into the Great Basin region from Europe, probably in the late 1880s. It has spread throughout the region to the point where it currently exists in every county in the Great Basin (Karl *et. al.* 1995, quoted in Quigley and Arbelbide 1997). An excellent description of the cheatgrass problem, including ecology, thresholds, and control, is contained in *An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (Quigley and Arbelbide, tech. eds. 1997). *Map 28: Known Noxious Weed Infestations* illustrates the general locations of weed infestations. In general, road corridors are the main areas of infestation, but some populations have been located

well away from roads.

Weed infestations can occur or spread when weed seeds are spread by human activities such as road maintenance, carried by livestock or wildlife, or dispersed by water or wind. In addition, ground disturbing activities provide open sites for weeds to invade.

Noxious weed control efforts are done under contract with Custer and Lemhi counties. The BLM identifies the need for noxious weed control in particular areas and prepares an annual Pesticide Use Proposal and Environmental Assessment. Meetings are held with the County Weed Supervisor to plan treatment areas and strategies each year. The counties perform much of the actual weed control, with BLM oversight. Most noxious weed control has consisted of spraying leafy spurge and spotted knapweed with herbicides, normally 2,4-D or Picloram. Other noxious weed species treated include henbane, Dyer's Woad, toadflax, and several types of thistle. Other treatment methods used include mechanical treatments (pulling) in sensitive areas (such as areas adjacent to streams) and biological control methods, such as the use of naturally occurring insects or diseases that attack the specific noxious weed. Most of the noxious weeds present within the Challis Resource Area are introduced plants from other parts of the world, such as eastern Europe or Eurasia. They become noxious because their naturally occurring diseases and/or insects that would normally keep them under control have not been introduced along with the plant. Biological control methods seek to control introduced noxious plants by reintroducing the naturally occurring control agents (diseases or insects) that occurred in the area where the plant originated.

Poisonous plants, while posing a threat to livestock, are generally not designated as noxious weeds by the State. These plants are native, usually perennial, and would not be possible to control. The most significant poisonous plants found in the Challis Resource Area include larkspur (*Delphinium occidentale*), halogeton (*Halogeton glomeratus*), and death camas (*Zygadenus venenosus*). These plants could be treated under *Vegetation Treatment on BLM Lands in the Thirteen Western States - FEIS* (BLM 1991).

Table 3-28: Undesirable Species Known to Occur in the Challis Resource Area

Tumble pigweed	*Amaranthus albaus*
Quackgrass	*Agropyron repens*
Cheatgrass	*Bromus tectorum*
Blue mustard	*Chorispora tenella*
Meadow thistle	*Cirsium scariosum*
Bull thistle	*Cirsium vulgare*
Tall larkspur	*Delphinium occidentale*
Flixweed	*Descurainia sophia*
Curly cup gumweed	*Grindelia squarrosa*
Broom snakeweed	*Gutierrezia sarothrae*
Halogeton	*Halogeton glomeratus*
Foxtail barley	*Hordeum jubatum*
Kochia	*Kochia scoparia*
Prickly lettuce	*Lactuca serriola*
Russian thistle	*Salsola iberica*
Tumble mustard	*Sisymbrium altissimum*
Medusahead*	*Taeniatherum caput-medusae*
Common tansy	*Tanacetum vulgare*
Field pennycress	*Thlaspi arvense*
Seaside arrowgrass	*Triglochin maritima*
Common mullein	*Verbascum thapsus*
Meadow deathcamas	*Zygadenus venenosus*

*Species likely to infest during the life of the RMP (about 20 years).

Spotted knapweed

Leafy spurge

Table 3-29: Noxious Weed List for the State of Idaho

Jointed goatgrass	*Aegilops cylindrica*
Skeletonleaf bursage*	*Ambrosia tomentosa*
Hoary cress (or Whitetop)	*Cardaria draba*
Musk (or nodding) thistle	*Carduus nutans*
Diffuse knapweed	*Centaurea diffusa*
Spotted knapweed	*Centaurea maculosa*
Meadow knapweed	*Centaurea pratense*
Russian knapweed	*Centaurea repens*
Yellow starthistle*	*Centaurea solstitialis*
Rush skeletonweed	*Chondrilla juncea*
Canada thistle	*Cirsium arvense*
Poison hemlock	*Conium maculatum*
Field bindweed	*Convolvulus arvensis*
Common crupina	*Crupina vulgaris*
Scotch broom	*Cytisus scoparius*
Toothed spurge	*Euphorbia dentata*
Leafy spurge	*Euphorbia esula*
Orange hawkweed	*Hieracium aurantiacum*
Yellow (or meadow) hawkweed	*Hieracium pretense*
Black henbane	*Hyoscyamus niger*
Dyer's woad	*Isatis tinctoria*
Perennial pepperweed*	*Lepidium latifolium*
Dalmation toadflax	*Linaria dalmatica*
Yellow toadflax	*Linaria vulgaris*
Purple loosestrife*	*Lythrum salicaria*
Milium	*Milium vernale*
Matgrass	*Nardus stricta*
Scotch thistle	*Onopordon acanthium*
Tansy ragwort	*Senecio jacobaea*
Silver-leaf nightshade	*Solanum elaeagnifolium*
Buffalo bur	*Solanum rostratum*
Perennial sowthistle	*Sonchus arvensis*
Johnsongrass	*Sorghum halepense*
Puncture vine*	*Tribulus terrestris*
Syrian beancaper	*Zygophyllum fabago*

Note: Noxious weed species known to occur in the Challis Resource Area are highlighted in bold type.

*Species likely to infest during the life of the Challis RMP (about 20 years).

Sources: Idaho Department of Agriculture, October 1997 list of species present in the Challis RA; *and* Callihan, Robert H. and Timothy W. Miller. 1997. A Pictorial Guide to Idaho's Noxious Weeds. Noxious Weed Advisory Council, Idaho Department of Agriculture, Boise.

Visual Resource Management.

Law, Regulation, and Policy

Major legal authorities for the visual resource program are found in the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*) and the National Environmental Policy Act of 1969 (43 U.S.C. 4321 *et seq.*).

Affected Environment

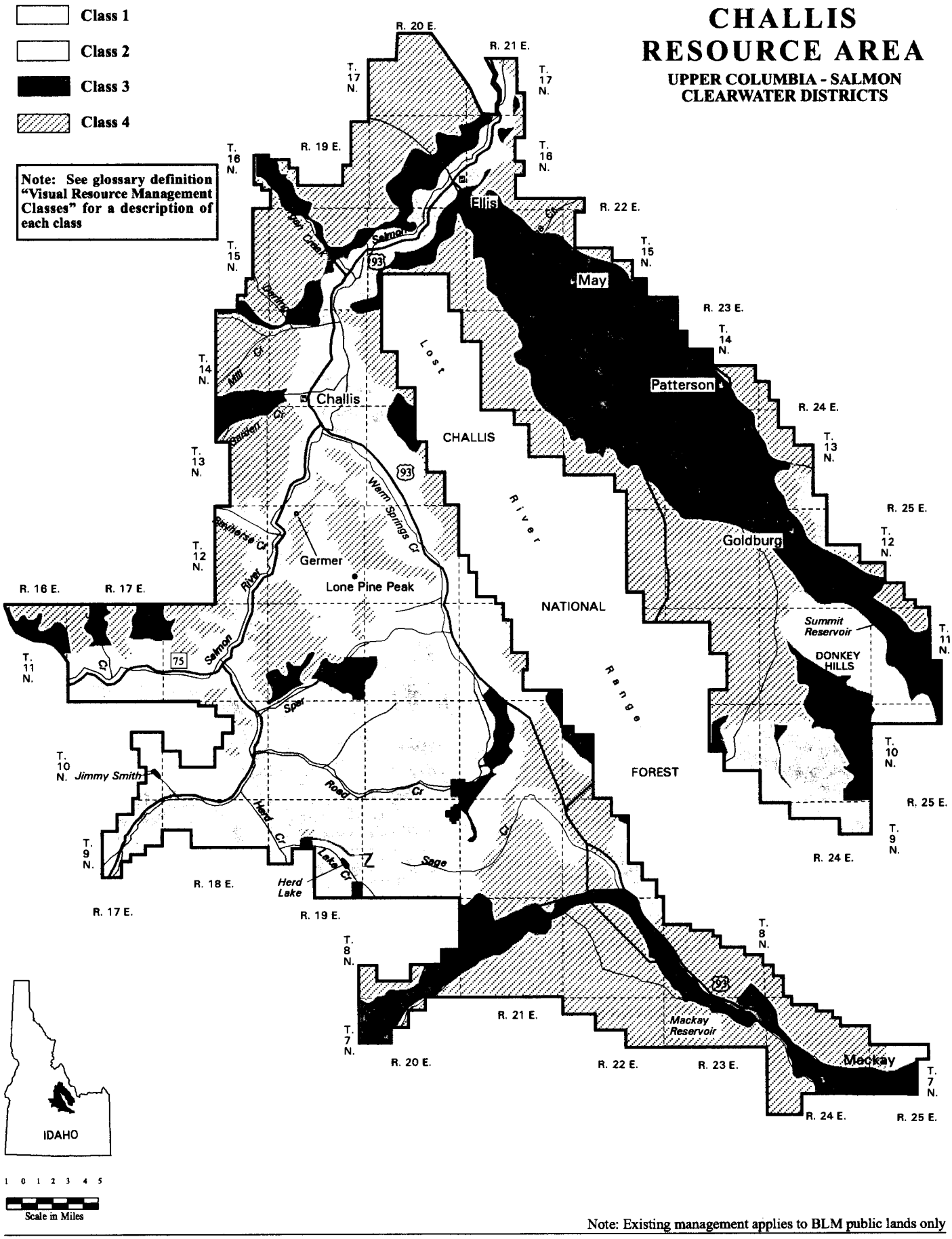
The visual resources of the Challis Resource Area were inventoried and classified in accordance with procedures similar to those outlined in the BLM Handbook 8410-1 during preparation of the *Challis Management Framework Plan* (MFP) (1979), the *Ellis-Pahsimeroi MFP* (1982), and the *Mackay MFP* (1983, as amended). The classification process considered scenic quality and visual and public sensitivity. More specifically, class designations were derived from an overlay technique which combined the maps of scenic quality, sensitivity levels, and distance zones. Overlays helped identify areas with similar combinations of factors. These areas were assigned one of five visual management classes according to predetermined criteria listed in *Visual Resource Management Program* (BLM 1980). Management classes describe the different degrees of modification allowed on basic elements of the landscape (see *Glossary*: visual resource management classes). Generally, the lower the class number, the more sensitive the area is to visual intrusions.

Table 3-30 and *Map 3-4: Existing Visual Resource Management* show the acreage of the Challis RA currently within each Visual Resource Management (VRM) class.

Table 3-30: Acreage for VRM Classes in the Challis RA*

	VRM Class	Acreage	% of RA
I	(Preservation)	191,521	24.2
II	(Retention)	97,376	12.3
III	(Partial Retention)	170,746	21.5
IV	(Modification)	332,924	42.0
V	(Rehabilitation or Enhancement)	0	0.0

*Acres are approximations from the Challis, Ellis-Pahsimeroi, and Mackay Management Framework Plans, and therefore do not equal the total acreage for the Challis RA (792,567 acres).



Note: Existing management applies to BLM public lands only

Class I VRM rating is reserved for designated areas, such as WSAs and Wild and Scenic Rivers, where preservation of the landscape is the primary management goal. Class II VRM rating is used for areas where the visual environment is the same high quality as designated areas, but the area has no Congressional designation. This classification could include areas such as ACECs and SRMAs. Class III VRM rating is reserved for areas where development is evident, but does not dominate the viewshed (generally highway corridors and rural areas where the scenery is not a major resource concern). Class IV VRM rating is generally reserved for areas where the visual intrusions dominate the viewshed, but are in character with the landscape (areas such as rural communities, multiple subdivisions, mining developments, etc.). A Class V VRM rating is reserved for areas where the natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the other four classes. It is often used as an interim classification until objectives of another class can be reached. This classification is often used for dumpsites, minesites, or the like.

The visual quality of the Challis RA is very high, due to inherent characteristics of the area's landforms, vegetation, and land use patterns and because there are few visual intrusions. Resource uses which lower the visual quality of the RA include powerlines, gravel pits, unauthorized dumps, casual OHV use (roadways and hillclimbs), and heavy livestock use. In most cases, proposed projects are analyzed for visual intrusions that could occur; when practical, mitigation measures are developed in order to decrease the impacts on visual resources. However, it is rare for visual concerns to halt a project.

The outstanding visual resources of the Challis RA include the following two areas.

Upper Salmon River Special Recreation Management Area - This SRMA contains a very rugged riverine canyon of the main Salmon River which is generally followed by Highways 75 and 93. The scenic view of this area has been recognized locally, regionally, and nationally, being listed as "eligible" for study as a potential addition to the National Wild and Scenic Rivers system (National Park Service 1982). The two highways that follow the main Salmon River canyon have a Scenic Byway designation. Currently, the entire SRMA is VRM Class I.

East Fork Salmon River - A tributary to the main Salmon River, this riverine valley winds its way through hayfields and steep canyons. There are portions of three Wilderness Study Areas (WSAs) within the river corridor: Jerry Peak West, Corral-Horse Basin, and Boulder Creek. No portions of these WSAs have been recommended suitable for wilderness designation. This river has also been listed as "eligible" for study as a potential addition to the National Wild and Scenic Rivers system (National Park Service 1982). The East Fork Salmon River has recently been identified by the BLM as a Wildlife Viewing Route. Currently, the river canyon has a VRM Class I designation.

The demand for high quality visual experiences in the RA is growing. Recreational use of the RA is increasing, and many visitors are drawn to the RA especially for the "scenery." The supply of outstanding scenery is moderate to high, especially when viewsheds are combined with National Forest system lands. According to several sources, recreation/tourism activities which

depend on high quality visual resources are a major component of the local, regional, and State-wide economy. The *1987 Idaho Leisure Travel and Recreation Survey* revealed that 53% of all visitors to Idaho have come for recreational purposes. This recreation use is often dependent on the visual resource. According to *Outdoor Recreation in a Nation of Communities* (Task Force on Outdoor Recreation Resources 1988: 62), the most popular land-based recreation activities of Americans are sightseeing (46.9%), picnicking (46.2%), walking for pleasure (41.3%), and driving for pleasure (in order to enjoy scenery) (38.4%). An Idaho Department of Commerce study (1990) found that 40 to 50% of all tourist visitations were for sightseeing.

Water Resources.

Law, Regulation, and Policy

Hydrology and Watershed Management: Hydrology and watershed management within BLM public lands is authorized under many laws and executive orders, including the major authorities listed below. Many of these authorities are described further in *Appendix E, Item 1,* pp. 638-643.

1) Taylor Grazing Act of 1934, as amended (43 U.S.C. 315).
2) Soil Conservation and Domestic Allotment Act of 1935, as amended (16 U.S.C. 590).
3) Appropriations Act of 1952, McCarran Amendment (43 U.S.C. 666).
4) Watershed Protection and Flood Control Act of 1954, as amended (16 U.S.C. 1001 *et seq.*).
5) Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*).
6) Clean Water Act of 1977 (33 U.S.C. 404).
7) Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 *et seq.*).
8) Classification and Multiple Use Act (43 U.S.C. 1411-18).
9) Executive Order (Public Water Reserve No. 107) of April 17, 1926, which withdrew and reserved important springs and waterholes on public lands.
10) Executive Order 11738 of September 10, 1973, which directs each Federal agency to enforce the Clean Air Act and Clean Water Act in the procurement of goods, materials, and services.
11) Executive Order 11752 of December 17, 1973, which mandates that Federal agencies provide national leadership to protect and enhance the quality of air, water, and land resources through compliance with applicable Federal, state, and local pollution standards.
12) Executive Order 11988 (amended by Executive Order 12148) of May 24, 1977.
13) Executive Order 11990 of May 24, 1977.
14) Executive Order 12088 of 1978 (Federal Compliance with Pollution Control Standards) requires Federal compliance with pollution control laws.

Water Quality: The Clean Water Act of 1977, as amended in 1987, provides for the protection, restoration, or improvement of water quality, enables states to establish programs for regulating and managing nonpoint source pollution, and directs Federal agencies to comply with state water quality laws. Various executive orders and Department of Interior and BLM manuals also direct the BLM to maintain and improve water quality. The Idaho Department of Health and Welfare Division of Environmental Quality (DEQ) has responsibility for ensuring water quality within Idaho. Specific water quality standards for each beneficial use are identified in the Idaho code.

Affected Environment

Hydrology and Watershed

The Challis Resource Area is within the Columbia River hydrologic region and the lower Snake River sub-region. The principal drainage of the RA is the Salmon River and its tributaries; the East Fork Salmon River and Pahsimeroi River are major drainages contributing to the Salmon River. The RA also includes a large part of the Big Lost River Basin and a small portion within the Little Lost River Basin (see *Map 25: Geography and Principal Drainage Basins*).

The Salmon River flows for 43.3 miles through the RA, with an average bed gradient of about 2.1%. The East Fork Salmon River flows for about 23 miles from the Forest Service/BLM boundary to its confluence with the main Salmon River. Within this area the East Fork Salmon River has an average gradient of about 1% and an average channel width of 40 to 60 feet. The major tributaries to the East Fork Salmon River are relatively small (7 to 19 feet) with steep gradients (4 to 5%). These steep tributaries are best characterized as boulder/cobble plunge pool type systems; pool:riffle ratios generally fall between 20:80 to 30:70, and average depths range from 9 to 14 inches. (EastFork West Biological Evaluation, January 1993) The Pahsimeroi River flows into the Salmon River at Ellis, Idaho and flows through the Pahsimeroi Valley for about 40 miles, with a bed gradient of 1.45%. Much of the Pahsimeroi River is intermittent, especially at the upper reaches. The Big Lost River flows for about 38 miles from the Forest Service/BLM boundary to the point below Mackay Reservoir, where it leaves the Challis Resource Area - BLM to enter the Big Butte Resource Area - BLM. The bed gradient for the Big Lost River averages 4%. Contributing creeks to these principal rivers generally have much higher gradients.

Peak flows within drainages of the RA typically occur between April 15 and July 15 as a result of snowmelt. Spring runoff is usually 20 to 50 times base flow. Spring flows generally vary on a diurnal basis in response to freeze-thaw conditions occurring each day. Base flows throughout the remainder of the year are maintained by ground water and spring discharges. Overland flow runoff from precipitation is generally insufficient to sustain flows for an extended period of time. High intensity and widely dispersed summer convective thunderstorms can produce high discharges for a short duration.

Watershed erosion susceptibility was evaluated in 1977 using a terrain analysis procedure which considered physical features such as slope gradient, soil type, precipitation factors, and geology. The following table summarizes the portion of the Challis Resource Area in each class (Challis MFP 1979; Ellis-Pahsimeroi MFP 1982; and Mackay MFP 1983).

Table 3-31: Watershed Erosion Susceptibility; % of Challis RA by Susceptibility Class

Low to Slight	32%
Moderate	40%
High	21%
Severe	7%

A riparian inventory was conducted under contract from 1994-1995 throughout the Resource Area. A total of 84.1 miles were inventoried in 1994 within the main Salmon River and the East Fork Salmon River watersheds, and 43.9 miles were inventoried in 1995 within the Pahsimeroi River watershed. The RA contains approximately 340.1 miles of riverine riparian area. Information from this inventory and observational information about other riparian areas in the RA indicate that the overall riparian condition can be summarized as follows (see PRMP, *Attachment 1: Riparian-Wetland Area Function Classification*, pp. 101-102):

Riparian Area Function Classification	miles	percent
Proper Functioning Condition	121.8	35.8
Functional-at-risk: upward trend	40.5	11.9
Functional-at-risk: trend not apparent	132.2	38.9
Functional-at-risk: downward trend	16.7	4.9
Non-functional	28.9	8.5
Totals	340.1	100.0

Ground Water Quantity and Quality

The occurrence and distribution of ground water in the Challis Resource Area is determined by area geology. Primary sources of regional ground water include infiltration, stream channel losses, and water in fractures and faults of bedrock formations. The principal water-bearing deposits include alluvium and colluvium composed of glacial outwash deposits. Challis volcanics underlie most of the RA. Little is known about the water-bearing characteristics of Challis volcanics, except that water is commonly transported through joints, fractures, and faults. Wells in these formations are generally lower-yielding and deeper than those in alluvial deposits. Limestone and dolomite carbonates underlie parts of the Lost River Range and tend to conduct water in large fracture zones or caverns.

The flow of perennial and intermittent springs and streams is sustained by shallow ground water flow on a significant portion of rangelands (particularly high elevation lands). Ground water in alluvial valleys throughout the RA is closely linked to surface flows in stream and river channels. Alluvial materials in much of the RA are coarse, relatively free of silt and clays, and very permeable. As a result, streams tend to lose water very rapidly after they leave the upper basins and begin flowing across the alluvium. The seepage losses are very significant and affect surface waters in the Big Lost River, Little Lost River, and Pahsimeroi River basins. Seepage losses are not confined to the stream channels; they can be significant wherever water is diverted into ditches and onto irrigated fields as well. Conversely, during high flow events, surface water discharges increase dramatically when the alluvial storage capacities are exceeded. Channel and sheet flow erosion on alluvial fans can be significant as a result of rising water tables or saturated surface soils.

Spring and ground waters are generally classified as bicarbonate types. Most of the wells and spring waters sampled have been of good to excellent quality and suitable for all uses. Ground water in the RA is generally believed to be of adequate quantity and good to excellent quality -

suitable for the purposes intended on a Resource Area-wide basis.

Surface Water Quantity and Quality

The Challis Resource Area contains about 340.1 miles of streams and two small natural lakes (Red Lake, comprising less than five acres, and Herd Lake, covering about 25 acres). Reservoirs in the RA include Mackay Reservoir, just northwest of the town of Mackay, Idaho in the Big Lost River drainage, and Summit Reservoir in the Little Lost River drainage. Reservoir storage capacity in Mackay reservoir is up to 44,370 acre-feet. Average annual discharge estimates from the three principal watersheds in the RA are 1,430,000 acre-feet per year from the Salmon River (which includes the East Fork Salmon River and Pahsimeroi River drainages), 235,500 acre-feet per year from the Big Lost River, and 49,300 acre-feet per year from the Little Lost River.

Within the Challis Resource Area, approximately 2,300 on-site and developed claims are being filed by the BLM through the State of Idaho water rights adjudication process. Most of these claims are less than .02 cubic feet per second (cfs). These claims are being pursued in order to protect water-dependent uses on public lands. To date, the following streams have been identified for minimum instream flow claims: the Salmon River at Challis and Salmon, Idaho, the Pahsimeroi River, Hat Creek, the East Fork Salmon River, Squaw Creek, and Herd Creek. Other priority streams will be identified and processed for minimum instream flow claims in the future.

Surface waters originating on public lands are used for water-based recreation activities, domestic and agricultural water supplies, and maintenance of cold water fisheries and habitat. The City of Challis uses Garden Creek for its municipal supply. Municipal treatment facilities within the City of Challis have generally been adequate to accommodate any water quality problems within Garden Creek. Most other domestic water sources are from ground water on private land.

Surface water quality varies throughout the RA and is dependent on land use, local geology, and discharge. Extensive efforts to study and collect water and watershed data last occurred in the late 1970s and early 1980s. Since that time miscellaneous and periodic data collection has taken place. As a means of determining current water quality conditions and future trends within the Challis Resource Area, annual monitoring was implemented in 1993. Temperature data, macroinvertebrate samples, and limited water chemistry have been collected annually. In addition to these parameters, several single-event studies such as fecal coliform levels and ground water monitoring were performed by the Idaho Department of Health and Welfare's Division of Environmental Quality. Water quality conditions are assessed through a review of support of beneficial uses identified for each body of water. Assessment of support of the beneficial uses is accomplished through water quality sampling and a review of riparian habitat and channel characteristics. Beneficial uses and supported status for many of the streams in the Challis Resource Area are shown in *Appendix J, Item 1: Beneficial Use Classifications for Drainage Segments,* pp. 657-661.

"Water quality limited segments" (see *Glossary*, p. 186) are stream reaches officially identified by the State of Idaho which do not fully support the State designated and/or BLM identified beneficial uses for a given stream segment. These segments have one or more water quality-

related factors which limit the full attainment of full support of one or more beneficial uses. "Water quality limited segments" within the Challis Resource Area are identified in *Appendix J, Item 1: Beneficial Use Classifications for Drainage Segments,* pp. 657-661 (see stream segments noted with an asterisk "*").

Total Maximum Daily Loads (TMDLs) will need to be calculated for priority streams listed as "water quality limited segments." TMDLs are maximum pollutant loads that are allowable from all activities within the watershed, while still fully supporting beneficial uses. Basin and Watershed Area Groups established by Idaho State Law will help prioritize those streams on which TMDLs will be calculated and monitored.

Most surface water in the RA originates in the high mountainous areas above the principal drainages and is of high quality near its source. However, water quality in many tributary streams becomes degraded as waters travel down the mountain to the principal drainage. Water may flow through or adjacent to irrigated croplands, mine tailings, feedlots, roads, population centers, open rangeland, or wilderness. Degradation occurs as sediments from soil erosion or other transported pollutants are deposited in the stream. Water quality is also affected by the inflow of ground water which is, as a general rule, of good to excellent quality.

Concentrations of major inorganic constituents (measured as dissolved solids) generally increase as waters move downstream. Although concentrations of total dissolved solids tend to decrease with increasing flows, an increasing ground water component (which is often high in dissolved solids) can cause increasing concentrations in surface water flows.

Bacteriological water quality data indicate a wide variation in coliform levels over time. Generally, coliform levels vary directly with sediment and turbidity during runoff events and with the presence of livestock in the stream bottoms during low flow periods. Coliform levels at BLM sites below private land are often higher than at BLM sites above private land. Levels of coliform are almost always in excess of recommended drinking water criteria throughout the Resource Area. Cases of giardiasis believed to have been contracted from waters in the RA have been reported. Generally, watersheds with big game or livestock use or high recreational use have the greatest potential for high biological water pollutants. Most natural surface waters in the RA are probably biologically contaminated to some degree and a threat to human health if consumed untreated.

The sediment yield for streams in the RA varies depending on geology, soil type, precipitation, land use, and the physical characteristics of a given watershed. Sediment yields are accelerated in many areas by surface-disturbing land uses such as grazing, mining, road construction and maintenance, and off-highway vehicle use. Nutrient loading from grazing and agricultural practices is contributing to excessive nutrient impacts (Idaho Department of Water Resources, DEQ 1988).

Stream temperature is sometimes a limiting factor to salmonid production within the Challis RA. The impacts of high water temperature in the Resource Area are highly variable and result from a combination of several different factors. Poor vegetative condition in riparian areas can allow

excessive solar radiation to reach the stream, resulting in higher water temperatures. This effect is even more significant and damaging to fisheries populations during low flow or drought years. Diurnal variations in stream temperature are also exaggerated under these conditions. Conversely, areas with adequate mature riparian vegetation shade the stream channel, reduce the input of solar radiation, maintain cooler water temperatures (even in drought years), and reduce the diurnal fluctuation of water temperatures, thus enhancing the survival of fisheries resources. These conditions are particularly important during periods of low flow. Water temperature also has a significant influence on the concentration of dissolved oxygen in the water column; cooler temperatures (required for salmonid survival) have a higher oxygen saturation potential.

Summary of Surface Water Quality, by Principal Drainage Basin

The following paragraphs summarize the water quality of each main drainage within the Challis Resource Area. A more detailed description of water quality conditions within each drainage is provided in *Appendix J, Item 2*, pp. 662-666.

Overall, water quality in most of the tributaries of the East Fork Salmon River appears to be in good to fair condition, with three streams in good/stable condition, two streams exhibiting an upward trend, four streams remaining in fair, but static, condition, and one stream remaining in poor condition, but stable. In general, the upper reaches of each stream tend to be in better condition than reaches near the mouth. There is potential for continued improvement throughout the watershed.

The Main Salmon River Watershed, with the exception of Little Hat Creek, appears to be in good to fair condition, either remaining static and/or indicating slight to moderate improvement over time.

Water quality in the Upper Pahsimeroi River and most of its tributaries appears to be in good condition. Current trend is unknown, since monitoring has just recently been implemented in the majority of tributaries; however, there is slightly more degradation of water quality as one nears the mouth of the Pahsimeroi River, which is primarily due to private land use and irrigation diversions. Several outlying streams have been shown to exhibit less than desired aquatic health; these small, unvegetated streams at the upper end of the watershed have poor overall water quality conditions, but still maintain high potential for improvement.

Aquatic monitoring was implemented in 1997 in the Little Lost River Watershed. Preliminary results indicate that water chemistry is within desired levels. Although there is limited information available, water quality appears to be in good condition throughout the watershed.

At this time the BLM has little information about the Big Lost River Watershed, because monitoring of that watershed has not been conducted. It is believed that most streams meet temperature and pH requirements for cold water biota. Through observation and professional judgement, the majority of streams appear to be in a functional-at-risk category. Extrapolating from these conclusions, overall water quality would seem to be in fair condition, with the potential for improvement.

Wilderness Study Areas.

Law, Regulation, and Policy

Wilderness authority on public lands is found in the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*) and in "Wilderness Study Policy; Policies, Criteria and Guidelines for Conducting Wilderness Studies on Public Lands" (*Federal Register*, Vol. 47, No. 23, 5098-5122). BLM guidance for Wilderness Study Areas is contained in BLM Manual H-8550-1 "Interim Management Policy and Guidelines for Lands Under Wilderness Review" (1995). Management guidance for the Wilderness Study Areas located in the Challis Resource Area is described in the *Challis MFP Amendment and Final EIS, Wilderness* (1982), *Big Lost/Pahsimeroi Final EIS, Wilderness* (1986), and *The Small Wilderness EIS* (1989).

Affected Environment

Seven Wilderness Study Areas (WSAs) totaling 142,260 acres of public lands are located within the Challis Resource Area (see *Map 42: Wilderness Study Areas*). The RA does not contain any designated Wilderness lands. However, the Frank Church - River of No Return (FC-RONR) Wilderness and Sawtooth Wilderness are on USFS lands within 25 air miles of the RA (see *Map 29: Local Wilderness Status*). The 2.2 million acre FC-RONR Wilderness is the largest in the contiguous 48 states, and is a popular recreation destination; the Wilderness had 475,000 Recreation Visitor Days in 1990 (Ken Stauffer, personal communication, Salmon National Forest). Several communities near the RA (Challis, Salmon, Stanley, Mackay, Sun Valley-Ketchum) depend on recreation-tourism for some portion of their local economies. Some of this recreation is specifically Wilderness-oriented, while other recreation opportunities depend on the scenery protected by WSA status. For example, portions of Mount Borah, the highest peak in Idaho and a popular destination for hikers and climbers, are located within the Borah Peak WSA.

The WSAs within the Challis RA were identified through an inventory process conducted between 1979 and 1981, following mandates in FLMPA, Section 603 and Section 202. WSA boundaries include portions recommended by the BLM to Congress as suitable for wilderness designation (see *Map 42: Wilderness Study Areas*). The Challis RMP is not intended to affect existing BLM recommendations on WSA suitability for wilderness designation, or to influence Congress' decision on which WSAs become designated wilderness. Instead, RMP decisions discuss management of the WSAs if *released* by Congress from wilderness review (see PRMP, WSAs - Management if Released from Wilderness Review, pp. 91-93).

Table 3-32 provides information about each WSA, including total acreage by designating authority and portions recommended to Congress as suitable for wilderness designation. All of these WSAs await either Congressional designation as wilderness, or formal release from wilderness review.

Table 3-32: Wilderness Study Areas in the Challis Resource Area

WSA #	WSA Name	Acreage by Designating Authority[1]		Suitable Portions[2] (acres)
		Section 603	Section 202	
ID 45-1	Goldburg		3,290	0
ID 45-12	Burnt Creek	24,980		8,300
ID 46-11	Corral-Horse Basin	48,500		0
ID 46-13	Boulder Creek		1,930	0
ID 46-14	Jerry Peak	46,150		26,750
ID 46-14a	Jerry Peak West	13,530		0
ID 47-4	Borah Peak		3,880	3,880
Totals		133,160	9,100	38,930

[1] Indicates the authority under which the WSA was designated: FLPMA Section 603 or 202.
[2] Portions recommended by the BLM to Congress as suitable for Wilderness designation.

The values that qualified each WSA for wilderness study have remained relatively unchanged. These values include naturalness, roadlessness, and opportunities for primitive and unconfined recreation. Authorized uses within the WSAs include livestock grazing, OHV use on existing roads and trails, and recreational uses in general (sightseeing, backpacking, hiking, horseback riding, etc.). Some unauthorized OHV use and firewood cutting have occurred in the WSAs since designation. Unauthorized OHV use is common in the WSAs; however, new boundary signing and BLM Ranger patrols are expected to discourage both unauthorized vehicle use and firewood cutting.

The affected environment of each WSA is summarized below. Each summary discusses adjacent USFS roadless areas (if any) (see *Map 29: Local Wilderness Status*); the general topography and vegetative characteristics of the WSA; any man-made intrusions within the WSA (which existed prior to WSA designation); and recreational use of the WSA. A more detailed description of the affected environment for each WSA may be reviewed in the following BLM documents, which are available for review in the Salmon Field Office: *Challis MFP Amendment and Final EIS, Wilderness* (1982), *Big Lost/Pahsimeroi Final EIS, Wilderness* (1986), and *The Small Wilderness EIS* (1989).

Goldburg WSA

The Goldburg WSA contains 3,290 acres (recommended nonsuitable), and is adjacent to the USFS North Lemhi Rare II area (340,416 acres), recommended by the USFS as nonsuitable for wilderness designation. The Goldburg WSA is characterized by moderately steep sagebrush/grass-covered slopes, with scattered patches of Douglas-fir forest in the upper elevations. Recreational OHV use is uncommon in the WSA. The WSA presents a natural-appearing environment, with only a few fences and scattered water developments.

Burnt Creek WSA

The Burnt Creek WSA contains 24,980 acres (8,300 acres recommended suitable), and is contiguous with the U. S. Forest Service RARE II Area 4-210, Borah Peak, which is also recommended suitable. The eastern and northern portions of the WSA are characterized by open sagebrush/grass-covered hills. The southern and western portions are steeper, with scattered pockets of Douglas-fir and juniper. Man-made intrusions include the following: the Burnt Creek and Short Creek roads, approximately eight miles of unimproved but noticeable vehicle ways, the remains of an old dam which can be seen on Dry Creek, five developed springs, and eight miles of grazing allotment fence. Recreational OHV use in the Burnt Creek WSA is estimated to be 100 visitor days annually, and is generally associated with two-wheel motorcycles and ATVs used for recreation and hunting. Because of the roads up Burnt Creek and Short Creek and vehicle ways above the old Dry Creek Reservoir, OHV users have relatively easy access into the three major drainages of the WSA. However, opportunities for solitude exist in the WSA due to its large size, topographic relief, vegetative screening, and remoteness.

Corral-Horse Basin WSA

The 48,500-acre Corral-Horse Basin WSA (recommended nonsuitable) is dominated by sagebrush/grass vegetation and scattered forested areas. The forested areas (approximately 2,000 acres) include 1,648 acres of commercial timber. Commercial timber volume is estimated at 12.36 MMBF (million board feet). All commercial forest stands are virgin old growth stands which have never been harvested. The WSA is the central home range of the Challis wild horse herd. Man-made developments include scattered fences and livestock waterholes. The fences blend into the natural landscape when viewed from more than one-half mile. Most waterholes have revegetated naturally, and appear to be a natural part of the landscape. Access to areas within the WSA is limited to some four-wheel drive trails and two poorly maintained roads (Anderson Ranch Road and Broken Wagon Road). Recreational uses include sightseeing, rockhounding, hunting, and wildlife and wild horse viewing. Visitor use is estimated at 1,000 visitor days annually for all types of recreation uses. The Challis ORV management plan currently restricts vehicle use to existing roads and trails because of WSA status. However, in the Sand Hollow area of the WSA, 3,905 acres are closed to OHV use due to fragile soils.

Boulder Creek WSA

The Boulder Creek WSA contains 1,930 acres (recommended nonsuitable), and is adjacent to the USFS Boulder/White Cloud Rare II area (433,000 acres). The portions of the RARE II area which are contiguous with the WSA were not recommended suitable for wilderness designation. The WSA is characterized by moderately steep sagebrush/grass-covered slopes, with small timber patches on the north and south ends. There are two short underground livestock water pipelines in the WSA. Three Forest Service trails pass through the WSA and provide access to the Sawtooth National Recreation Area (SNRA). Motorized recreational use is limited to trailbikes and is estimated at no more than 40 user days per year (most of this is "pass through" use by individuals heading into the SNRA). In conjunction with adjacent roadless lands, the WSA offers opportunities for solitude and primitive recreation.

Jerry Peak WSA

The Jerry Peak WSA (46,150 acres; 26,750 acres recommended suitable) is characterized by a variety of landforms and vegetation types, from low elevation sagebrush/grass to high elevation forested/subalpine areas. Forested sites (6,539 acres) include 3,843 acres of commercial timber, mostly old growth. Some stands in the eastern portion of the WSA were logged during the 1960s. Commercial timber volume is estimated at 28.8 MMBF. Most of the commercial timber is located between Herd Lake and Sage Creek and is suitable for logging. Ninety percent of the timber is Douglas-fir, with the remainder consisting of limber pine, subalpine fir, and Engelmann spruce. For the most part the timber consists of medium sawtimber (approximately 16 inches DBH). Slopes vary from 15 to 80 percent, with an average of 45 percent.

Man-made developments include scattered fences and spring developments associated with livestock management. Four unimproved two-track vehicle ways enter the WSA. The overall influence of human intrusions is light, due to the dispersal of developments.

Primary recreation activities are hunting, fishing and sightseeing. Hiking, backpacking, horseback riding and other recreational pursuits occur to a lesser extent. Herd Lake, accessible by road, is a primary destination point for many visitors. Visitor use is estimated to be 1,000 visitor days annually for all types or recreation. OHV use as a principal activity is estimated to be 150 visitor days annually. Three developed sites are contiguous to the WSA - the Herd Lake Overlook, Herd Lake Campground, and Upper Lake Creek Campground. The Upper Lake Creek Campground was closed following the 1983 earthquake, which caused severe damage to the road.
The area provides outstanding opportunities for solitude. Large tracts of undeveloped BLM lands to the north and USFS lands to the south contribute to the maintenance of solitude.

Jerry Peak West WSA

The 13,500-acre Jerry Peak West WSA (recommended nonsuitable) is a thin strip of land located between the East Fork Salmon River and the Challis National Forest. The WSA is bounded by land ownership lines rather than geographical landmarks. Vegetation in the WSA varies from riparian willow bottoms to sagebrush/grass-covered foothills and small forested areas at the edge

of the Challis National Forest. Man-made developments include a fence and three spring developments. Recreation use in the WSA is low, and OHV use is virtually nonexistent. Presently, visitor use is estimated to be 40 visitor days annually for all types of recreation. The terrain is steep and most access points are controlled by private landowners.

Borah Peak WSA

The 3,800-acre Borah Peak WSA (recommended suitable) is located 15 miles northwest of Mackay, Idaho, and is contiguous with that portion of the 119,000-acre Borah Peak RARE II area that the USFS has recommended suitable for wilderness designation. The Borah Peak WSA is characterized by moderately steep to steep slopes sparsely covered with sagebrush/grass vegetation. Forested areas occupy approximately 311 acres. Human-caused intrusions are numerous: Elkhorn Creek is dewatered by an irrigation diversion, the western boundary of the WSA is defined by an existing high voltage transmission line, and the WSA contains two miles of pasture division fence and two livestock water troughs. Recreation use is primarily limited to hunting and motorized vehicle use on existing trails. The extremely rough, rocky terrain inhibits other uses.

Jerry Peak WSA and Herd Lake

Wild Horses and Burros.

Law, Regulation, and Policy

Wild horses and burros on BLM public lands are administered under the Wild Free-Roaming Horse and Burro Act of 1971, as amended (16 U.S.C. 1331-1340). Regulations governing this program are found in 43 CFR 4700. The Challis wild horse herd is managed under a Herd Management Area Plan (HMAP) written in 1976 and updated in 1979 and 1989.

Affected Environment

Wild Burros

A small herd of wild burros formerly utilized a portion of the Morgan Creek allotment. Through the *Ellis-Pahsimeroi Management Framework Plan* (1982), a decision was made that the herd was not a viable herd at the time the Wild Free-Roaming Horse and Burro Act (PL 92-195) was passed. The existing burros were removed, and the area is no longer utilized as a Herd Management Area for wild burros.

Wild Horses

The Challis wild horse Herd Management Area (HMA) is shown on *Map 48: Wild Horses*. The HMA is bordered on the north by the Salmon River, on the west by the East Fork Salmon River, on the south by the ridgeline between Herd Creek and Road Creek, and on the east by U.S. Highway 93 and the watershed boundary between the Salmon River drainage and the Lost River drainage. Land status within the wild horse HMA is shown in *Table 3-33*.

Table 3-33: Land Status of Challis Wild Horse Herd Management Area

Land Status	Acres	Percent
BLM	154,150	94
State of Idaho	9,454	5
Private	1,116	1
Total	164,720	100

Within the above acreage, two areas are closed to wild horse and livestock use due to fragile soils. The Malm Gulch/Germer Basin area has been closed to all livestock and wild horse grazing since 1969. This area has been fenced to exclude livestock, and any wild horses found within the area are gathered during scheduled roundups. The Sand Hollow area has been closed to all wild horse and livestock grazing since 1979. Livestock access is controlled by drift fencing, but the area is too large to economically fence all of it. Limited numbers of wild horses use the upper portion of the Sand Hollow area. Any horses found in the area are gathered during regularly scheduled roundups. Private lands within and adjacent to the Herd Management Area are generally used for

purposes that are compatible with wild horse management. There have been very few instances of wild horses straying from the Herd Management Area boundaries.

The revised Herd Management Area Plan (HMAP) for the Challis wild horse herd (1976, revised 1979 and 1989) states that the herd will be managed to maintain 185 animals, with gatherings every other year to reduce the population to that level. This number was chosen as an appropriate management level at which the range could sustain wild horse use over the long term while maintaining an equilibrium with other resource uses. This has resulted in wild horse numbers varying from about 185 to about 253 animals between gatherings, as the herd normally increases at a rate of about 17% per year. Horses are gathered from the Herd Management Area every other year based on the limiting factor for this herd, which is the amount of winter forage available in each specific area. Excess horses are gathered by helicopter and BLM personnel on horseback and taken to corrals in Salmon. There they are freeze-branded, receive veterinary care, and are placed for private adoption under the BLM Adopt-a-Horse program. Gathering is done in accordance with procedures shown in *Attachment 5: Standard Operating Procedures - Wild Horses and Burros,* pp. 111-112.

Wild horse gathering

The diet of horses consists primarily of grasses, with a strong dietary overlap between horses and cattle (Hansen *et al* 1977, Hubbard and Hansen 1976, McInnis and Vavra 1987, Vavra and Sneva 1978). A study done in 1975 for the Salmon District BLM showed that grasses and grasslike plants made up 60 to 91 percent of the diet of wild horses on a seasonal basis, with bluebunch wheatgrass the major component of their diet (see *Appendix K, Item 1: Relative Percent Density of Discerned Contents From Wild Horse Fecal Samples*, pp. 667).

The 1977 Challis range inventory identified thirteen broad vegetation types; all of these types are found within the Herd Management Area. *Table 3-34* shows acres of these major vegetation types and the major vegetation species associated with each type in the Herd Management Area.

Table 3-34: Major Vegetation Types and Associated Vegetation in the Challis Herd Management Area

Vegetation Type	Acres*	Major Associated Vegetation Species
Wet meadow	254	Sedges, Kentucky bluegrass, roses, currants, willows, rushes
Wyoming big sage	60,144	Wyoming big sagebrush, bluebunch wheatgrass, Sandberg bluegrass
Mountain big sage	33,730	Mountain big sagebrush, Idaho fescue, bluebunch wheatgrass
Basin big sage	1,617	Basin big sagebrush, thickspike wheatgrass, western wheatgrass
Low sage	1,142	Low sagebrush, Idaho fescue, bluebunch wheatgrass, Sandberg bluegrass
Black sage	7,074	Black sagebrush, bluebunch wheatgrass
Three-tip sage	13,728	Three-tip sagebrush, Idaho fescue, bluebunch wheatgrass
Mountain mahogany	2,364	Mountain mahogany, bluebunch wheatgrass, Idaho fescue
Douglas-fir	6,300	Douglas-fir, snowberry, pinegrass
Shadscale	11,720	Shadscale, needle-and-thread grass, Indian ricegrass, sand dropseed
Nuttall saltbush	617	Nuttall saltbush, Indian ricegrass, bottle-brush squirreltail
Chicken sage	6,675	Chicken sage, Hood's phlox, Sandberg bluegrass
Riparian zones	92	Cottonwood, aspen, birch, alder, Kentucky bluegrass, slender wheatgrass

*does not include 8,693 acres of rock.

Source: Challis Herd Management Area Plan, Salmon District BLM, 1989 update.

In the 1977 inventory, range condition for the Herd Management Area was rated as follows:

Condition	Acres[1]
Good	15,601
Fair	71,103
Poor	52,453

[1]Does not include 6,300 acres of Douglas-fir type and 8,693 acres of rock. Also does not reflect the results of the 1994 upland inventory performed on the Mountain Springs (San Felipe) Allotment.

Wild horse use of riparian areas has been identified by the BLM as a potential problem. A great deal of work has been done in recent years to identify and correct riparian problems caused by livestock grazing. Ongoing riparian monitoring studies could identify the role of wild horses in riparian degradation, and may result in modifications to wild horse management.

The Challis Herd Management Area is well watered by natural springs and livestock water developments. In the past, there has been no need to construct water developments specifically for wild horse use. Fences have been constructed to aid livestock management. Under specifications of the Challis MFP (1979), fences within the Herd Management Area can be developed, but would be evaluated on a case-by-case basis and, when possible, designed to allow for wild horse movement. Existing fences are generally tied to a natural boundary, allowing places for wild horses to move around the ends of the fences.

Wild horses in the Challis herd do not display any unique characteristics, but instead exhibit characteristics that show the diversity of draft and saddle horses that were their ancestors. The herd is managed for healthy, good conformation horses that are pleasing to the eye, with unique colors a secondary consideration.

The wild horse herd generally appears healthy and viable. As noted above, the herd usually increases at a rate of about 17% per year. At each gathering, horses are examined by a licensed veterinarian, who notes the general health of the captured animals. No significant animal health problems have been noted in past roundups. Potential problems to the herd could result from harassment by off-highway vehicle (OHV) users, deliberate rustling, disease, severe winter weather, and fire. OHV use is currently addressed by an MFP decision to monitor OHV use and restrict organized events on critical winter range. Deliberate wild horse rustling is controlled by a BLM law enforcement ranger. Severe winter weather cannot be controlled, but managing for levels of wild horses that are within the capacity of winter range is within the scope of BLM management. Wildfires within the Herd Management Area are rare and do not generally cover enough area to be a problem for wild horses.

The Challis MFP contained a decision to provide a public viewing area for wild horse observations. Due to budget constraints, this area was never developed. The public demand for this type of viewing area is believed to be low, but probably still exists. As tourism in the Challis area continues to increase, this type of public viewing area may become popular.

Wildlife.

Law, Regulation, and Policy

The following laws, executive orders, and policies provide guidance for the management of wildlife species and habitats. An expanded description of many of these authorities is provided in *Appendix E, Item 1*, pp. 638-643.

1) Endangered Species Act of 1973, as amended (16 USC 1531 *et seq.*).
2) Federal Land Policy and Management Act (FLPMA) (43 USC 1701).
3) Public Rangelands Improvements Act of 1978 (43 USC 1901 *et seq.*).
4) Sikes Act of 1960 (16 USC 670), as amended.
5) Wild and Free-Roaming Horse and Burro Act of 1971 (16 USC 1331).
6) Executive Order 12342 of January 1982 - Permits effective predator control with environmental safeguards.
7) Executive Order 11990, May 1977 - "Protection of Wetlands."
8) Executive Order 11989, May 1977 - "Off-Road Vehicle Use."
9) The *BLM Fish and Wildlife Resource Management Policy*, signed by Director Burford in 1983 (1) recognizes State management of resident species and that a State-Federal partnership is essential for species-habitat management programs; (2) encourages interdisciplinary teamwork in development of resource management options that meet fish and wildlife objectives; and (3) initiates active cooperation with state, local, and other Federal agencies in all facets of the wildlife program.
10) The "Interagency Memorandum of Understanding Concerning Animal Damage Control and NEPA Compliance" (BLM/APHIS; August 5, 1994) assigns responsibility for carrying out animal damage management, including compliance with NEPA and issuance of Records of Decision to APHIS.

Additional guidance is provided by the BLM Manual, Sections 6800-6840, and other miscellaneous supplemental guidance.

Under the authority of treaties such as the Treaty with the Eastern Shoshoni and Bannock, 1868, the BLM has responsibility to manage trust resources, including wildlife, for Federally recognized tribes which have treaty rights on public lands managed by the Bureau.

BLM policy includes a commitment to conserve listed and proposed threatened or endangered species and the habitats on which they depend, and a commitment to manage other special status species so that BLM actions do not contribute to a need to list these species. The Master MOU between the IDFG and BLM states that the BLM and IDFG agree to manage and/or conserve habitats and populations of the sensitive species listed in the MOU, to minimize the need for listing these animals as threatened or endangered.

Affected Environment

This wildlife section is divided into four subsections - big game, upland game and waterfowl, non-game wildlife, and special status wildlife species.

Big Game

The Challis Resource Area contains big game populations of elk, mule deer, pronghorn antelope, and bighorn sheep. Estimated big game numbers and season of use are listed in *Table 3-35.* Trophy game animals include black bear and mountain lion; these species are discussed under the subsection "Non-game Wildlife - Predators and Furbearers."

Table 3-35: Estimated Big Game Numbers and Season of Use for the Challis Resource Area

Species	*Number*[1]	*Season of Use*
Elk	3,150 to 6,100 350 to 1,550	12/1 to 4/30 5/1 to 11/30
Mule Deer	5,100 to 20,700 2,200 to 12,200	12/1 to 4/30 5/1 to 11/30
Antelope	2,300 to 6,600 2,100 to 6,000	11/1 to 5/1 4/30 to 10/31
Bighorn Sheep	240 to 565 60 to 240	11/1 to 4/30 5/1 to 10/31

[1]Estimates are for BLM lands only, and were developed by the Idaho Department of Fish and Game (1992). Population numbers fluctuate annually, depending on hunter harvest, weather, and habitat condition on BLM, private, State, and National Forest lands. Occasional moose and mountain goats are observed on BLM lands, but numbers are not high enough to warrant listing.

Elk

Elk populations have been increasing in the RA during the last 10 to 15 years, and areas of use have expanded. Elk may now be seen almost anywhere in the RA where suitable habitat is present. IDFG management is directed at stabilizing elk populations and maintaining existing numbers through hunter harvest (IDFG 1991a).

Important elk habitats are illustrated on *Map 21: Elk Winter Range and Donkey Hills Calving Area.* Crucial winter/yearlong ranges for elk include the area around Willow Creek Summit, the Donkey Hills, the Pahsimeroi Mountains south of Ellis, Idaho, the Lone Pine/Germer Peak area, and the Ellis Creek/Morgan Creek watersheds. Major calving areas are present in the Donkey Hills and along the migration corridor between Willow Creek Summit and the White Cloud Mountains. Calving occurs on winter and early spring ranges if deep snow delays migration to

summer range.

Preferred areas of use in the Challis Resource Area are usually away from well-traveled roads (security areas) and characterized by vegetation mosaics of timbered or brushy hiding cover and open sagebrush-grassland foraging sites. Important hiding cover is provided by timber stands, patches of mountain mahogany, aspen-willow riparian zones, and rugged terrain. Close proximity to water is an important factor during spring, summer, and fall. Yearlong or spring-summer-fall elk ranges are present throughout the RA at higher elevations wherever forested habitat sites and topography provide good security from roads and other human activity. Most spring-summer-fall elk range is on adjacent National Forest lands.

The condition of spring-summer-fall ranges can be just as important to elk populations as more limited winter ranges. On spring ranges, the availability of nutritious forage during final months of gestation prior to the June calving season can affect birthing and calf survival. On summer-fall ranges, the availability of quality forage is an important factor in the build-up of body fat reserves for animals to survive the winter.

Only limited inventories and monitoring studies of habitat conditions have been conducted on elk ranges in the RA. In the 1970s, browse form class inventories and pellet group transects were conducted on big game ranges in scattered areas. Forest and grassland cover types were mapped in the Donkey Hills, and elk and mule deer pellet group transects were used to determine areas of heavy use. Nested frequency trend studies have been established in areas of livestock use to monitor vegetative trend. Utilization studies of elk use on bluebunch wheatgrass were conducted on the Willow Creek Summit elk winter range. Kratville (1989) provided data on elk habitat selection and distribution, but quantitative inventories, analyses and monitoring studies specific to elk habitat conditions have generally not been conducted due to limited funding and other priorities. General observations suggest that existing habitat conditions are sufficient to maintain current populations.

Elk diets in the RA are similar to cattle diets, although elk make somewhat less use of grass. During winter, grasses make up slightly over half the diet, and forbs and browse comprise the remainder. Studies by Kvale (1981), Wittinger (1978), and Hansen (1975) indicate that winter-spring grass use amounts to 51 percent. Winter and spring forb use amounts to 34 percent and 43 percent, respectively. Winter and spring use on browse amounts to 16 percent and 5 percent, respectively. Use of grasses and forbs increases greatly during summer.

Mule Deer

Mule deer populations in the RA are currently considered stable, and current management direction is to maintain existing numbers (IDFG 1991b). Mule deer can be found in variable numbers throughout the RA. Mule deer winter ranges are illustrated on *Map 32: Mule Deer Winter Range*. Yearlong or spring-summer-fall mule deer ranges are present throughout the RA wherever forested and brushy habitat sites or topography provide security cover, and where water and food sources are readily available. As with elk, the condition of spring-summer-fall ranges can be as important to population survival and stability as the condition and availability of more

limited winter ranges.

Limited inventories and monitoring studies of mule deer habitats have been conducted in conjunction with the elk habitat studies described above. Quantitative inventories, analyses, and monitoring studies specific to mule deer habitat conditions have not been conducted due to limited funding and other priorities. General observations suggest that habitat conditions are sufficient to maintain current mule deer populations.

Preferred areas of use are characterized by vegetation mosaics of timbered or brushy hiding cover mixed with sagebrush-grass and mountain mahogany foraging sites. Important cover types include timber stands, willow, aspen, and tall sage. Close proximity to water is an important factor during spring, summer, and fall. Extensive blocks of sagebrush-grass vegetation provide only marginal habitat due to lack of good hiding cover.

Specific fawning and fawn rearing areas have not been delineated in the RA. Fawning habitat has been characterized by Leckenby, *et. al.* (1982) and Hall (1985) as the presence of herbaceous succulent forage, close proximity to water, 40% canopy cover of shrubs more than 28 inches tall, and within 160 feet of tree cover. Riparian zones and aspen stands are important components of good fawning and fawn rearing cover (Leckenby *et. al.* 1982 and Hall 1985).

Food habit studies conducted in the RA (Kvale 1981, Wittinger 1978, Hansen 1975, Yeo 1981) indicate that local mule deer diets are not significantly different from other areas in the West in terms of browse, forb, and grass composition. However, poor shrub species diversity in much of the RA forces deer to depend heavily on big sage. Mountain big sage, Wyoming big sage and three-tip sage comprise up to 80% of winter mule deer diets in the RA. Mountain mahogany and green rabbitbrush are heavily used where they occur.

Pronghorn Antelope

Antelope population levels in the RA were described as optimum by the IDFG in 1991 (IDFG 1991c). Numbers have declined since that time due to a number of reasons, including special depredation hunts permitted by the IDFG to reduce crop damage claims. Current IDFG management direction is to increase numbers slightly above existing levels.

Pronghorn antelope make extensive use of sagebrush-grassland habitat types at all elevations. Annual variations in snow distribution and depth influence antelope distribution on crucial winter ranges. Proximity to water affects antelope distribution on spring/summer/fall ranges. Areas distant from water are used only during winter. Antelope winter ranges in the RA are illustrated on *Map 3: Antelope Winter Range*.

As with other big game species, the condition of summer/fall ranges can be an important factor in the winter survival and stability of antelope populations. Limited inventories and monitoring studies of antelope habitats have been conducted in conjunction with upland trend studies on areas grazed by livestock. Quantitative inventories, analyses, and monitoring studies specific to antelope habitat conditions have not been conducted by the BLM due to limited funding and other

priorities. The IDFG has conducted a number of site-specific antelope habitat, behavior and population distribution studies in the RA (Bernt 1976; Bodie 1979; Autenrieth 1986; Fichter and Nielson 1959; Fichter 1957a; Fichter and Nielson 1962; Fichter and Nielson 1957b). Some of these studies identify antelope habitat components in the RA that were considered less than satisfactory. None of these studies have been repeated to determine if these habitat components have changed.

Fawning is usually widely scattered across broad areas; however, a few specific fawning areas have been identified. Fawning areas and breeding territories are clustered near water sources. Habitat diversity (cover and height of sagebrush, presence of forbs and grasses) is an important factor in fawning success (Barrett, *et. al.* 1981). Loss of shrubs or herbaceous cover reduces habitat carrying capacity and fawning success (IDFG 1991c). Forbs and grasses are a crucial source of forage during spring, and provide necessary cover to conceal fawns from predators.

Antelope diets consist of nearly 70% sagebrush on a yearlong basis. Forbs make up 40% of the diet in summer or fall and up to 25% in spring. Grass makes up only 5% of summer and fall diets. In early spring, however, perennial grasses are one of the first forage plants to become green, and grass constitutes up to 25% of the diet at that time (Wildlife Section, Challis Unit Resource Analysis; BLM 1978). Chicken sage (*Tanacetum nuttalii*) makes up 90% of antelope winter diets on some winter ranges in the RA (Bernt 1976).

Bighorn Sheep

Historically, bighorn sheep were abundant throughout most of the RA. Settlement resulted in severe population declines and complete loss of some populations due to the introduction of scabies and other diseases. Most lambing occurs on traditional areas on adjacent National Forest lands, but some lambing is known to occur on winter ranges in Morgan Creek, Birch Creek/Bayhorse Creek, and the Cronk's Canyon areas. Important bighorn sheep winter ranges are illustrated on *Map 17.*

Most summer-fall bighorn sheep use occurs on adjacent National Forest lands. However, a small number of bighorn sheep remain yearlong on BLM lands in the Morgan Creek and Cronk's Canyon areas.

Limited inventories and monitoring studies of bighorn sheep habitat conditions have been conducted in conjunction with upland trend studies on areas grazed by livestock. Most have not been re-read to determine if there have been any significant changes in habitat conditions. The IDFG and other investigators have conducted a number of site-specific bighorn sheep studies in the RA (Lauer and Peek, 1976; Ballard 1991; Peek et.al. 1979; Morgan 1970). Earlier studies indicated that forage competition between cattle, mule deer and bighorn sheep was a problem on some areas of bighorn sheep winter range. Cattle grazing has since been reduced on portions of each bighorn sheep winter range, mule deer numbers have declined, and prescribed burning was conducted in two areas to improve forage conditions. On the Morgan Creek bighorn sheep range, Daubenmire vegetative trend study data suggest that habitat conditions have improved since the early 1970s (Scott, pers. comm.) Nevertheless, recent investigations indicate that disease, drought

and poor forage conditions are significant limiting factors for RA sheep populations (Ballard 1991). Quantitative inventories, analyses, and monitoring studies specific to bighorn sheep habitat conditions have not been conducted due to limited funding and other priorities.

The largest populations of bighorn sheep in the area use BLM lands in the Morgan Creek watershed (a tributary of the main Salmon River north of Challis) and lands along the East Fork Salmon River. These two herds have varied from 150 to 300 animals, depending on the effects of weather, predation, and removal of animals by the IDFG for transplanting programs. The Birch Creek population, located immediately south of Challis, Idaho, consists of only 40 to 50 animals. An estimated 20 to 30 sheep are commonly present in the Cronk's Canyon ACEC, established in 1987 to maintain habitat for this small population.

During recent years, the East Fork Salmon River and Morgan Creek bighorn sheep populations have provided transplant stock for establishing new populations locally and regionally. Several future transplant sites in the Resource Area have been identified by the IDFG where new populations would use BLM lands. These include Jerry Peak, Germer Peak, and the areas of Herd Creek and the East Fork Salmon River adjacent to Sheep Mountain on the Challis National Forest (IDFG 1990a).

Bighorn sheep require areas adjacent to extremely steep, rough, or precipitous terrain which provide escape and security cover. Shrubby mountain mahogany and open sagebrush-grass sites interspersed with steep escape cover are typical of foraging and loafing areas. Stands of dense timber and brush are usually avoided, except when sheep are forced to move through such areas during migration from summer to winter ranges. As with other big game species, the proximity of water, forage availability, and forage quality are important factors during spring, summer, and fall.

Bighorn sheep seek out succulent forage when feeding. Prescribed burning has been used to enhance forage quality and availability on some bighorn sheep ranges in the RA. Diet studies indicate that bighorn sheep diets in the RA consist of more than 80% grasses (Lauer and Peek, 1976; Ballard 1991); the remainder consists of forbs and shrubs.

Factors affecting the stability and productivity of bighorn sheep populations are complex. Bighorn sheep are highly susceptible to a number of diseases. Increased levels of stress due to disturbance, limited forage availability, or poor habitat condition can lower disease resistance and reduce reproductive success. Bighorn sheep diets and cattle diets are essentially the same. Competition for available forage can occur on bighorn sheep winter ranges that are grazed by cattle. Competition between domestic livestock, other big game species, and bighorn sheep includes avoidance behavior. Although bighorn sheep may be seen using habitat near other animals one day, the proximity of other animals can stress the sheep enough to push them out of the area.

Upland Game and Waterfowl

Sage grouse, blue grouse, Hungarian partridge, and chukar partridge are the primary upland game birds in the RA. Ruffed grouse may be present in small numbers in some low elevation riparian areas. Mourning doves nest in low densities in most habitat types. Ring-necked pheasants and wild turkeys are found in the Round Valley area (primarily private lands). Cottontail and pygmy rabbits are present in variable numbers.

Sage grouse, blue grouse, and chukar partridge receive significant hunter attention during fall seasons when populations are high. When bird populations are low, fewer hunter days are spent afield. Waterfowl hunting demand is relatively light due to limited availability of waterfowl hunting areas on public lands. However, land acquisitions by the BLM and IDFG in the Chilly Slough area have provided public access to new waterfowl hunting areas.

Sage Grouse

Sage grouse populations in the RA appear to be well below historic levels. Populations are also down throughout southern Idaho. Drought, habitat loss, predation, habitat condition, and hunting are all factors that may be contributing to this decline.

Sage grouse utilize traditional winter and summer ranges similar to big game animals (see *Map 36: Sage Grouse Winter Ranges and Strutting Grounds*). The birds are almost exclusively dependent on sagebrush and herbaceous vegetation for cover. Sagebrush makes up more than 90% of their diet during winter. Hens are highly selective for nest sites in areas of specific height and canopy cover of big sage (Hall 1985). Most nesting occurs near strutting grounds (Autenrieth 1981; Wallestad and Pyrah 1974) that are used traditionally each year (IDFG 1990b). Due to the presence of water, insects, and succulent forage, riparian areas are important brood-rearing habitats and migration corridors (Autenrieth 1981, Call and Maser 1985).

Sage grouse habitat conditions vary greatly throughout the RA. Herbaceous cover is an important factor in sage grouse nesting and brood rearing success (Call and Maser 1985). Residual herbaceous cover remaining after livestock use may be less than adequate on some areas of sage grouse habitat in the RA. Hall (1985) asserts that grazing to a 1 to 2-inch stubble height during nesting or brood rearing periods can be detrimental to sage grouse and is equivalent to bare ground in terms of habitat value. The diversity and availability of forbs, grasses, sagebrush canopy cover, and sagebrush height are primary indicators of sage grouse habitat quality (Call and Maser 1985). Sage grouse habitat is less than satisfactory on some sites in the Resource Area due to poor diversity and height of forbs and grasses. Analyses and monitoring studies of sage grouse habitat conditions have only recently been implemented in the RA.

Blue Grouse

Blue grouse habitat is closely associated with Douglas-fir forested areas and aspen/willow riparian habitat types (see *Map D: Forest Lands*). Blue grouse winter in high elevation timber, often on adjacent National Forests, where they feed on needles and buds of Douglas-fir. In spring they

migrate to lower elevation breeding grounds that are traditionally used every year (USFWS 1984). Specific breeding grounds within the Challis RA have not been identified. Following breeding, females seek brushy nesting cover under tall sagebrush or other brushy areas with herbaceous cover (IDFG 1990b). As with sage grouse, riparian areas are important blue grouse brood rearing habitats due to the presence of insects, succulent forbs, and berry-producing shrubs. Herbaceous cover is an important component of brood-rearing habitat, and its presence or absence will affect areas of use and brood survival (Harju 1974, Zwickel 1972). The quality of blue grouse breeding and nesting habitat is largely unknown in the RA.

Chukar Partridge

Chukar partridge, an introduced exotic species, are present throughout the lower elevations of the RA, usually associated with rock outcrops or small cliffs and talus rock adjacent to water sources. Riparian habitats adjacent to rocky escape cover are important brood rearing areas due to the presence of insects, water, and succulent plant foods. Studies and analyses of chukar partridge habitats have not been conducted in the RA. The condition of riparian habitats may contribute to brood-rearing success for this species.

Waterfowl and Shorebirds

The most common waterfowl species in the Resource Area are the Canada goose, mallard, and common goldeneye. Shorebirds include spotted sandpipers, willets, sandhill cranes, long-billed curlews and many others. Several local areas provide important habitat for waterfowl and shorebirds: the main Salmon River, Summit Reservoir, Mackay Reservoir, Jimmy Smith Lake, Herd Lake, and Chilly Slough. Each area contains wetland or open aquatic habitat that is on or adjacent to public lands. The most extensive waterfowl habitat area is Chilly Slough. IDFG (1990c) management plans call for protecting and improving waterfowl habitat through land and easement acquisitions. In 1987, the Thousand Springs/Chilly Slough Area of Critical Environmental Concern (ACEC) was designated to highlight and manage wetland values on seven tracts of public land (totaling 824 acres) in Chilly Slough. An interagency effort to acquire additional lands and easements in the area has resulted in acquisition of 920 acres through Chilly Slough interagency partnership.

Non-game Wildlife

Approximately 307 species of vertebrate non-game, furbearing, and predatory wildlife species inhabit the RA. Data regarding the abundance and distribution of non-game species, furbearers, and predators is limited. Significant differences in habitat requirements exist between species, and good condition habitat for one species is often poor condition habitat for another. To maintain diverse, viable, and abundant populations of these species, a mosaic of biologically and structurally diverse habitat types is necessary.

In general, structural diversity of vegetation relates directly to wildlife diversity; the greater the structural diversity, the greater the wildlife diversity (Dealy *et. al.* 1981). The "Biodiversity" section of ***Chapter 3*** also includes a discussion of structural diversity and its importance to the

diversity of plant and animal communities. Riparian zones, aspen stands, mountain mahogany, and conifer forest habitats in the RA are highest in structural diversity. Riparian zones are the most important habitats for wildlife (Thomas *et. al.* 1979), due to the presence of water and highly variable structural diversity. Aspen stands provide nest sites for cavity nesting birds, and thermal and hiding cover for many other species (Dealy *et. al.* 1981). Snag trees in aspen and conifer stands are essential to cavity nesting non-game birds. Large, old mature live trees are a habitat component necessary to support many species of birds, bats, and other vertebrate and invertebrate species. The structural diversity of many riparian habitats in the Resource Area has declined due to losses of shrubs, trees, and herbaceous species important to proper riparian function. Important aspen riparian habitat sites are declining in the RA, based on the numbers of decadent and dead aspen stands and the evident lack of aspen regeneration.

Raptors

Important raptor nesting habitat includes cliff sites used by golden eagles, prairie falcons, and red-tail hawks; forested habitat sites (including aspen and cottonwood-riparian sites) are used by goshawks, Cooper's hawks, sharp-shinned hawks, owls, and osprey. Important raptor hunting areas are usually adjacent to nest sites. In 1978, raptor cliff nest sites were thoroughly inventoried in the RA. Very little follow-up monitoring of nesting activity has occurred due to budget constraints. Very few inventories of owls or accipiter hawks have been conducted in the RA. Suitable osprey nesting habitat exists on private and public lands along the main Salmon River.

Predators and Furbearers

Important predators in the RA include the black bear, mountain lion, coyote, red fox, and bobcat. The black bear and mountain lion are classed as trophy game animals in Idaho. Black bears are normally found in forested and riparian habitat types, while mountain lions are usually associated with remote, rough topography. Coyotes are common in the RA. Tracks and other sign are easily located, and howling coyotes can be heard regularly. Coyotes cause occasional livestock losses and also prey on elk calves and deer and antelope fawns. Beaver can be found in various numbers in almost every watershed with perennial water in the RA.

Special Status Wildlife Species

Table 3-36 summarizes the special status bird, mammal, amphibian, and reptile species (see *Glossary*: special status species) which are currently known to occur or may possibly occur in the Challis Resource Area. (Special status fish species are described in ***Chapter 3*** - Fisheries, pp. 222-227.) The discussion below provides additional information about some of the endangered, threatened, proposed, and sensitive species listed in *Table 3-36*.

Endangered Species

In 1995 and 1996, a total of 35 endangered gray wolves were released in National Forest Wilderness Areas adjacent to the Challis RA. The wolves are categorized under the ESA as an "experimental-nonessential" population, as outlined in the final rules published in the *Federal*

Register, Vol. 59, No. 224, November 22, 1994. Wolves are a wide-ranging species, and occasional wolves from this population are known to cross BLM lands in the Challis RA during their wanderings.

Endangered peregrine falcons historically nested on cliff sites in the area. Peregrine falcons were reintroduced in 1988 when 8 birds were released on a BLM site in Chilly Slough north of Mackay, Idaho. Additional releases have taken place on adjacent National Forest lands. These releases are likely to result in future establishment of nesting pairs on BLM lands.

Threatened Species

More than 60 bald eagles have been counted wintering along the Salmon and Pahsimeroi rivers in the RA. Cottonwood riparian vegetation along the Salmon River provides bald eagle winter roost and hunting sites. No bald eagle nesting occurs in the RA, but potential exists for nesting to occur.

Bald Eagle

Other Special Status Terrestrial Species

Species Proposed for Listing as Threatened or Endangered: The RA is located within the range of the Canada lynx, a species proposed for listing as threatened. Lynx are known to occur on the adjacent Salmon-Challis National Forest. Forested areas in the Challis RA may provide marginal habitat for lynx which occupy much more extensive home ranges on the adjacent National Forest.

State Sensitive Species: Little is known about the presence or absence, distribution, and abundance of most "sensitive" species in the area. Extremely rare sightings of wolverines have been reported in the RA. Goshawks are occasionally seen in forested areas and are likely nesting on RA lands. Trumpeter swans have been documented in Chilly Slough. Long-billed curlews are a relatively common nesting species in the RA. Boreal owls, flammulated owls, pygmy nuthatches and other sensitive species are likely present in higher elevation timbered habitats in the RA. Western toads have been documented in aspen-riparian habitat sites.

Table 3-36: Special Status Wildlife Species of the Challis Resource Area

Class	Type	Species	Occurrence
Endangered	Mammal	Gray wolf	present
	Bird	Peregrine falcon	present
Threatened	Bird	Bald eagle	present
Proposed	Mammal	Canada lynx	present
Sensitive	Mammal	Long-eared myotis	unknown
		Long-legged myotis	unknown
		Fringed myotis	unknown
		Pygmy rabbit	present
		Small-footed myotis	present
		Spotted bat	unknown
		Townsend's big-eared bat	present
		Wolverine	present
		Yuma myotis	present
		Dark kangaroo mouse	unknown
		Kit fox	unknown
	Bird	Trumpeter swan	present
		Ferruginous hawk	present
		Northern goshawk	present
		Harlequin duck	unknown
		Northern harrier	present
		Prairie falcon	present
		Flammulated owl	unknown
		Great gray owl	unknown
		Boreal owl	unknown
		White-headed woodpecker	unknown
		Black-backed woodpecker	unknown
		Three-toed woodpecker	present
		Lewis' woodpecker	present
		Red-naped sapsucker	present
		Sage grouse	present

Class	Type	Species	Occurrence
Sensitive *(continued)*	Bird *(continued)*	Long-billed curlew	present
		Pygmy nuthatch	unknown
		Loggerhead shrike	present
		Dusky flycatcher	present
		Cordilleran flycatcher	present
		Hammond's flycatcher	present
		Willow flycatcher	present
		Townsend's warbler	unknown
		Yellow warbler	present
		MacGillivray's warbler	present
		Wilson's warbler	present
		Solitary vireo	unknown
		Bobolink	present
		Swainson's thrush	present
		Veery	present
		Calliope hummingbird	present
		Rufous hummingbird	present
		Yellow-headed blackbird	present
		Grasshopper sparrow	unknown
		Brewer's sparrow	present
		Sage sparrow	present
		Green-tailed towhee	present
		Williamson's sapsucker	present
		Western burrowing owl	present
		Olive-side flycatcher	present
	Amphibian	Spotted frog	present
		Western toad	present

Source: Sensitive Species Supplement to the Master Memorandum of Understanding Between the Idaho Department of Fish and Game and the Bureau of Land Management. 11/6/97.

Wild and Scenic Rivers.

Law, Regulation, and Policy

The Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271-87 *et seq.*) is the basic authority for the BLM's Wild and Scenic Rivers program. Other laws which affect Wild and Scenic Rivers management include the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*), the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), and the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601 *et seq.*).

Affected Environment

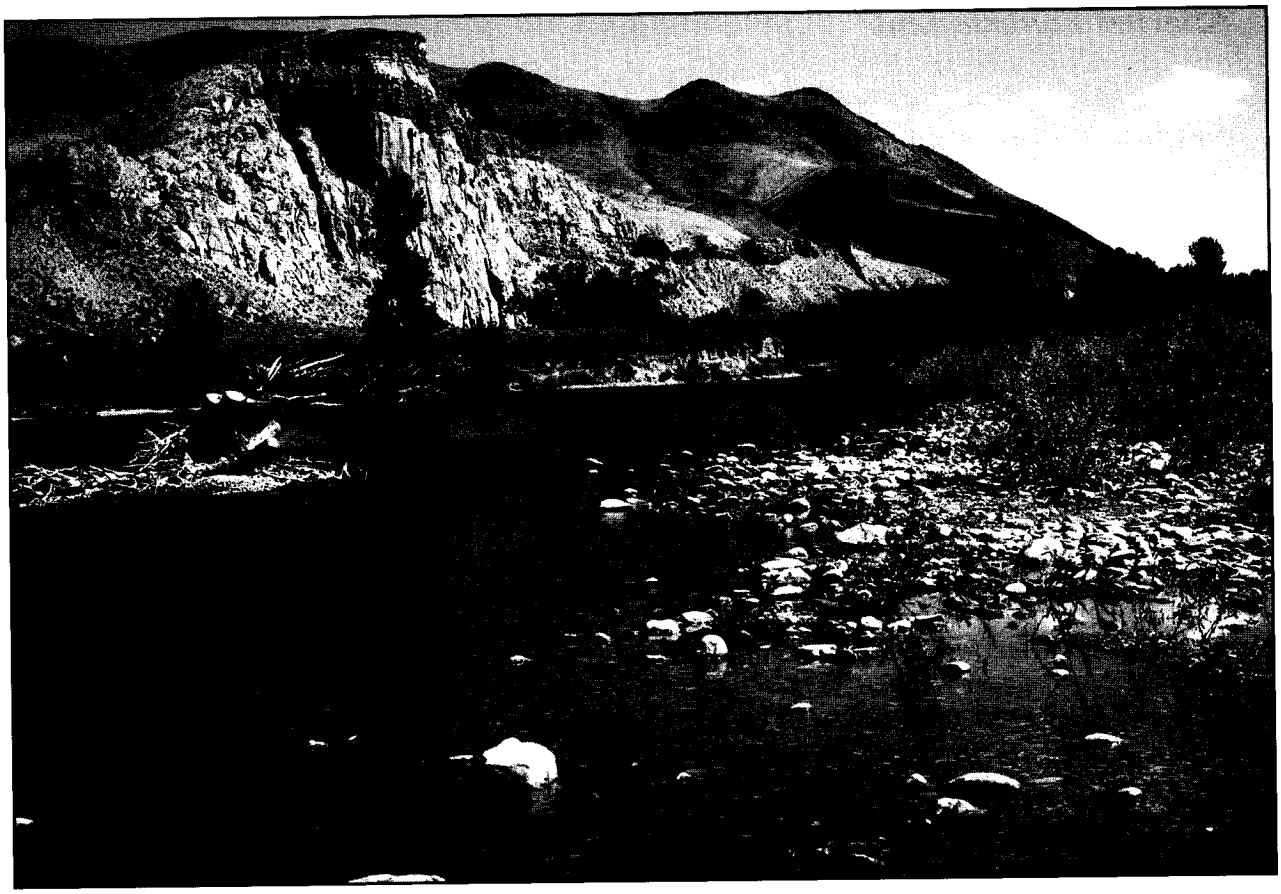
To date, no wild, scenic, or recreational rivers have been designated within the Challis Resource Area (see *Glossary*: Wild and Scenic River, p. 187). Within the immediate region, the U.S. Forest Service manages the designated "wild" Middle Fork of the Salmon Wild and Scenic River and the designated "wild" and "recreational" Main Salmon Wild and Scenic River.

The Challis Resource Area has completed a Wild and Scenic River eligibility evaluation of 201 river segments, to determine their eligibility for potential inclusion in the National Wild and Scenic River System. The Resource Area provided an initial eligibility report (the "National Wild and Scenic Rivers Eligibility Report") to the public in July, 1992. Based on written comments and input received at public meetings, several changes were made to that report; a revised report on eligibility was provided to the public on March 22, 1993, with an addendum in June, 1993 (which incorporated additional public comments). The March, 1993 report contains full descriptions of each river segment included in the eligibility evaluation, and the criteria used in the eligibility phase of the Wild and Scenic Rivers study (also see *Glossary*: Wild and Scenic Rivers Study, p. 187; and PRMP, *Attachment 18*: *Wild and Scenic Rivers Study,* pp. 152-153).

Since the June, 1993 addendum was published, the following changes have been made to the eligibility status of some rivers. (1) New information on fisheries and wildlife resources indicates five river segments found "not eligible" in the Eligibility Report are, in fact, eligible, based on their fisheries or wildlife OR values: North Fork Birch Creek (MS-52), McKim Creek (MS-02), Spud Creek (MS-28), Donkey Creek (P-23), and Goldburg Creek (P-24). (2) One river segment, East Fork Salmon River "B" (EF-01b) which was erroneously deferred to a later determination of eligibility, has been found eligible for further study. (3) Fishery OR values believed to be present on the North Fork Big Lost River (BL-16) have not been confirmed upon further review. Therefore, river segment BL-16 is no longer eligible for further study.

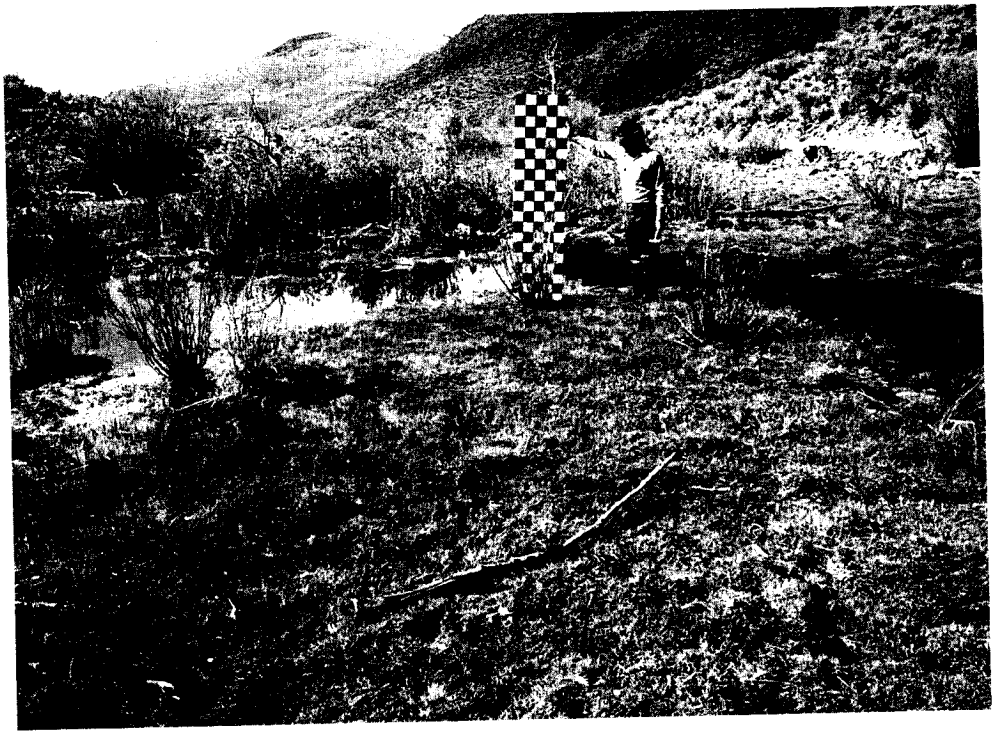
Those rivers found eligible for further study have been included in a Wild and Scenic Rivers suitability study (see DRMP, Management Concern: Wild and Scenic Rivers, pp. 392a-399b; and PRMP, Wild and Scenic Rivers, pp. 98-100). Until a Record of Decision is signed for the Challis Resource Management Plan, all rivers found eligible are being managed for protection of OR values and maintenance of the free-flowing character of the rivers. Upon signing of the Record of Decision, rivers which were found "unsuitable" in the Resource Management Plan will be

released from Wild and Scenic River management. Only the rivers which were found "suitable" in the study, and those which are eligible but are deferred for later coordinated suitability study with either the State of Idaho, the Upper Snake River District of BLM, or the U.S. Forest Service, will continue to be managed consistent with the requirements of the Wild and Scenic Rivers Act, pending formal designation or release by Congress.

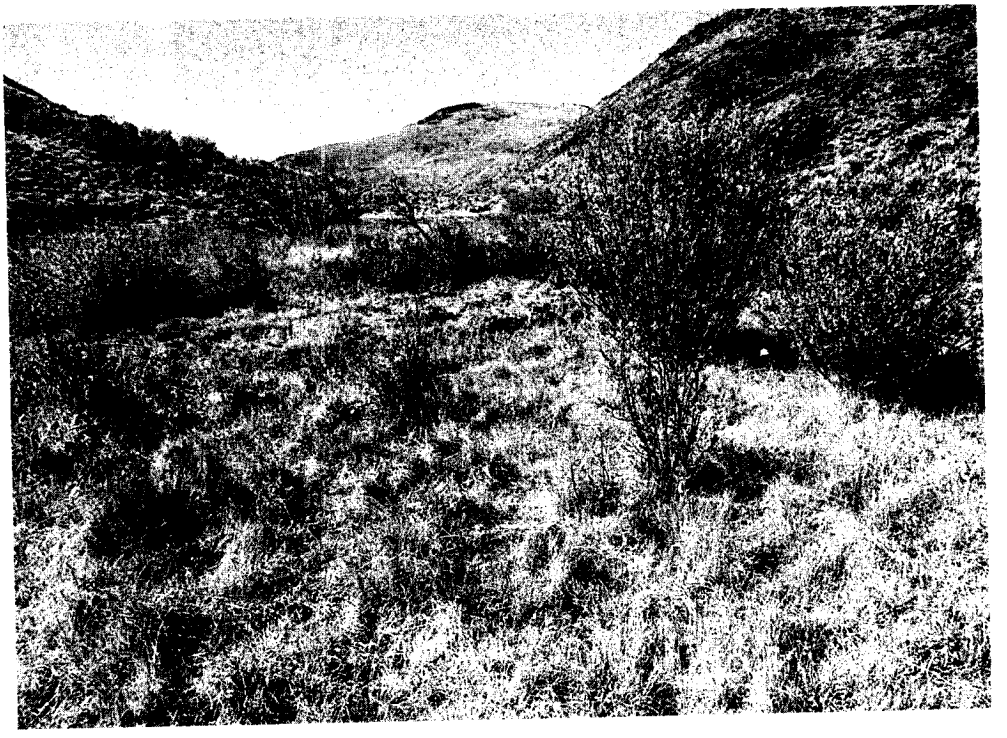


Main Salmon River

Chapter 4
Environmental Consequences



1987: *Active beaver dam; unsupervised livestock grazing*



1996: *Silted-in beaver dam; supervised livestock grazing (note willow recovery)*

Vegetation/riparian resource recovery achieved through land management.

Introduction.

Chapter 4 describes the BLM's analysis of the beneficial and adverse physical, biological, economic, and social environmental consequences ("effects" or "impacts") of implementing the Proposed RMP decisions which were developed to address identified issues and management concerns (see **Volume 1**; ***Chapter*** 2 - "Proposed RMP Development," pp. 23-24). These effects (see *Glossary,* p. 171) may be direct, indirect, or cumulative, and occur in the short term (within 1 to 5 years of RMP implementation) or long term (within 6 to 20 years of RMP implementation). Except for the economy/society analysis, which considers effects within two geographical regions (the Fort Hall Indian Reservation and Custer/Lemhi counties), each analysis of direct and indirect environmental consequences considers the effects of RMP actions or other actions (private, State, other Federal agency) on resources within the Challis Resource Area boundary. The discussions of cumulative impacts consider the effects of RMP actions and non-RMP actions which may occur within, adjacent to, or, in some cases, well beyond RA boundaries (*e.g.*, air quality).

The impacts of all decisions described in the Proposed RMP were analyzed. However, only those decisions which were believed to have reasonably foreseeable impacts have a written statement under a numbered "analysis point." If no reasonably foreseeable impacts were predicted for an entire section of Proposed RMP decisions, then the introduction to the resource or land use analysis states there are no reasonably foreseeable impacts from those decisions.

(**Note:** ***Chapter 2*** contains a summary of the beneficial and adverse effects (including any irreversible or irretrievable commitments of resources) of implementing the Proposed RMP management decisions.)

Assumptions

An interdisciplinary approach was used when analyzing the environmental consequences of implementing the PRMP. The following general assumptions were made during the analysis and discussion of environmental consequences:

1) The RMP would remain in effect for approximately 20 years.

2) Funding and personnel would be sufficient to implement the PRMP as described.

3) Implemented management decisions would comply with all valid existing rights, Federal regulations, BLM policies, etc.

4) Effects are discussed in detail if they are expected to be reasonably foreseeable (whether beneficial or adverse). In some cases, non-significant effects are presented to better illustrate the scope and effect of management decisions or to differentiate between significant and non-significant impacts.

5) Short term impacts would generally occur within a 5 year period following implementation. Long term impacts would generally occur during a 6 to 20 year period following implementation.

6) The cumulative effects analysis considers the effects of actions occurring on Challis Resource Area

public lands and contiguous lands (USDA Forest Service, State of Idaho, private); the cumulative effects analysis considers past actions (which have already been completed), present actions (which are ongoing), and reasonably foreseeable future actions which are expected to be initiated within the 15 to 20 year life of the RMP.

7) Any identified net unavoidable adverse impacts would be monitored and continually evaluated during the life of the RMP. When necessary based on plan monitoring, adjustments in management actions would be made to minimize adverse effects.

Chapter Format

Chapter 4 discusses the direct/indirect and cumulative effects of the Proposed RMP decisions on the resources and land uses of the Challis Resource Area in alphabetical order. The analysis for each resource or land use generally adheres to the following format. First, the analysis states which, if any, sections of Proposed RMP decisions are expected to have no reasonably foreseeable effect. Then, the analysis of predicted environmental consequences is presented, using consecutively numbered analysis points. A summary of effects is given, followed by a detailed discussion of direct and indirect effects; finally, each resource or land use analysis concludes with a statement of cumulative effects. Where applicable, the analysis indicates the "source of effects" in the left column; namely, a Proposed RMP section subheading indicates the group of management decisions from the Proposed RMP which produced the indicated effect.

Resource Analyses.

Air Quality

Summary of Effects/Cumulative Effects: No significant adverse or beneficial impacts to air quality would be expected. Air quality in the Challis Resource Area would remain within the limits set by national ambient air quality standards and standards for the prevention of significant deterioration in Class II areas. No significant adverse or beneficial cumulative impacts to air quality within the Challis Resource Area would be expected from actions on adjacent Federal, State, and private lands within Custer or Lemhi counties. The following minor direct/indirect impacts may occur.

Direct/Indirect Effects:

1. Concentrations of suspended particulate matter from dust may be locally higher than regional concentrations around roads, cattle trailways, and project sites, but would be typically temporary and quickly dispersed. Management actions which help achieve upland watershed vegetative cover objectives would tend to maintain or reduce the potential for windblown dust.

2. Changes in methane production from adjustments in livestock numbers on BLM lands would be imperceptible. If livestock numbers are reduced due to actions in the PRMP, some increases in livestock numbers may occur on private lands. The net change in methane production would be negligible. Therefore, regionally no significant change in methane levels would be expected.

3. Noxious weeds would be sprayed in conformance with the *Northwest Area Noxious Weed Control Program FEIS and Supplement* (1985, 1987). During spraying, locally higher concentrations of pesticide vapors may be expected, but these would typically be temporary and quickly dispersed. A recreation site may be temporarily closed if spraying occurs near the recreation site; however, the PRMP decision stated under Noxious Weed Infestations, Goal 3, #6 would reduce the likelihood of chemical use in recreation sites.

4. Prescribed burning for vegetation treatment, understory removal, and slash burning would be limited to established annual acreage or tonnage limits which are designed to preserve air quality within Class II standards. Proposed projects that may affect the Class I airsheds of National Parks or designated Wilderness near the Challis Resource Area would be reviewed for potential impacts and modified to prevent adverse effects to these Class I airsheds. All other BLM-authorized actions, including the leasing of oil, gas, and geothermal resources, would consider the potential for deterioration of air quality and apply appropriate mitigation through the National Environmental Policy Act (NEPA) process.

Areas of Critical Environmental Concern/Research Natural Areas

No reasonably foreseeable effects to ACECs/RNAs would be expected as a result of decisions listed under the following PRMP sections: Air Quality, Hazardous Materials Management, Land Tenure, Recreation Opportunities and Visitor Use, Transportation, Tribal Treaty Rights, or Visual Resources.

Summary of Effects

1. ACEC values would be maintained on 88,206 acres. Potential for adverse effects on ACEC values from other land uses would be mitigated or reduced. Designation of 9,846 acres as RNAs is expected to maintain native plant communities, special status species, and rare/endemic species in a natural condition for study purposes. Periodic monitoring of special status plant populations and other ACEC resource values would help ensure that those values are maintained.

Direct/Indirect Effects on Maintenance of ACEC Values, by ACEC

Antelope Flat ACEC

2. The composition and extent of unique plant communities is expected to be maintained.

Birch Creek ACEC

3. Designation of this 8,469 acre area as an ACEC, limitations on motorized vehicle use, monitoring of rare plant populations, and planning or design requirements for land use activities would help ensure that the bighorn sheep population, winter ranges, lambing areas and rare plant populations are maintained or enhanced. Acquisitions of State lands would enhance habitat integrity and provide for management of those lands to maintain bighorn sheep habitat requirements.

Cronk's Canyon ACEC/RNA

4. Approximately 1,496 acres of bighorn sheep yearlong and crucial winter habitat would remain a management priority. ACEC designation would minimize any potential for adverse effects on bighorn sheep that might result from other resource management or land use activities.

Donkey Hills ACEC

5. Designation of this 29,706-acre area as an ACEC would help ensure that big game habitat values are maintained, along with the productivity of regional elk populations. Acquisitions of State and private lands would enhance habitat integrity and provide for management of those lands to maintain big game habitat. Decisions regarding wildfire suppression in the ACEC would help prevent the catastrophic loss of big game winter forage due to a major wildfire event.

Dry Gulch ACEC

6. Designating this 539-acre ACEC would help ensure maintenance of rare plant populations and plant communities. Maintaining slope conditions along the existing road would result in occasional surface disturbance by heavy equipment, and maintain habitat suitability for the existing population of the special status species, wavy-leaf thelypody.

East Fork Salmon River Bench ACEC/RNA

7. Plant communities on the 78-acre ACEC would be maintained.

Herd Creek Watershed ACEC

8. Designating this 17,943 acre ACEC would help ensure maintenance of several rare/sensitive plant populations and unusual plant communities. Possible expansion of the Herd Creek exclosure would result in rapid improvement of additional riparian-aquatic habitat. Designation would also highlight the significance of the watershed as anadromous fish habitat.

Lone Bird ACEC

9. Designating this 9,969-acre area as an ACEC would help ensure that cultural resources, socio-cultural values, and rare/sensitive plant populations are maintained. Unauthorized off-road vehicle use and potential vandalism of cultural sites would be discouraged by closing the area to rockhounding, collection of mineral materials, and mineral material sales.

Malm Gulch/Germer Basin ACEC/RNA

10. The area's unique plant communities, rare plants, fragile soils and paleontological values would be maintained on the 7,823-acre ACEC. Potential for sediment transport caused by spring snowmelt and other runoff events would be minimized. The 2.5 miles of two-track road that would remain open to public use up Malm Gulch from Highway 75 would result in a minor amount of soil erosion and sediment transport. A small amount of erosion and sedimentation may also occur as a result of a BLM authorized semi-annual livestock trailing permit. The amount of erosion and sediment transport attributable to these actions would be minor, relative to the naturally occurring level of sediment discharge from Malm Gulch. The open road would continue to allow motorized vehicle access to within a short distance of the area's petrified trees. Occasional vandalism and damage to this unique resource is expected to continue. Closing the area to rockhounding and collection of mineral materials (*e.g.*, petrified wood) would discourage souvenir hunting, reduce damage to petrified trees, and reduce the potential for erosion and sedimentation.

Peck's Canyon ACEC/RNA

11. The native mountain mahogany plant communities would be maintained in natural condition for study purposes.

Pennal Gulch ACEC

12. Designating this 5,832-acre ACEC would help ensure maintenance of several rare/sensitive plant populations, unusual plant communities, and a representative stand of black cottonwood.

Sand Hollow ACEC

13. Designating this 3,332-acre ACEC would help ensure maintenance of several rare/sensitive plant populations, unusual plant communities, an area of geologic interest, and fragile soils.

Summit Creek ACEC/RNA

14. The unique spring-fed wetland ecosystem, associated rare plants, and special recreation values of the 304-acre ACEC would continue to be maintained. Actions to move the campground and manage recreation use in the riparian area where the plants occur would reduce the potential for degradation of habitat for alkaline primrose, a special status plant species.

Thousand Springs ACEC/RNA

15. Continuing designation would improve vegetation conditions and high value waterfowl habitat. Adjusting ACEC boundaries to include recently acquired lands with high wetland values (322 acres) and removing 53 acres from ACEC designation to facilitate an exchange for other high value wetland areas would (a) enhance the integrity of the ACEC and (b) allow more efficient implementation of management actions designed to improve habitat for waterfowl and other wetland wildlife species. New fence construction and old fence removal would enhance vegetation conditions and improve waterfowl habitat. Vegetation treatments, if utilized, would improve habitat for target species.

Other Direct/Indirect Effects, by Proposed RMP Section

Minerals

16. "No surface occupancy" and other leasable mineral stipulations that may be applied to leasable mineral exploration and development within existing ACECs would help to ensure that ACEC values would be maintained if leasable mineral development were to occur. Restricting mineral material sales to those that are consistent with ACEC values would help to maintain ACEC values. Requiring a "plan of operations" as an SOP for locatable mineral development would have some potential to help maintain ACEC values.

17. Closing the Malm Gulch/Germer Basin and Lone Bird ACECs to rock-hounding, collection of mineral materials, and mineral material sales would help reduce the potential for damage to cultural resource values in the Lone Bird ACEC and paleontological resources in the Malm Gulch/Germer Basin ACEC.

Livestock Grazing

18. Planning and designing grazing management actions and other land use activities on important big game ranges (*e.g.,* Donkey Hills, Birch Creek and Cronk's Canyon ACECs) to ensure the viability of elk and bighorn sheep populations would prevent habitat alteration or disturbance from human activities.

19. Continuing to close the Sand Hollow ACEC to livestock grazing would help maintain rare plant populations and prevent erosion of fragile soils.

20. Management of livestock grazing in the Herd Creek watershed ACEC to meet objectives to improve riparian areas and reduce sediment delivery to spawning areas would contribute to the maintenance and improvement of resource values in this ACEC.

Fire Management

21. Decisions on the suppression of wildfires, the development of fire management activity plans, and fire suppression and rehabilitation specifications would help prevent the loss or degradation of ACEC values in the event of an unplanned wildfire.

Forested Areas

22. Closing acreage in the Cronk's Canyon, Malm Gulch/Germer Basin, and Herd Creek Watershed ACECs to commercial timber harvest and woodland product sales would reduce the potential for erosion, sedimentation, or other surface disturbance on ACEC values in those areas.

23. Closing suitable portions of the Jerry Peak WSA to commercial timber harvest and woodland product sales (if released from wilderness review) would reduce potential for soil erosion and sedimentation of anadromous fish habitats in the Herd Creek Watershed ACEC. Timber harvest stipulations in the Donkey Hills ACEC would help ensure that big game habitat requirements are maintained during timber harvest operations. Harvest methods would be designed to mitigate most effects on big game populations and habitat. Effects that may not be mitigated include temporary disturbance and displacement of big game from areas of active operations. Improvement of existing roads to support timber harvest activity may encourage increases in future recreation activity, with associated potential for disturbance and displacement of animals during periods when seasonal limitations on motorized vehicle use are not in effect.

Off-highway Vehicle Use

24. Limiting OHV use to existing roads, vehicle ways, and trails would reduce the potential for direct damage or degradation of ACEC values in all ACECs. This limitation would also reduce sedimentation of aquatic habitats, soil erosion, and human disturbance of wildlife.

25. In the Herd Creek Watershed ACEC, closing the existing road above the Herd Lake to motorized vehicle use would reduce motor vehicle access and help ensure that roadless-primitive values and high altitude plant communities are maintained.

26. Closing the Lone Bird ACEC to motorized vehicle use would protect resource values from surface disturbance and discourage vandalism of cultural resources. Physically closing about 3 miles of the existing Lone Pine Creek primitive road would provide added protection for resource values.

27. Continuing to close the Sand Hollow ACEC to motorized vehicle use would reduce the potential for erosion of fragile soils and help ensure that rare plant populations are not directly damaged by motor vehicle use.

28. Seasonal restrictions on motorized vehicle use and limiting motorized vehicle use to existing roads and trails in the entire Donkey Hills ACEC (29,706 acres) would help maintain productivity of big game populations by reducing disturbance and stress on animals during spring calving periods, fall hunting seasons, and critical winter periods.

Cumulative Effects

29. Resource values on private, State, National Forest and public lands adjacent to ACECs may be subject to degradation as a result of human land use activities. Designation of ACECs would result in the continued maintenance of these resource values within ACECs.

Biological Diversity

No Reasonably Foreseeable Effects to Biodiversity: No reasonably foreseeable effects to biodiversity are expected as a result of management decisions listed in the Proposed RMP under these sections: Air Quality, Hazardous Materials Management, Recreation Opportunities and Visitor Use, and Visual Resources.

Introduction: Biodiversity is the variety of life and interactions among species within the communities and ecosystems of which they are a part. Four primary levels of biodiversity (see ***Glossary***) include (1) *genetic diversity or population diversity* within a species; (2) *species diversity* (numbers of species or species richness and relative abundance of species within a given area or community); (3) *community/ecosystem diversity* (diversity of species associations, structural diversity within communities, and diversity of communities within larger ecosystems); and (4) *landscape/regional diversity* (the kinds, patterns and linkages of communities and ecosystems at the landscape or regional level).

Prediction of effects on biodiversity is complicated by the extreme complexity of relationships between the myriad of species, species groups and communities of living organisms that exist within ecosystems, and by limited understanding, scientific research and inventory data on (1) the biotic compositions of communities and ecosystems (*e.g.* numbers of species; variety and distribution of communities within the landscape), and (2) the biological functions and processes of species and their interrelationships within communities and ecosystems.

Adverse or negative effects on biodiversity *(i.e.*, loss or decline of diversity within the four levels described above) can occur in a number of ways. For example, biodiversity is adversely affected when natural plant or animal communities decline or are simplified through loss of structural diversity, through displacement or loss of native species, or through loss of habitats or plant communities that provide connecting links between major habitat types. Positive or beneficial effects on biodiversity occur when species diversity, abundance, natural distributions, and structural diversity of plant and animal communities are maintained or enhanced.

Summary of Effects

1. Management actions are expected to help maintain biodiversity at all levels. The expected gradual improvement of upland vegetation and riparian areas, stipulations on land use activities, and designation of 14 ACECs would contribute to the maintenance of biodiversity in the Resource Area. Consideration of effects on biodiversity during activity planning would help plan and design land use activities to minimize adverse effects.

Direct and Indirect Effects, by Proposed RMP Section

Areas of Critical Environmental Concern

2. Continued designation of seven existing ACECs and designation of seven new ACECs would highlight biotic values (*e.g.* rare plant species, plant communities and wildlife), protect a range of habitats for rare plant species, and help ensure mitigation of adverse effects on biodiversity during the planning and permitting of land use activities. Designating two of these ACECs for big game habitat values would emphasize the maintenance of native plant communities and landscapes upon which these big game

populations depend. Maintenance of abiotic ACEC values (*e.g.*, protection of cultural and paleontological resources) would indirectly help maintain biodiversity by protecting native plant and animal communities from surface disturbing activities.

Biological Diversity

3. Requirements to assess effects on biodiversity at the project and activity planning levels would enhance awareness of biodiversity, document an analysis process, and provide for consideration of effects on biodiversity from management actions. Ultimately, this process is expected to help protect biodiversity at all levels.

4. Formal assessment of patterns of biodiversity in the Resource Area, participation in neotropical bird work, identification of key species, development of biodiversity objectives and management strategies, and cooperative projects to assess and manage diversity would improve data on biodiversity in the Challis RA. Better data are expected to help protect biodiversity during consideration of land use activities.

Cultural Resources

5. Management decisions and actions to protect cultural resources from surface disturbance would indirectly help to maintain biodiversity by preventing disturbance of plant and animal communities that occupy cultural sites.

Fire Management

6. Fire suppression to protect high value vegetation resources, such as mountain mahogany, would help protect these sources of biodiversity from catastrophic wildfire. The designation of conditional suppression areas would allow for natural fires and more frequent fires that would result in a mosaic pattern of vegetation communities with different structures, species compositions, and seral stages. A more natural vegetation mosaic would maintain and enhance biodiversity. The use of prescribed fire to promote resource objectives would also promote biodiversity at the community and landscape level in the same manner as conditional suppression.

Forest Resources

7. Intensive management and potential harvest of 23,578 acres of commercial forest land would have potential for both positive and negative effects on biodiversity, depending on existing site-specific characteristics of the individual stands proposed for harvest, and on the design of site-specific timber management proposals. The decision to time forest stand management treatments to promote forest stand structure and diversity typical of all seral stages on a drainage basis would help maintain biodiversity by providing for a mix of seral stages and stand characteristics that would promote the existence of a diverse community of plants and animals dependent on forested habitats. However, timber harvest would have potential to simplify old growth stands in structure and overall species diversity. Species diversity is greatest when forested areas are characterized by a mix of old growth/mature and early successional stages. A patchwork of this mix, if it includes large, older forest patches, favors species adapted to both seral stage extremes and species adapted to the ecotones (edges) that occur between the extremes (Logan et al. 1985). When late-seral, large diameter forest stands are targeted for timber harvest, the large diameter tree

component is often removed, and the recruitment of large snag trees is limited or reduced. The reduced availability of groups or clumps of large live trees and the limited availability of snags can result in a decline of biodiversity on these sites. The PRMP design specification that requires leaving snags or cull trees in sale areas would help to mitigate this effect. However, timber management and harvest in stands that are decadent would have potential for positive effects on biodiversity if designed to promote a more open stand structure and the recruitment of large-diameter trees and snags.

8. Biodiversity is expected to be maintained on forested areas set aside from timber harvest to protect old growth forest and wildlife cover values, including forested areas in suitable portions of the Jerry Peak WSA (2,787 acres of forested area), suitable portions of the Burnt Creek WSA (250 acres of forested area), and on 980 acres in 41 small isolated forest stands throughout the RA. However, some potential would exist for loss of biodiversity in these areas as a result of (1) progressive stagnation of forested stands due to lack of natural fire or lack of timber management, and (2) potential loss of stands due to catastrophic fire.

9. If WSAs are released from wilderness review, up to 3,172 acres of commercial forest lands would be opened to harvest. Potential would exist for both positive and negative effects to biodiversity, as described in #7 above for decadent and large diameter stands, respectively.

10. Stipulations on the design and size of clearcuts in Douglas-fir and lodgepole pine stands would reduce the potential for adverse effects on biodiversity, because harvested areas would more closely mimic the diversity of uneven-aged forest stands. The abundance of species associated with closed canopy forest stands would likely decline in the area, and the abundance of species associated with forest edges, openings, and young seral stages would increase. Overall effects on biodiversity would depend on the distribution of existing seral stages and structural characteristics of forest stands in the area where harvest occurs.

11. Limitations on timber activities in riparian areas and the 50-foot timber harvest buffer around springs, seeps, bogs, and streams would contribute to the maintenance of structural diversity in riparian areas around these sites.

12. Comprehensive inventory of timber stands would allow planning and management of forest stands (including timber harvest) to minimize adverse effects on old growth and other forested area values.

13. Design specifications for timber harvest and seasonal harvest restrictions would protect many special wildlife and plant habitat areas (springs, ponds, raptor nest sites, etc.) from direct disturbance by forest management activities. Design stipulations on timber harvest within important elk habitat areas would help to maintain the structural biodiversity of these habitats.

14. Artificial regeneration of harvested forest lands with genetically diverse seeding stock would help maintain the genetic diversity of Douglas-fir and lodgepole pine populations in the locality of the planted areas.

15. Stipulations on tree cutting in riparian areas would help maintain structural diversity in riparian areas, and maintain large trees and snags that would support the presence of species dependent on this habitat component.

Fisheries, Floodplain/Wetland Areas, Minimum Streamflow, Riparian Areas

16. Management decisions listed under Fisheries, Floodplain/Wetland Areas, Minimum Streamflow, and Riparian Areas would help maintain biodiversity by protecting and enhancing plant and animal habitats. Actions related to the management of livestock grazing in riparian areas, maintenance of water quality, and maintenance of instream flow would help maintain and enhance biodiversity by improving the structural diversity of riparian and wetland plant communities, ensuring the availability of water to maintain these communities, and helping to maintain the connectivity of aquatic habitats.

Land Tenure and Access

17. Some potential would exist for site-specific declines in biodiversity on public lands that are transferred out of Federal ownership; these effects on biodiversity would depend on subsequent use and management of those lands. Potential would also exist for acquisition of lands with high biodiversity values and subsequent protection of those values. Stipulations and restrictions on land disposals, and the requirement for project-level biodiversity analysis would help maintain biodiversity. Based on the limited number of acres that would be transferred out of Federal ownership, existing levels of biodiversity in the RA are expected to be maintained.

18. Rights-of-way authorizations would have potential for site-specific loss or displacement of plants and animals due to surface disturbance and associated activities. Stipulations and restrictions on rights-of-way would help limit surface disturbance and effects on biodiversity. Resolution of agricultural trespass may result in site-specific, small losses of biodiversity on lands transferred out of Federal ownership. Termination of new trespass and emphasis on acquiring lands with equal or greater resource values in land exchanges would help maintain biodiversity. Overall potential for adverse effects on biodiversity would be limited because the number of acres involved in these lands actions would be small. Existing levels of biodiversity in the RA are expected to be maintained.

Livestock Grazing

19. Livestock impacts on plant genetics, invertebrate animals, lichens, fungi, and ecosystem processes are mostly unknown (Cooperrider, 1990). However, continued livestock grazing use is unlikely to result in any loss or decline of biodiversity below current levels in the RA. On small, highly localized sites where livestock grazing use is typically the heaviest *(e.g.,* water developments, pasture corners, or around springs and seeps) plant communities are likely to remain in early-seral stages or poor vigor. Plant and animal species diversity, abundance, and structural diversity are often lower

in early-seral plant communities than on sites in mid to late-seral condition. Grazing is also likely to reduce the abundance of some animal species that are dependent on tall herbaceous cover as an important habitat component. However, implementation of knowledgeable and reasonable grazing management practices and other grazing use criteria are expected to move early and mid-seral plant communities toward mid and late-seral stages on many sites, particularly in riparian areas. Animal and plant species richness and the overall structural diversity of the plant community are expected to increase on these sites. Grazing of herbaceous vegetation would reduce fine fuels and limit the frequency and extent of natural fires in the RA. Reduction of fine fuels and fire frequency would promote higher shrub densities and shrub cover on many sites and limit the spread of natural fires from sagebrush-grass communities into adjacent forested areas. Most of the effects of grazing use on biodiversity, both positive and negative, would remain unknown due to the complexity of interrelationships between grazing use and plant/animal communities, and the limited availability of scientific studies and inventory data.

Minerals

20. Mineral development and exploration activities would result in site-specific loss or displacement of plants and animals due to surface disturbance and associated activities. Stipulations and restrictions on mineral development activities would help limit the amount of surface disturbance and site-specific loss of biodiversity. Surface disturbance and other activities associated with existing and future mineral development and exploration activities are expected to be limited in extent, and no significant loss of biodiversity is expected.

Noxious Weed Infestations

21. Decisions on management of noxious weed infestations would help maintain biodiversity by controlling the spread of weeds that would otherwise displace native species and result in localized declines of species diversity. Potential for widespread decline in biodiversity due to widespread invasions and displacement of native plant species would also be reduced. The management decisions and standard operating procedures relevant to noxious weeds would also reduce the potential for site-specific decline of biodiversity from loss or decline of nontarget plant species as a result of noxious weed control methods.

Off-Highway Vehicle Use

22. Limitations on off-highway vehicle use would help maintain biodiversity by limiting damage to plant communities and individual plants. Limitations would also help prevent disturbance and displacement of wildlife during critical periods, thus maintaining the suitability of the area to support wildlife populations. Authorized off-highway-vehicle use is unlikely to have any reasonably foreseeable effects on biodiversity.

Rangeland Vegetation Treatment Projects

23. Determining the priority and need for vegetation treatment projects during watershed assessment would ensure that treatments are considered in an overall ecosystem context. Vegetation treatments that are designed to minimize disturbance of the natural plant community would minimize

potential for adverse effects on biodiversity. Vegetation treatments that result in significant disturbance or alteration of native plant communities (e.g., plowing and seeding projects) would likely result in a site-specific decline of community and species diversity in the local area of the treatment. However, vegetation treatments are not expected to occur over extensive areas, and overall biodiversity would be maintained in the RA.

Special Status Species

24. Project level field inventories of special status species would provide distribution data on special status species (an important biodiversity data element). Requirements to assess effects on special status species at project and activity planning levels would enhance awareness of biodiversity, provide documentation of an effects analysis, and lead to consideration of effects from management actions on special status species and thus biodiversity.

25. Developing species management plans and cost-share partnerships, promoting the conservation of important special status plant and animal species, and mitigating any adverse effects on special status species would contribute to the maintenance of biodiversity in the RA.

26. Development of species data files on sensitive amphibians, reptiles, insects, and non-vascular plants would help fill data gaps on species richness and community composition in the Resource Area. This would contribute to knowledge about biodiversity in the RA and promote land use decisions that mitigate adverse effects on biodiversity.

Wildlife Habitat

27. Wildlife habitat management actions are expected to help enhance and provide data on biodiversity. For example, (a) wildlife species and habitat inventories would provide data on biodiversity; (b) constructing exclosures and riparian pasture fences would help protect and enhance the quality and structural diversity of riparian habitats, and maintain or improve community diversity; (c) re-establishing native species in historical habitats would increase species diversity and diversity of species inter-relationships; (d) prescribed burning would enhance ecosystem/landscape diversity; (e) implementing the Chilly Slough project would help maintain and improve an extensive area of wetland that supports the most diverse wildlife community in the Resource Area; (f) establishing nongame bird studies in each major habitat type would contribute to knowledge of avian species and communities associated with major vegetation types; (g) implementing design specifications to buffer and protect special wildlife habitats would help to maintain these habitats and the associated plant and animal species; (h) designing and managing land use activities to ensure the viability of bighorn sheep and elk populations in certain key habitats would help maintain these populations; and (h) providing wildlife water at key livestock water facilities would maintain wildlife use in areas that would otherwise be unsuitable.

Wild Horses and Burros

28. Grazing by wild horses is likely to maintain early and mid-seral communities in areas where wild horse use is typically heaviest (*e.g.*, some riparian areas and preferred upland sites). Effects on biodiversity would generally

be the same as described above for livestock grazing (see #19) on sites where heavy wild horse grazing occurs.

Wild and Scenic Rivers

29. Management to maintain outstandingly remarkable (OR) values and free-flowing character in Wild and Scenic River (WSR) corridors of segments found eligible for further study or suitable for WSR designation would help maintain biodiversity along those corridors, and help maintain the connectivity of aquatic habitats.

Wilderness Study Areas - Management if Released

30. Some potential would exist for loss of biodiversity on forested sites in WSAs if released from wilderness review as a result of (1) progressive stagnation of forested stands due to lack of natural fire or lack of timber management, or (2) loss of stands due to catastrophic fire.

31. Potential would exist for both positive and negative effects on biodiversity from timber harvest on those WSAs that are released from wilderness review and would be subject to timber harvest. Effects of timber harvest on biodiversity are described above under "Forest Resources," #7, 10, 11, 13, and 14.

Design Specifications

32. Ground-disturbing activities could lead to localized declines of biodiversity through damage to vegetation, potential invasion of noxious weeds, potential spread of weeds to adjacent native vegetation communities, and displacement of native plant species. Design specifications for ground disturbing activities and other resource uses (*e.g.,* use of suitable seed mixes for reseeding disturbed areas, monitoring of disturbed areas, limitations on road construction, and use of a variety of forb and grass species in vegetation treatments/seedings) would help maintain biodiversity and reduce the potential for site-specific declines of biodiversity.

Cumulative Effects

33. Cumulative effects from actions on adjacent private, state and National Forest lands may include (a) some loss of genetic variation if populations or subpopulations of rare species decline; (b) loss of site-specific species diversity if individual populations disappear from some areas; and (c) a gradual decline of community and ecosystem diversity due to simplification of plant communities. Actions contributing to these adverse effects would include a lack of biodiversity information upon which government agencies base management decisions, and loss of biodiversity on private lands due to existing land uses and future development. Interagency implementation of ecosystem management actions *(e.g.,* ecosystem analysis at the watershed scale, interagency development of activity plans) would have the potential to mitigate adverse effects on biodiversity, and may enhance biodiversity on some sites.

Cultural Resources

No Reasonably Foreseeable Effect to Cultural Resources: No reasonably foreseeable effects to cultural resources would be expected from decisions listed under the following PRMP sections: Air Quality, Biological Diversity, Fisheries, Hazardous Materials Management, Minimum Streamflow, Noxious Weed Infestations, Paleontological Resources, Riparian Areas, Special Status Species, Transportation, Tribal Treaty Rights, Upland Watershed, Visual Resources, Water Quality, Wilderness Study Areas - Management if Released, and Wild and Scenic Rivers.

Mitigated Effects - Standard Operating Procedures: Intensive Class III cultural resource inventories would be conducted for all ground disturbing project activities or before the sale or transfer of lands from Federal ownership. The BLM would consult the SHPO and Advisory Council on Historic Preservation on all projects which have the potential to affect cultural resources. Overall, BLM actions would be designed to have no adverse effects on historic properties through the use of avoidance, data recovery, and project abandonment. However, while every effort is made to identify and evaluate historic properties prior to ground disturbing activities or land transfers, not all cultural resources can be identified during Class III inventories. For example, prehistoric sites which are buried under the ground surface can be missed during project inventories. Therefore, any ground disturbing activities or land transfers could have a potential adverse effect on cultural resources.

Specific effects to cultural resources are described below.

Summary of Effects

1. Management actions would generally reduce the amount of potential damage to cultural resources caused from ground disturbing activities and vandalism. Integration of cultural resource issues into watershed assessments and integrated resource activity plans would help bring cultural resources into the broader resource management framework. This planning direction may be one of the single factors which could help protect and manage cultural resources in the future. Positive efforts to manage and protect cultural resources would include (a) designating the Lone Bird ACEC, (b) developing a cultural resources overview and integrated resource activity plans for the RA, (c) annually conducting a minimum of 550 acres of Class III non-project intensive inventory, (d) developing a patrol plan for deterring site looting and vandalism, (e) protecting Native American grave sites, (f) developing a comprehensive study of rock art, (g) interpreting specific sites in the RA, and (h) conducting an ethnographic inventory project.

Direct and Indirect Effects, by Proposed RMP Section

Livestock Grazing/Rangeland Vegetation Treatment Projects

2. Existing consumptive allocations for livestock grazing would result in a continuing need to build new, and improve current, rangeland facilities. Cultural resources would need to be protected from any ground disturbing projects which could jeopardize their integrity and eligibility to the National Register of Historic Places (NRHP). Long term adjustments in stocking rates could result in fewer impacts to cultural resources from livestock trampling and artifact displacement.

3. Revising existing AMPs through the development of watershed assessments and integrated resource activity plans would help to fully integrate cultural resource management with livestock grazing and other land use and resource issues.

4. Prescribed burns and seeding projects conducted over the life of the RMP could create ground disturbance, causing direct impacts to prehistoric and historic sites within the RA through loss of site integrity. Impacts to cultural resources would depend on the number of acres being treated.

5. Excluding livestock from areas of known human burials would protect these areas from damage due to trampling.

Wildlife Habitat

6. Developing and maintaining wildlife habitat improvement projects on up to 90,000 acres could affect cultural resources located within the project areas. Many of these developments would be located in areas that have a high probability for cultural resources to be present. Since they are usually ground disturbing projects, these projects could cause artifact displacement and loss of site integrity.

Fire Management

7. Full fire suppression in some areas (to protect property and high value resources - see *Map 23: Fire Control*) would help protect known cultural resources such as historic structures and rock art sites. Where fire suppression occurs, the identified restrictions on fire suppression practices would generally decrease the amount of damage caused to cultural resources from fire fighting techniques. Over the long term, and on RA lands for which a conditional suppression activity plan is developed, a conditional fire suppression strategy would (a) allow more acres to burn in small fires, eventually reducing the risk of severe fires and associated damage to cultural resources, and (b) decrease the acreage with known or possible cultural resources which could be damaged by fire suppression practices.

Floodplain/Wetland Areas

8. Developing water holes and spring sources as needed could directly affect significant cultural resources. Many springs in the RA have prehistoric sites associated with them that are either eligible for listing or listed in the National Register of Historic Places. Developing these water sources could directly affect their integrity and jeopardize their eligibility to the NRHP. However, using pipelines and troughs to keep livestock and wildlife away from the spring source would help protect fragile cultural resources located adjacent to the water source. Excavation of the pipeline and other developments could disturb existing archaeological deposits.

Land Tenure and Access

9. Any transfer of land from Federal ownership to private ownership could directly affect known or possible cultural resources. Under Federal ownership, legislation (*e.g.,* National Historic Preservation Act of 1966; Archaeological Resources Protection Act of 1978) is designed to protect cultural resources from looting and project impacts causing loss of resource integrity. When lands containing cultural resources are transferred to private ownership, no protection is afforded the cultural resource unless restrictions

(*e.g.*, conservation easements) are established before the land is transferred. Lands which contain Native American burials and sacred or religious sites would not be transferred from Federal ownership, and therefore would continue to be protected by Federal laws. Since Federal laws protect these resources on Federal land more than on private land, there would be less chance of these areas being disturbed.

10. Actions resulting from the issuance of rights-of-ways, communication sites, special use permits, and leases could cause adverse effects to cultural resources. Many of these actions produce ground disturbance, which affects artifact provenience and site integrity. The presence of communication sites and other intrusions could produce visual impacts which may affect traditional cultural properties and religious sites significant to Native American groups.

Areas of Critical Environmental Concern

11. Designating the Lone Bird ACEC would help protect important cultural resources in that area. Developing a land use activity plan and closing the ACEC to motorized vehicle use, rockhounding, and mineral material collection and sales would protect cultural resources from illegal artifact collecting and surface damage.

Forest Resources

12. Timber harvest and associated road construction on 23,578 acres of commercial forest land could impact cultural resources through ground disturbing activities which disturb artifacts and site integrity. Buffer zones around water sources would increase the protection of areas with a high likelihood of cultural resources. Cultural resources would be protected from the surface disturbance effects of timber harvest in areas withdrawn from timber harvest. Helicopter logging restrictions in the Lone Pine Peak area (and whenever applied elsewhere) would also reduce surface disturbance impacts to cultural resources.

Minerals

13. Based on historical records and low potential for occurrence of hydrocarbon minerals or geothermal resources, little or no oil, gas, or geothermal energy development would be expected in the RA during the life of the RMP. Current allocations of acres for fluid energy development would be expected to have little or no effect on cultural resources. Mandatory no surface occupancy stipulations in some areas would further reduce the probability that exploratory drilling or development would adversely affect cultural resources.

14. The majority of the RA would be open to mineral material disposals, nonenergy mineral leasing, and locatable mineral exploration and development. These activities generally involve ground disturbance, so effects to cultural resources could occur through artifact displacement and loss of site integrity. Although measures could be taken on a case-by-case basis to help mitigate impacts to cultural resources, it would be difficult to change project boundaries to avoid impacts. Restrictions on mineral development in the following areas would reduce or eliminate the potential for impacts to

cultural resources in those areas: (a) NSO stipulations or closures in some riparian areas would help protect cultural resources in areas where they are likely to occur. (b) Closing the Lone Bird ACEC to rockhounding, collection of mineral materials, and mineral material sales would help protect known cultural resources from surface disturbance and vandalism. (c) Areas of human burials would be fully protected from project disturbances.

Recreation Opportunities and Visitor Use

15. Increasing the number of developed campgrounds would increase ground disturbing activities associated with facilities construction and maintenance. Ground disturbance may adversely affect cultural resources by disturbing artifacts and site integrity.

16. Developing a comprehensive interpretive plan for the three SRMAs would allow for interpretation of cultural resources in those areas, thereby increasing the public's awareness of the importance of cultural resources located on public lands.

Off-highway Vehicle Use

17. Designating the entire Resource Area as "limited" to existing roads, vehicle ways, and trails yearlong, and establishing additional limitations or closures on specific areas, would help protect cultural resources from (a) damage due to the erosion and displacement of artifacts caused from OHV use, and (b) vandalism and illegal artifact collecting caused by increased human access. Areas closed to OHV use (especially the Lone Bird ACEC) would have less potential for damage (erosion and surface disturbance) to known or possible cultural resources. The vehicle size limitations for the Shay Line Trestle would help slow down deterioration of the trestle.

Cultural Resources

18. Developing a cultural resource overview and integrating cultural resources in watershed assessments and integrated resource activity plans for the RA would help to (a) identify significant trends in the history and prehistory of the area, (b) identify areas which may need special designation in the future (*e.g.,* ACECs), (c) provide important information on areas where additional protection measures need to be taken, (d) identify interpretation opportunities for cultural resources, and (e) guide management on specific areas, such as the Salmon River Corridor and the Challis Archaeological Spring District.

19. Conducting a minimum of 550 acres of Class III non-project intensive inventory annually would increase understanding of the prehistory and history of the RA.

20. Developing a plan for regularly patrolling sites, as well as physically closing one-half mile of the Devil's Canyon Road, would help to reduce impacts from illegal artifact collecting and vandalism.

21. A comprehensive study of rock art locations would provide (a) a data base for evaluating rock art sites in the region, and (b) information on potentially sensitive areas that need special protection measures.

22. Existing interpretation would continue and be expanded by developing interpretive materials for specific sites within the RA. Interpretation would help preserve and protect sensitive sites by fostering an appreciation for the importance and value of cultural resources.

23. Conducting an ethnographic inventory project for the RA would provide information needed to identify, manage, and protect cultural resources with high Native American traditional cultural value, such as areas of religious significance and traditional cultural use.

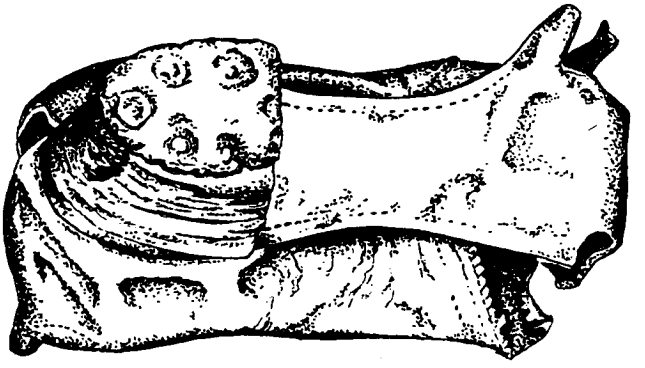
24. Closing the Lone Bird ACEC to rockhounding, mineral material collection and sales, and motorized vehicle use would help protect cultural resources from continued erosion, vandalism, and illegal artifact collecting.

25. Protection of Native American burial areas is extremely important to Native American groups. Retaining these lands in public ownership and applying no surface occupancy stipulations and livestock grazing and mineral entry closures would help protect these sacred areas from ground disturbing activities, vandalism, and illegal artifact collecting.

Cumulative Effects

26. Mitigation of effects to cultural resources on adjacent USFS lands could have a cumulative benefit to cultural resources on BLM lands by increasing protection of cultural resources in east-central Idaho and providing an opportunity to piece together the prehistory and history of the entire region.

    Private land development along rivers and other areas with high potential for cultural resource sites may lead to cumulative loss of cultural resource sites and loss of opportunity to study these areas as part of the overall history and prehistory of east-central Idaho. These losses make protection of cultural resources on Federal lands (USFS/BLM) even more vital.



Lady's shoe - leather
Yankee Fork - Sunbeam Mine
Probably circa 1880-1890

Economy and Society

Introduction: The RMP economic and social analysis considers effects to two geographical areas: the Fort Hall Indian Reservation and the Custer-Lemhi counties two-county region (see *Map 20: Economic and Social Analysis Regions*). The analysis does **not** consider economic or social impacts to communities which lie outside the Reservation or the two-county region, or impacts to the State or national economies.

Economic and Social Analysis - Fort Hall Indian Reservation

Under the *Treaty with the Eastern Band Shoshone and Bannock, 1868*, members of the Shoshone-Bannock Tribes retain the right to hunt, fish, and gather natural resources from unoccupied lands of the United States, including public lands in the Challis Resource Area. As a Federal land managing agency, the BLM has the responsibility to identify and consider the potential impacts of BLM plans, projects, programs, or activities on the natural resources and their habitats which are "entrusted" to United States management to provide for tribal treaty rights (see *Glossary*: trust resources) .

The economy of the Fort Hall Indian Reservation is probably tied to natural resources from the RA in two ways. First, tribal members may exercise their treaty rights to hunt, fish, and gather natural resources in order to obtain food or other natural resources for personal subsistence. Second, some tribal members may use resources hunted for or gathered in the Resource Area such as furs, hides, porcupine quills, or willows to craft "value-added" products for cash sale at the Reservation's Trading Post or other merchandise outlets. It is difficult to estimate the Reservation economy's dependence on Challis Resource Area resources, since the Tribes were unable to provide detailed estimates of how much their members use resources in the Challis Resource Area (frequency of visits; quantity of natural resources hunted, fished, or gathered; priority locations for hunting, fishing, and gathering; proportion of natural resources which contribute to tribal members' annual subsistence; etc.).

Management decisions proposed in the PRMP would generally be expected to improve the habitat quality, and possibly also the quantity, of natural resources known to be of interest to the Shoshone-Bannock Tribes (big game, resident and anadromous fish, various plant species). (Because the BLM manages wildlife and fisheries *habitats*, but not wildlife or fisheries *populations*, the BLM has no control over the **quantity** of big game or fish species which would be available for the Tribes to hunt or fish.) Thus, the Challis Resource Area would be expected to contribute to subsistence and value-added product cash sales in the Reservation economy at the same level or an improved level, as compared to the existing situation (see ***Chapter 3*** - Economy and Society). Likewise, proposed management of the Challis Resource Area under the PRMP would be expected to maintain or improve the condition of resources which are known to be important to the Shoshone-Bannock Tribes' culture.

Economic Analysis - Custer-Lemhi Counties Two-County Region

The economic analysis for the Custer-Lemhi counties two-county region contains both a *quantitative* assessment, based on the Custer-Lemhi County Economic Model (CLEModel) and Idaho Fiscal Impact Projections Model (IFIPM) (BLM 1994), and a *qualitative* assessment, based on the professional judgement of the Idaho BLM Economist and the Challis RA specialists for the affected resources (*e.g.*, livestock grazing, forest resources).

The *quantitative* analysis incorporates the results of a regional socio-economic study, and utilizes economic modeling concepts for regional input/output analysis and county fiscal analysis. The accuracy of the projections generated by the economic and fiscal models depends on (a) the baseline data used to formulate and represent current local/regional economic conditions (data were collected locally when possible), (b) projections of future natural resource conditions and community-based development, and (c) the accuracy of the economic and fiscal relationships generated for the model. A quantitative assessment is only presented when data were available to be input in the economic models (*e.g.*, changes in AUMs). The projections stated in this analysis should be viewed as **trends and general expectations**. This does not mean the model is unreliable or ineffective, only that it assumes that the baseline information, interrelationships defined in the model, and the data to be evaluated are as accurate as possible. Computer runs for the quantitative analysis are filed in the RMP Planning Record, and a summary of the quantitative analysis is presented in *Table 4-1.* A full discussion of the models' methodologies and limitations is contained in *A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties: And Models* (BLM 1994).

A qualitative analysis is also included for all economic sectors, because qualitative changes to natural resources (*e.g.,* forage quality, visual aesthetics) can affect the regional economy. Qualitative assessments are derived from related resource analyses for the PRMP (see relevant sections of ***Chapter 4***, such as Livestock Grazing; Minerals; Forest Resources; Recreation Opportunities). The qualitative assessments provided below are subjective, but based on the RMP interdisciplinary team's best professional judgement.

In general, local economic growth for both Custer and Lemhi counties is expected to be slow to moderate during the next few years, and depend on the number and kinds of new industries that locate in this rural region of the State. The rate of growth or decline is highly dependent on regional, national, and international economic conditions which trigger "boom" or "bust" cycles in the timber, mining, or agriculture industries. Under current conditions, expansion of existing industries within the region is not expected to be significant enough to have a substantial influence on economic growth. Two features of economic change will likely have the greatest impact on future growth: a recent and probably continued influx of retirees, and modern telecommunications technology which has allowed cottage industries to become feasible in rural areas. Expected changes in the regional economy and population will affect the future demand for and use of public land resources.

Summary of Effects to the Regional Economy

1. **Quantitative Impacts:** Quantitative impacts to the regional economy would be negligible (<1% decrease) (see *Table 4-1* and *Table 4-2*). Quantitative impacts to the agriculture sector would be slightly negative, but significant only for the Pahsimeroi subregion (*i.e.*, negligible for the other subregions). Quantitative impacts to the timber sector would be slightly positive (assuming harvest up to the average decadal allowable harvest level), but not significant. Effects to the local government sector would be slightly negative, but not significant.

   Qualitative Impacts: PRMP actions would improve forage quality and quantity, sustained timber productivity, and the quality and quantity of recreational opportunities in the RA. Sustained improvement and a predictable quantity/quality of these resources would likely benefit the regional economy to an unknown extent, particularly the subregions dependent on agriculture, timber harvest, or tourism. However, PRMP actions could also increase livestock permittees' and logging operators' costs and efforts, so less net benefit to the regional economy may occur in the timber sector and no net benefit may occur in the agriculture sector.

Direct/Indirect and Cumulative Effects to the Regional Economy, by Economic Sector

Agriculture Sector

2. **Quantitative Impacts:** Changes to the agriculture sector (due to a maximum estimated 12,658 AUM (25%) reduction in livestock allocations) would include negligible (<1%) decreases in regional population, employment, baseline sales, and baseline earnings (see *Table 4-1: Quantitative Impacts*). The Pahsimeroi subregion would experience slight to moderate decreases (about -2.5%) in employment, baseline sales, and baseline earnings. Changes in the other subregions would not be significant (0.0 to 0.9%).

   Qualitative Impacts: In the long term, PRMP actions would improve forage quality and quantity for livestock; this could benefit livestock production and ranch profitability. However, various PRMP requirements (*e.g.*, stubble height and upland cover criteria, riparian and aquatic habitat objectives, maintenance of range improvements, protection of regeneration in harvest units) would constrain livestock management and could increase permittees' costs and efforts to manage their livestock while on BLM public lands (in addition to producing estimated AUM reductions - see above).

   The BLM recognizes that local economic market forces may attach "value" to the AUMs associated with a grazing permit, for market activities such as (a) collateral for a loan, or (b) transfer of the permit during sale of ranch property. As a result, some economic impact to ranch real estate market values may occur because of projected AUM reductions. However, these impacts are not quantifiable given the information currently available. (**Note:** Although the local real estate market may appear to give a "value" to public land grazing *privileges*, the Department of Interior - Bureau of Land Management has codified the position that any capitalized value associated

with the grazing permits has no legal or compensable basis: "So far as consistent with the purposes and provisions of this [Taylor Grazing] Act [of 1934], grazing privileges recognized and acknowledged shall be adequately safeguarded, but the creation of a grazing district or the issuance of a permit pursuant to the provisions of this Act *shall not create any right, title, interest, or state on or to the lands* [emphasis added]."

Other factors outside BLM control, such as the availability of USFS lands for grazing and the subdivision of private ranch lands for residences (and subsequent loss of private hay and pasture lands), may affect the agriculture sector more than RMP actions.

Timber Sector

Note #1: Decreases in commercial timber average annual allowable harvest levels proposed in the PRMP would be very unlikely to have an adverse economic effect, since (a) historically (1955 to present), the *maximum* yield ever offered in a year (440 MBF) was only 47% of the current annual allowable harvest level (922 MBF), (b) during the last 10 years only 555 MBF have been sold in the Challis RA (approximately 6% of the decadal allowable harvest level (9.22 MMBF)), and (c) the mill in Salmon had not purchased timber from the Challis RA for 8 years. Most timber sold from the RA is in small sales, which are purchased by small operators and mills in the Challis area. For the past 6 to 7 years, the Challis RA timber program has focused on backlog regeneration projects. Most of those projects have been completed, and the RA now anticipates a shift in emphasis toward commercial timber sales. One sale of approximately 230 MBF was offered in 1994 and harvested in the summer of 1995.

Note #2: This analysis of impacts to the timber sector uses 1991 baseline data and does not reflect closure of the Salmon Intermountain sawmill in 1995. However, even though the sawmill accounted for a proportion of the timber-related business in Lemhi County (about 50 jobs), it is unlikely that the mill's closure would affect this PRMP analysis. As stated in Note #1 above, the mill in Salmon had not purchased timber from the Challis RA in the recent past and did not rely on a supply of timber from the Challis RA.

3. **Quantitative Impacts:** Compared to the existing condition, where only 6% of the allowable harvest level has been sold in the past decade, RMP direction to allow up to 6.60 MMBF per decade could result in a very slight economic benefit to the timber sector, if the allowable harvest level is offered, sold, and harvested. The *maximum* economic benefits possible would include negligible (<1%) increases in regional population, employment, baseline sales, and baseline earnings (see *Table 4-1: Quantitative Impacts*). Economic benefits would vary from the projected maximum, depending on the actual volume sold and harvested in a given year. The projected benefits would be most likely to occur in the Salmon subregion, which has the majority of current employment associated with the timber sector (93% of 314 full-time equivalents (FTE)).

   Qualitative Impacts: Under PRMP management, the commercial timber base could realistically be managed for sustained yield. In the long term, various PRMP actions (*e.g.*, use of prescribed and natural fire) may improve the health and vigor of commercial forest lands, thereby improving timber quality and volume. However, various timber harvest requirements (*e.g.*, helicopter logging in some areas, clearcut size limits) may increase logging

operators' costs and decrease their profits. If the cost of logging exceeds the value of the wood offered, harvest units offered for sale may not sell. This could decrease employment opportunities for loggers and the supply of timber to local mills by an unknown amount. Reductions in the acreage of woodland managed for wood products (*e.g.*, firewood) may affect the availability of those products on a seasonal basis, since lower elevation BLM lands are accessible for a longer period of time than adjacent USFS lands which have an abundant supply of similar products; however, these effects are probably not significant.

Mining Sector

4. **Qualitative Impacts:** Mining activities within the region are primarily affected by factors beyond the BLM's control (*e.g.*, mineral commodity prices; mining laws and regulations; mining technology). PRMP actions would not be expected to constrain mineral development, except in a few riparian areas or eligible/suitable Wild and Scenic River corridors with high or moderate potential for locatable minerals (see ***Chapter 4*** - Minerals). In those areas, restrictions on locatable mineral entry could increase development costs if locatable mineral development occurs. (Currently, there is no development activity in those areas.) Any other changes ("boom" or "bust") to the local economy because of activity (or inactivity) in the mineral sector would result from external factors. Some PRMP restrictions on mineral material activity could limit new mineral material site development. However, an insufficient supply of mineral materials is unlikely, because numerous alternative sites are available in the RA. If a reduced supply did occur, this could increase the profitability of mineral material development on private lands.

Tourism Sector

Note #1: This economic analysis generally considers effects of RMP actions on the "tourism" sector - namely, businesses associated with visitors to the area. This is because the "tourism" sector was studied in the Social, Economic, and Fiscal Analysis of Custer and Lemhi Counties (BLM 1994). However, it is acknowledged that recreation use of the Challis Resource Area by local residents also affects the local economy.

Note #2: Tourism activities within the region depend on the quality and quantity of natural resources. Although the quantitative economic value of RMP actions to businesses associated with visitors to the area cannot be calculated, various recreation-related studies indicate that high quality visual (scenic), wildlife, and fisheries resources are historically associated with substantial visitor use of the area and associated expenses for food, beverages, lodging, transportation, guide services, boat rentals, fishing tackle, souvenirs, hunting and fishing permits, etc. (Idaho Travel Council 1989; Harris *et. al.* 1988). (Also see *Appendix B, Item 7: Economic Values of Select Wildlife Species*; ***Chapter 3*** - Fisheries, "Tribal and Sport Fishing;" and *Appendix B, Item 6: Economic Values of Fisheries Resources in the Challis RA.*)

5. **Qualitative Impacts:** Various actions would improve the quality and quantity of tourist attractions and accommodate some of the increased recreation demand. For example, wildlife actions would improve wildlife habitat, and thereby improve wildlife viewing opportunities and (possibly) big game, upland game, and waterfowl hunting opportunities (depending on IDFG wildlife population management and hunting regulations). Recreation

site development and new or expanded SRMA designations would accommodate some of the anticipated increase in recreation use. Visual resource management actions and OHV use limitations would maintain or improve the scenic values of the area. Actions to improve resident and anadromous fisheries could improve fishing opportunities for harvestable species. Other actions would improve water quantity and quality for various recreational pursuits. Cumulatively, these beneficial effects to recreational opportunities would, to an unknown extent, benefit visitor spending patterns and the local economies which depend upon tourism (primarily the Stanley and Salmon subregions). OHV use limitations may, to an unknown extent, decrease local expenditures by visitors who had previously enjoyed off-road vehicle use in the Challis RA. It is not expected these reduced expenditures, if they occur, would be significant.

Government Sector

Note: Because this is a local (two-county) economic analysis, the analysis of effects to the government sector only considers the effects of RMP actions on local (county) government. Quantitative impacts were projected from the Idaho Fiscal Impact Projections Model (in BLM 1994), using the changes in employment and population projected by the CLEModel for the quantitative analysis of the timber and agriculture sectors (see above and *Table 4-2*).

6. **Quantitative Impacts:** Tax revenues, payments-in-lieu-of-taxes (PILT), and expenditures for the two-county region and Custer County would decrease negligibly (<1%). In Lemhi County PILT would remain the same and tax revenues and expenditures would increase negligibly. None of these changes would be significant (see *Table 4-2*). No net changes in tax revenues would be expected from BLM acquisitions of private land (see PRMP, Land Tenure and Access, Goal 2, #1).

Social Effects - Custer-Lemhi Counties Two-County Region

The social analysis considers how (or whether) PRMP actions would affect the society of the two-county area. The "Social Profile of Seven Communities in Custer and Lemhi Counties, Idaho" (Aaron Harp, *et.al.* in BLM 1994) is used as the "existing condition" for the local society (see ***Chapter 3*** - Economy and Society). The social profile has limitations which stem from the research methodology; for example, the study used unstructured personal interviews and the "snowball referral method" rather than a random sample of respondents). As a result, this social analysis is very general, and only strives to indicate trends toward change which may occur to the local society as a result of BLM actions.

PRMP actions would be expected to continue to provide good quality air, water, visual/aesthetic/scenic, and recreational values for local populations.

In general, factors which affect the regional economy would also affect the regional society, since the economy is one fundamental institution of society (other social institutions include kinship (family), religious, and political systems), and PRMP actions would not be expected to affect other social systems. According to the socio-economic study of the two-county region (BLM 1994), the local society is characterized by the local economy, especially in subregions which primarily rely on one or two economic sectors. For example, (1) Leadore and May, Idaho are nearly totally dependent on agriculture as their

economic base, and agriculture-related activities define the social character of those areas; and (2) tourism influences the economic and social character of the Stanley subregion.

The PRMP would continue to (at various levels) accommodate the continued operation of the predominant economic activities which utilize Challis Resource Area lands or resources: agriculture (livestock grazing), timber harvest, minerals development, and recreation use. PRMP actions would be expected to sustain or enhance non-commodity resource values for future generations, while nearly maintaining existing levels of commodity uses. The PRMP would also improve the recreational values upon which the tourism sector depends.

The social effects of these economic impacts would occur over time, and depend on a subregion's reliance on a particular resource from BLM lands. Changing conditions of recreation values would primarily affect the society of the Stanley and Salmon subregions, changing conditions in the timber sector would mostly affect the Salmon subregion, changes in the agriculture sector would primarily affect the Pahsimeroi, Big Lost, and Challis subregions, and changes in the mineral sector would mostly affect the Challis subregion. Specific social impacts of PRMP actions cannot be predicted, based on available data. Equally unpredictable is whether social impacts of PRMP actions would be mitigated (or exacerbated) by social and economic trends outside the BLM's control (for example, national or international commodity prices). General examples of social impacts of BLM actions may include changing patterns of in- and out-migration (based on increased or reduced employment opportunity); changing patterns of employment and business development (as employment and business opportunities diminish in one occupational category, the affected people may pursue other occupations and business ventures locally); increased conflict with other residents (and possibly visitors), as competition for available resources (*e.g.*, private pasture or hay lands; access to riparian areas; favorite hunting or fishing areas; water rights) increases; increased conflict with people who enforce policies which affect resource allocations, if those resource decisions are different from the decisions local residents would have made (most people interviewed in the social study felt the local community should be the locus of control for decisions about resource use; see ***Chapter 3*** - Economy and Society, pp. 218-219); and decreased tolerance toward people who do not share the land use viewpoints of the majority of people interviewed in the social study (who felt customary resource uses (*e.g.*, grazing, water) are either assumed to be rights or are codified as rights; see ***Chapter 3*** - Economy and Society, pp. 218-219). It cannot be predicted, based on available information, whether the PRMP would help achieve a balance between sustained use of multiple resources (including ongoing rural resource use) and development, since many factors of future development (especially private land uses, commodity prices, and the influx of retirees) are outside BLM control.

Table 4-1: Quantitative Impacts
Changes Due to PRMP Actions[1], by Economic Sector and County

Economic Sector	County	Population[2]		Employment		Baseline Sales		Baseline Earnings	
		Number	*% change*	*FTE*	*% change[3]*	*$1,000s*	*% change[3]*	*$1,000s*	*% change[3]*
Regional Economy[4]	Custer	-34		-11.18		-675.18		-254.61	
	Lemhi	3		1.03		268.64		53.40	
	2-county region	-31	-.26	-10.05	-.22	-406.54	-.14	-201.21	-.21
Agriculture Sector	Custer	-34		-11.43		-713.23		-262.53	
	Lemhi	-6		-1.95		-79.36		-31.11	
	2-county region	-40	-.34	-13.38	-.29	-792.59	-.27	-293.64	-.30
Timber Sector[4]	Custer	1		0.25		38.06		7.91	
	Lemhi	9		2.98		348.00		84.51	
	2-county region	10	.08	3.23	.07	386.06	.13	92.42	.09

[1] The information contained in *Table 4-1* was presented in the Challis Draft RMP/EIS as *Table 4-2*. The calculation of quantitative impacts displayed in *Table 4-2* assumed implementation in 1997 (using projected population values for 1997 - see Footnote 2), estimated reductions in livestock grazing active use up to 12,658 AUMs (25%), and timber harvest up to 6.60 MMBF per decade. The same analysis is presented here in the Final EIS, because (a) the PRMP proposes actions which would also result in estimated reductions in livestock grazing active use up to 12,658 AUMs and timber harvest up to 6.60 MMBF per decade, and (b) calculation changes based on implementation in 1998 or 1999 (*i.e.*, using 1998 or projected 1999 population figures) would not be significant.

[2] The population base in 1997 due to *external* (non-RMP) factors was projected to be the following:

Custer County	4,271
Lemhi County	7,635
2-county region	11,906

[3] Percent change is calculated compared to the existing (1991) condition - see ***Chapter 3*** - Economy and Society and *Appendix B, Items 1 through 5.*

[4] Analysis does not include changes to 1991 baseline data which may have resulted from closure of the Salmon Intermountain sawmill in 1995.

Table 4-2: Changes in Local Government PILT[1], Tax Revenues, and Expenditures Due to PRMP Actions, by County[2]

Local Government Factor, by County	1997 Control[3]	PRMP[4]	
	$1,000s	*$1,000s*	*% change*
PILT[1]			
Custer	213.57	211.9	-.8
Lemhi	265.29	265.3	0
2-county region	478.88	477.2	-.35
Tax Revenues			
Custer	2,535.60	2,521	-.6
Lemhi	3,915.47	3,917	-.04
2-county region	6,451.07	6,438	-.2
Expenditures			
Custer	6,797.70	6,756	-.6
Lemhi	8,950.44	8,953	-.03
2-county region	15,748.14	15,709	-.2

[1] PILT: Payments in lieu of taxes.

[2] The information contained in *Table 4-2* was presented in the Challis Draft RMP/EIS as *Table 4-6*. The calculation of quantitative impacts displayed in *Table 4-6* assumed implementation in 1997 (using projected population values for 1997 - see *Table 4-1*, Footnote 2), estimated reductions in livestock grazing active use up to 12,658 AUMs (25%), and timber harvest up to 6.60 MMBF per decade. The same analysis is presented here in the Final EIS, because (a) the PRMP proposes actions which would also result in estimated reductions in livestock grazing active use up to 12,658 AUMs and timber harvest up to 6.60 MMBF per decade, and (b) calculation changes based on implementation in 1998 or 1999 (*i.e.*, using 1998 or projected 1999 population figures) would not be significant.

[3] Any changes from 1991 to 1997 due to external (non-PRMP) factors. See ***Chapter 3*** - Economy and Society for 1991 PILT data.

[4] Changes from 1997 control are due to these PRMP actions: up to 6.60 MMBF timber harvest per decade; estimated reductions in livestock grazing active use up to 12,658 AUMs (25%).

Fisheries

No Reasonably Foreseeable Effect to Fisheries: No reasonably foreseeable effects to fisheries would be expected from the PRMP decisions listed under the following sections: Air Quality, Cultural Resources, Paleontological Resources, Tribal Treaty Rights, Visual Resources, or Wildlife Habitat.

General Discussion of Effects to Fisheries: The impacts to fisheries values discussed below vary in intensity and magnitude. Some actions tend to produce beneficial impacts, while others produce adverse impacts. These impacts are best understood by recognizing their effects on the various life stages (spawning, incubation, rearing, and migration) and habitat requirements (pool quality and quantity, stream width/depth ratios, instream large woody debris for cover, overhanging vegetation for shade and cover, water temperature stability and maximums, adequate water supply for the life stage of the fish, bank stability, overhanging banks for cover, water quality, macroinvertebrate population and composition as a salmonid food supply) of fish. Different fish populations would be affected to varying degrees, depending on their response to environmental effects.

Sediment Impacts: Increased or reduced sediment discharge to aquatic habitats is a common effect described in the discussion of direct and indirect effects to fisheries. Sediment has the greatest effect on spawning, incubation, and rearing life stages, and on pool quality, water quality, and macroinvertebrate populations. Excessive sedimentation reduces available clean gravel required for spawning habitat, reduces oxygen supply to redds, and fills substrate interstitial spaces required for rearing of small fish. It fills existing pools, causes excessive turbidity and suspended sediments in the water column, contains organic matter (which places an oxygen demand on the water during decomposition, reducing available oxygen for fish), and reduces the salmonid preferred macroinvertebrate populations which require clean gravel for survival. Salmonid production is directly related to instream fines, with production decreasing with increasing fines. Conversely, salmonid production increases as the amount of instream fines is reduced.

Streambank Condition Impacts: The trampling or breaking down of streambanks by livestock, OHVs, or recreationists physically displaces large pieces of bank into the stream channel, leaving an eroding bank, as well as compacting the remaining bank and retarding its ability to reestablish a healthy riparian zone. The breaking away of winter ice from unstable streambanks also displaces large pieces of bank into the stream. Water action breaks the soil into fine particles, which are deposited downstream as silt and sediment. The streambank failure process also eliminates important salmonid habitat for escape cover. As the amount of undercut streambank is reduced, salmonids become more vulnerable to predation. Sediment from unstable streambanks reduces pool depth and spawning gravel quality, further reducing the juvenile and adult survival within the affected stream reaches.

Upland and Riparian Vegetation Condition Impacts: Upland and riparian vegetation condition affects sediment discharge to aquatic habitats. It also directly or indirectly affects rearing and migration conditions, pool quality and quantity, stream width/depth ratios, instream large woody debris for cover, overhanging vegetation for shade and cover, water temperature stability and maximums, adequate water supply for the life stage of the fish, bank stability, overhanging banks for cover, water quality, and insect populations and composition as a salmonid food supply. All of these habitat elements are essential for sustaining healthy salmonid populations.

Upland watershed vegetation influences the infiltration and runoff characteristics of a watershed. It affects the ability of a watershed to (a) store and release water through groundwater flow to a stream over a long period, and (b) minimize the extent of "flashy," sediment-laden, overland flow events. A healthy, well-vegetated watershed tends to maintain adequate summer and fall season base flows through increased infiltration, which contributes to a sustained inflow of cool groundwater to the stream system and stabilizes stream temperatures. The stable flows and cool temperatures are required for fish spawning, incubation, rearing, and migration; maintaining high water quality; and sustaining a healthy macroinvertebrate population.

Good riparian vegetation community conditions improve the infiltration, filtration, and stability characteristics of a stream system. They allow a riparian system to store and release water through groundwater flow to a stream over a long period, dissipate energy of high flows without stream degradation, revegetate degraded conditions, and filter water quality contaminants of overland flows prior to entering the stream channel. These conditions improve the water quality and quantity needed to sustain healthy macroinvertebrate populations and fish habitat requirements for spawning, incubation, rearing, and migration.

Good riparian vegetation community conditions stabilize overhanging banks for cover; reduce erosion due to bank cutting; reduce stream width/depth ratios; provide overhanging vegetation for cover and insect habitat (salmonid food supply); provide shade, water temperature cooling benefits, and thermal cover, reducing the severity and length of winter icing problems; and provide instream large woody debris for cover. These conditions are all necessary for salmonid rearing and migration. Good riparian vegetation community conditions stabilize a stream system, allowing the system to take advantage of flows which tend to improve pool quality by scouring and cleaning silted-in pools. These conditions also allow development of a stable stream system with pool and riffle quantities in balance with the stream type. These conditions are necessary for healthy macroinvertebrate populations and composition, and for fish spawning, incubation, rearing and migration.

Toxic Materials Impacts: The introduction of toxic materials in watersheds containing fish populations has the potential to adversely affect the fisheries resource. The effect of toxic materials spilled in either riparian or aquatic habitats would depend on the toxic substance spilled, the concentrations arriving in the aquatic habitat, and the life stage of the fish coming in contact with the toxic substance. The effects of a chemical spill on any life stage can either be acute (short-term response to large doses over a short period of time) or chronic (delayed response to continuous or repeated doses over a long period of time). Salmonid eggs are more vulnerable to the affects of toxic materials because they are in a developmental stage and are not able to move away from the contaminate. Depending on the timing of exposure, a variety of skeletal or organ deformities can occur which may directly or indirectly lead to mortality. Adult salmonids are mobile and may be able to avoid chemical contact if uncontaminated habitats are accessible. However, direct chemical contact can damage gill membranes and cause mortality by suffocation. Bioaccumulation of chemical contaminants through the food chain may also occur when chemicals are introduced into streams.

Mitigated Effects: The general SOPs (see *Attachment 5*, p. 107) and design specifications (see *Attachment 8*, p. 120) include site- and project-specific requirements for BLM analysis and, in some cases, third party consultation to protect the habitat of special status fish species. SOPs and design specifications

are expected to reduce adverse impacts to fish and aquatic habitats from specific project activities. All life stage habitat requirements for special status fish species which can be met within RA boundaries (*i.e.*, this does not include migratory and ocean habitat for anadromous fish) would be expected to be maintained or improved. Adverse effects on Federally listed, or proposed for listing, threatened or endangered fish populations and habitats would be fully mitigated.

Specific Effects to Fisheries: Specific effects to fisheries resources are described below under these categories: Summary of Effects; Direct and Indirect Effects, by Proposed RMP Section; and Cumulative Effects.

Summary of Effects

1. Management actions would significantly improve riparian habitat conditions in the short term and in the long term. Resource issues would be addressed on an ecosystem basis; this would establish the conditions for significant improvement in aquatic and fish life stage habitat requirements, and maintain these conditions over the long term. The rate of recovery in the affected riparian areas would vary by the grazing standard used, but riparian condition is expected to improve throughout the RA over time. Resident and anadromous fish populations are likely to increase due to improvements in stream condition.

Direct and Indirect Effects, by Proposed RMP Section

Livestock Grazing

2. Many of the allotments identified as priority allotments to determine proper stocking level have special status anadromous and resident fish populations. These allotments would receive attention to rapidly address and improve riparian vegetation and aquatic habitats that exist within some of those allotments (see *Table 4-3: Priority Streams by Allotment,* p. 368). Expected benefits to aquatic habitats include improved streambank stability, streamside shading, and cooler water temperatures. More vegetation along streambanks would also reduce sediment inputs to the stream and improve spawning gravel quality.

3. New and revised resource planning documents would incorporate knowledgeable and reasonable practices designed to maintain or improve water quality and support beneficial uses. Water quality of intermittent and perennial streams with aquatic habitat beneficial uses would be improved through management strategies which have been demonstrated, or can be reasonably expected, to enhance the riparian and aquatic habitats. Salmonid production is expected to increase as water quality is improved.

4. Nonuse AUMs and AUMs that are lost, retired, relinquished, or otherwise canceled would be retained until related watershed, wildlife, and aquatic habitat objectives are met. These actions would help accelerate riparian and aquatic habitat improvement, when they occur. Salmonid populations are expected to benefit from any improvements in aquatic habitat condition.

5. Livestock distribution would be improved by restricting livestock use in pastures until range improvement projects are in functional condition. Im-

proved distribution would directly minimize livestock concentrations in riparian areas or small sections of a pasture, create more even utilization of the forage resource, and limit the creation of overgrazed, unvegetated, sediment-producing zones within a pasture. Improved distribution would indirectly reduce the sediment discharge to aquatic habitats. Salmonid production is expected to increase as the level of instream fines is reduced.

6. Upland utilization standards would generally maintain or improve the vigor of upland vegetation and overall watershed cover in the long term. These improvements would increase available vegetative litter and plant basal area needed to (a) improve infiltration and watershed storage, and (b) protect watersheds from excessive runoff events. Expected benefits to aquatic habitats fisheries over time include reduced overland flows (which can degrade stream channels) and sediment transport, and increased watershed storage capacities (which help maintain summer and fall base flows and cool water temperatures).

Wild Horses and Burros

7. Maintaining existing wild horse herd numbers would continue to impact riparian and aquatic habitats in selected portions of the HMA through locally concentrated woody and herbaceous use and streambank trampling. However, adverse effects to aquatic habitats are not expected, because the herd size would be reduced before adverse impacts occur. Livestock management would improve vegetation conditions in the HMA, thereby also improving wild horse distribution and reducing the cumulative impacts to riparian areas in the HMA.

Upland Watershed

8. Increased consideration of the effects of soil compaction and erosion when planning land disturbing activities would reduce upland sediment transport and associated impacts to water quality, beneficial uses, and watershed storage capabilities. Reduced sediment loading into spawning and rearing habitats would benefit salmonids by improving instream habitat condition.

Riparian Areas

9. Riparian stubble height and bank shearing criteria would be expected to provide improved riparian and aquatic habitat. These criteria would ensure that sufficient plant material remains to sustain desirable plant communities, maintain plant vigor, provide for a functioning floodplain, and protect the streambank. These criteria would also be expected to reduce sedimentation to aquatic habitats and improve riparian habitat conditions, including bank stability, bank angle, width/depth ratio, and riparian area vegetation community composition. Salmonid production would be expected to increase as these habitat conditions improve.

10. Increasing public awareness of the value of good condition, functional riparian and wetland habitats would help land users become more knowledgeable about and sensitive to these issues. As a result, land users may modify their actions to be less of an impact on fisheries and aquatic resources.

11. Development of riparian study areas would help evaluate applied management strategies for riparian vegetation improvement and indicate the potential for vegetative succession. Inferences from the study exclosures may be made about the improvement in riparian and aquatic habitats and water quality which can be expected under comparable conditions outside the enclosed study area. Information on the effectiveness of selected land management strategies would be acquired and may be applied throughout other appropriate watersheds to improve riparian and upland vegetation conditions. Salmonid populations are expected to increase as riparian function and condition improve.

12. The primary emphasis within riparian pastures would be to meet riparian and aquatic objectives. Greater control of riparian forage use would be possible within riparian pastures; aquatic habitats within those pastures would improve due to improved riparian vegetation condition.

Floodplain/Wetland Areas

13. Discouraging floodplain or wetland development and requiring mitigation of actions which could cause adverse impacts to floodplain or wetland functions would protect the vegetation and land form characteristics of these areas. This would improve the infiltration, filtration, flood attenuation, and stability characteristics of a stream system, and thereby improve water quality and quantity for fish.

Fisheries

14. Defining priority fish species and crucial habitats would help ensure that management actions do not adversely impact these species or habitats. Management actions intended to maintain or improve riparian and upland vegetation and reduce sedimentation would benefit aquatic and fisheries resources. Removing or modifying artificial barriers to fish migration, and removing or modifying natural barriers where practical, would expand available habitat for priority fish species. Broad scale improvements in riparian habitat condition would likely occur as cooperative partnerships between various State, Federal, and tribal agencies and other partners are developed.

Minimum Streamflow

15. Streams identified as priority streams on which to pursue minimum streamflow are also priority fisheries streams. Acquiring minimum streamflows would benefit fisheries by stabilizing functional riparian and aquatic habitat conditions.

Water Quality

16. Actions intended to maintain satisfactory water quality, improve unsatisfactory water quality, and support existing beneficial uses would have a beneficial effect on fisheries and aquatic habitats by reducing sedimentation and nutrient loading to aquatic habitats in the long term.

Fire Management

17. Fire suppression guidelines would generally protect aquatic habitats from potential sedimentation impacts; however, fire line construction by hand or motorized equipment could be source locations for sediment input to aquatic habitats throughout the RA. Emphasis on avoiding aquatic and riparian areas for fire staging activities (see PRMP, *Attachment 9,* pp. 124ff) would

reduce potential sedimentation impacts to aquatic habitats and minimize the potential for nutrient or toxic loading to riparian and aquatic habitats.

The long term impacts of full fire suppression would likely result in a build up of fuels which could lead to a large scale catastrophic fire over a large geographic area. This may result in adverse effects to aquatic habitats such as sediment loading and increased stream temperature due to a loss of streamside shading. Recovery rates for the affected streams would be determined by the severity of the burn and the size of the affected area.

Conditional fire suppression strategies on prescribed natural fires and wildfires would reduce the risk of a large scale catastrophic fire. Although there may be effects to riparian and aquatic habitats, such as a reduction in streamside shading and increased sediment loading, these effects are likely to be short term in nature and affect a relatively small area.

Rehabilitation specifications would accelerate recovery of riparian and aquatic habitats if fire staging activities are unavoidable in those areas. Rehabilitation of riparian or aquatic habitats that burn during a wildfire or prescribed fire would reduce the time needed to restore fisheries values within the affected areas.

Transportation

18. Restrictions on new road construction in riparian areas would minimize new sediment loadings to aquatic habitats. Design specifications for new road construction are intended to eliminate increased sedimentation impacts to aquatic habitats and provide for fish passage. Evaluation and modification of existing roads and trails would reduce the sediment loading to aquatic habitats that may currently impact identified beneficial uses, including fisheries habitat.

19. Focusing road and trail maintenance on areas with the greatest potential for erosion and resource damage would help reduce potential sedimentation. Road maintenance design specifications (in addition to State-approved BMPs for road construction and maintenance) are expected to minimize increased sedimentation impacts to aquatic habitats and protect water quality, thus benefitting fisheries resources by improving spawning and rearing habitat quality.

Rangeland Vegetation Treatment Projects

20. Vegetation treatment projects have the potential to impact fisheries values in the short term (2 to 5 years), through increased sedimentation from actions such as plowing or burning. However, an objective of the vegetation treatment project would be to increase vegetative cover, thereby reducing the potential for sedimentation in the long term. Proposed buffer strips and vegetation conversion acreage limitations would mitigate the potential sedimentation impacts to aquatic habitats.

Noxious Weeds

21. Spraying noxious weeds in conformance with the *Northwest Area Noxious Weed Control Program EIS* would limit the possibility of adverse toxic

impacts to aquatic resources. Emphasis on integrated pest management and other noxious weed control actions would also minimize the potential for adverse toxic impacts to aquatic habitats.

Forested Areas

22. Reducing the commercial timber base by approximately 24% would maintain some forested lands in an undisturbed condition, reducing the potential for induced sedimentation from those lands. In forested areas where harvest does take place, the management practices, SOPs, and design specifications identified would adequately protect fisheries habitat from significant adverse sedimentation impacts.

Recreation Opportunities and Visitor Use

23. Sedimentation and nutrient loading would be reduced in streams adjacent to casual use areas identified for closure or hardening. Construction of new recreation facilities within riparian areas could cause increased sedimentation to aquatic habitats in, and adjacent to, campgrounds and casual use areas. Increased disturbance of migrating anadromous fish could also result at the developed recreation areas. Not accommodating increased recreation use would have greater, more dispersed, and less controllable impacts on sedimentation, water quality, and fish disturbance. The expected increase in recreation use does pose a greater risk of hazardous or other pollutant material spills into streams, potentially adversely impacting fish in a localized area. However, recreation site development would typically be away from the streamside to minimize this potential.

Off-highway Vehicle Use

24. Limiting OHV use to existing roads, vehicle ways, and trails would nearly eliminate sedimentation impacts from off-road vehicle travel, and allow mitigation efforts to be focused on maintaining roads and trails to minimize adverse sedimentation impacts (see "Transportation," #19 above). Fisheries resources would likely benefit, due to improved upland and riparian vegetation condition and subsequently reduced sediment loading into streams.

Land Tenure

25. Pursuing a "no net loss" policy of like riparian, floodplain, or wetland habitat values on individual land tenure adjustments would eliminate incremental loss of these habitat areas over time; in the long term there could be a net increase in the protection of these habitats. Managing land acquired for special values (such as habitat for special status fish populations) would facilitate recovery of special status species.

26. Acquisition of lands with high resource values (such as fisheries resources) would be the highest priority for land tenure adjustments. This management policy would protect fisheries habitats in the acquired lands from any adverse impact.

Wild and Scenic Rivers

27. Nine of the ten river segments identified as eligible, with a suitability finding deferred, have fisheries OR values. Managing these segments to protect their free-flowing character, OR values, and level of development that resulted in their tentative classification, would maintain or enhance the

fisheries resources along these segments. The following benefits to fisheries resources would occur as a result of the suitability findings presented in the PRMP: (a) two of the streams found suitable, or suitable as part of a system (Herd Creek, West Fork Morgan Creek), have fisheries OR values; the fisheries resources along these segments would be maintained or enhanced for the long term; and (b) acquiring and maintaining minimum streamflows existing at the time of WSR designation would enhance fisheries values.

Areas of Critical Environmental Concern

28. Special management to maintain the unique resources within ACECs may indirectly benefit the fisheries values within, and adjacent to, ACECs by maintaining or improving vegetation conditions within the ACECs and reducing sedimentation. Management actions for the Herd Creek Watershed ACEC would directly benefit fisheries resources within the watershed by improving riparian and upland vegetation conditions and reducing sedimentation.

Wilderness Study Areas - Management if Released

29. Suitable WSAs released from wilderness review would primarily be managed to maintain their primitive values. Resource development within these areas would be limited, and protection of riparian and aquatic habitats would remain a high priority. Fisheries values would be maintained within these WSAs.

Special Status Species

30. Site-specific field assessments of special status species may add to the information base available for fish, allowing future management decisions to be based on more complete data. By association, management actions identified to maintain and enhance habitat requirements of plant or animal special status species could also maintain and enhance riparian, aquatic, and fish habitat. Mitigation requirements for Federally listed threatened and endangered species would help maintain habitats for anadromous and resident salmonids. Expanded partnerships with academic institutions and conservation groups may help increase information about, and improve habitat management of, special status fish species.

Biological Diversity

31. Management initiatives to protect and enhance biodiversity would cause management actions to be reviewed and considered on an ecosystem basis, and sometimes in cooperation with other agencies and adjacent landowners; as a result, fisheries habitat and life cycle needs would be more fully considered and addressed. Information gathered on diversity patterns and key ecosystem indicator species would help the BLM develop appropriate fisheries resource objectives and management strategies to protect and improve fish habitats.

Minerals

32. NSO or standard stipulations on oil, gas, and geothermal leasing in ACECs, SRMAs, WSAs if released from wilderness review, and riparian areas in anadromous fish and bull trout watersheds may help protect fisheries in those areas from vegetation removal, sedimentation, and toxic impacts of

oil, gas, and geothermal development. The likelihood of adverse impacts from these activities is very low, since there is a low potential for energy minerals occurrence in the RA. Closing recreation sites and existing WSAs to energy leasing would fully protect fish habitats in those localized areas from adverse impacts of oil, gas, or geothermal development.

33. Standard stipulations and other restrictions on disposal of mineral materials and non-energy mineral leasing would fully protect existing fisheries resources in the major stream segments and some tributaries of the RA from adverse effects of mineral material disposals and non-energy leasing. Closing recreation sites, existing WSAs, and riparian habitats in salmon, steelhead, and bull trout watersheds to mineral material sales and non-energy leasing would fully protect fisheries values in those localized areas from the adverse effects of mineral materials development or non-energy leasing activities.

34. Maintaining the withdrawn status of recreation sites from locatable mineral entry would have a minimal benefit to fisheries values, because of the small acreage involved. Withdrawing suitable WSAs if released from wilderness review from locatable mineral entry would protect existing riparian and aquatic habitats important to fish in those areas. Small scale (less than 5 acres) mineral location activities outside ACECs, WSAs, WSR corridors, and areas closed to OHV use could negatively impact fisheries and fisheries habitat through removal of riparian vegetation, increased sedimentation, and water quality contamination. For larger scale mineral activity, some additional protection of the fisheries resource could be provided through preparation of the plan of operations and ID team review. Design specifications which address management of mining waste facilities to control sedimentation and toxic effects, prohibit the placement of these facilities in riparian habitat areas, where feasible. The design specification attempts to control and monitor effects of these facilities, but is limited in its ability to do so, because existing laws allow a high degree of flexibility to the mineral locator. Negative impacts to the fisheries resource could still include removal of riparian vegetation, increased sedimentation, and water quality contamination. Required reclamation actions associated with large scale mineral material location actions would mitigate some of the adverse impacts in the long term.

Hazardous Materials

35. Actions such as (a) eliminating the use or transportation of hazardous or toxic materials where feasible within the RA, and (b) stipulating permits, leases, or other actions as appropriate to safeguard against environmental damage, would minimize the chance and severity of impacts to fish habitats from toxic contamination.

Cumulative Effects

Note: Fisheries *habitat* is managed by the BLM, while fisheries *populations* are managed by the IDFG (and other wildlife/fisheries management agencies of states through which anadromous fish migrate). This discussion of cumulative impacts therefore only describes effects of BLM and others' actions on fisheries habitat within the boundaries of the RA. It does not consider effects to fish *populations* which may occur outside the RA boundaries (such as during anadromous fish migration to and from the ocean).

36. Management actions would cause an immediate and sustained improvement in fisheries habitats, primarily through better management of riparian and upland vegetation communities. Improved vegetation conditions would be expected to reduce sedimentation to aquatic habitats and nutrient loading of water courses and substrates of aquatic habitats. The improved vegetation conditions would also establish conditions to stabilize stream systems, allowing the system to take advantage of flows which tend to (a) improve pool quality (by scouring and cleaning silted-in pools) and (b) develop pool and riffle quantities in balance with the stream type and necessary for healthy macroinvertebrate population and composition. These conditions would have the greatest impact on spawning and rearing habitats. A general improvement in overall aquatic habitat quality over the long term would be expected. A corresponding improvement in the viability of the existing fish resource would also be expected.

37. Forest Service and State land management practices are also being modified to improve salmonid spawning, rearing, and migration habitats. As these practices continue, sedimentation and nutrient loading impacts would be decreased on these lands and consequently have less impact on downstream aquatic habitats on BLM lands.

38. Private lands within the boundaries of the Challis Resource Area contain a large percentage of the potential spawning, rearing, and migration habitats of salmonids. The largest use of these lands has been agricultural use supporting the livestock industry within the area. These uses on private lands tend to produce sedimentation and nutrient loading impacts which adversely affect spawning and rearing habitat in particular. Actions on private lands are outside the scope of BLM jurisdiction. However, the BLM will pursue opportunities to work cooperatively with private land owners to promote good riparian habitat at the watershed level; these efforts are expected to reduce sedimentation and nutrient loading impacts to aquatic resources on public lands.

    An additional concern which affects aquatic habitats on all lands is partial or total dewatering of streams. Diversion of stream water for private land irrigation is a widespread concern within the boundaries of the Challis Resource Area. Diversion typically occurs on the lower extent of BLM lands or on private lands. Dewatering or significant reduction of streamflows by these diversions cause access and migration problems to spawning and rearing habitats on BLM lands, as well as eliminating macroinvertebrate populations required for rearing in the dewatered reaches.

These effects are expected to be reduced through cooperative efforts among the BLM, IDFG, tribes, Model Watershed Project, and private landowners to combine or modify diversions and promote efficient water use.

Unscreened diversions cause mortality to fry and down-migrating smolts by allowing the small fish to enter irrigation ditches and be flushed into agricultural fields or stranded when the irrigation ditch is closed and dewatered. Diversion screening activities currently under way through cooperative programs with private, State, and Federal entities, will slow the mortality rate and improve conditions for these fish.

Mineral development on private lands is a potential concern to fisheries resources. Since a large percentage of the spawning, rearing, and migration habitat occurs on private lands, the potential impact from these activities may be even greater than on Federal and State lands. If the private landowner has retained the mineral rights on and under the private land, development would be subject to State standards. If the private landowner has not retained the mineral rights on and under the private land, development would be subject to the same Federal standards as described under minerals, including plans of operations and ID team review. The potential impacts to fish resources include sedimentation, loss of protective vegetation, and toxic contamination.

Increasing restrictions for livestock grazing, mining, and other private uses on BLM managed land may shift these activities onto private land where restrictions are limited or do not apply. The potential for adverse affects to fisheries from minerals activities would be minimized by State or Federal regulations which require compliance with State Water Quality Standards. However, adverse affects from removing riparian vegetation and altering streambanks may still occur. A shift of livestock grazing from Federal to private land could result in unregulated grazing, unless a cooperative agreement with the private land owner could be developed. Without a cooperative agreement, livestock could have unrestricted access to riparian areas, potentially adversely affecting riparian vegetation, streambanks, and spawning and rearing habitats for special status salmonids.

A fairly significant impact to fisheries of toxic contamination from private lands is also present. The use of toxic materials on private lands is generally greater than on Federal lands. Private landowners may store or dispose of toxic substances, including agricultural chemicals and petroleum products, in a less regulated manner than is required on Federal lands. Unprotected storage facilities, inappropriate storage containers, and small family dumps which may occur on private lands are all potentially hazardous situations to fish.

Table 4-3: Priority Streams, by Allotment

Priority Stream	*Allotment*
Burnt Creek	Burnt Creek Allotment
Short Creek	Dry Creek Allotment
Long Creek	Dry Creek Allotment
Dry Creek	Dry Creek Allotment
Pahsimeroi River	Upper Pahsimeroi Allotment
Mahogany Creek	Upper Pahsimeroi Allotment
Road Creek	Mountain Springs Allotment*
Mosquito Creek	Mountain Springs Allotment*
Bear Creek	Mountain Springs Allotment*
Horse Basin Creek	Mountain Springs Allotment*
North Fork Sage Creek	Mountain Springs Allotment*
Corral Basin Creek	Warm Springs Allotment
Lake Creek	Herd Creek Allotment
Herd Creek	Herd Creek Allotment
McDonald Creek	Herd Creek Allotment
Bayhorse Creek	Bayhorse Allotment
Sage Creek	Sage Creek Allotment
Bradshaw Creek	Sage Creek Allotment
Corral Creel	Sage Creek Allotment

*formerly named the San Felipe Allotment

Forest Resources

Introduction: Restrictions (*e.g.,* harvest methods, buffer strips) placed on management of the available timber base because of concerns for other resource values (such as wildlife, recreational use, fisheries) would not preclude forest management and planned timber harvest. However, any loss in timber yield which may result from these restrictions would be taken into consideration in future calculations of the allowable cut. Commercial timber lands which are set aside would be withdrawn from the timber production base, would not be available for scheduled timber harvesting, and would not be included in allowable cut calculations. However, these set-aside commercial timber stands and stands classified as woodland would be subject to limited forest management activities such as logging road rights-of-way, salvage operations, and firewood cutting. Any volumes of timber removed from these lands would not be used to satisfy allowable cut levels.

No Reasonably Foreseeable Effect to Forest Resources: Decisions listed in the PRMP under the following sections would have no reasonably foreseeable effects on forest resources: Air Quality, Biological Diversity, Cultural Resources, Fisheries, Floodplain/Wetland Areas, Hazardous Materials Management, Land Tenure and Access, Minimum Streamflow, Noxious Weed Infestations, Off-highway Vehicle Use, Paleontological Resources, Rangeland Vegetation Treatment Projects, Recreation Opportunities and Visitor Use, Special Status Species, Transportation, Tribal Treaty Rights, Water Quality, Wild Horses and Burros, and Wild and Scenic Rivers.

Summary of Effects

1. Adjusting harvest levels and conducting new inventories of forest lands in the Resource Area would ensure that harvest in excess of sustained yield levels would not occur. Using prescribed fire in forest systems may benefit long term forest sustained productivity. Silvicultural prescriptions to enhance natural regeneration would reduce reforestation costs. Harvest restrictions to improve and maintain wildlife habitat may increase layout and harvesting costs. Permanently withdrawing selected commercial forest acreage from harvest may decrease forest productivity in those areas, in the absence of prescribed or natural fire. However, examples of undisturbed forest ecosystems would be retained for the future.

Direct and Indirect Effects, by Proposed RMP Section

Forest Resources

2. Acreage withdrawals in WSAs and ACECs would be reflected in the total acres managed and volume harvested per decade. This harvest level is considered sustainable, based on eastern Idaho zone forest inventories completed in 1977. As a result, forest health and vigor would not be expected to decline over the long term.

3. In the absence of prescribed or natural fire, forest health and diversity would decline on acres withdrawn from forest management (e.g., existing WSAs):

   (a) Susceptibility to epidemic insect or disease outbreaks would increase, due to the lack of thinning and the decrease in vigor that result from overstocking. For example, in lodgepole pine types a trend toward uniform large-diameter stands would increase the hazard of destructive stand removal by

mountain pine beetle.

(b) Stands containing fire- or disturbance-dependant seral species (such as quaking aspen and lodgepole pine) would become less abundant, as these stands undergo succession to the climax Douglas-fir and subalpine fir types. Pre-suppression forest stand diversity potentially reduces catastrophic hazards associated with insects, diseases, and fire by creating natural barriers and breaks in forest stands. For example, even-aged pole or sapling stands caused by disturbance (pre-climax structures in single-species stands) serve as breaks in otherwise monotypic forest stands.

(c) Unnatural fuel loads and ladder fuel buildup could increase susceptibility to adverse fire effects, including long term problems in the soil profile which result from excessively hot fires.

When natural fire occurs in conditional fire suppression areas, forest health and diversity may improve, risk of catastrophic insect or disease outbreaks would be reduced, and seral species or pre-climax structures may increase in occurrence. Future fire effects would maintain the character of these fire-altered stands, rather than cause catastrophic stand replacement. Prescribed fire could improve forest health in lands withdrawn from timber harvest by potentially reducing ladder fuels, thinning overstory co-dominants, and improving conditions for seral species (*e.g.*, aspen and lodgepole pine) and pre-climax stand structures.

4. Harvest levels may increase or decrease based on growth and yield data resulting from intensive forest inventories. Regardless of whether there is an increase or decrease, accurate data and evaluation would ensure that timber harvest levels are compatible with the principles of sustained yield.

5. Reducing clearcut size in Douglas-fir types to 10 acres would reduce the susceptibility of regeneration to drought stress, improve natural regeneration in these areas, reduce potentially high artificial reforestation costs, and sustain site productivity and timber yield, at least for the short term. However, large epidemic outbreaks of diseases or insects on areas larger than 10 acres may be impossible to adequately sanitize to prevent further spread of these problems.

6. Timber marking to establish or enhance natural regeneration would reduce artificial regeneration costs for contracted cone collection, seedling growing, and planting. Prescriptions such as group selection would maintain shade and prevent wind scouring and drying of forest stands, thereby maximizing natural regeneration occurrence.

7. Natural regeneration may alter yields, due to the lag time involved in establishing natural seedlings. Cone yields and moisture conditions must coincide before a harvested stand can adequately regenerate.

8. Selecting seed from genetically diverse stock would increase the likelihood that genetic material important for forest protection and diversity would be captured. However, some loss of potential for improved growth would be expected.

9. Making artificial reforestation a greater priority than timber sale preparation would temporarily slow timber sale availability when a backlog of artificial regeneration needs occurs.

10. If livestock utilization levels on forested rangelands remain high, the BLM would incur increased costs to ensure that livestock damage to regeneration does not occur. This may lower harvest receipts, due to timber sale collections for fencing or purchaser requirements for fencing. Forest species and structural diversity may increase within fenced areas.

11. Withdrawing 41 small stands (980 acres) from commercial timber harvest would reduce the average annual harvestable yield by 27 MBF. However, small old growth stands would be retained for dependent wildlife species and for study. These stands are particularly useful for identifying silvicultural techniques to naturally regenerate dry sites.

Livestock Grazing

12. Grazing to the stated utilization level on uplands could adversely affect artificial or natural forest regeneration. Grazing during the late season time period (when less grass is available) may increase livestock browsing on tree seedlings, resulting in terminal shoot destruction.

13. Managing for late seral or Potential Natural Community would reduce the amount of rangeland in poor to fair condition, and as a result, would improve the potential for natural regeneration success. This is because livestock overuse of forage on poor condition range often carries over into adjacent forest land, where heavy utilization and trampling can occur on regenerating trees, particularly where shade is scarce. This may result in less than average growth and yield and, in turn, may result in overharvesting if cutting occurs at the planned sustained yield level.

Wildlife Habitat

14. Continued implementation of existing Habitat Management Plans (HMPs) and proposed development of an activity plan for the Donkey Hills area would subject approximately 6,694 acres of available commercial forest land in the Challis RA to harvest and management restrictions to protect crucial elk winter range and elk habitat quality. Stipulations such as cable and helicopter logging requirements on 4,392 acres would modify sale layouts and promote less economical logging methods. This may affect timber sale success, due to potential increases in harvesting costs. Reduced timber sale receipts may be expected, because of unpurchased sales and the effect of increased logging costs on stumpage value. Forest health problems of epidemic proportions may not be treatable, due to unit size or hiding cover restrictions. However, stand structure and diversity may be enhanced. Stipulations would contribute to the success of natural regeneration in these areas. No loss of harvestable timber yield would be expected.

Upland Watershed

15. Helicopter logging restrictions on 1,801 acres to protect watershed resources on Lone Pine Creek would restrict management activities and increase logging costs, thereby reducing timber sale values and timber receipts. Helicopter logging would promote soil stability and eliminate road construction and the adverse impacts associated with roads.

Riparian Areas

16. Restrictions on timber harvest within buffer areas along streams and riparian areas would reduce the availability of commercial forest land and reduce the average annual harvest. Since stocking level reductions would not be permitted (except to manage insects or disease), forest health conditions may decline due to rampant disease in these untreatable areas.

Fire Management

17. In the short term, the absence of prescribed fire or prescribed natural fire (other than to increase forage availability or reduce hazards associated with timber management activities) would continue to adversely affect forest health conditions:

    (a) Overstocking would continue to be a problem. In forest habitat types similar to those in the Resource Area, Arno and Gruell (1983) estimated a mean fire-free interval of 41 years. This frequency suggests that these types of stands experienced fire-caused stocking reductions. Overstocking would cause reduced vigor because amounts of moisture, nutrients, and sunlight would be inadequate to support all trees. Reduced vigor would then increase susceptibility to destructive agents such as insects or diseases, and allow for epidemic insect or disease outbreaks due to the widespread hazard of low-vigor trees.

    (b) Excessive fuel loads from fire suppression may create ladder fuel and flame length hazards that could result in catastrophic fire. Root damage may also result from excessive duff accumulated in the absence of fire.

    (c) The insect and disease sanitation effects of fire would be nearly nonexistent. For example, Crane and Fischer (1986) state that "severe fires often replace infested stands with relatively mistletoe-free young stands."

    (d) The overall sustained productivity of the forest ecosystem may decline, due to nutrient cycling problems caused by fire suppression. Although the role of fire in the nutrient systems of forests is not understood fully, fire likely has great importance, especially in light of the regular fire frequencies under which these forests have adapted.

    In the long term, the use of prescribed fire and prescribed natural fire following an ID team planning process would enhance forest health conditions. Forest health conditions could improve in conditional suppression areas.

Areas of Critical Environmental Concern

18. Designation of ACECs to protect rare plants, unusual plant communities, a petrified forest, high altitude range and forest plant communities, and fragile

soils would leave 327 acres of commercial forested land unavailable for timber harvesting and 2,398 acres of woodland unavailable for woodland product sales, resulting in a 12 MBF reduction in average annual harvestable yield. Effects on forest communities in ACECs (*e.g.,* forest health, old growth, and biodiversity) are described above under "Forest Resources," #3. Management actions to maintain crucial elk habitat in the Donkey Hills ACEC would modify forest management on 5,069 acres. (The acreage treated and timber yields expected would be unchanged.) Helicopter logging restrictions on 4,392 acres and reduced logging unit size may reduce the amount of timber sold, depending on timber value fluctuations.

Wilderness Study Areas - Management if Released

19. Harvest levels would increase slightly if suitable and nonsuitable WSAs are released from wilderness review. Commercial forest lands in WSAs (6,209 acres) are currently unavailable for timber harvest and management, which results in a 221 MBF reduction of harvestable yield annually. In the absence of natural or prescribed fire, timber harvest and management may improve the vigor of forest stands and decrease susceptibility to extensive damage by fire, insects or disease. If released from wilderness review, suitable portions of the Jerry Peak WSA (2,787 acres of commercial forest land) would remain closed to timber harvest, resulting in a continued 99 MBF reduction in average annual harvestable yield. In addition, management restrictions in the nonsuitable areas of the Jerry Peak and Corral-Horse Basin WSAs would modify forest management actions on 2,265 acres. (No changes in acreage treated or timber yields would be expected.) Helicopter logging restrictions may reduce the amount of timber sold, depending on timber value fluctuations.

Minerals

20. Where mineral entry occurs on forested lands, it may reduce long term forest productivity by removing timber, replacing forested areas with mining operations, and altering soil surface and subsurface layers.

Visual Resources

21. Classifying the majority of the RA as VRM Class II would eliminate most road construction in unforested areas. Helicopter logging prescriptions would increase, and/or new road access would be located in visually unobtrusive areas. This may increase logging costs and decrease opportunities for forest management, due to economic constraints. Irregular unit design may increase the probability of successful natural regeneration, due to increased shade and seed availability.

22. Helicopter logging restrictions on 1,801 acres to protect visual resources on Lone Pine Peak would restrict management activities and increase logging costs, thereby reducing timber sale values and timber receipts.

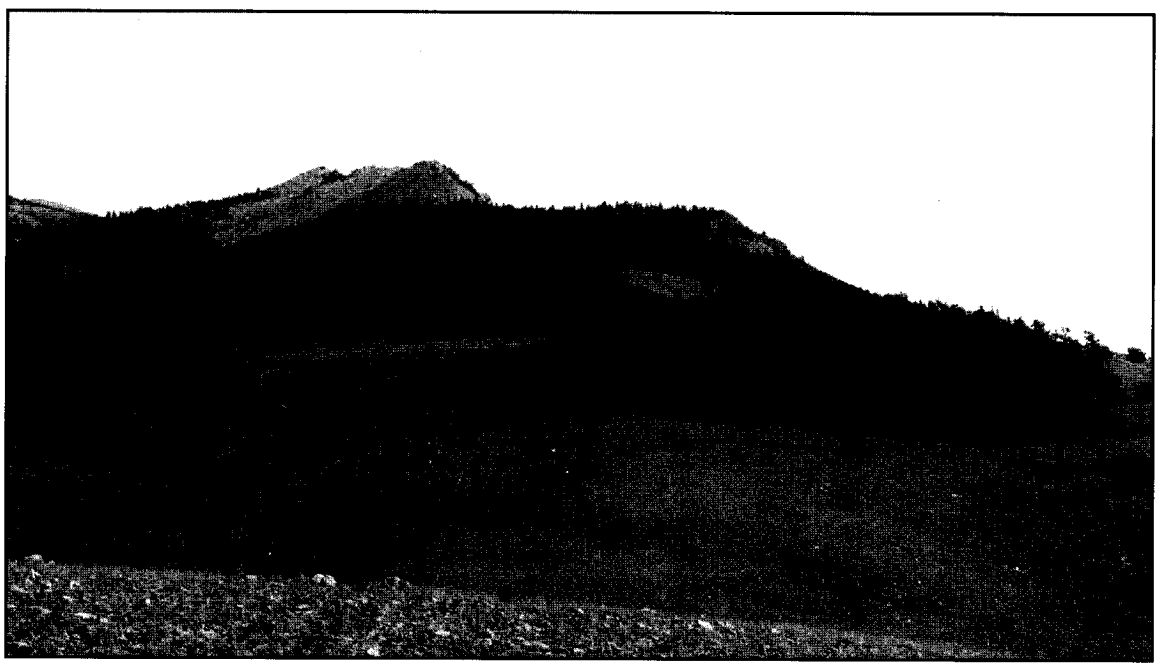
Cumulative Effects

23. BLM lands: Same as summary of effects (Forest Resources, #1 above).

24. Adjacent USFS lands: Where USFS forests support unmanaged insect or disease outbreaks adjacent to BLM lands, there would be potential for spread. Because all USFS timber adjacent to Resource Area lands is at

higher elevations than BLM forests, this facilitates spread of some gravity-controlled agents such as mistletoe and spruce budworm. In contrast, stand-altering fires would be less likely to spread downhill from USFS to BLM forests, due to the uphill trend of fire and associated winds. In addition, fuel loading is generally less in the lower elevations, and, if fire did spread, effects are likely to benefit stocking conditions and increase vigor. There may be potential for minor effects to BLM lands along boundaries where USFS management activities such as clearcutting change seedfall or shade. In drainages where extensive USFS logging has occurred, sedimentation may be high enough to restrict future forestry activities on downstream BLM lands.

25. Private lands: Impacts to BLM forest lands could occur from fires ignited on private lands. Private lands are usually located at elevations below BLM lands and, as a result, fire spread along the uphill gradient could rapidly extend to BLM forests. However, potential impacts to stand conditions would generally be favorable, unless burning and fuel conditions caused stand destruction. Risk of stand destruction would be less in the long term, because of increased use of prescribed and natural fire in forests in the RA.



Livestock Grazing

No Reasonably Foreseeable Effects to Livestock Grazing: No reasonably foreseeable effects to the livestock grazing program would be expected from the actions listed in the PRMP under these sections: Air Quality, Cultural Resources, Forest Resources, Hazardous Materials Management, Paleontological Resources, Tribal Treaty Rights, and Visual Resources.

Effects on livestock grazing are described below under the following categories: Summary of Effects; Direct and Indirect Effects, by Livestock Management Factors Affected and Proposed RMP Decisions Causing the Effect ("Livestock Management Factors Affected" include Livestock Forage Allocation and Use, Livestock Forage Quantity and Quality, Livestock Water Availability and Quality, Livestock Use Limitations or Closures, Access for Livestock Management, and Other Factors Affected); and Cumulative Effects.

Summary of Effects

1. PRMP actions would result in major changes to the livestock grazing program. Riparian stubble height and upland cover criteria, and aquatic and riparian objectives would be difficult to meet without additional management by livestock permittees. This would increase permittees' costs and efforts. The long term result of meeting these requirements would be improved riparian and upland conditions, achieved RMP range condition goals, and improved forage quality for livestock grazing. These improvements would benefit livestock permittees in the long term.

Direct and Indirect Effects, by Livestock Management Factors Affected and Proposed RMP Decisions Causing the Effect

Livestock Forage Allocation and Use

Livestock Grazing

2. About 97.3 percent (771,224 acres) of the RA would be available for livestock grazing. The short term grazing allocation would be reduced by 52 AUMs from the closure of the south half of the Highway Allotment, resulting in an active grazing preference of 51,017 AUMs. In both the short and long term, actions such as stubble height requirements and utilization and cover standards (required under the livestock grazing, riparian, fisheries, and upland watershed sections of the PRMP) would probably require livestock to move through the grazing systems more rapidly and off the grazing allotments at an earlier date than permitted, unless permittee actions are taken to improve livestock management. This could result in estimated annual livestock use up to about 12,657 AUMs (about 25%) below the active grazing preference; average annual livestock use would be about 38,412 AUMs. Decisions relating to the allocation of nonuse AUMs and lost, relinquished, retired, sold, or cancelled AUMs would reduce a permittee's ability to mitigate the above actions.

Livestock Forage Quantity and Quality

Livestock Grazing

3. In the short term, modifying annual operating plans to incorporate livestock use criteria from the PRMP would result in less use of existing forage. In the long term, (a) revising AMPs through watershed assessment and development of integrated resource activity plans (IRAPs), as needed, and (b) establishing proper stocking rates for the listed allotments would reduce the number of overstocked allotments and lead to improved forage quality.

Wild Horses and Burros/ Wildlife Habitat

4. No major adverse impacts to the livestock grazing program would be expected from continuing to manage for current wild horse and big game wildlife numbers. If wild horse numbers prove to be a problem in achieving RMP resource objectives, the current Herd Management Area (HMA) Plan would be reviewed and changes proposed.

5. Resolving livestock/big game conflicts on a case-by-case basis could impact livestock grazing to an unknown extent, depending on the degree of public controversy, consultation with the IDFG, etc. Encouraging the IDFG to maintain big game numbers would help ensure livestock/big game conflicts do not increase.

6. Some wildlife habitat management actions (such as fence modification and providing wildlife water in pastures that are not being grazed by livestock) could have slightly negative effects on livestock grazing, by increasing permittee costs, while others (prescribed burns and development of additional watering sources) could improve livestock forage. Special management emphasis on the named bighorn sheep and elk winter ranges would not be expected to impact livestock forage quality and quantity beyond the existing level of management.

7. Resolving reintroduction conflicts through use of an ID team process and consultation with other parties would help ensure that there would be minimal impacts to livestock grazing through competition for available forage.

Noxious Weed Infestations

8. Proposals to increase the level of noxious weed control would benefit the quantity and quality of livestock forage by preventing or slowing the spread of noxious weeds into areas not currently infested.

9. Limitations on feeding commercial stock with hay on BLM land would have minor impacts to the livestock grazing program through increased permittee expense and inconvenience, as requests to do this occur very rarely. An ID team could allow this feeding, leading to benefits to livestock grazing on those rare occasions when feeding is necessary.

Range Improvements

10. Range improvements implemented to promote ecosystem health and diversity could have a positive effect on livestock forage quantity and quality by improving livestock distribution.

11. New AUMs made permanently available through vegetation treatment projects could not be used by livestock until objectives are met on the remainder of the allotment. In the short term, this would limit flexibility for the livestock permittees, but in the long term this could benefit livestock management through improved forage quality and quantity.

12. Requiring livestock permittees to maintain range improvements under cooperative agreements so the improvements are functional and properly maintained before turnout would add an additional workload on permittees, but would ensure that range improvements promote better livestock distribution and more uniform forage utilization. New fences and troughs would help control livestock distribution and areas of use.

Fire Management

13. Full suppression of wildfire on most of the RA could lead to areas where the absence of fire results in sagebrush dominance, reducing available livestock forage. Over time, in areas where conditional suppression is implemented, the amount of acreage where fire suppression results in sagebrush dominance would be reduced. As a result, livestock forage may increase over the long term.

14. Prescribed fire would be used to enhance ecosystem health and function, leading to improved forage quality and quantity.

Fisheries

15. Addressing riparian management through watershed assessments and IRAPs which include criteria for grazing riparian areas would improve forage quality and quantity, but potentially increase permittee costs and efforts. PRMP actions to improve riparian and aquatic habitats (e.g., stubble height and bank shearing criteria) would limit livestock use in several allotments through shortened seasons, and affect livestock grazing throughout the Resource Area. In the long term, these actions would improve forage quality and quantity through improved resource conditions.

16. Management strategies developed to improve 90% of unsatisfactory crucial aquatic and riparian habitats in all fish-bearing streams could have major impacts on the livestock grazing program through increased permittee costs to implement the changes. However, meeting these standards would result in large improvements to forage quality and quantity.

Livestock Water Availability and Quality

Floodplain/Wetland Areas

17. Waterholes developed from springs or seeps would be fenced and converted to pipeline/trough developments when reconstructed. This would provide better quality water for livestock and help protect these waterholes/seeps from trampling damage.

Water Quality

18. Requiring all BLM authorized actions to meet or exceed existing State approved Best Management Practices (BMPs) to support beneficial uses for water quality could increase permittees' costs and efforts. However, meeting or exceeding these BMPs and achieving desired riparian and aquatic habitat

conditions would result in improved water quality for livestock.

Minimum Streamflow

19. Acquisition of minimum streamflows would help ensure livestock water availability.

Livestock Use Limitations or Closures

Livestock Grazing

20. Closures to livestock grazing (21,343 acres) would have minor effects to the livestock grazing program, since the majority of that acreage is currently closed. The overall impact of the additional south half of the Highway Allotment closure (976 acres) on continued livestock grazing would be minor.

21. Limitations on grazing bluebunch wheatgrass during the boot-to-flowering stage would have significant impacts in some allotments. Livestock would have to be moved from some pastures much earlier than is currently required. In some allotments, there may be nowhere else to graze during this period, resulting in seasonal closure of the allotment.

Riparian Areas

22. Maintaining existing riparian exclosures to provide reference areas for management assessment and developing riparian exclosures and pastures throughout the RA would limit livestock grazing in certain areas. Some pastures would be managed with riparian values as the overriding priority. This could cause impacts to livestock operations in the form of higher costs for fencing, riding, salting, etc.

Land Tenure and Access

23. (a) Over the life of the RMP, up to about 63,075 acres of public land would be available for disposal, including up to about 4,806 acres of public land which could be sold. The actual amount of land transferred out of public ownership is anticipated to be much lower. These lands would no longer be available for livestock grazing under BLM administration. In some cases, these lands would be sold or exchanged to the current livestock permittee. The amount of land involved in any particular adjustment would generally be small, resulting in no or minimal reductions in AUMs to any particular allotment or permittee.

(b) Potential would exist for loss of BLM forage for livestock from exchange of up to about 36,915 acres of public land around Mackay with the State of Idaho. Effects to permittees may be mitigated, if the public lands acquired by the State of Idaho are made available for permitted livestock grazing.

24. Other lands actions, such as rights-of-way, leases, permits, and withdrawals, would have minor impacts to livestock grazing, because permitted use would not be reduced in most cases.

Wild and Scenic Rivers

25. The impacts to the livestock grazing program from Wild and Scenic Rivers actions are expected to be the same as the impacts of fisheries, aquatic, and riparian habitat management actions (see Livestock Grazing, #15 and 16

above). WSR corridors would remain open to managed grazing use, as long as grazing did not adversely affect identified WSR values.

Areas of Critical Environmental Concern

26. There would be no impact to livestock grazing from existing ACECs that remain closed to livestock grazing: Cronk's Canyon, Malm Gulch/Germer Basin, East Fork Salmon River Bench, Sand Hollow, and Summit Creek ACECs. Designation of seven new ACECs would have minimal impacts to livestock grazing, since there are no additional livestock grazing closures due to ACEC designation. However, if ACEC values are determined to be adversely affected, changes in livestock management would be implemented, causing impacts to livestock grazing operations.

Wilderness Study Areas - Management if Released

27. Limitations on construction of new range improvements in existing WSAs (approximately 140,260 acres) would continue to limit their use to control livestock distribution. If WSAs are released from wilderness review, additional range improvements could be constructed after completion of a watershed assessment. This could improve livestock distribution and livestock forage quality and quantity.

Recreation Opportunities

28. Continuing to exclude livestock from portions of existing designated recreation sites would have no impact, since many of the areas are already fenced and the acreage is very small. Excluding livestock from other recreational facilities would have minor impacts, since the sites would be so small no reduction in grazing preference would be necessary.

29. Within designated Special Recreation Management Areas (SRMAs), conflicts between recreation and other resources would be resolved on a case-by-case basis, resulting in potential impacts to livestock grazing if grazing seasons or areas of use are modified.

Minerals

30. Existing minerals activities would not have significant effects to the livestock grazing program, unless another development of the scale of the Thompson Creek Mine project occurred. Then, the impact to the grazing allotment could be so severe as to totally close the allotment to all livestock grazing, with total loss of grazing preference. This would result in severe loss to an individual grazing permittee, but would not be a major impact Resource Area-wide. The potential for this to occur would be low.

Access for Livestock Management

Off-highway Vehicle Use

31. OHV use limitations and closures could limit a livestock permittee's mode of access to some areas. However, livestock permittees could receive temporary exemptions from the BLM authorized officer.

Transportation

32. Road maintenance would benefit the livestock grazing program by ensuring vehicular access to most of the RA for livestock management. Developing transportation and maintenance plans would ensure that a proper number of

roads and trails would continue to be available, without leading to resource damage. Limitations on new road construction in riparian areas would not be expected to impact the livestock grazing program, as it is unlikely new roads would be needed in those areas for livestock management purposes.

Recreation Opportunities and Visitor Use

33. OHV use by recreationists would not be expected to impact livestock grazing, since OHV use would be limited to existing roads, vehicle ways, and trails. The amount of unauthorized OHV use, and potential for cut fences, gates left open, and harassment of livestock, would be expected to be low.

Other Management Factors Affected

Special Status Species/ Biological Diversity

34. The requirement to include a site-specific field assessment of special status plant, animal, and fish species and an analysis of biodiversity as part of project or activity planning could increase the amount of time needed to complete this type of planning, and could constrain project development in some cases.

Wildlife Habitat

35. Livestock grazing would benefit from ADC predator control activities, especially through reduced calf and lamb loss.

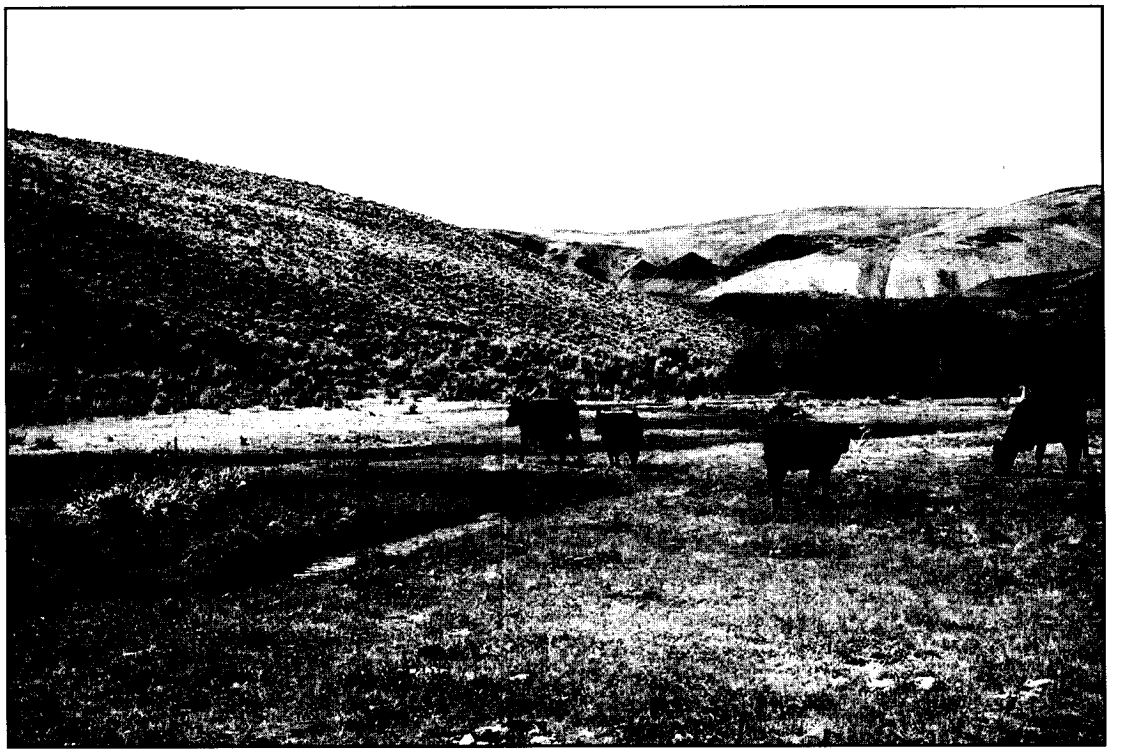
Cumulative Effects

36. Cumulative impacts from BLM actions are described in the **Summary of Effects** (Livestock Grazing, #1 above).

37. (a) Cumulative effects to the livestock grazing program could also occur from the actions of adjacent private landowners, because livestock permittees are very dependent on the use of private lands during the time their livestock are not on BLM-administered public lands. Watershed analyses would look at all land ownerships, and would include consideration of adjacent land uses on ecosystem components. This would provide opportunity to mitigate the cumulative effects of private, State, and other Federal agencies' actions on livestock grazing on BLM public lands. Loss of private irrigated ranch lands to subdivision development or other land uses would decrease the amount of hay crop land available. This would increase permittees' dependence on public lands (BLM, USFS, State of Idaho) and could increase operating costs due to the need to purchase hay from outside Custer or Lemhi counties.

b) Actions taken by State and other Federal agencies to comply with circumstances such as Endangered Species Act anadromous fish recovery, tribal treaty rights, water rights adjudication, and the Clean Water Act would also potentially affect livestock grazing on BLM public lands. National Forest system lands and State of Idaho leased lands also play an important role in overall ranch operations. Any decrease in the availability of livestock grazing on these lands would further increase permittees' dependence on BLM public lands and private lands. Because of a limited amount

of private land, the net effect could be a reduced amount of livestock forage available from any land source - private, State, BLM, or USFS. Permittees may be required to reduce livestock operations due to a lack of forage. However, there would still likely be sufficient livestock operations to utilize the livestock allocations offered in the Challis Resource Area.



Minerals

No Reasonably Foreseeable Effects on Mineral Development: No reasonably foreseeable effects on mineral development activity would be expected as a result of management decisions listed in the PRMP under the following sections: Air Quality, Biological Diversity, Fire Management, Forest Resources, Hazardous Materials Management, Land Tenure and Access, Livestock Grazing, Minimum Streamflow, Noxious Weed Infestations, Rangeland Vegetation Treatment Projects, Transportation, Tribal Treaty Rights, Upland Watershed, and Wild Horses and Burros.

Introduction: The discussion of direct, indirect, and cumulative effects for the minerals resource is divided into three analyses: energy minerals; saleable and non-energy leasable minerals; and locatable minerals. The analysis of effects on energy minerals is based on reports submitted for the RMP by Robert Mallis and Steve Moore of the BLM - Idaho State Office (BLM 1992) (see Planning Record). A summary of effects on all types of mineral development is provided below. Estimated minerals closures under PRMP management are shown in *Table 4-6*.

Summary of Effects - All Minerals

1. The application of standard stipulations or no surface occupancy stipulations to energy mineral leases would have the potential to limit the development of energy minerals in the RA. However, the probability of development and the potential for conflict with other resource values is low. There would be no effect on the availability of non-energy leasable minerals, because none are known to occur. The availability of new mineral material pit sites may be limited, due to potential for conflict with other resource values. Alternative pit sites would be available, but hauling distances and material costs may be greater. Restrictions on locatable mineral entry along streams and riparian areas could limit locatable mineral development.

Direct and Indirect Effects, by Type of Mineral Development

Energy Minerals

2. The reasonably foreseeable development scenario (RFDS) of oil and gas activity for the next 15 to 20 years is expected to consist of (1) some leases issued, (2) a few geophysical surveys, and (3) possible drilling of one or two exploratory holes. Based on the historical record and the low potential for occurrence of hydrocarbon minerals or geothermal resources in the Resource Area (see *Map 34: Oil and Gas Potential* and *Map 26: Geothermal Potential*), little or no oil, gas, or geothermal energy development is anticipated in the Resource Area during the life of the RMP. The RFDS estimates that no more than four to eight acres of public land would be subject to disturbance from exploratory drilling, if drilling should occur. Potentially, five to ten miles of road may be constructed that would result in a total surface disturbance of approximately 25 to 50 acres. Drill pads and roads would be reclaimed when operations are complete. Reports by Mallis and Moore (BLM 1992 - see Planning Record) document the poten-

tial development scenario for oil, gas, and geothermal resources in the Resource Area, along with the assumptions used to arrive at the above predictions of acres of disturbance from exploration and development. *Table 4-4* and *Table 4-5* summarize the availability of lands for exploration and development of fluid energy minerals under the PRMP. Also see *Map 34: Oil and Gas Potential* and *Map 26 : Geothermal Potential.*

3. Standard lease stipulations, no surface occupancy (NSO) stipulations, closure of existing WSAs, and the minerals SOPs and design specifications would have some potential to limit oil and gas development in the RA. However, due to the low potential for occurrence of energy minerals in the Resource Area, and the RFDS predicted for the RA, adverse effects on energy mineral development are considered unlikely. The potential for no surface occupancy stipulations to be applied on SRMAs (58,000 acres) and suitable WSAs, if released from wilderness review (38,930 acres) would reduce the probability that exploratory drilling or development would occur in those areas. Closure of campgrounds and recreation sites, and a mandatory NSO stipulation on riparian areas in anadromous fish and bull trout watersheds would be unlikely to limit exploratory drilling or development, due to the small size of these areas.

Saleable and Non-energy Leasable Minerals

4. There are no known deposits of non-energy leasable minerals in the Resource Area, and therefore, no adverse effects to non-energy leasable mineral development are expected as a result of the stipulations and restrictions on mineral development provided for in the PRMP.

5. Mineral material disposals would be allowed on up to 79.8 percent of the RA. Existing community mineral material pit sites (13) would provide for most public demand. New mineral material community pits could be made available for public use as needed, in areas that are not closed or otherwise restricted. A site-specific NEPA analysis would be completed on any new pit site proposal.

   Continued closure of WSAs (140,260 acres) and designated recreation sites (1,450.76 acres) would limit the availability of pit sites, but is not expected to limit the availability of mineral materials because alternative sites would remain available. Additional closures (Lone Bird and Malm Gulch/Germer Basin ACECs (17,792 acres); riparian areas in steelhead, salmon and bull trout watersheds; suitable WSAs, if released from wilderness review) and restrictions (two SRMAs; twelve ACECs) could limit the availability of suitable material pit sites to meet public demand. A limited availability of suitable sites would increase hauling distances and costs in some instances, because mineral materials may need to be obtained from alternative sites that are farther away from points of use. New applications for mineral material sales and non-energy mineral leases could be denied in remaining ACECs, riparian areas along other fish-bearing streams, and in SRMAs or WSRs, if the actions conflicted with priority resource values. This would also have

potential to increase hauling distances and costs. However, the availability of mineral materials would not be significantly affected because suitable alternative sources would remain available throughout the RA (see *Map 37: Saleable Minerals Land Classification*). Alternative pit sites are also available on private lands in the area. Development of materials sites on private lands may reduce hauling distances.

Locatable Minerals

6. Opportunities for locatable mineral exploration and development would be available on 99.8% (791,116 acres) of public lands in the RA, and 94.9% (752,186 acres) of the RA if all WSAs are released from wilderness review. Existing withdrawals of recreation sites (1450.76 acres) from mineral development, and recommendations for withdrawal of suitable WSAs (38,930 acres), if released from wilderness review, would preclude opportunities for locatable mineral development on these areas. It is expected that these withdrawals would have no noticeable effect on mineral development activity in the RA, based on the low potential for locatable mineral occurrence in those areas (see *Map 26: Locatable Mineral Land Classification.*

7. Whenever they are required, preparation of plans-of-operation are likely to increase the time and effort required for claimants to conduct locatable mineral exploration and development.

8. Review and possible modification of locatable mineral development activities in riparian areas on non-fishbearing streams, coupled with design specifications, SOPs, and stipulations on locatable mineral development in riparian areas along fish-bearing streams, would have potential to increase costs associated with locatable mineral development, if development should occur, and limit locatable mineral development in riparian corridors and streams, particularly in watersheds occupied by special status fish species.

9. Opportunities for locatable mineral development on WSR corridors would not be limited, except as required by law or regulation to protect WSR values, or by limitations on locatable mineral development in riparian areas as described in #8 above.

10. Locatable minerals activity away from existing roads and vehicle ways would be limited to non-motorized methods, as a result of off-highway vehicle use limitations. Prior authorization by the BLM would be required for use of motorized vehicles during exploration and development, if the activity is in an area "limited" to existing roads, vehicle ways, and trails. A plan of operations would be required in any area "closed" to OHV use. Obtaining prior authorization or preparing a plan-of-operation is likely to increase the time and effort required for claimants to conduct exploration and development activity.

Cumulative Effects

11. There would be no reasonably foreseeable cumulative effects on energy or non-energy mineral development in the RA. No energy mineral development activity has occurred on adjacent National Forest, State or private lands, nor is any future development anticipated. There are no known deposits of non-energy leasable minerals in the RA.

12. Cumulative effects on mineral material sales would include long term limited availability of mineral materials pit sites in certain special management areas on public lands. Alternative pit sites are expected to be available on private lands and adjacent National Forest lands. Demand for private sources may increase, to offset increased hauling distances. Costs of materials may also increase.

13. Potential future development opportunities may be foregone in areas that are closed to locatable mineral development or where development is restricted to protect other resource values. However, no cumulative effects are expected, based on the low potential for occurrence of locatable minerals in most areas that would be restricted or otherwise withdrawn from development.

Table 4-4: Availability of Lands for Oil and Gas Development Activity, Relative to Resource Potential[1]

Management Categories	Zero Potential	Low Potential	Moderate Potential	High Potential	Total
OPEN: Subject to standard stipulations	101,000	568,948	0	0	669,948[2]
OPEN: Subject to NSO stipulation	24,000	97,130	0	0	121,130[2]
OPEN: Mandatory NSO stipulation	*	*	*	*	*
CLOSED: Discretionary	0	1,451	0	0	1,451

[1]Calculated assuming all WSAs (140,260 acres) would be released from wilderness review.
[2]Total includes unknown acreage in salmon, steelhead trout, and bull trout watersheds which would have a mandatory NSO stipulation.
*Riparian areas in salmon, steelhead, and bull trout watersheds would have a mandatory NSO stipulation. The total acreage involved would be small, and limited to the width of the riparian habitat area (see PRMP, Attachment 4).

Table 4-5: Availability of Lands for Geothermal Resource Development, Relative to Resource Potential[1]

Management Categories	Low Potential	Moderate Potential	High Potential	Total
OPEN: Subject to standard stipulations	665,798	0	3,350	669,148[2]
OPEN: Subject to site-specific NSO stipulation	111,280	0	10,650	121,930[2]
OPEN: Mandatory NSO stipulation	*	*	*	*
CLOSED: Discretionary	1,451	0	0	1,451

[1]Calculated assuming all WSAs (140,260 acres) would be released from wilderness review.
[2]Total includes unknown acreage in salmon, steelhead trout, and bull trout watersheds which would have a mandatory NSO stipulation.
*Riparian areas in salmon, steelhead trout, and bull trout watersheds would have a mandatory NSO stipulation. The total acreage involved would be small, and limited to the width of the riparian habitat area (see PRMP, Attachment 4).

Table 4-6: Minerals Closures (approximate acres)[1]

Oil, Gas, Geothermal

Recreation Sites	1,451
WSAs	140,260
Total Closures	141,711

Mineral Material Sales

Recreation Sites	1,451
ACECs	17,792
Riparian Areas	+
WSAs	140,260
Total closures	159,503

Non-energy Leasing

Recreation Sites	1,451
Riparian Areas	+
WSAs	140,260
Total closures	141,711[+]

Locatable Minerals

Recreation Sites	1,451
WSAs	140,260
Total closures	141,711

[1]Acres are approximate, and totals for each type of mineral activity may not take overlapping special management areas into account.
[+]Riparian areas in salmon, steelhead, and bull trout watersheds would be closed to non-energy leasing and mineral material sales. The total acreage involved would be small, and limited to the width of the riparian habitat area (see PRMP, Attachment 4).
*Recommended for withdrawal from locatable mineral entry.

Paleontological Resources

No Reasonably Foreseeable Effects: No reasonably foreseeable effects to paleontological resources would be expected from decisions listed under the following sections of the PRMP: Air Quality, Biological Diversity, Cultural Resources, Fire Management, Fisheries, Floodplain/Wetland Areas, Forest Resources, Hazardous Materials Management, Livestock Grazing, Minimum Streamflow, Noxious Weed Infestations, Rangeland Vegetation Treatment Projects, Recreation Opportunities and Visitor Use, Riparian Areas, Special Status Species, Transportation, Tribal Treaty Rights, Upland Watershed, Visual Resources, Water Quality, Wilderness Study Areas - Management if Released from Wilderness Review, Wild Horses and Burros, Wildlife Habitat, and Wild and Scenic Rivers.

Summary of Effects

1. Proposed management actions would generally reduce the amount of potential damage to known and possible paleontological resources caused from ground disturbing activities, vandalism, collection, and erosion. Considering paleontological resources in watershed assessments and integrated resource activity plans would help integrate paleontological resource issues into the broader resource management framework.

Direct and Indirect Effects, by Proposed RMP Section

Land Tenure

2. The transfer or sale of lands from Federal to private ownership could affect possible paleontological resources, if they exist in the tract disposed of. Lands containing significant paleontological resources would be retained on a case-by-case basis; there is some risk these lands (or lands with possible paleontological resources) could be transferred from Federal ownership. While some protection is given these resources under Federal ownership, no protection is provided under private ownership.

Areas of Critical Environmental Concern/OHV Use

3. Limiting motorized vehicle use in the Malm Gulch/Germer Basin ACEC to the existing road from Highway 93 to a point of closure in the NW 1/4, Section 28, T12N, R19E would reduce the risk of erosion and possible destruction of known paleontological resources. Closing the area to rock-hounding, mineral material collection, and mineral material sales would help preserve the paleontological values associated with the Malm Gulch/Germer Basin ACEC.

Minerals

4. Whenever surface mining is conducted in sedimentary rock, paleontological resources may be affected. However, the reasonably foreseeable development scenario for oil, gas, and geothermal activity during the next 15 years suggests that little or no fluid energy development would occur in the RA. If drilling does occur, no-surface-occupancy and standard stipulations would help protect known and possible paleontological resources in some portions of the RA, including existing ACECs.

5. Site-specific effects of mineral material sales and non-energy mineral leasing would be analyzed through the ID team and NEPA process, which could

help eliminate potential effects on known or possible locations of paleontological resources. New applications for non-energy mineral leases and mineral material sales may not be approved if the minerals are located in or adjacent to existing ACECs, which would further help to protect known paleontological resources. Closing the Malm Gulch/Germer Basin ACEC to rockhounding, collection of mineral materials, and mineral material sales would help protect known paleontological resources in that area from project disturbances.

6. Locatable mineral development would have the potential to affect paleontological resources by causing surface disturbance. Small scale (less than 5 acres) mineral location activities outside ACECs and areas designated "closed" to off-road vehicle use would have the greatest potential impact to paleontological resources, because a plan of operations would not have to be filed, an ID team review would not be conducted, and paleontological resources may not be identified or protected. Paleontological resources would be fully protected on portions of the RA withdrawn from locatable mineral entry, such as campgrounds and recreation sites.

Paleontological Resources

7. The general management and protection of paleontological resources would continue. Paleontological resources would be managed to protect specimens and maintain or enhance sites or areas for their scientific and educational values. Information would continue to be gained by promoting research (under permit) to document localities and their significance. Measures to protect paleontological resources from erosion, vandalism, and collection would be implemented at significant localities that are threatened. Significant paleontological localities would be protected from vandalism and rockhounding activities by not signing to identify their location or otherwise promoting public use of the area. Interpretive signing and a wayside along Highway 93 near the Malm Gulch/Germer Basin area would encourage preservation of known paleontological resources. Formal inventory of paleontological resources would increase knowledge of the resources' locations, characteristics, condition, and trend.

Cumulative Effects

8. The policy for managing paleontological resources on USFS lands is being developed. Once finished and implemented, it could have a cumulative benefit to paleontological resources on BLM lands by increasing protection of the resource in east-central Idaho in general.

   Private land development in areas with high potential for paleontological sites may lead to a cumulative loss of paleontological resource sites and loss of opportunity to study these sites. These real and potential losses of resources on private land make protection of paleontological resources on Federal lands (BLM/USFS) even more important. Increased protection of paleontological resources on BLM lands under the PRMP would help offset losses of the resource from development on private lands.

Recreation Opportunities, Visitor Use, and Off-highway Vehicle Use

Introduction: The Challis Resource Area recreation program has two types of opportunities: (1) *Intensive recreation* is site-specific, usually within a heavily used, developed and/or designated area such as a recreation site and/or a Special Recreation Management Area. (2) *Extensive recreation* is not site-specific, but is generally dependent on a larger, less controlled, dispersed area for the activity, such as backpacking and OHV use. Visits to the RA are likely to continue to increase during the next fifteen years. This increased recreation use of the RA will probably occur due to several factors, including population growth in the region, the Resource Area's rising popularity, and its location near nationally known recreation destinations such as the Sawtooth National Recreation Area, Sun Valley, the Frank Church River of No Return Wilderness, and the Middle Fork of the Salmon Wild and Scenic River.

No Reasonably Foreseeable Effect on Recreation Opportunities, Visitor Use, and OHV Use: Decisions listed in the PRMP under these sections would have no reasonably foreseeable effect on recreation opportunities, visitor use, and OHV use in the Challis Resource Area: Hazardous Materials Management and Tribal Treaty Rights.

Summary of Effects

1. Overall, recreation activities which are not dependent on cross-country OHV use would be enhanced. Conversely, those activities which depend on cross country OHV use would be curtailed. OHV use on existing roads and vehicle ways would be curtailed slightly within SRMAs and ACECs, due to specific area limitations or closures; however, the majority of existing roads and vehicle ways would remain available for OHV use.

   PRMP actions would protect natural and aesthetic values by limiting OHV use to existing roads, vehicle ways, and trails throughout the Resource Area and closing some ACECs to OHV use; by protecting Outstandingly Remarkable (OR) values on WSR segments found suitable or eligible for further study; and by maintaining primitive values in some WSAs, if released from wilderness review.

2. Visitor use of the RA would probably increase commensurate with regional population growth, but the increase attributable to PRMP actions would not be significant.

Direct and Indirect Effects, by Proposed RMP Section

Livestock Grazing/Rangeland Vegetation Treatment Projects

3. Adjustments in livestock use, such as implementation of stubble height requirements and cover and bank shearing criteria, would improve riparian and streambank conditions. These changes would moderately improve the natural and aesthetic values for outdoor recreation experiences. Although vegetation and riparian conditions would improve, the potential for conflict between livestock and humans for high value recreation areas would continue to exist. As natural and aesthetic values improve due to PRMP actions, the presence of flies, dust, and feces associated with livestock would be somewhat less. Eliminating livestock grazing within the

recreation sites named in the PRMP would eliminate this concern within those areas. In extensive recreation areas, the presence of flies, dust and feces would be reduced due to management that would restrict cattle presence in riparian areas.

4. Range improvements such as fences and spring developments would be developed with sensitivity to recreation resources and natural aesthetics. Fencelines and troughs would be designed to minimize their negative impacts on natural aesthetics, sightseeing, and primitive and developed recreation opportunities. Vegetation treatment actions such as prescribed burns or seedings would encourage increased use by wildlife. However, range improvement structures, seedings, and prescribed burns could degrade scenic values slightly, especially in the short term.

Wild Horses and Burros

5. Wild horse viewing areas would generally benefit recreation activities such as photography and sightseeing. Restrictions on OHV use and displacement of viewable and huntable wildlife species (especially big game) by wild horses could negatively impact OHV use, wildlife viewing, and hunting.

Wildlife Habitat

6. Wildlife habitat management activities would continue to provide current levels of viewable and huntable species. Improving site-specific habitats *(e.g.,* by improving water availability, modifying livestock fences, and acquiring wetlands habitat such as the Chilly Slough) could slightly improve recreation quality in those areas by improving vegetative cover, stabilizing streambanks, and increasing numbers of animals, especially bird and big game species. OHV use opportunities would be reduced because of limitations designed to protect wildlife in key areas (*e.g.*, winter ranges and calving and fawning areas) and throughout the Resource Area. Permitted recreation activities such as OHV events and commercial outfitting may be restricted to protect wildlife.

Noxious Weed Infestations

7. Reducing noxious weed infestations would benefit recreation by improving the aesthetics of natural vegetative cover. In the short term, site-specific treatments could reduce the aesthetic appeal of the landscape, especially in designated recreation sites. However, in the long term reducing weed species would improve the natural and aesthetic appeal of a site.

Upland Watershed

8. Actions to improve upland watersheds would improve vegetative cover, water quality and quantity, wildlife habitat, and scenic viewsheds, and thereby benefit the quality of recreation opportunities such as sightseeing, photography, hunting, camping, and wildlife viewing by enhancing the natural and aesthetic values which attract people.

Fire Management

9. Full fire suppression of recreation sites would benefit site-specific intensive use activities, such as camping in campgrounds and other activities dependent on facilities. Recreation resources occurring elsewhere in the RA would also be managed under a full suppression strategy, unless an activity plan was developed to manage the area under a conditional suppression strategy; these resources would also continue to be protected from the

adverse impacts of fire. Locating fire suppression staging areas, fire camps, and other fire incident bases outside riparian areas would decrease the visual impacts to riparian areas, but would likely cause a greater disturbance to upland area viewsheds. However, "light on the land" fire suppression and rehabilitation specifications would mitigate most adverse effects on recreation values which may occur from fire suppression activities.

10. Primitive recreation values could benefit from naturally occurring fire, because a fire-altered landscape is part of the natural experience

Riparian Areas

11. Actions which improve streambanks and vegetative cover in riparian areas would improve recreation opportunities such as wildlife viewing, sightseeing, hunting, fishing, and camping by promoting a more natural and aesthetically pleasing environment. Providing interpretive facilities in some riparian and wetland areas would improve sightseeing, some motorized recreation, and interpretation opportunities in those areas.

Floodplain/Wetland Areas

12. Acquisition of the Chilly Slough wetlands would provide more public access, which would improve activities such as hunting, fishing, and wildlife viewing. Stipulations on new or renewed rights of way for water diversions would help protect the overall recreation experience and benefit stream habitats, visual quality, and recreation opportunities. (Natural-looking riparian areas and streams are attractants to people.)

13. The quality of the camping experience at the Summit Creek recreation site would be degraded tremendously, because camping in a sagebrush flat would be much less appealing aesthetically than being in the riparian area where shade and water are available. However, fishing opportunities could improve slightly as the stream stabilizes and more fish habitat becomes available.

Water Quality

14. Actions which improve water quality would, in general, improve most outdoor recreation experiences because high quality water is a natural attractant.

Minimum Streamflow

15. Acquiring minimum streamflows would provide major benefits to recreation. A guaranteed minimum flow could maintain and improve the quantity and quality of fishing, hunting, camping, and sightseeing opportunities wherever a minimum flow is obtained.

Fisheries

16. Improvement to fisheries habitat would provide substantial benefits to recreation opportunities such as fishing, hunting, wildlife observation, camping, sightseeing, photography, hiking, and backpacking. As fish habitat is improved, the human recreation environment would become more aesthetically pleasing. Riparian areas would become healthier, water quality and quantity would improve, and the impact of cattle grazing would become less noticeable. Improved water quality would likely increase wildlife numbers in riparian areas and the numbers of fishing and hunting opportunities. Projects designed to improve the ecological condition of fish habitat

could require restrictions to access and the types of recreation activities allowed. As a result, on a site-specific basis, recreation opportunities could decline in the short term. Major benefits could be accrued from the acquisition of priority fish habitat, which is often high value recreation land. However, if exchanges are used, disposal of certain tracts could eliminate all recreation opportunities on those tracts.

Land Tenure and Access

17. Land tenure adjustments (*e.g.*, blocking up Federal lands, acquiring access to high value resource lands such as the Chilly Slough wetland and lands adjacent to the Main Salmon River and East Fork of the Salmon River) would continue to benefit recreation overall, especially water-based activities such as fishing, floating, and wildlife viewing, by providing more dispersal of opportunities. However, disposal of certain tracts could result in the loss of extensive recreation opportunities.

18. Acquiring motorized access to certain tracts of land could benefit motorized recreation by providing more access and recreation opportunities such as OHV use, fishing, hunting, camping, and sightseeing. Acquiring non-motorized access would benefit opportunities such as hiking, riding, hunting, fishing, nature observation, and mountain biking.

Wild and Scenic Rivers

19. Maintaining or enhancing OR values on river segments found eligible or suitable would continue to provide benefits to recreation in general, by protecting the values which made the river segments qualify. However, site-specific actions (*e.g.*, habitat restoration and enhancement for fish and wildlife values; cultural and historic site protection) could limit the types of recreation activities allowed.. Segments found suitable with a Recreation classification would not necessarily benefit all recreation opportunities along those segments, because this classification is defined by a high level of development. Segments found suitable with a Scenic classification would benefit both developed and primitive recreation opportunities along those segments. Segments found suitable with a Wild classification would benefit primitive based recreation, but would likely preclude the more developed, OHV-oriented recreation opportunities.

Areas of Critical Environmental Concern

20. Actions to maintain and protect ACEC values within designated Areas of Critical Environmental Concern (ACEC) would benefit most recreation opportunities in those areas. Hunting, fishing, sightseeing, nature observation, and other recreational activities which would not negatively impact protected values would continue to benefit, because good condition ACEC values would attract recreationists. OHV limitations or closures within ACECs would limit OHV use opportunities. Closing the Malm Gulch/Germer Basin ACEC to rockhounding would limit that recreational pursuit in that area.

Wilderness Study Areas - Management if Released

21. Existing primitive recreation values such as naturalness and opportunities for primitive and unconfined recreation and solitude could be degraded in some WSAs released from wilderness consideration. OHV use limitations and

closures in WSAs released from wilderness review would help maintain primitive values in those areas, but would slightly decrease OHV use opportunities in the RA. Placing no surface occupancy stipulations on suitable WSAs if released would help maintain some primitive recreation values such as solitude, naturalness, and unconfined recreation opportunities. Opening up released nonsuitable WSAs to all forms of mineral development could severely curtail the primitive recreation values that now exist in those WSAs, if mineral development should occur.

Forest Resources

22. Existing primitive recreation opportunities would be reduced in any area opened to timber harvest. Viewsheds could be damaged by the unnatural appearance of a timber cut, especially when associated with road construction. However, timber harvests and associated roads also create views in areas which are heavily wooded. Increased emphasis on regeneration would more quickly restore harvested areas to a natural and aesthetically pleasing condition. Hunting could be enhanced, depending on specific projects. For the short term (up to 2 years) motorized recreation and OHV use could be enhanced by construction of new roads which provide access to previously inaccessible areas. In the long term these roads would be available for non-motorized recreation uses such as hiking, mountain bicycling, and horseback riding. Timber harvest and silvicultural treatments that accommodate wildlife needs would benefit recreation by attracting non-game wildlife for wildlife viewing and by being less visually intrusive.

Special Status Species

23. Actions to manage special status species could enhance recreation activities such as nature observation and photography by maintaining a diversity of opportunities. Potentially, other activities such as hunting, fishing, camping, and OHV use could be curtailed or eliminated, depending on protection strategies. Specific actions to preserve sensitive plant species could restrict the following: (a) recreation activities which cause surface disturbances, such as OHV use; (b) recreation facilities development, such as trails; (c) recreation sites; and (d) trailhead facilities.

Minerals

24. Existing primitive recreation values could be degraded or lost on any site where surface development for mineral resources occurs, at least in the short term, because the on-site development would preclude any recreational use. Associated access roads could enhance motorized recreation if open to the public. Natural and aesthetic values would be lost because of the physical development, at least on-site. Viewshed values would be degraded by the physical development; the extent of degradation would depend on site location and size. Recreation values would be protected on areas stipulated no surface occupancy or closed to mineral development.

Visual Resources

25. Recreation facilities and development would continue to be designed in a manner consistent with the visual classification given an area. This could eliminate certain developed recreation opportunities (such as campgrounds, picnic areas, and boat launches) on a site-specific basis. In VRM Class II areas, developed recreation facilities would have to be much less visible and more in harmony with the natural environment; these requirements may pre-

clude recreation site development in a given area. It is also likely there would be fewer motorized and development-oriented recreational opportunities such as campground camping, day use areas, picnicking, and launch ramps. However, primitive and aesthetic recreation values would be improved, because fewer acres would be managed as VRM Class III and the existing landscape character would be retained on more acres.

Recreation Opportunities and Visitor Use

26. More developed recreational facilities would be constructed, which would benefit developed recreation opportunities such as campground camping, picnicking, and motorized recreation. Developed launches would make more areas available to floaters and powerboaters. Expansion of the Upper Salmon River SRMA and development of the Upper Big Lost River SRMA would negatively impact the more primitive spectrum of recreation activities, such as floatboating, by increasing access to and participation in those activities, but would, over time, expand developed opportunities such as camping and picnicking. OHV use would be negatively affected through closures and limitations on use in order to address resource concerns. However, motorized recreation could benefit from more interpretive opportunities, expansion of the Back Country Byway program, development of a hiking, biking, horse riding, and OHV trail, and greater developed recreation access from expansion of developed facilities.

Off-highway Vehicle Use

27. Limiting OHV use on the entire Resource Area to existing roads, vehicle ways, and trails, and adopting closures or additional limitations on specific areas, would have a major negative effect on OHV opportunities by eliminating cross-country travel and closing some areas to OHV use. However, this would have a major positive effect on recreation activities not dependent on OHV travel. Hunting, fishing, primitive camping, hiking, and backpacking opportunities would be expanded, although access to those activities could be much more difficult.

Cultural Resources

28. Protection of cultural resources would enhance recreation opportunities such as interpretation and hiking. In general, continued protection of cultural resources sites would not have a negative impact on recreation, except in site-specific cases where cultural resources protection would eliminate recreation facility development or limit or foreclose activities such as OHV use. Designation of the Lone Bird ACEC for the protection of cultural resource values would eliminate OHV use and rockhounding activities in that area; however, designation would enhance interpretive recreational opportunities.

Paleontological Resources

29. Protection of paleontological resources would enhance recreation opportunities such as interpretation and hiking. Designation of the Malm Gulch/Germer Basin ACEC for the protection of paleontological values would reduce OHV use and eliminate rockhounding activities in that area; however, designation would enhance interpretive recreational opportunities.

Transportation

30. In general, continued transportation management would provide benefits to recreation by providing access to public lands for recreation uses such as camping, hiking, hunting, and wildlife viewing. However, the presence of roads throughout the RA would degrade or eliminate primitive recreation, camping, hunting, and wildlife viewing in those road corridors because of continued motor vehicle use. Design, construction, and maintenance of roads to meet or exceed State-approved BMPs would benefit recreation by providing the highest safety standards for the recreating public. Development of a Transportation Plan and Maintenance Plan through the ID team planning process would facilitate road/trail management which considers the needs of recreation resources, as well as other RA resources and programs. Continuing to allow new road construction for campground development would benefit developed recreation opportunities.

Biological Diversity

31. Biodiversity actions would increase the presence and abundance of native plants and animals, thereby enhancing wildlife viewing, hunting, interpretive, and photography opportunities.

Air Quality

32. Existing high air quality would be maintained, thus enhancing outdoor recreation experiences.

Cumulative Effects

31. Overall, the cumulative effects of BLM actions on recreation opportunities would be continued growth of recreation use and increased demand for more diverse opportunities. There would likely be more conflict between users, especially hunters, anglers, and boaters, since these opportunities are most popular. Natural and aesthetic values would improve, which would help improve the quality of the recreation experience.

32. Forest Service activities would continue to have effects on BLM recreation, since access to opportunities is almost indistinguishable. USFS designations of a National Recreation Area, Wilderness, and Wild and Scenic Rivers further focuses attention on this region. As adjacent National Forests become more heavily used by recreationists, the demand for opportunities on BLM public lands are also expected to increase.

33. Local private land uses for agriculture, communities, and rural residences could benefit some recreation activities that are dependent on viewable and huntable wildlife species, since cultivated crops attract wildlife closer to existing roads. However, conversion of hay grounds into residential subdivisions and the growth of communities could reverse this trend. As more people visit and use the area and private land is developed, recreation opportunities on private land would be reduced and/or changed. In addition, fewer land owners are likely to grant access to the general public, especially along highly prized riparian areas. As access to opportunities on private lands diminishes and the demand for recreation opportunities exceeds the supply, both intensive and extensive recreation opportunities on BLM land are likely, over time, to become more developed.

Soils

No Reasonably Foreseeable Effect to Soils: No reasonably foreseeable effects to soils are expected from the management decisions listed in the PRMP under the following sections: Air Quality, Cultural Resources, Land Tenure and Access, Minimum Streamflow, Paleontological Resources, Tribal Treaty Rights, Visual Resources, Water Quality, Wildlife Habitat, and Wild and Scenic Rivers.

General Discussion of Effects to Soils: Soil erosion is a natural process. Accelerated erosion occurs when soils erode faster than they are formed. Accelerated erosion typically begins as a lateral flow of sheet erosion. If left unchecked, these flows form channels, becoming rill erosion, which eventually leads to gully erosion. Many soil properties, both physical and chemical, dictate the susceptibility a particular soil has to accelerated erosion. All soils need protection from wind and water erosional forces. Vegetation and surface coarse fragments are the primary protective agents of rain drop impacts and water erosion. In addition, microbiotic crusts often play an important role in protecting soils in lower precipitation zones, where vegetative cover is sparse. When protection is lacking, rain drop forces dislodge surface soil particles, making them susceptible to the forces of moving water. If unchecked by live vegetation, litter or coarse fragments, channelized water flows develop, resulting in accelerated erosion. Rills and gullies often make their way to stream channels, supplying sediment to riparian and aquatic habitats, and resulting in direct and indirect impacts to fish viability and habitat condition. Soil compaction results when activities (*e.g.,* off road vehicles, livestock grazing) occur on moist soils. Compaction layers exacerbate soil erosion by restricting water infiltration and by modifying the soil's ability to capture and hold water for plant uptake or for ground water supply. This modification of the natural soil/water relationship can lead to alterations of the natural plant community, resulting in less vegetative cover available to protect the soil.

Management actions described in the PRMP are not expected to stop soil erosion, but rather, to minimize the threat of accelerated erosion through improved management of vegetation, microbiotic crusts, soil cover, and surface disturbing activities.

Summary of Effects

1. Management actions intended to protect vegetation and other resources would improve soil stability, condition, and trend. Improved upland and riparian vegetation conditions would have immediate and sustained soil stabilizing effects. Susceptibility of soils to compaction, erosion and the disruption of microbiotic crusts would receive greater consideration when planning resource use activities. In general, the soil resource would be maintained in the short term and likely improve over the long term.

2. Some site-disturbing activities such as road construction would cause an irreversible and irretrievable commitment of soil resources on a localized basis. However, the likelihood of new road construction or other major soil-disturbing activities is small.

Direct and Indirect Effects, by Proposed RMP Section

Livestock Grazing

3. Allotments identified as priority allotments to determine proper stocking level would receive attention to rapidly address riparian and floodplain functioning problems that exist within some of those allotments (see ***Chapter 4*** - Fisheries - *Table 4-3* (p. 368). Improved riparian conditions in these streams would improve water storage capability, flood energy dissipation, flood attenuation functions, and overland flow filtering capabilities (and consequently the floodplain-building function of the riparian system). Improvements in riparian and floodplain condition and function would lead to improved soil stability and reduced compaction and erosion potential.

   Upland soils would likewise benefit from prioritizing stocking level adjustments. Grazing intensity and use patterns would be modified to provide more vegetative litter to protect soils from erosion and compaction, through improved plant health, vigor, and long term productivity. More emphasis would be placed on protecting microbiotic crust populations where these organisms play a significant role in soil protection.

4. New and revised resource planning documents would incorporate knowledgeable and reasonable practices designed to maintain or improve water quality, support beneficial uses, and improve riparian condition. Improvement to riparian areas would improve soil stability, reduce compaction and erosion potential, and improve the overland flow filtering capabilities of these areas and the floodplain building function of the riparian system.

5. Retaining nonuse AUMs and AUMs that are lost, retired, relinquished, or otherwise canceled until watershed, wildlife, and aquatic habitat objectives are met would help accelerate improvement in soil stability and soil cover within watersheds where this occurs.

6. Livestock distribution would be improved by restricting livestock use in pastures until range improvement projects are in functional condition. Improved distribution would create more even utilization of the forage resource and limit the creation of overgrazed, unvegetated, compacted, sediment-producing zones within a pasture, thus reducing the threat of soil erosion and impacts to microbiotic crusts.

7. Upland utilization standards would generally maintain or improve the vigor of upland vegetation and overall watershed cover in the long term. These improvements would increase available vegetative litter and plant basal area needed to (a) improve infiltration and watershed storage, (b) protect soil surfaces from excessive runoff events, and (c) reduce overland flows and sediment transport. Increased consideration of the effects of new soil disturbing actions on soil compaction, erosion and microbiotic crusts would reduce upland sediment transport and riparian soil compaction.

Wild Horses and Burros

8. To some extent, maintaining existing wild horse numbers would continue to impact soil condition in selected riparian portions of the Herd Management Area (HMA) through soil compaction on moist riparian soils, streambank shearing through hoof action, and removal of vegetative soil protection. However, other actions in the PRMP (*e.g.,* livestock grazing management, riparian area management) would help mitigate adverse effects by improving vegetative cover and reducing compaction and shearing of moist riparian soils in the HMA. In addition, modifications to wild horse numbers may be implemented when adverse impacts to riparian and upland soils can be attributed to wild horses. Wild horse numbers would continue to be closely monitored and controlled in known areas of fragile soils within the HMA (Malm Gulch, Sand Hollow), to mitigate adverse effects to soil resources from grazing and trampling of vegetation.

Riparian Areas

9. Stubble height and bank shearing criteria on streams indirectly limit livestock presence in riparian areas, and would improve riparian habitat by ensuring that sufficient plant material remains to sustain desirable plant communities, maintain plant vigor, provide for a functioning floodplain, and protect the streambank. Improved riparian conditions would improve floodplain storage capacity, flood energy dissipation, flood attenuation functions, overland flow filtering capabilities, and the floodplain building function of the riparian area, thus reducing sediment movement from the area. It would create a dynamic self-healing system that minimizes sustained erosion loss of streambanks.

10. Increasing public awareness of the value of good condition, functional riparian and wetland habitats would help land users become more knowledgeable about and sensitive to these issues. As land users modify their actions to be less of an impact on riparian and wetland areas, soil stability would improve and soil compaction of these areas would decrease.

11. Development of riparian study areas would help evaluate applied management strategies for riparian vegetation improvement (which benefit soils conditions) and identify potential bulk densities for uncompacted soils. Inferences may also be made to the potential soil conditions on like soil types within the RA.

12. Increased emphasis on riparian pasture development (and greater control of riparian forage and soil conditions in these pastures) would improve soil stability and reduce bank erosion and soil compaction problems in these typically wet and susceptible soils.

Floodplain/Wetland Areas

13. Proposed actions which would have adverse effects on floodplains or wetlands would be denied, and development of floodplain and wetland areas would be discouraged by withholding any support for development of these areas where practicable and requiring protection of the beneficial functions of these areas if developed. Protecting the vegetation and landform characteristics of these areas which improve the infiltration, filtration, flood attenuation, and stability characteristics of a stream system would help retain

soils in place and reduce sedimentation.

Fisheries

14. Management actions intended to protect crucial habitats for designated priority fish species and achieve aquatic habitat objectives would, by associated vegetation improvements, reduce sedimentation and compaction and improve the soil stability of stream systems and upland watersheds.

Fire Management

15. In full suppression areas, impacts from fire suppression activities are likely to occur from vegetation removal and soil disturbance, resulting in increased soil erosion. However, the application of the Minimum Impact Suppression Tactics (MIST) Guidelines (Attachment 9) and other PRMP actions would help mitigate impacts resulting from fire suppression activities, especially in WSAs. Rehabilitation specifications would accelerate recovery of disturbed riparian and aquatic habitats if fire staging activities are unavoidable in those areas. Rehabilitation efforts in other localized areas *(i.e.*, uplands) would be implemented as necessary to rapidly revegetate soil types prone to erosion.

    Full suppression would reduce the immediate threat of accelerated soil erosion resulting from large scale burning of vegetation and microbiotic crust soil cover. However, suppressing fires also increases the risk of large uncontrollable fires that would result in large scale burn areas susceptible to widespread accelerated soil erosion.

16. In conditional suppression areas, similar fire suppression impacts would occur and similar MIST Guidelines criteria would apply. Suppression impacts are expected to occur at a reduced level since suppression activities would be more flexible and controlled. Conditional suppression activity plans would consider vegetation and soil disturbing effects by identifying and controlling fire in plant communities with a high risk of fire effects (*e.g.*, cheatgrass, microbiotic crust populations) and including burn prescriptions to allow cooler, mosaic type burns, resulting in reduced threats to widespread accelerated soil erosion. The risk of large, uncontrolled fires may decrease over the long term as more small fires are allowed to burn.

Transportation

17. Restrictions on new road construction in riparian areas would minimize soil disturbance on these sensitive soils. Evaluation and appropriate modification of existing roads would reduce the sediment discharge that may currently exist. New roads built on upland slopes would be designed to reduce the potential for increased upland soil movement.

18. Focusing road maintenance on areas with the greatest potential for erosion or soil instability would reduce potential soil losses. Road construction and maintenance activities would be reviewed by appropriate staff specialists, and meet or exceed minimum standards contained in State-approved BMPs for road construction and maintenance. These limitations and reviews would minimize soil loss from constructed roads that are most sensitive to soil movement. Design specifications for road maintenance are intended to eliminate increased sedimentation.

Rangeland Vegetation Treatment Projects

19. In the short term (two to five years) vegetation treatment projects have the potential to increase soil loss by removing existing ground cover through treatments such as plowing or burning. However, an objective of the vegetation treatment project would be to maintain or increase vegetative cover, thereby reducing the potential for soil erosion in the long term.

Noxious Weed Infestations

20. Control activities to eliminate pure stands of noxious weeds could result in unprotected soils and some soil erosion. However, treatment areas would be seeded with perennial species within 8 months to provide adequate ground cover to minimize the potential for accelerated soil erosion.

Forest Resources

21. Reducing the commercial timber base by approximately 24% would maintain some forest lands in an undisturbed condition, reducing the potential for soil compaction, disturbance, and erosion from those lands. In forested areas where harvest does take place, the management practices and design specifications identified are expected to adequately protect the soil resource from adverse soil loss. Roads and skid trails associated with timber harvest activities would typically not be constructed in riparian areas or buffer strips, to protect sensitive soils. Water bar standards of the Idaho Forest Practices Act would minimally protect the soil resource from excessive erosion. Increased flows that could cause soil erosion would probably not occur on harvested areas limited to 10 acres or less, although erosion hazards are somewhat increased on larger sized harvest areas.

Recreation Opportunities and Visitor Use

22. The expanded recreation facilities proposed to accommodate increased recreation demand would cause increased compaction and could cause increased sedimentation in, and adjacent to, campground and casual use areas. However, these impacts could be monitored and controlled at the developed use sites. Further development of recreation facilities in riparian areas would be curtailed, protecting those fragile soils from further compaction or erosion. Casual use areas identified for closure or hardening would reduce sedimentation to adjacent streams. Not accommodating increased recreation use would have greater, more dispersed, and less controllable impacts on sedimentation and soil compaction than the proposed recreation development.

Off-highway Vehicle Use

23. OHV use limitations and closures throughout the RA would nearly eliminate new sedimentation and compaction impacts from off-road vehicle travel. Limiting OHV use to existing roads and vehicle ways would allow mitigation efforts to focus on maintaining existing roads and trails, in order to minimize existing adverse sedimentation effects. The stated exceptions to the OHV limitations may result in some surface soil disturbance, soil compaction, and disruption of microbiotic crusts in isolated instances. However, the potential for accelerated soil erosion would be minimal.

Areas of Critical Environmental Concern

24. Management actions to maintain ACEC values would directly or indirectly benefit the soil resource values within, and adjacent to, ACECs by maintaining and improving overall vegetation conditions and soil cover within ACECs. OHV use restrictions and closures would protect the soils from OHV-caused compaction and soil instability. Restrictions on timber harvest methods would protect the stability and condition of the soil resource in forested habitats. Livestock grazing closures would directly protect vegetation and soil cover, and reduce soil compaction.

Wilderness Study Areas - Management if Released

25. Suitable WSAs, if released from wilderness review, would primarily be managed to maintain their primitive values. Mineral closures and/or stipulations, timber harvest closures, and OHV use restrictions and road closures would be implemented according to decisions described in the PRMP. These restrictions would continue to protect the soil resource in these areas from surface disturbance and soil compaction.

    Nonsuitable WSAs, if released, would allow somewhat less restricted timber harvest, mineral development, and OHV activities. However, helicopter logging requirements, OHV limitations and closures, and standard stipulations on mineral development would provide adequate protection to soils by maintaining soil cover and preventing compaction, thereby reducing the threat of accelerated soil erosion. Impacts from continued livestock grazing would be as described in analysis points #3 through 8 above.

Minerals

26. Restrictions on road construction for minerals exploration and development would reduce the potential for sedimentation and soil erosion.

27. The potential for energy mineral development within the RA is low, and therefore the likelihood of impacts to soils from energy mineral development is also low. If oil, gas, or geothermal development occurs, various stipulations, when applied, would minimize the potential impacts to soil stability, compaction, and toxic contamination from oil, gas, and geothermal development actions in selected areas (*e.g.,* ACECs; SRMAs; riparian areas in salmon, steelhead, and bull trout watersheds). Lack of mandatory NSO stipulations in some riparian areas would create the potential for disturbance to vegetation communities which provide soil stability in riparian areas; protection of soil resource values would depend on ID team review and application of appropriate standard lease stipulations. Throughout the Resource Area, unless the mandatory NSO stipulation applies, the possibility exists that soils may be adversely affected by vegetation removal, compaction, sedimentation, and toxic impacts of oil, gas, and geothermal development.

28. There are no known deposits of non-energy leasable minerals in the RA; therefore, there are no reasonably foreseeable impacts to soils resources from non-energy mineral development.

29. Limitations and closures on mineral material sales would protect existing soil conditions from soil disturbance impacts of mineral material disposal. Closing riparian areas in salmon, steelhead, and bull trout watersheds to mineral material sales would eliminate potential adverse impacts to sensitive riparian soils in these areas. In other riparian areas, stipulations requiring operators to not hinder attainment of desired riparian and aquatic habitat conditions would protect the soil resource from excessive disturbance and compaction. In other portions of the RA, protection of the soil resource from adverse effects of saleable mineral development would generally be dependent on ID team review on a site-specific basis. Removal of soil cover, surface soil disturbance, and soil compaction are likely to occur and lead to localized soil erosion.

30. Maintaining the withdrawn status of recreation sites from locatable mineral entry would have a small benefit to soil conditions because of the small acreage involved. Withdrawing suitable WSAs, if released from wilderness review from locatable mineral entry would protect existing soil resources from impacts of mineral location in those areas. Mineral location activities which do not require a plan of operations (less than 5 acres and outside an ACEC or area closed to OHV use) would negatively impact the soil resource through removal of vegetation, soil disturbance and potential toxic contamination. Larger mineral location activity or activity within an ACEC or area closed to OHV use would be required to file a plan of operations and be subject to ID team review. Effects on the soil resources would vary, depending on the scope of the project and outcome of ID team review. Some additional protection of the soil resource could be provided through preparation of the plan of operations; however existing laws allow a high degree of flexibility to the mineral locator. Negative impacts to the soil resource could still include removal of vegetation and soil disturbance, soil compaction, and toxic contamination. Required reclamation actions associated with large scale mineral material location actions would mitigate some of the adverse impacts in the long term.

Hazardous Materials Management

31. Hazardous materials management decisions would minimize the chance and severity of hazardous materials toxic contamination impacts to soils.

Cumulative Effects

32. PRMP actions to improve management of upland and riparian vegetation communities in the RA would cause a sustained improvement in soil stability and reduce site-specific soil compaction problems. Improved vegetation conditions would be expected to maintain or improve soil health and function and reduce soil instability and movement. A general improvement in overall soil condition over the long term would be expected.

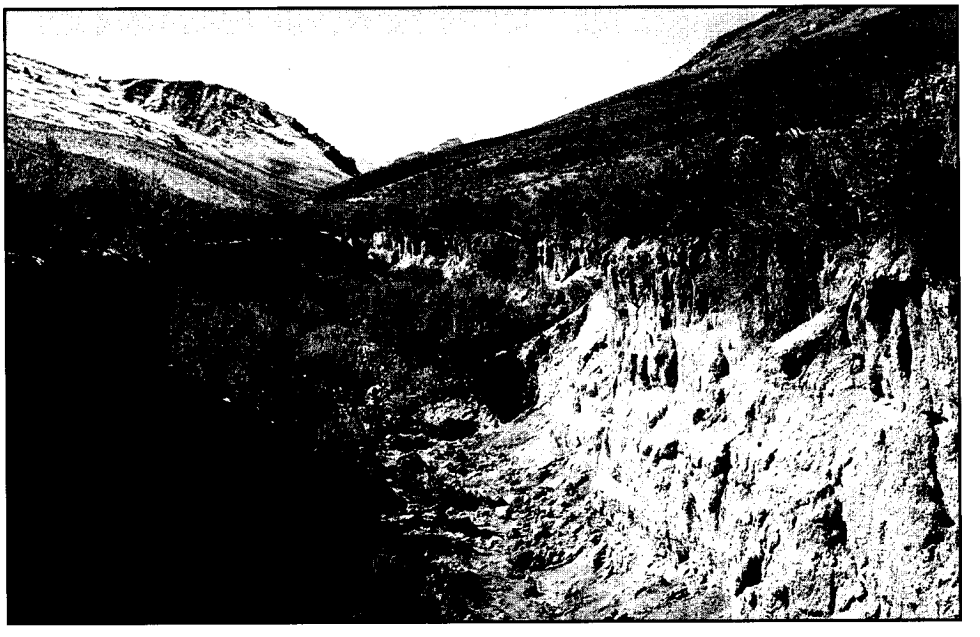
33. Forest Service and State land management practices are also being modified to improve soil conditions. As these practices continue to occur, sedimentation, and high runoff potential from these lands would be decreased and consequently have less impact on soil conditions on BLM lands. This would tend to reduce the cumulative impacts to soil disturbance which occur

on BLM lands.

34. The largest use of private lands within the boundaries of the Challis Resource Area has been agricultural use supporting the livestock industry within the area. These uses on private lands may produce soil loss on BLM lands along stream segments downstream of the private lands. The soil loss on BLM lands may be a result of stream alteration or bank stabilization projects or vegetation removal activities on private lands which cause a change in the streamflows and subsequent bank erosion on BLM segments of the stream.

    Mineral development on private lands is a potential concern to soil resources on BLM lands. Mineral development on private land could cause increased soil erosion, gullying, and sediment loads on downstream BLM stream segments and adjacent uplands.

    A minor impact to the soils resource on BLM lands may occur from toxic chemical use, storage, or disposal on private lands. The use of toxic materials on private lands is generally greater than on Federal lands. Private landowners may store or dispose of toxic substances, including agricultural chemicals and petroleum products, in a less regulated manner than is required on Federal lands. Unprotected storage facilities, inappropriate storage containers, and small family dumps are all potentially hazardous situations which may occur on private lands. An impact to soil resources on BLM land may occur if toxic substances migrate from the private lands to BLM lands.



Tribal Treaty Rights

Introduction: Members of the Shoshone-Bannock Tribes and other Federally recognized Indian tribes exercise their hunting, fishing, and gathering rights on Federal lands outside the boundaries of their reservations, including public lands within the Challis RA and adjacent USFS lands. These pursuits include fishing for anadromous and resident game fish species, hunting large and small game, and gathering natural resources for subsistence and medicinal purposes.

Mitigated Effects: Consultation with appropriate Native American groups is proposed to ensure that all anticipated effects on treaty rights and trust resources are addressed in the planning, decision, and operational documents prepared for each proposed BLM action. Consultation can help protect treaty rights and trust resources by providing valuable information from tribal members concerning areas and resources important to the tribes in general. Consultation can also help ensure that areas important to the Native American communities are not inadvertently transferred from Federal ownership, or physically modified in such a way as to restrict or deny access for Native American Indians to use trust resources in a certain area. Through meaningful consultation, the resources that are important to Indian tribes can be better managed and protected.

Summary of Direct and Indirect Effects: As discussed above, effects on the pursuit of tribal treaty rights are expected to be mitigated during the activity and project planning process, and adverse effects, if any, are not expected to be significant. However, decisions in the PRMP which positively or negatively affect opportunities for hunting, fishing, or gathering natural resources in general could have an effect on the pursuit of tribal treaty rights. These effects are, for the most part, unknown because little information is available on the Federally recognized tribes' preferences (species and locations) for hunting, fishing, or gathering. The Chapter 4 discussions of environmental consequences for "Fisheries," "Vegetation," and "Wildlife Habitat" describe the effects of PRMP decisions on the three resources which may be of particular interest to persons concerned about tribal treaty rights.

Any transfer of public lands to private ownership could affect the tribes' ability to practice their tribal treaty rights on BLM lands. Land tenure actions could also block access to areas needed to practice tribal treaty rights, unless easements or covenants are negotiated to retain access.

Vegetation

No Reasonably Foreseeable Effects to Vegetation: No reasonably foreseeable effects to the vegetation resource are anticipated from the actions listed in the PRMP under these sections: Air Quality, Cultural Resources, Hazardous Materials Management, Minimum Streamflow, Paleontological Resources, Tribal Treaty Rights, Visual Resources, and Water Quality.

Effects to the vegetation resource are described below under one or more of the following categories: **Summary of Effects**, **Direct and Indirect Effects, by Type of Vegetation Affected and PRMP Section** (includes impacts to upland vegetation, riparian vegetation, special status plant species, and noxious weeds), and **Cumulative Effects**. Although impacts are described under one of these categories, effects may also occur under one or more other categories.

Summary of Effects

1. Adjusting long term livestock stocking rates would lead to progress toward achieving BLM vegetation goals. Watershed assessments completed during project or activity planning would consider the impacts of all factors affecting the vegetation resource and would ultimately improve vegetation. Criteria for vegetation treatments would ensure that the treatments accomplish the goals for which they were designed. More restrictive OHV limits would reduce vegetation damage throughout the Resource Area and reduce the spread of noxious weeds. Increased emphasis on riparian improvement would improve riparian conditions. Increased knowledge of special status plant species, the role of biodiversity, and the extent of old growth forested areas would enhance the BLM's ability to improve watersheds and protect those values. A more aggressive approach to noxious weed control would help limit the spread of noxious weeds and improve vegetation conditions. Use of prescribed fire to meet overall ecosystem goals would improve vegetation composition, vigor, and production.

Direct and Indirect Effects, by Type of Vegetation Affected and PRMP Section

Upland Vegetation

Livestock Grazing

2. In the short term, allocations for livestock, wild horses, and wildlife would remain the same; however, in both the short and long term, actions such as utilization and cover requirements could result in active livestock use up to 12,657 AUMs less than active preference. This would result in less livestock impact to upland vegetation, resulting in improved plant vigor and movement toward meeting vegetation goals of the RMP. In the long term, stocking rates would be brought into line with forage production, thus moving vegetation condition closer to the stated goals (see PRMP: Livestock Grazing, Goal 1).

3. Areas closed to livestock grazing (about 21,343 acres) would continue to improve in ecological condition, thus helping to meet vegetation goals.

4. Utilization criteria for upland sites, specific by key species and phenological stage, would accelerate improvement of upland plant health and vigor by

requiring that livestock be moved when a specific seasonal utilization level has been reached.

5. Managing for late seral to Potential Natural Community (PNC) as the Desired Plant Community (DPC), unless an ID team selects otherwise, would ensure vegetation goals are met. When an ID team decides some other DPC is more desirable, ecological needs would be assessed to ensure vegetation goals are met.

6. Splitting or combining allotments to help meet riparian and upland objectives could improve grazing management and vegetation composition, vigor, and production.

7. Holding retired, cancelled, or other nonuse AUMs for nonconsumptive uses until allotment vegetation objectives are met would mean those AUMs would be available for plant vigor and maintenance; overall vegetation condition would benefit.

8. Managing all watersheds in the RA to achieve vegetation cover standards would ensure plant vigor and reproduction, proper water infiltration, less erosion, better conditions for seedings, and a more favorable microclimate around plants.

9. For the short term, managing under current AMPs with PRMP utilization and riparian stubble requirements would produce a more rapid rate of vegetation improvement than in the past. For the long term, watershed assessment to determine vegetation needs, monitoring to determine proper stocking levels, and completion of Integrated Resource Activity Plans would ensure vegetation improvement to achieve vegetation goals.

10. Allocating additional forage made available as a result of seedings, burns, range improvement projects, or seasonal variations for non-livestock grazing purposes until allotment management objectives are reached would improve the likelihood of achieving vegetation goals.

11. Rangeland prescribed burning to meet ecosystem objectives would move burned areas into an earlier seral stage by removing sagebrush cover. This would allow water and nutrients to be more available for existing grasses and forbs, and would increase their vigor and cover. Land treatments to achieve multiple resource objectives would improve vegetation conditions overall.

Wild Horses and Burros

12. Managing for a herd of about 185 to 253 wild horses would have localized impacts to upland vegetation through grazing and trampling. If monitoring indicates this number of wild horses is shown to damage the vegetation resource, the Herd Management Area Plan would be modified to allow management of fewer horses. Allowing wild horses to use the Malm Gulch and Sand Hollow areas (as long as resource damage does not occur) would enable the BLM to gather horses that are causing damage elsewhere, thus

improving upland vegetation.

Wildlife Habitat

13. Encouraging the IDFG to maintain big game numbers at current levels, unless habitat data show greater numbers can be supported without resource conflicts, would maintain or enhance current vegetation conditions. Monitoring wildlife habitats would ensure that wildlife populations do not damage the vegetation resource.

14. Continuing to implement the Willow Creek Summit and East Fork Salmon River Habitat Management Plans would have positive impacts to upland vegetation.

Rangeland Vegetation Treatment Projects

15. Determining the priority and need for vegetation treatment projects through the ID team and activity planning process, would help ensure that projects are considered in an overall multiple use context and would be expected to result in management changes to enhance upland vegetation condition, as well as biodiversity.

16. Actions to manage vegetation treatment projects (a proportionate reduction in livestock use, establishment of success standards, post-treatment management plans, and criteria on post-treatment increases in grazing preference) would ensure that Resource Area-wide vegetation objectives are being met.

Fire Management

17. Suppression of all fires (except in WSAs) would result in areas of heavy sagebrush canopy, leading to large areas with little vegetation diversity. Unplanned fires would have the potential to increase the invasion of cheatgrass; however, the potential for this is low, since few wildfires occur with the Resource Area. In conditional fire suppression areas wildfire could lead to (a) a better mosaic of vegetation on the landscape, and resulting improved biodiversity; and (b) improved soil nutrient cycling, reduced competition for nutrients, water and sunlight among remaining plants, and resulting improved vegetation vigor. PRMP decisions to consider the potential for cheatgrass invasion would help ensure such invasion does not occur. Restrictions on fire suppression activities would protect areas from erosion and benefit vegetation. Rehabilitation of burned areas to prevent erosion would preserve the soil and improve vegetative cover.

Wild and Scenic Rivers

18. Actions to maintain OR values and free-flowing characteristics along the WSR corridors of the 10 segments found eligible for suitability study and 5 rivers found suitable for WSR designation would have little impact to upland vegetation because the WSR corridor is so narrow.

Areas of Critical Environmental Concern

19. Continued designation of existing ACECs and designation of new ACECs would have minor positive impacts to about 88,206 acres of upland vegetation, by highlighting management in those areas to protect vegetation communities.

Wilderness Study Areas - Management if Released

20. Watershed assessment and development of resource objectives for areas released from wilderness review, prior to development of range improvements, would ensure protection of vegetation values by considering all resource needs. Construction of range improvement projects in WSAs if released from wilderness review would potentially improve vegetation as a result of better livestock distribution. Vegetation may also be subject to greater levels of trampling and grazing on sites in close proximity to new range improvement projects.

Forest Resources

21. Commercial timber harvest would have significant impacts to upland vegetation in localized areas. Limiting clearcut size to 10 acres in Douglas-fir types would result in more, smaller cutting units and a higher likelihood of natural regeneration to native vegetation. Shelterwood cuts in Douglas-fir stands would result in impacts similar to clearcutting, except shelterwood cut units would seed in more quickly due to increased seed source and shading. In the long term, these areas would be regenerated naturally or artificially, resulting in eventual reversion back to vegetation with vertical structure similar to the original stand. Use of an ID team to plan projects would reduce vegetation impacts from forest management activities. Protection of 980 acres of old growth would preserve these unique areas and their values. For other impacts to forested areas from forest management actions, see ***Chapter 4*** - Forest Resources.

Minerals

22. Due to the low potential for energy minerals in the Challis RA, the likelihood of impacts to vegetation from oil, gas, or geothermal development is also low. Upland vegetation would be protected in areas where standard stipulations are applied to protect resource values. Upland vegetation in areas with a mandatory "no surface occupancy" stipulation (suitable WSAs, if released) or closed to energy mineral leasing (existing WSAs; campgrounds and recreation sites) would be fully protected from the impacts of energy mineral leasing.

23. There are no known deposits of non-energy minerals in the RA; therefore, the likelihood of impacts to upland vegetation from non-energy leasing is considered very low.

24. Development of mineral materials sites would have disturbance impacts to upland vegetation in small, localized areas.

25. Locatable mineral activities would only have minor disturbance impacts to upland vegetation, unless another major mine of the scale of the Thompson Creek Mine was developed.

Off-highway Vehicle Use

26. Limiting OHV use on the entire RA to existing roads, vehicle ways, and trails, and closing additional areas to OHV use would protect upland areas throughout the RA from rutting, erosion, and vegetation trampling damage from OHVs.

Riparian Vegetation

Livestock Grazing

27. Incorporating knowledgeable and reasonable practices to maintain water quality and support beneficial uses would result in improved management of riparian areas. Use of riparian stubble height and bank shearing criteria to move livestock from pastures would help ensure achievement of properly functioning riparian zones and meet RMP goals for riparian vegetation.

28. Continuing existing management of the Anderson Ranch riparian pasture should ensure slow improvement of riparian vegetation in this area. Increased emphasis on development of other riparian pastures throughout the Resource Area would ensure improvement of riparian vegetation in those pastures and in areas to which knowledge gained from these pastures is applied.

29. Locating new and existing livestock handling facilities outside of riparian areas would protect these areas and allow riparian recovery.

30. For the short term, managing under current AMPs, with RMP utilization and riparian stubble height requirements, would produce a more rapid rate of riparian vegetation improvement than currently occurs. For the long term, watershed assessment to determine riparian condition, trend, and management needs would ensure riparian vegetation improvement.

Riparian Areas

31. Maintaining existing riparian exclosures and constructing some new ones would improve some riparian areas and provide information that could be used to improve other areas

32. Road construction and campground development limits would minimize impacts to riparian areas from roads and increased human activities.

33. The "no net loss" policy of like riparian values would ensure that the net amount of valuable riparian vegetation within the Resource Area would not be diminished. Other riparian and wetland areas, if transferred out of public ownership, would have covenant language in the deed to protect wetland values and vegetation. Moving the Summit Creek campground from the riparian area would protect riparian and special status plant values in that area, by reducing the possibility of human-induced disturbance.

Floodplain/Wetland Areas

34. Not allowing development actions which would cause adverse effects to floodplains or wetlands would protect riparian vegetation.

Wild Horses and Burros

35. Managing for about 185 to 253 wild horses would have localized impacts to riparian vegetation. If monitoring indicates this number of wild horses is shown to damage the riparian resource, the HMAP would be modified to allow management of a lower number of horses. Adjusting wild horse numbers if riparian and aquatic habitat standards are not met would improve riparian conditions within those watersheds in the Herd Management Area.

Fisheries

36. Attainment of desired riparian and aquatic habitat conditions would ensure meeting riparian vegetation goals.

37. Reintroduction of native wildlife species would have the potential to cause riparian impacts if beaver are reintroduced into streams within the Resource Area. Use of the ID team process should ensure that only positive impacts to riparian areas result.

Fire Management

38. Locating fire control facilities outside of riparian areas would help protect those areas from minor, short term trampling and mechanical damage associated with fire control activities. Limits on the use of fire retardant and heavy equipment for fire control would also protect riparian areas. Fire rehabilitation designed to achieve desired aquatic and riparian conditions would limit riparian degradation.

39. The use of prescribed fire to enhance ecosystem health and functioning would result in riparian vegetation improvement.

Land Tenure and Access

40. Eliminating unauthorized use of public lands through reclamation of agricultural or occupancy trespasses would have the potential to restore native riparian vegetation to some localized areas. Over the life of the RMP, up to about 63,075 acres of public land would be available for disposal (including up to about 4,806 acres which could be sold). The actual amount of land that would be transferred out of public ownership would be anticipated to be much lower. These transfers to private or State ownership could result in some type of vegetation conversion.

Wild and Scenic Rivers

41. Management to protect OR values and free-flowing status on the 15 eligible or suitable segments would help protect riparian values along those WSR corridors.

Areas of Critical Environmental Concern

42. ACEC designation would enhance riparian vegetation in the East Fork Salmon River Bench, Malm Gulch/Germer Basin, Thousand Springs, Birch Creek, Donkey Hills, Dry Gulch, Pennal Gulch, Herd Creek Watershed, and Summit Creek ACECs.

Wilderness Study Areas - Management if Released

43. Watershed assessment and development of resource objectives for areas released from wilderness review, prior to development of range improvements, would ensure protection of riparian vegetation by considering all resource needs.

Forest Resources

44. Restrictions on commercial timber harvest, firewood cutting, and tree cutting in riparian areas would reduce impacts to riparian vegetation.

Minerals

45. For riparian areas in salmon, steelhead, and bull trout watersheds, mandatory NSO stipulations on energy mineral leases, closure to mineral material sales and extraction and non-energy leasing, and special design and opera-

tion of locatable mineral facilities would help protect these riparian areas. For riparian areas within other fish-bearing streams, minerals actions would be designed, constructed, and operated so as to not hinder the attainment of desired riparian and aquatic habitat conditions. This is expected to provide protection to riparian vegetation.

Recreation Opportunities and Visitor Use

46. Recreation actions could potentially impact riparian vegetation in localized areas through use of existing campgrounds and construction or upgrading of semi-developed campgrounds. Continued use of casual use areas, particularly along the Salmon and Big Lost rivers and Summit Creek, would also impact riparian vegetation through vegetation trampling by vehicles and people. River access facilities for floatboating would impact riparian vegetation by increasing human activities in those areas.

Off-highway Vehicle Use

47. Limiting OHV use to existing roads, vehicle ways, and trails throughout the RA would benefit riparian vegetation by limiting the amount of damage these types of vehicles can cause in riparian areas.

Special Status Plant Species

Special Status Species

48. Increasing the rate of inventory of special status plants from about 2,000 acres to about 3,000 acres per year would increase knowledge of these plant species. Requiring a site-specific field assessment of special status plant species as part of the assessment of all authorized actions would ensure protection of these vegetation resources. Moving the Summit Creek campground from the riparian area would help protect special status plant values in the area. Data files, inventories, and field assessments of non-vascular and special status plants, species management plans, and cost-share partnerships would help ensure protection of special status and non-vascular plant values, by highlighting management of these types of plants.

Areas of Critical Environmental Concern

49. Designation and management of the Malm Gulch/Germer Basin, Summit Creek, Dry Gulch, Pennal Gulch, Herd Creek Watershed, Sand Hollow, Birch Creek, and Lone Bird ACECs would help enhance rare plant populations in those areas.

Off-highway Vehicle Use

50. OHV limitations and closures would help protect special status plant values by reducing the opportunity for OHVs to drive over special status plants or cause erosional damage to their habitats.

Biological Diversity

51. Actions to manage for biological diversity would provide protection for special status plants, by ensuring that their unique values are considered as a part of the ecosystem at all levels of biodiversity.

Noxious Weeds

Noxious Weed Infestations

52. Increasing the rate of noxious weed control from about 77 to about 150 acres per year and utilizing integrated pest management would help preclude the spread of noxious weeds within the RA. Large areas currently infested with weeds would be controlled on their periphery to prevent the spread of weeds, and biological control agents would be used to control weeds within the infested areas. As new outbreaks are discovered, they would be aggressively attacked, thus reducing the chance of infestation.

53. Seeding areas where vegetation is removed during construction with a suitable seed mix would help impede the spread of noxious weeds by occupying bare ground areas with desirable plant cover.

54. Requiring applicants for land permits and rights-of-way to control noxious weeds would help limit their spread. Requiring the use of certified weed-free hay on public land would reduce the rate of spread of noxious weeds from this source.

Off-highway Vehicle Use

55. Off-highway vehicles would have the potential to spread noxious weeds throughout the Resource Area along roads and vehicle ways. Increased OHV limitations and closures would slightly reduce the potential for the spread of noxious weeds by virtually eliminating cross-country travel.

Transportation

56. Road maintenance and new road or trail construction activities would have the potential to spread noxious weeds by providing disturbed sites for new weed invasions and corridors for weed dispersal. Many existing roads and trails would not receive regular maintenance; new road construction in riparian areas would be limited; heavy equipment would be cleaned on site; and roads not needed for management would be closed and rehabilitated. These actions would limit the amount of disturbance and the spread of noxious weeds.

Cumulative Effects

57. In addition to the cumulative effects from BLM actions listed in the **Summary of Effects**, actions from adjacent landowners could have cumulative impacts to the vegetation resource. Much of the Resource Area is adjacent to National Forests, private lands, or State lands. Generally, other than casual uses like recreation, any action that crosses from other ownership to BLM managed lands and would impact vegetation on public land would need a permit, right-of-way, etc. from the BLM. This would provide an opportunity to design or mitigate the action in accordance with the requirements of the RMP. One possible exception would be incidental recreation use, which could bring noxious weeds onto BLM lands. These weeds could be difficult to control and may impact vegetation for some time to come. Watershed assessments would include consideration of adjacent land uses on the vegetation component of the ecosystem. This would allow the opportunity for adjacent landowners, other agencies, etc. to help the BLM develop actions which would consider the overall needs of vegetation, regardless of land ownership patterns.

Visual Resources

No Reasonably Foreseeable Effects to Visual Resources: No reasonably foreseeable effects to visual resources would occur from PRMP decisions listed under the following sections: Air Quality, Hazardous Materials Management, Special Status Species, Tribal Treaty Rights, and Wild Horses and Burros.

Summary of Effects

1. Current visual quality in the Resource Area is very good, and the RA is very natural in appearance overall. PRMP decisions are expected to alter the visual quality of the landscape, but, except on a site-specific basis, would have no significant adverse or beneficial effects on visual quality. Visual quality would remain high, because a significantly larger portion of the RA would be in VRM Class II and the character of the existing landscape would be preserved on more acres.

Positive Effects

2. Positive effects are those activities which retain or enhance the natural visual aesthetics by maintaining or enhancing the form, line, texture, and color of the landscape - components which attract the eye. PRMP actions which enhance water quality, protect riparian and upland areas, and maintain the natural and aesthetic qualities of the landscape would have positive effects on visual quality. Examples of such actions include removing livestock for various time periods from certain streams; implementing grazing systems; modifying fire suppression practices; preserving high quality habitat in exclosures; acquiring wetlands; restricting road construction in riparian areas; retaining and/or designating special management areas *(e.g.,* SRMAs, ACECs, WSAs); modifying timber harvest practices (such as helicopter logging on Lone Pine Peak); stabilizing streambanks; limiting OHV use to existing roads, vehicle ways, and trails Resource Area-wide; and OHV closures in critical areas.

Negative Effects

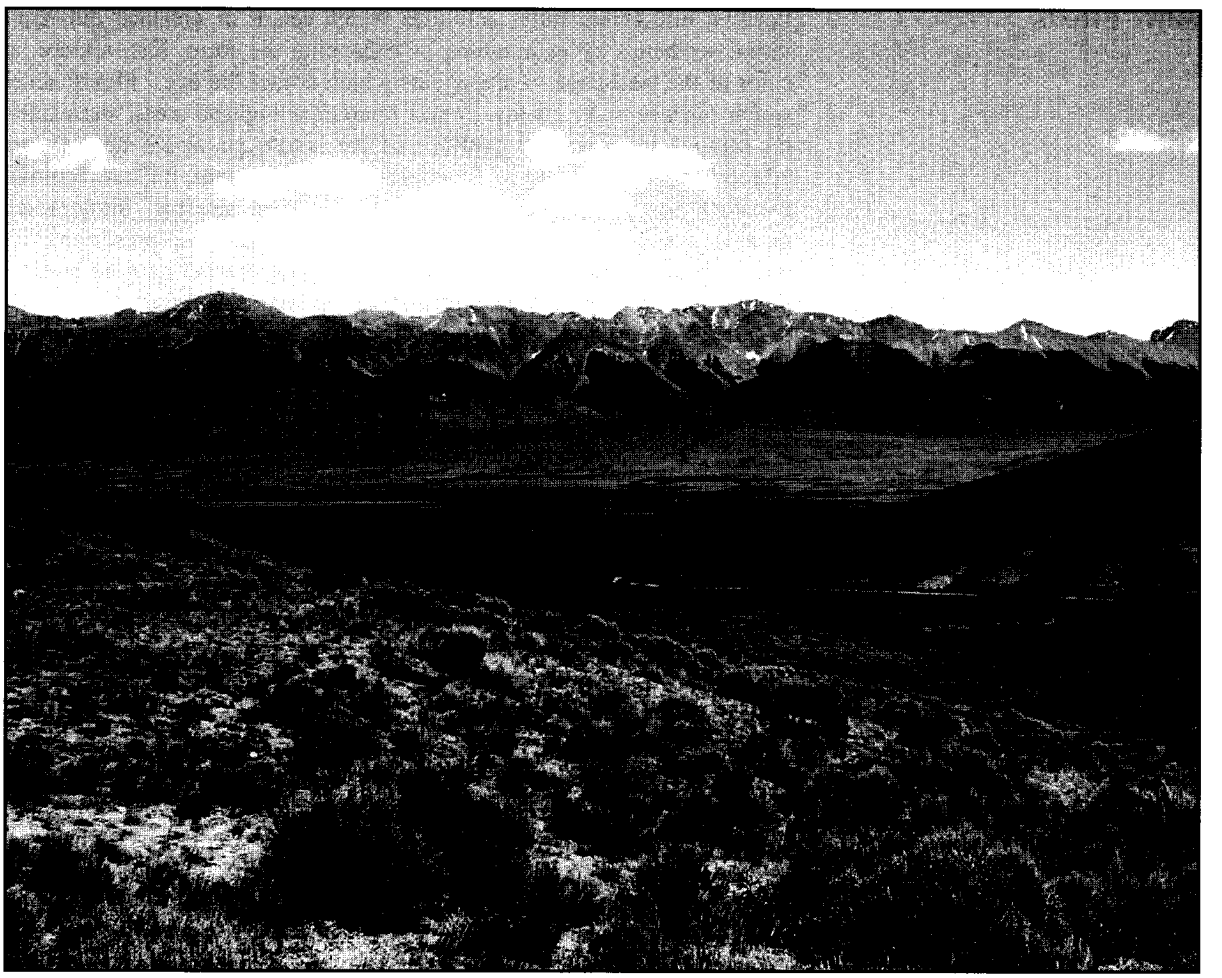
3. Negative effects are visual intrusions on the landscape which degrade the existing natural visual aesthetics. Although negative effects to visual resources may occur from PRMP actions, surface disturbing activities would not exceed the allowable visual intrusion for a given area *(i.e.,* VRM Class). The following are examples of PRMP actions which would have a short or long term negative effect on visual quality, if they were to occur: range improvement projects and seedings; new road construction; timber harvest; recreation site development; and mineral development.

Cumulative Effects

4. All BLM actions would be in compliance with VRM class guidelines assigned a delineated area, and would either maintain or enhance those values. PRMP actions which would, in general, protect watersheds and improve wildlife and fisheries habitat, water quality, and riparian health would also benefit the VRM landscape. Class I and II areas would emphasize preservation of the natural landscape character, which would preclude development of any kind that could not attain visual standards. Class III areas would allow major changes to the landscape.

USFS actions within the adjacent National Forest could have a positive or negative impact on overall visual quality in the RA, especially if VRM goals on adjacent USFS lands differ.

The effects of private land uses for agriculture, communities, and rural residences would be the greatest threat to maintaining visual quality on BLM-administered lands. Some actions, such as farming, could benefit VRM goals because many ranching activities help maintain visual quality. However, some ranching activities (such as fencing, corrals, buildings, and diversion structures) could alter the landscape character. The conversion of hay grounds into residential subdivisions could cause major alterations to visual quality.



Water Resources

No Reasonably Foreseeable Effects to Water Resources: No reasonably foreseeable effects to water resources would be expected from the actions listed in the PRMP under the following sections: Air Quality, Cultural Resources, Paleontological Resources, Tribal Treaty Rights, Visual Resources, or Wildlife Habitat.

General Discussion of Effects to Water Resources: The impacts to hydrologic resources vary in type, intensity, and magnitude; some management actions tend to produce beneficial impacts, while others produce adverse impacts. Effects on water resources are best understood by recognizing the direct and indirect effects of management decisions on water quality and the quantity of water available within watersheds. The condition of upland and riparian vegetation, surface disturbance and associated soil movement, toxic contamination, and natural events (*e.g.*, fire, landslides) all have the potential to directly affect water quality or quantity in watersheds.

Water quality is determined by the level of support to beneficial uses which are "designated" by the Idaho State Department of Environmental Quality or "identified" by the BLM. Beneficial uses for the major streams within the Resource Area are listed in *Appendix J, Item 1*, pp. 657-661. Water quality standards vary for each beneficial use. Sediment, temperature, dissolved solids, and water chemistry (pH, dissolved oxygen) are common water quality standards that are either directly or indirectly monitored and managed within the Challis Resource Area.

Upland watershed vegetation influences the infiltration and runoff characteristics of a watershed. It affects the ability of a watershed to store and release water through ground water flow to a stream over a long period, and minimize the extent of "flashy," sediment-laden, overland flow events. A healthy, well-vegetated watershed improves watershed storage production capacity, which tends to maintain adequate summer and fall season base flows through a sustained inflow of cool ground water to the stream system. The stable flows and cool temperatures are required for fish, maintaining high water quality, and sustaining flows for downstream private agricultural, municipal, and domestic uses.

Good riparian vegetation community conditions improve the infiltration, filtration, and stability characteristics of a stream system. They allow a riparian system to store and release water through ground water flow to a stream over a long period, dissipate energy of high flows without stream degradation, revegetate degraded conditions, and filter water quality contaminants of overland flows prior to entering the stream channel. Improved riparian conditions will generally result in narrowing channels, which will cause more frequent overbank flows which dissipate stream energy, reduce flood flow peaks, and extend the time of runoff from a flood event. The longer period of time of overbank flow results in greater water storage within riparian soils and more sustained, higher, and cooler base flows following the flood event. These conditions improve the water quality and quantity needs for fish and downstream private agricultural, municipal, and domestic uses.

Soil type and conditions also have an impact on water quality, water quantity, and the timing of water release from a watershed. Different soil types have differing abilities to store and release water and differing resistance to erosion. Coarser soils with lower amounts of organic matter have a lower water-holding or water retention capability, tend to be less vegetated, and can be very erosive if not adequately

protected. These soil types tend to be found on the higher slopes, are generally not as compactable, and depend on live vegetation, vegetative litter, and surface coarse fragments to improve infiltration and resist erosion. The sedimentation impacts of these soils tend to be a result of overland flow carrying sediments to stream channels. Finer textured soils have a higher content of silts, clays, and often organic matter. These soils have a very high water storage capacity, have the ability to support more vegetation, and are somewhat resistant to erosive forces when well-vegetated. The vegetation-water-soil combination tends to be more dynamic and have greater healing abilities when eroded. The sedimentation impacts of these finer textured soils tend to be silts and clays eroded directly by the stream, and are often the result of poor quality or inadequate vegetation. These soils can also be susceptible to mass wasting or slumping in saturated conditions.

The introduction of toxic materials in watersheds has the potential to adversely affect water quality. The effect of toxic materials spilled in either riparian or aquatic habitats would depend on the toxic substance spilled and the concentrations arriving in the water course. If toxic contamination were to occur, it could significantly and adversely affect water quality.

Natural events can have a sudden and dramatic impact on both water quality and water quantity. Wildfire will release nutrients which had been bound in the soil surface and plant material and make them readily available. Following wildfire, there can be a surge of nutrient loading in streams. In addition, when vegetation is removed by wildfire the soil surface becomes more susceptible to erosive precipitation events, resulting in the potential for increased sediment loading to streams. Extreme precipitation events can also impact both water quality and water quantity. Vegetation and soils conditions have evolved under a regime of climatic events and precipitation amounts. When an extreme precipitation event or an uncommon duration of precipitation occurs, soils can become saturated. Excess precipitation will flow rapidly to streams, causing flood conditions. Both the overland flow and streamflows from these events can be highly erosive, especially in the absence of adequate vegetative cover. High intensity rainfall events can actually seal the soil surface, reducing the water storage capacity of the soil and allowing rapid overland flow to accumulate to flood conditions in streams. This phenomenon tends to be a highly localized event. Rain-on-snow events can also cause severe flooding and erosion of stream channels. Rain on snow will cause a rapid release of water stored in snowpack, in addition to the rainfall. These events also typically occur when the ground is frozen and the water storage capacity of the soil is unavailable. This phenomena has caused some of the most severe flood events in the western U.S. Landslides can cause a significant and rapid, although generally localized, contribution of sediment to a stream system. Not only may a large quantity of sediment be input into the stream system in a short time, but the instability of the landslide soils may contribute sediment for an extended period of time until the landslide becomes stable.

Summary of Effects

1. PRMP management actions would improve water quality condition and trend. Watershed storage capacity and floodplain and riparian function would also improve. A number of specific management actions would improve upland and riparian vegetation conditions and associated upland, riparian, and aquatic habitats. Indirect benefits to water resources would include (a) reduced nutrient loading and sediment transfer to aquatic habitats and (b) improved watershed storage and production capacity. Improved vegetation conditions would result in immediate short term improvement, and establish the conditions for long term maintenance and continued

improvement of water resources. Identified beneficial uses (see *Appendix J, Item 1,* pp. 657-661) would not be adversely affected, and would achieve full support status over the long term.

Direct and Indirect Effects, by PRMP Section

Livestock Grazing

2. Allotments identified as priority allotments to determine proper stocking level would receive added attention to rapidly address riparian and floodplain functioning concerns that exist within some of those allotments (see ***Chapter 4*** - Fisheries, *Table 4-3,* p. 368). Actions designed to improve hydric species vegetation composition, structure, and cover on riparian areas would result in improved water storage capability, flood energy dissipation, and flood attenuation functions. Improved riparian conditions would also improve the overland flow filtering capabilities of these areas, and consequently the water quality within streams in the drainage. More stringent upland utilization level criteria would improve vegetation vigor and increase vegetative cover for watershed protection.

3. New and revised resource planning documents would incorporate knowledgeable and reasonable practices designed to maintain or improve and monitor water quality and support beneficial uses of intermittent and perennial streams.

4. Nonuse AUMs and AUMs that are lost, retired, relinquished, or otherwise canceled would be retained until watershed, wildlife, and aquatic habitat objectives are met. These actions would help accelerate improvement towards the identified hydrologic objectives within watersheds.

5. Livestock distribution would be improved by restricting livestock use in pastures until range improvement projects are in functional condition. The improved distribution would create more even utilization of the forage resource and limit the creation of overgrazed, unvegetated, sediment-producing zones within a pasture. Improved distribution would reduce the sedimentation impacts to water quality beneficial uses and improve water storage capacity in these zones.

6. Upland utilization standards would generally maintain or improve the vigor of upland vegetation and overall watershed cover in the long term. Use restrictions on key upland species during the critical growing period would further improve vigor and watershed cover. These improvements would increase available vegetative litter and plant basal area needed to (a) improve infiltration and watershed storage, (b) protect watersheds from excessive runoff events, and (c) reduce overland flows and sediment transport. Watershed storage capacities would be expected to increase, helping to maintain warm season base flows and cool water temperatures. Increased consideration of the effects of surface disturbing activities on soil compaction, erosion, and microbiotic crust populations would reduce upland sediment transport impacts to water quality beneficial uses and improve watershed storage capabilities.

Wild Horses and Burros

7. Maintaining existing wild horse numbers would continue to impact water quality in some locations in the Herd Management Area (HMA), primarily through excessive woody and herbaceous use in some riparian areas and localized bank shearing and soil compaction. However, other actions in the PRMP (*e.g.*, livestock grazing management, riparian area management) would improve vegetation and riparian conditions in the HMA, potentially mitigating some of these localized adverse effects. Wild horse numbers may be modified when adverse impacts to upland watersheds, riparian habitats or aquatic habitats can be attributed to wild horses; this would ensure no substantial degradation of water resources occurs. Wild horse numbers would continue to be closely monitored and controlled in known areas of fragile watersheds within the HMA (*e.g.*, Malm Gulch, Sand Hollow) to mitigate adverse effects to water resources from grazing and trampling of vegetation.

Riparian Areas

8. Riparian stubble height and bank shearing criteria indirectly limit livestock presence in riparian zones and would improve both riparian and aquatic habitat by ensuring that sufficient plant material remains to sustain desirable plant communities, maintain plant vigor, provide for a functioning floodplain, and protect the streambank. Improved riparian habitat conditions would, in turn, improve floodplain storage capacity, flood energy dissipation, flood attenuation functions, overland flow filtering capabilities, and water quality within streams.

9. Emphasis on increasing public awareness of the value of good condition functional riparian and wetland habitats, would help land users become more knowledgeable about and sensitive to these issues. As a result, land users may modify their actions to be less of a negative impact on water quality and aquatic resources.

10. Development of riparian study areas would help evaluate the success of applied management strategies for riparian improvement and the potential for vegetation succession. Applying this information in order to improve vegetation conditions outside the study exclosures would improve water quality outside the enclosed study area through reduced sedimentation and nutrient loading to streams. Significant benefits to water quality would only be realized if vegetation management improved throughout an entire drainage or watershed as a result of information gathered within the reference area. An allotment-scale grazing management demonstration project would provide information on the efficacy of selected land management strategies which may be applied for water quality improvement throughout other appropriate watersheds.

11. Increased emphasis on riparian pastures would provide greater control of riparian forage use and management objectives for riparian and aquatic habitat conditions, resulting in reduced sedimentation and nutrient loading and improved water storage capabilities within those pastures.

Floodplain/Wetland Areas

12. Discouraging development of floodplain and wetland areas and requiring protection of the beneficial functions of these areas if developed would benefit hydrologic resources. Water quality and availability would be improved by protecting the vegetation and land form characteristics of these areas, which would improve the infiltration, flood attenuation, filtration, and stability characteristics of a stream system.

Fisheries

13. Management actions intended to protect crucial habitats for designated priority fish species and achieve aquatic habitat objectives would, by association, reduce sedimentation and nutrient loading to streams and improve the infiltration, filtration, and stability characteristics of stream systems and upland watersheds.

Minimum Streamflow

14. Acquiring minimum streamflows on priority streams would improve both surface water quantity and water quality conditions (through dilution of contaminants). Maintaining minimum streamflows supports riparian vegetation, which enhances the floodplain storage capacity, flood energy dissipation, and flood attenuation functions of riparian areas. Improved riparian conditions would improve the overland flow filtering capabilities of these areas, and consequently the water quality within the stream. Maintaining minimum streamflows would help assure sustained quantities of water for downstream uses.

Water Quality

15. Actions intended to maintain satisfactory water quality and improve unsatisfactory water quality would have a positive effect on water quality beneficial use values, principally by reducing sedimentation and nutrient loading to aquatic habitats in the long term. The Procedures for Nonpoint Source Consistency Review identified in the PRMP, *Attachment 12*, pp. 145-146 would protect water quality from nonpoint sources of pollution, and provide strategies for managing all activities which may impact water quality.

Fire Management

16. In full suppression areas, fire suppression activities which remove vegetation and disturb soils are likely to impact water resources through increased sediment and overland water flows. The application of the Minimum Impact Suppression Tactics (MIST) Guidelines (see PRMP Attachment 9, pp. 124-134) would help mitigate some impacts resulting from fire suppression activities. Restrictions on motorized fire fighting equipment in WSAs would protect hydrologic resources in those areas from some suppression activities. Rehabilitation specifications would accelerate recovery of disturbed riparian and aquatic habitats if fire staging activities are unavoidable in those areas. Rehabilitation efforts in other localized areas *(i.e.,* uplands) would be implemented as necessary to rapidly revegetate soil types prone to erosion. Full suppression would reduce the immediate threat of sedimentation, overland water flow, and nutrient loading resulting from the burn. However, suppressing fires increases the risk of large, uncontrollable fires that would result in large scale burn areas susceptible to higher rates of sedimentation and overland water flows and widespread nutrient loading.

In conditional suppression areas, similar fire suppression impacts would also occur and similar MIST Guidelines criteria would apply. Impacts from fire suppression are expected to occur at a reduced level since suppression activities would be more flexible and controlled. Conditional suppression activity plans would consider vegetation and soil disturbing affects by identifying and controlling fire in plant communities with a high risk of adverse fire effects (*e.g.,* noxious weeds, cheatgrass, microbiotic crust populations) and include burn prescriptions to allow cooler, mosaic type burns, resulting in reduced risk of sedimentation and overland water flows and reduced potential of nutrient loading to streams. The risk of large, uncontrolled fires may decrease over the long term as more small fires are allowed to burn.

Transportation

17. Restrictions on new road construction in riparian areas would minimize new sediment loadings to aquatic habitats. Design specifications for new road construction are intended to eliminate the impacts of increased sedimentation on water quality. Evaluation and appropriate modification of existing roads would reduce the sediment loading to aquatic habitats that may currently exist and impact identified beneficial uses.

18. Focusing road maintenance on areas with the greatest potential for erosion and water quality impacts would minimize the potential for sedimentation. Road construction and maintenance activities would be reviewed by appropriate staff specialists, and meet or exceed minimum standards contained in State approved BMPs for road construction and maintenance. Design specifications for road maintenance are intended to eliminate sedimentation impacts to aquatic habitats. These limitations and reviews would minimize sedimentation impacts.

Rangeland Vegetation Treatment Projects

19. In the short term following treatment (two to five years), vegetation treatment projects such as plowing or burning could impact hydrologic resources by increasing sedimentation, water release, and overland flows from the treated areas. However, an objective of the vegetation treatment project would be to increase vegetative cover, thereby reducing the potential for sedimentation and increased water release and overland flows in the long term. In addition, designing irregular treatment patterns, untreated islands, and buffer strips would reduce the potential of overland water flows and sedimentation to adjacent stream reaches.

Noxious Weed Infestations

20. Spraying noxious weeds in conformance with the Northwest Area Noxious Weed Control Program EIS would reduce the potential for toxic contamination of water resources. In addition, increased emphasis on integrated pest management and other actions would further minimize the potential for toxic impacts to water quality. Reseeding ground disturbing treatment activities with perennial species within 8 months would provide soil cover and reduce the threat of sedimentation and overland water flows.

Forest Resources

21. Reducing the commercial timber base by approximately 24% would maintain some forest lands in an undisturbed condition, reducing the potential for induced sedimentation from timber harvest on those lands. In forested areas where harvest and associated road construction occur, the identified management practices, SOPs, and design specifications would adequately protect water quality beneficial uses from adverse sedimentation impacts. No significant beneficial or adverse effects to water quality would occur from management of forest resources within the Resource Area.

Recreation Opportunities and Visitor Use

22. The expanded facilities proposed to accommodate the expected increase in recreation use could cause increased sedimentation to aquatic habitats in, and adjacent to, campground and casual use areas. These impacts could, however, be monitored and controlled at the developed use sites. Not accommodating increased recreation use would have greater, more dispersed, and less controllable impacts on sedimentation and water quality. Further development of recreation facilities in riparian areas would be curtailed. Casual use areas identified for closure or hardening would reduce sedimentation and nutrient loading to adjacent streams. Expected increases in recreation use pose a greater risk of hazardous or other pollutant material spills into streams. However, site development would typically be away from the streamside to minimize this potential.

Off-highway Vehicle Use

23. OHV use limitations are designed to protect fragile soils, wildlife, upland vegetation, and riparian habitat. OHV limitations throughout the RA and localized closures would nearly eliminate sedimentation and vegetation disturbance impacts from off road vehicle travel. Limiting OHV use to existing roads and vehicle ways would allow mitigation efforts to be focused on maintaining existing roads and trails to minimize adverse sedimentation effects. The stated exceptions to the OHV limitations may result in some surface disturbance leading to accelerated erosion and altered water flows. However, these instances, should they occur, would be minimal and localized.

Land Tenure and Access

24. A "no net loss" policy of like riparian values on individual land tenure adjustments would be pursued. In the long term there would likely be a net increase in the protection of these habitats, by managing for the protection of acquired lands and applying conditions for the protection of released lands through land tenure agreement. Acquired habitats would be managed for their special values (*e.g.*, sensitive fish species) and to maintain or enhance water quality and wetland characteristics. Improving or maintaining these habitats would improve water flow, associated hydrologic characteristics, and water quality.

25. A priority for land tenure adjustment would be acquisition of lands with identified high resource values, such as riparian resources. Lands acquired for these special values would be managed for those values. This policy would help maintain and improve water quality beneficial uses by protecting riparian vegetation conditions.

Wild and Scenic Rivers

26. The BLM would maintain WSR values on the 5 segments found suitable and 10 segments identified as eligible, with a suitability study deferred. Management to maintain the free-flowing character of these 15 segments and fisheries Outstandingly Remarkable values on 9 segments would indirectly benefit the water quality, riparian habitat, and wetland characteristics associated with these waterways.

Areas of Critical Environmental Concern

27. Special management actions designed to protect the various ACEC values (*e.g.*, grazing, OHV use, timber harvest, and mining restrictions; seasonal OHV restrictions; and vegetation management) would directly (a) reduce sedimentation and nutrient loading impacts to water quality, (b) reduce the threat of overland water flow and altered water release, and (c) stabilize water quantity within the watershed.

Wilderness Study Areas - Management if Released

28. Suitable WSAs released from wilderness review would primarily be managed to maintain their primitive values, and protection of riparian and water quality would remain a high priority. Actions designed to protect and stabilize soils and provide adequate vegetative cover would continue, resulting in water resources protection. Restrictions on OHV use, timber harvest, and mineral development would also protect water resources by reducing sedimentation, reducing overland flows, and improving water quality.

    Less restrictive timber harvest and mineral development would be allowed in nonsuitable WSAs, if released. However, helicopter logging requirements, proposed road closures, and standard stipulations on mineral development would provide reasonable protection from disturbances to surface soil and vegetative cover, thus reducing the threat of excessive soil movement, sedimentation, or altered overland water flows.

    Allowing rangeland improvements to be constructed within suitable and nonsuitable WSAs, if released from wilderness review, would enhance water resources by improving livestock distribution in order to reduce surface disturbance and better control livestock presence in and around riparian/wetland areas.

Minerals

29. There is low potential for oil, gas, and geothermal resources in the Challis Resource Area, and therefore little potential for energy mineral leasing to impact water resources. Wherever they are applied, the "no-surface-occupancy" stipulation or other standard stipulations would effectively protect the soil and vegetation resources and reduce the threat of excess sedimentation, overland water flows, altered water release, and toxic contaminants, thus protecting water quality. Water resources in areas closed to energy mineral leasing (campgrounds, recreation sites, existing WSAs) or with a mandatory NSO stipulation (riparian areas in salmon, steelhead and bull trout watersheds) would be fully protected from adverse impacts of energy minerals leasing.

30. There are no known non-energy leasable minerals within the Resource Area; therefore, no reasonably foreseeable impacts to water resources from non-energy mineral development are expected.

31. Water resources would be fully protected from mineral material development impacts in areas closed to mineral material sales (campgrounds, recreation sites, existing WSAs and suitable WSAs if released from wilderness review, Lone Bird and Malm Gulch/Germer Basin ACEC, and riparian areas in salmon, steelhead, and bull trout watersheds). These closures would protect existing water quality conditions from sedimentation and toxic contaminants in the major stream segments and tributaries within the closed areas, and protect upland watersheds from surface soil and vegetation disturbances.

    Within SRMAs and ACECs, mineral material disposals would be subject to ID team review and protection of special management area values; these requirements would provide some protection to water resources characteristics within these areas. Requiring mineral material disposal activities in riparian areas not within salmon, steelhead, and bull trout watersheds to not hinder attainment of desired riparian and aquatic habitat conditions would protect or enhance water resource characteristics through protection of riparian vegetation, soil cover, and wetland processes.

    Mineral material development specifications in the remainder of the Resource Area not previously identified would be dependent upon ID team review. Surface soil and vegetation disturbances are likely to occur, which would disrupt overland water flow processes, soil water holding and release cycles, and accelerate soil erosion. Although likely to occur, these impacts are expected to be localized and limited in size and scope.

32. Continuing to withdraw recreation sites from locatable mineral entry would have a small benefit to hydrologic values, because of the small acreage involved. Mineral location activities which do not require a plan of operations (generally less than 5 acres) could negatively impact water quality through riparian vegetation removal, increased sedimentation, and toxic water quality contamination. For larger locatable mineral activities (5 acres or more) and in some special management areas, some protection of the hydrologic resource could be provided through preparation of a plan of operations and ID team review. However, existing laws allow a high degree of flexibility to the mineral locator, and negative impacts to the hydrologic resource could still include removal of riparian vegetation, increased sedimentation, and toxic contamination. Required reclamation for large scale mineral material location actions would mitigate some of the adverse impacts in the long term. Design specifications which prohibit mining facilities in riparian habitat areas of anadromous fish and bull trout watersheds where feasible could help control sedimentation and toxic effects to water quality in those areas. Withdrawing suitable WSAs released from wilderness review from locatable mineral entry would protect existing hydrologic values in those areas from sedimentation and toxic impacts of

locatable mineral activity.

Hazardous Materials Management

33. Hazardous materials management decisions would minimize, although not eliminate, the chance of hazardous material toxic contamination affecting water quality. The severity of an occurrence would depend upon the substance and concentration.

Cumulative Effects

34. Management actions applied to all resources would complement each other, resulting in a sustained improvement of overall water quality and watershed production over the long term, primarily through better management of riparian and upland vegetation communities. Improved vegetation conditions would be expected to (a) quickly reduce sedimentation to aquatic habitats and nutrient loading of water courses, (b) establish conditions to stabilize stream systems, allowing the systems to take advantage of flows which tend to flush silted-in channels, and (c) provide upland vegetation adequate to moderate overland water flows and normalize water release processes. Other decisions in the PRMP to directly manage aquatic habitat, surface disturbing activities, and floodplains and wetlands would also support achieving beneficial uses as part of an overall resource management package.

35. Forest Service and State land management practices are also being modified to improve water quality. As these practices are implemented, sedimentation and nutrient loading impacts would decrease on these lands and consequently have reduced cumulative impacts to the water quality of streams on BLM lands. A more sustained streamflow on BLM lands would also be expected as a result of controlled overland flows and water release processes on higher elevation Forest lands.

36. Agricultural uses on private lands within RA boundaries tend to produce adverse sedimentation and nutrient loading impacts to water quality. Water diversion on BLM or private lands for private land irrigation significantly reduces or dewaters streamflows. This may reduce water availability to users on downstream segments and negatively affect riparian vegetation on dewatered segments. Minimum streamflow rights granted by the State of Idaho as a result of BLM actions may help to stabilize some of the flows at current levels on selected priority streams within the Resource Area.

    Mineral development on private lands could affect water quality on BLM lands. If the private landowner retains the mineral rights on and under the private land, development would be subject to State standards. Otherwise, development would be subject to Federal standards described in the RMP. The potential impacts to water quality include sedimentation, loss of protective vegetation, and toxic contamination.

    The use and storage of toxic materials on private lands poses a fairly significant risk of toxic contamination impacts to water quality on BLM lands. The use of toxic materials on private lands is generally greater than

on Federal lands. Private landowners may store or dispose of toxic substances, including agricultural chemicals and petroleum products, in a less regulated manner than is required on Federal lands. Unprotected storage facilities, inappropriate storage containers, and small family dumps may occur on private lands and cause adverse impacts to water quality.

Wilderness Study Areas, if Released from Wilderness Review

Introduction: This analysis describes the effects of proposed management decisions on primitive values (opportunity for primitive and unconfined recreation, "naturalness," and opportunity for solitude) and biodiversity in WSAs, assuming that WSAs in the Challis RA are *released* from wilderness review. (See ***Chapter 4*** - Biological Diversity; Recreation Opportunities, Visitor Use, and OHV Use; and Visual Resources for additional discussions of effects on biodiversity, primitive recreation, and the natural character of the landscape.)

Two designated U.S. Forest Service wilderness areas (Frank Church - River of No Return Wilderness and Sawtooth Wilderness) lie within 25 air miles of WSAs in the Challis RA (see *Map 29: Local Wilderness Status*). U.S. Forest Service areas which retain a roadless character and primitive values, but were recommended unsuitable for wilderness designation and are currently managed for non-wilderness uses such as timber management, minerals development, and motorized recreation, lie adjacent to the Goldburg WSA (portions of the North Lemhi RARE II area) and the Boulder Creek WSA (portions of the Boulder/White Cloud RARE II area). One USFS area recommended suitable for wilderness designation (Borah Peak RARE II area) lies adjacent to the portion of the Burnt Creek WSA which is recommended suitable for wilderness designation.

No Reasonably Foreseeable Effects to WSAs if Released from Wilderness Review: No reasonably foreseeable effects on primitive values or biodiversity in WSAs released from wilderness review would be expected as a result of management decisions listed in the PRMP under the following sections: Air Quality, Cultural Resources, Hazardous Materials Management, Land Tenure and Access, Paleontological Resources, Recreation Opportunities and Visitor Use, Tribal Treaty Rights, and Wild and Scenic Rivers.

Summary of Effects

1. Primitive values and biodiversity would be partially maintained in WSAs released from wilderness review. OHV use and forested area management actions would reduce proliferation of new roads and vehicle ways. Potential for adverse effects of timber harvest on primitive values and biodiversity would be reduced by stipulations on harvest methods, limitations on haul road construction, and closing suitable portions of the Jerry Peak WSA to timber harvest.

Direct and Indirect Effects, by PRMP Section

Areas of Critical Environmental Concern

2. Designating the Herd Creek Watershed ACEC and managing the ACEC to maintain ACEC values would help contribute to the maintenance of primitive values and biodiversity in the Jerry Peak and Jerry Peak West WSAs, if released from wilderness review (see ***Chapter 4*** - Biological Diversity, #2 (ACECs)).

Fire Management

3. Stipulations on fire suppression activities would contribute to the maintenance of primitive values in WSAs released from review by ensuring protection of riparian habitats and other resource values from damaging effects of suppression activities, and by requiring rehabilitation of burned and damaged areas. Development of fire management activity plans is

expected to help maintain biodiversity through the development of fire prescriptions and implementation of prescribed burning in WSAs released from review.

Livestock Grazing, Wild Horses and Burros, Riparian Areas, Fisheries, Floodplain/Wetland Areas, Minimum Streamflow, Noxious Weed Infestations, Water Quality, Wildlife, and Upland Watershed

4. PRMP decisions to manage livestock grazing, wild horses, riparian areas, fisheries, floodplains, minimum streamflows, wetlands, noxious weeds, water quality, wildlife and upland watersheds would help to maintain and improve natural plant and wildlife communities in WSAs released from review, thereby contributing to the maintenance of primitive values and biodiversity in these areas.

Forest Resources

5. Timber harvest activity is expected to remove old growth timber, with potential for adverse effects on biodiversity (see ***Chapter 4*** - Biological Diversity, #7 and 9) and old growth forest values associated with large, undisturbed patches of forest land. Timber harvest would also result in a decline of primitive values in WSAs released. Timber stand improvement and sanitation treatments would help reduce the potential for adverse effects from disease, insect infestation, wildfire, and other natural events in WSAs.

   Closing suitable portions of the Jerry Peak WSA (26,750 acres) to all timber harvest would help maintain old growth forest values, biodiversity and primitive values associated with large, undisturbed patches of forest land. In the Corral-Horse Basin WSA and suitable portions of the Burnt Creek WSA, timber harvest restrictions would help maintain primitive values and the natural character of the landscape, except where modified by timber harvest and within 1/2-mile of existing roads where timber haul roads may be authorized. Timber harvest would also preclude opportunities for primitive recreation and solitude for short periods during the time when harvest actually takes place.

Minerals

6. Mineral development in WSAs released from wilderness review, if it were to occur, would be likely to increase proliferation of roads and vehicle ways, change the natural character of the landscape, and degrade primitive values. However, the probability of fluid energy, saleable, non-energy leasable, and locatable mineral development is low in all WSAs, and the potential for adverse effects is therefore also low. In suitable WSAs released from wilderness review (38,930 acres), no surface occupancy stipulations on energy mineral development, closure to saleable minerals and non-energy leasing, and withdrawal from locatable mineral entry would help maintain primitive values, reduce proliferation of roads and vehicle ways, and help maintain the natural character of the landscape.

Off-highway Vehicle Use/ Transportation

7. Limiting motorized vehicle use to existing roads and vehicle ways in WSAs released from review, limiting new road construction in the Jerry Peak, Jerry Peak West, Corral-Horse Basin and Burnt Creek WSAs, closing the Dry Creek Road and Herd Creek trail to motorized vehicle use, and developing a transportation plan for the RA would help reduce proliferation of roads and vehicle ways in WSAs released from review and help maintain primitive values.

Special Status Species/ Biological Diversity

8. Special status species management actions would promote biodiversity in WSAs released from review by requiring (1) inventories, surveys, and field assessments of projects and other actions that may affect special status species in the WSAs; and (2) development of species data files and field inventories for amphibians, reptiles, insects, and nonvascular plants that would provide more detailed information upon which to base management decisions in the WSAs. Biodiversity management actions would contribute to knowledge of biodiversity and require the effects of management actions on biodiversity in the WSAs to be considered.

Visual Resources

9. Managing WSAs released from wilderness review (which are Class I until released) under the VRM class of adjacent BLM public lands would have the potential to result in a decline of visual quality if actions that reduce visual quality are approved.

Cumulative Effects

10. In the long term, primitive values on BLM and National Forest lands are expected to decline slightly due to increased recreation use and other human activity, except in designated wilderness areas and other roadless areas (see *Map 29: Local Wilderness Status*), where recreation use and human activity would more likely be managed or controlled. Maintenance of primitive values in the Jerry Peak and Burnt Creek WSAs, if released from wilderness review, would help to maintain the overall primitive character of the public and National Forest lands in the region.

Wild Horses and Burros

No Reasonably Foreseeable Effects to Wild Horses and Burros: No reasonably foreseeable effects to wild horses and burros are anticipated from the actions listed in the following sections of the PRMP: Air Quality, Biological Diversity, Cultural Resources, Floodplain/Wetland Areas, Hazardous Materials Management, Minimum Streamflow, Paleontological Resources, Special Status Species, Transportation, Tribal Treaty Rights, Visual Resources, Water Quality, Wilderness Study Areas - Management if Released from Wilderness Review, and Wild and Scenic Rivers.

Introduction: No portion of the Morgan Creek Allotment has been designated as a Wild Burro Area. Any burros released there in the future would be removed. Therefore, there would be no impact to wild burros from any actions in the PRMP, and wild burros will not be discussed further.

Effects to wild horses and wild horse habitat would be limited to the Herd Management Area portion of the Challis Resource Area (see *Map 48*). Effects to wild horses are described below under one or more of the following categories: Summary of Effects; Direct and Indirect Effects, by Type of Effect and PRMP Section ("Types of Effects" include Impacts to Wild Horse Habitat, Competitive Impacts to Wild Horses, and Disturbance Impacts to Wild Horses); and Cumulative Effects. Improvement or maintenance of wild horse habitat or increased forage availability, as noted in the following analysis, would help to ensure the productivity and viability of the wild horse population. Competitive impacts, as used below, refer to conflicts between wild horses and livestock or wildlife for available forage, space, or water. Disturbance impacts, as used below, refers to actions which impact the viability and productivity of the wild horse herd, rather than disturbance to individual members of the herd. While some actions may disturb individual animals, causing them to run off a short distance, rarely do disturbances result in disruptions to the viability and productivity of the herd.

Summary of Effects

1. Establishing proper livestock stocking rates for grazing allotments within the Herd Management Area (HMA) would improve wild horse habitat and reduce competition and disturbance from livestock. Watershed assessment would benefit wild horse management by considering all components of the ecosystem. Upland utilization standards, riparian stubble height criteria, and upland cover requirements would reduce livestock/wild horse competition and lead to improved wild horse habitat by maintaining or increasing the availability of forage for wild horses. Range improvements to achieve multiple use objectives would lead to improved wild horse habitat. Helicopter logging of the Lone Pine Peak area or the Jerry Peak or Corral-Horse Basin WSAs could impact wild horses through disturbance of individual animals, but would not impact herd viability. OHV closures and limitations would benefit wild horses through less harassment and improved vegetation conditions.

2. Overall, PRMP decisions would have very positive impacts to wild horses, leading to a thriving natural ecological balance within the HMA.

Direct and Indirect Effects, by Type of Effect and PRMP Section

Impacts to Wild Horse Habitat

Livestock Grazing

3. PRMP requirements such as stubble height, utilization, cover, and bank shearing criteria could result in active livestock use up to 12,657 AUMs below the existing active preference level Resource Area-wide. In the long term, establishing proper stocking rates for the Warm Springs and Mountain Springs (San Felipe) allotments would benefit wild horse habitat by reducing competition between livestock and wild horses, and leading to increased vigor of vegetation, changes in vegetation composition, and increased forage production and availability.

4. Continuing to close the Malm Gulch and Sand Hollow areas to livestock grazing would maintain vegetation and may provide additional forage for wild horse use.

5. Development of watershed assessments and Integrated Resource Activity Plans (IRAPs) would benefit wild horse habitat by ensuring consideration of all components of the ecosystem.

6. The use of upland utilization standards, riparian stubble height criteria, and bank shearing criteria to determine when to move livestock from one pasture to another would maintain or improve wild horse habitat by ensuring that livestock overuse does not occur within the Herd Management Area.

7. Managing for late seral to Potential Natural Community as the Desired Plant Community would improve wild horse habitat conditions by maintaining or improving vegetation health and vigor.

8. Holding unused AUMs for non-consumptive uses would help ensure improvement of wild horse habitat and/or would be expected to increase forage availability for wild horses by increasing vegetation vigor, density, and production.

9. Achieving upland cover requirements would improve wild horse habitat by providing ground cover to reduce runoff and erosion and by providing a favorable microclimate for seedling establishment.

10. In the long term, PRMP upland utilization and stubble height requirements and the use of watershed assessments to identify habitat conditions, trends, and wild horse habitat needs would ensure improvement of wild horse habitat.

11. Requiring livestock permittees to maintain range improvements would benefit wild horses by helping to ensure that water is available at troughs within the wild horse herd area and that livestock remain in areas where they are permitted. Requiring permittees to delay turnout until all improvements are functional would benefit wild horse habitat by controlling the

area's livestock use.

12. Using land treatments and improved grazing management as tools to achieve multiple resource objectives would improve wild horse habitats. Allowing permanent increases in livestock forage attributed to range improvements only after an ID team analysis has indicated that all allotment objectives have been met would ensure that wild horse habitats would be improved by the range improvement.

Wild Horses and Burros

13. Managing to maintain a herd of about 185 to 253 wild horses is expected to ensure that wild horse habitat is maintained, and that a thriving natural ecological balance is achieved, as required by the Wild Horse and Burro Act. Localized impacts of wild horse use would be handled through periodic gatherings of excess animals, as described in the HMAP. If conditions throughout the herd area deteriorate due to too many wild horses, the Appropriate Management Level would be adjusted downward to protect wild horse habitat. Allowing wild horses to use the Malm Gulch and Sand Hollow areas would increase the BLM's wild horse management flexibility. The BLM could gather wild horses from any place they are causing resource damage, instead of having to gather all horses from within the Malm Gulch or Sand Hollow areas, whether or not they are causing resource damage.

14. Adjusting wild horse management to cause progress toward meeting desired riparian and aquatic habitat conditions would improve wild horse habitat by providing higher quality riparian habitat and improved water quality.

Wildlife Habitat

15. Providing forage and habitat for current stable populations of big game animals would have minimal impact to wild horse habitat. Encouraging IDFG to keep big game numbers at their current level would benefit wild horse habitat, as additional numbers of big game, if excessive, could impact wild horse habitat through overuse.

16. Actions to implement the Salmon BLM's *Fish & Wildlife 2000* Plan would improve wild horse habitat to the extent that these actions are undertaken in the Herd Management Area.

Noxious Weed Infestations

17. Decisions regarding noxious weeds control would have little impact on wild horse habitat, as there is only one small weed infestation currently present within the Herd Management Area. Requiring seed for revegetation projects to be certified weed-free from noxious weeds for Idaho and adjoining states would benefit wild horse habitat if any revegetation projects are implemented within the Herd Management Area.

Rangeland Vegetation Treatment Projects

18. Determining the need and priority for vegetation treatment projects through the ID team and activity planning process would ensure that any project undertaken would benefit wild horse habitat by improving overall range condition.

Upland Watershed

19. Fire rehabilitation to meet multiple use objectives as determined by an ID team would ensure protection of wild horse habitat.

Fire Management

20. In the short term, full suppression of wildfires throughout most of the RA could lead to large, uniform areas where fire exclusion results in a monoculture of sagebrush-dominated grasslands. These types of habitats are not optimum for wild horses. Conditional fire suppression areas could, in the long term, eventually cover most of the Herd Management Area. This would allow fire to play a more natural role in the ecosystem and lead to improved habitat conditions within the Herd Management Area.

21. The use of an ID team to develop activity plans and fire prescriptions to enhance ecosystem health and function would benefit wild horse habitat.

Riparian Areas

22. The use of riparian stubble height and bank shearing criteria for livestock grazing would improve wild horse habitat by helping to ensure that overuse of riparian habitat does not take place.

Fisheries

23. Developing management strategies and objectives through the activity planning process to meet or exceed desired riparian and aquatic habitat conditions and improve 90% of non-functional or functional-at-risk aquatic and riparian habitats would ensure good quality riparian habitat and water quality within the Herd Management Area.

Land Tenure and Access

24. Land tenure adjustments (including DLEs, sales, exchanges, etc.) would have little or no impact to wild horse habitat. Of the sale tracts proposed, only 31.36 acres fall within the Herd Management Area. DLEs would comprise a small but unknown acreage, and other land tenure adjustments would not be expected to impact wild horse habitat. Rights-of-way, land leases, permits, and withdrawals would have little or no impact to wild horse habitat.

Areas of Critical Environmental Concern

25. Continuing the existing designation of the Antelope Flat, East Fork Salmon River Bench, and Malm Gulch/Germer Basin ACECs would have no impact to wild horse habitat, as no actions are proposed for these ACECs that are incompatible with wild horse habitat. Designation of the Sand Hollow ACEC would have little impact to wild horse habitat, as the area would remain closed to livestock grazing. The Lone Bird ACEC would be closed to motorized vehicle use, potentially affecting the ability of the BLM to conduct wild horse gatherings in that area. This would not, however, be a major impact to wild horse habitat, as there are sufficient other sites available outside the ACEC to ensure gathering can take place as needed to protect wild horse habitat.

Forest Resources

26. Using the ID team process and information gained through watershed assessment to manage 23,578 acres of forest lands for multiple uses would result in improvement of wild horse habitat, as the needs of all components of the ecosystem would be taken into account.

27. Road construction and logging activities within the HMA would have minimal impacts to wild horse habitat, as the potential for these types of actions is low. Impacts to habitat in a small portion of the HMA would be expected until logged areas regenerated, but would not be significant, as these timbered areas are used primarily for summer shade and winter cover.

Minerals

28. Oil, gas, and geothermal leasing would have limited potential for impact to wild horse habitat on the acres of the Resource Area open to leasing, due to low development potential and the use of stipulations to protect resource values. The use of standard stipulations on ACECs (23,087 acres within the Herd Management Area) would ensure protection of wild horse habitat in those areas. The use of NSO stipulations within SRMAs (14,234 acres within the HMA) and suitable WSAs if released (12,726 acres within the HMA) would help to reduce the potential for disturbance or loss of wild horse habitat.

29. There are no known deposits of non-energy leasable minerals in the RA, so no reasonably foreseeable impacts to wild horse habitat from non-energy leasing are expected.

30. Mineral materials development would have limited potential to impact wild horse habitat, because there is little potential for mineral materials within the HMA. Closing the Lone Bird and Malm Gulch/Germer Basin ACECs to rockhounding, mineral material collection, and mineral material sales would protect wild horse habitat within those areas. Continuing to close about 12,726 acres of suitable WSAs within the HMA to disposal of mineral materials, if released from wilderness review, would also protect wild horse habitat.

31. Locatable mineral development could impact wild horse habitat if a large-scale mine were to be developed within the Herd Management Area. However, the potential for this to occur would be low. Suitable WSAs, if released, would be withdrawn from locatable minerals entry, providing protection for 12,726 acres within the HMA from the impacts of locatable mineral development.

Off-highway Vehicle Use

32. Limiting OHV use throughout the Resource Area to existing roads, vehicle ways, and trails yearlong, and closing the Lone Bird and Sand Hollow ACECs to OHV use, would protect wild horse habitat from OHV trampling, erosion, and soil loss impacts.

Competitive Impacts to Wild Horses

Livestock Grazing

33. The current livestock allocation of 51,069 AUMs, coupled with a wild horse herd management level of 185 to about 253 horses, has resulted in livestock/wild horse competition. Periodic drought has resulted in livestock foraging into areas normally used only by wild horses. However, the competitive impact on wild horses has not been significant, as evidenced by the general good health, good condition, and reproductive success of the

herd. For the long term, as proper stocking rates are established for grazing allotments within the Herd Management Area, competitive impacts to wild horses would be reduced.

34. The Malm Gulch and Sand Hollow areas would be closed to livestock use but not wild horse use; no competition would occur.

35. Development of watershed assessments and Integrated Resource Activity Plans (IRAPs) would help ensure competition between livestock, wildlife, and wild horses would be minimized.

36. The use of utilization criteria, riparian stubble height criteria, and bank shearing criteria to determine when to move livestock from one pasture to another or from an allotment would decrease livestock/wild horse competition.

37. Holding available livestock grazing AUMs for watershed and wildlife purposes until allotment vegetation objectives are met would decrease the competition between livestock and wild horses.

38. Prescribed burns and seedings, if planned by an ID team to promote overall ecosystem health and diversity, would be unlikely to increase competition between livestock and wild horses.

Wildlife Habitat

39. Providing forage and habitat for current stable big game populations would have competitive impacts to wild horses. Ensuring that big game populations do not exceed proper levels or damage habitat would indirectly ensure competition does not increase.

40. Developing new wildlife watering sources could result in competitive impacts to wild horses if wildlife are attracted into formerly unused areas

41. Developing riparian study exclosures would have a very minor adverse impact to wild horse competition, as livestock are displaced to other areas by these exclosures.

42. Wildlife reintroductions would be unlikely to compete with wild horses, as the reintroductions would not be allowed if they would result in competition.

Rangeland Vegetation Treatment Projects

43. Developing vegetation treatment projects through the ID team and activity planning process would ensure competition between livestock and wild horses would be minimized.

Upland Watershed

44. Watershed cover criteria would ensure competition between livestock and wild horses for forage, water, and space is minimized by controlling livestock use within the HMA.

Riparian Areas

45. Procedures to maintain water quality, support beneficial uses, and restore and maintain riparian/wetland areas; and designing grazing systems to improve riparian areas could have competitive impacts to wild horses, if livestock are moved from riparian areas into upland areas normally used only by wild horses.

Disturbance Impacts to Wild Horses

Livestock Grazing

46. Continued livestock grazing at historic levels would have disturbance impacts to individual horses or bands, but no impact to overall herd viability. Over the long term, as appropriate livestock stocking levels are determined, disturbance impacts would decrease.

47. Continued closure of the Malm Gulch/ Germer Basin area to livestock would not have disturbance impacts, as wild horses could use the Malm Gulch/Germer Basin area as long as resource damage does not occur.

48. Integrated Resource Activity Plans (IRAPs) resulting from watershed assessment would still include grazing systems incorporating pasture movements, which would continue to have minor disturbance impacts to wild horse individuals or bands through rotation of livestock through grazing systems and the need for riders, salting, fence maintenance, monitoring, and other necessary activities associated with livestock grazing.

Wild Horses and Burros

49. Periodic gatherings of wild horses would have disturbance impacts. The policy of gathering only adoptable animals would mean that some horses would be returned to the Herd Management Area, potentially disrupting band integrity and the social structure of individual bands. The overall impact of this would not be significant.

Wildlife Habitat

50. Developing and maintaining wildlife habitat improvement projects would have disturbance impacts to wild horse individuals and bands during the construction phase as well as from increased wildlife activity adjacent to springs, streams, etc. Animal Damage Control (ADC) activities could have disturbance impacts to wild horses through aerial activities, although lack of ADC activities could increase disturbance impacts through predation of young wild horses.

Fire Management

51. Fire suppression activities would have disturbance impacts to wild horses during the time they are undertaken, although much of the Herd Management Area is within Wilderness Study Areas, thus limiting the suppression methods available. Where activity plans are developed for conditional suppression areas, suppression efforts would be minimized, resulting in fewer disturbance impacts to wild horses.

Riparian Areas

52. Livestock management systems designed to improve riparian habitat would cause disturbance impacts to wild horse individuals and bands if they cause livestock to move into areas normally used only by wild horses. The overall impact would be slight, as horses are "habituated" to the presence of

livestock.

Land Tenure and Access

53. Land disposal actions would have disturbance impacts to wild horses to the extent that the existing land uses (grazing) are modified by a change in ownership. Rights-of-way and other lands permit actions would have disturbance impacts during the construction phase, as well as continued disturbance from increased human activity. Resolution of occupancy or agricultural trespass would generally reduce disturbance impacts as lands are rehabilitated. The overall impact of these actions would be minimal.

Forest Resources

54. All forest management planning and projects would be designed and analyzed by an ID team, which would minimize disturbance impacts. Helicopter logging of the Lone Pine Peak area or other areas within the HMA would cause disturbance impacts, as wild horses are very sensitive to helicopter activities. This could cause temporary displacement of individual wild horses or bands from the helicopter logged areas, but would not impact overall herd viability.

Minerals

55. Although oil, gas, and geothermal operations would have potentially have disturbance impacts to wild horses through exploration activities such as drilling and road building, the low likelihood of any future development, together with no surface occupancy stipulations on 75,597 acres of WSAs and 8,502 acres of ACECs within the Herd Management Area, would ensure no disturbance would occur.

56. Saleable minerals activities would cause minor disturbance impacts to individual horses or bands through extraction and road building in the very few instances where they are permitted.

57. Locatable minerals exploration, extraction, and associated road development would cause disturbance to wild horses. However, the potential for these effects would be very slight, as there is low potential for development. Withdrawing suitable WSAs from mineral entry, if released, would protect wild horses from disturbance in those areas.

Recreation Opportunities and Visitor Use

58. Developing a public viewing area for wild horse observations would have minimal disturbance impacts to wild horses. The proposed Wild Horse Back Country Byway would also have disturbance impacts from increased vehicular traffic along the route through the HMA. These impacts would not affect herd viability.

Off-highway Vehicle Use

59. Limiting OHV use on the entire Resource Area to existing roads and vehicle ways yearlong and closing the Lone Bird, Sand Hollow and East Fork Salmon River Bench ACECs to OHV use would ensure that disturbance impacts to wild horses from OHV use would be minimized.

Cumulative Effects

60. Cumulative impacts to wild horses from actions on BLM-administered lands could result from any actions that impact wild horse habitat, actions that increase or decrease competition between wild horses and livestock or wildlife, or actions that disturb the normal life cycle of these animals. Overall, the net effect of actions taken in the PRMP would improve vegetation conditions within the HMA, leading to improved habitat for wild horses. Competition between wild horses and livestock or wildlife would not be expected to increase over the existing situation. The overall impact of disturbances to wild horses would not be expected to be severe enough to disrupt their life cycle. PRMP actions should result in a thriving, natural ecological balance within the HMA.

61. In addition to the cumulative impacts of BLM actions, there would be little impact to wild horses from the actions of adjacent private landowners or State of Idaho lands within the Herd Management Area (HMA). These lands are used for essentially the same purposes as the HMA. No National Forest system lands are adjacent to the HMA, so no impacts from Forest Service activities would be anticipated.

Wildlife Habitat

No Reasonably Foreseeable Effects to Wildlife: No reasonably foreseeable effects to wildlife would be expected as a result of management decisions listed in the PRMP under these sections: Air Quality, Hazardous Materials Management, Tribal Treaty Rights, and Visual Resources.

Assumptions of Analysis: The following assumptions were made when developing the wildlife impact analysis:

a) Maintenance, protection or improvement of wildlife habitats or habitat condition, as described in this analysis, means the maintenance or improvement of habitats or habitat sites (see ***Chapter 3*** - Wildlife) that are important to the survival, productivity, and stability of wildlife populations. Adverse effects, as used in this analysis, means the displacement of animals from preferred habitats, or the decline of habitat condition, habitat suitability, survival rates, productivity, or population stability. Motorized vehicle use and other human caused disturbances can result in displacement of wildlife from preferred habitats, declines in reproductive success, and mortality during critical periods.

b) Wildlife populations are subject to decline or fluctuations in size from year to year due to the effects of weather, hunter harvest, disease, predation, and competition. The effects of these factors can be significantly greater than the effects of most decisions in this PRMP. However, the influence of these factors can be much more significant on key habitats where habitat condition or habitat suitability is less than adequate to provide for the needs of dependent wildlife species.

Summary of Effects

1. Decisions in the PRMP would result in general improvement of habitat condition for most wildlife species. In the short term, habitats in less than satisfactory condition would begin to improve as riparian stubble height and upland utilization criteria are implemented and adjustments of livestock use are made. Adjustments in livestock use would reduce competition between wildlife and livestock and increase the availability of food and cover for most wildlife species. In the long term, completion of watershed assessments and implementation of integrated resource activity plans, range improvement projects, and other management actions would continue the general trend of habitat improvement and reduce competition for forage and cover among domestic livestock, wild horses, and wildlife.

2. Riparian habitat stubble height criteria would result in the gradual improvement of habitat conditions for species dependent on riparian habitat.

3. On upland habitat sites, adjustments of livestock use based on application of forage-specific utilization criteria would result in gradual improvement of upland wildlife habitat (cover; forage; grass, forb and shrub composition).

4. Big game populations are expected to be maintained by the commitment to provide sufficient forage and habitat for current big game populations. Actions taken to limit other resource uses and maintain important habitat areas (*e.g.*, limitations on OHV use; stipulations on land use activities within key big game habitat areas and special management areas) would help to

ensure that current populations are maintained.

Direct and Indirect Effects, by PRMP Section

Areas of Critical Environmental Concern

5. ACEC designations would indirectly or directly help maintain or improve wildlife habitats in those areas as a result of management to maintain ACEC values. Surface disturbing activities and other land use activities that may adversely affect wildlife are expected to occur less frequently in ACECs, thus helping to maintain wildlife populations and habitats. Management of the Birch Creek, Cronk's Canyon, Donkey Hills, and Thousand Springs ACECs for wildlife-related ACEC values would directly help maintain and improve key wildlife habitats and populations (see ***Chapter 4*** - ACECs).

Fisheries, Floodplains/ Wetland Areas, Riparian Areas

6. Construction of riparian study exclosures and riparian pastures would provide for rapid riparian habitat recovery and allow application of carefully controlled grazing treatments that would improve habitat for riparian-dependent wildlife species.

7. Application of riparian stubble height and bank shearing criteria would result in rapid improvement of habitat conditions for riparian dependent wildlife species. Sage grouse, blue grouse, snipe, waterfowl, mule deer, and many other species would benefit directly from increases in residual cover and forage provided by stubble height requirements or other knowledgeable and reasonable practices. The improvement trend would be expected to continue over the long term.

8. Stipulations on right-of-way authorizations for new water diversion structures on BLM lands would help mitigate any potential for adverse effects on riparian habitat and riparian-dependent wildlife species. Actions to protect Federal water interests on public lands would ensure that water is maintained for wildlife and that water would remain available to provide for the needs of riparian-dependent species.

9. Riparian, fisheries, floodplain/wetland, and water quality management actions would supplement stubble height and bank shearing criteria and help maintain and improve riparian habitats (see Environmental Consequences - Water Resources). Population productivity and abundance of riparian dependent species would likely increase.

Forest Resources

10. Wildlife habitat would be maintained on forested areas or woodlands set aside to protect old growth forest, wildlife cover, and other resource values. However, loss of wildlife habitat or a decline in habitat suitability could occur in these areas due to (1) progressive stagnation of forest stands from lack of natural fire or lack of timber management, or (2) loss of forest stands to catastrophic fire.

11. Timber harvest and associated forest management activities would result in displacement of wildlife and reduced habitat suitability for many species of wildlife dependent on forested habitats.

12. Stipulations and limitations on forest management activities would help minimize adverse effects on wildlife. Limiting the size of Douglas-fir clearcuts to 10 acres would help maintain habitat suitability for big game and wildlife species associated with old growth forest. The decision to time forest stand management treatments to promote forest stand structure and diversity typical of all seral stages on a drainage basis would help maintain a diversity of wildlife habitats by providing for a mix of seral stages and stand characteristics that would promote the existence of a diverse wildlife community. Timber management and harvest in stands that are decadent would improve wildlife habitat if the harvest is designed to promote a more open stand structure and the recruitment of large-diameter trees and snags.

13. Clearcuts up to 40 acres in size (except in the Donkey Hills) would result in displacement of wildlife species and decline of habitat suitability for species dependent on lodgepole pine. However, clearcuts would promote regeneration of lodgepole stands, and populations of dependent species would be maintained. Seasonal harvest restrictions, road closures, and buffer strips adjacent to riparian areas would help maintain wildlife habitat values. Leaving 3 snag trees per acre after timber harvest would help mitigate the loss of nest sites for cavity nesting bird species.

Land Tenure and Access

14. Acquisition of high value wildlife habitats would provide additional opportunities for habitat improvement and management on acquired lands and adjacent public lands. Stipulations to retain lands in Federal ownership that are acquired for special resource values (including wildlife habitat) would ensure maintenance of those values to support wildlife populations.

15. Potential would exist for disposal of lands with wildlife values. Private development and use of lands transferred out of public ownership could result in partial or complete loss of wildlife values on those lands, depending on the type and extent of use or development, and the wildlife values that exist on those lands. The potential for loss of wildlife values on lands transferred out of public ownership is expected to be offset by acquisition of lands with equal or greater values and management of the acquired lands for those values.

16. State land exchanges may result in transfer of some key wildlife habitats out of Federal ownership. Effects on wildlife would depend on subsequent management of these lands by the State. In exchange for these lands, BLM would likely acquire other State lands that would contain high value wildlife habitats.

17. It is anticipated that some public lands would be patented under desert land entry (DLE) applications over the life of the RMP. It is not possible to predetermine the location or ultimate effects of these patents on wildlife

populations or habitat. If these DLEs involve key wildlife habitats such as winter ranges or birthing/nesting sites, potential would exist for loss of these values due to subsequent cultivation or other development. The site-specific effects of DLE patents would be analyzed in an environmental assessment. Limiting consideration of DLE applications to those lands within the proposed adjustment areas would ensure that wildlife habitats are protected on lands outside of adjustment areas.

18. Stipulations and restrictions on right-of-way applications across Federal lands would help reduce loss of wildlife habitat from surface disturbance and human activity associated with rights-of-way. Resolution of agricultural trespass through transfer of lands out of Federal ownership may result in loss or degradation of wildlife habitats. Stipulations to protect wetland riparian habitats and habitats for threatened or endangered species would help mitigate adverse effects. Termination of all new trespasses would protect and restore habitats that were degraded or damaged by unauthorized use.

Livestock Grazing

19. Upland and riparian studies implemented to monitor vegetation conditions and livestock use would provide useful data on wildlife habitat conditions. Adjustments of livestock use based on proposed utilization criteria, vegetation monitoring, revision of activity plans and other knowledgeable and reasonable practices to ensure rangeland health would generally improve wildlife habitat by improving the vigor, average height, and density of herbaceous vegetation. However, the presence of cattle and other livestock would displace some wildlife species from preferred habitats and reduce the availability of herbaceous forage and cover on some sites. The magnitude of effects would vary between wildlife species and from site to site. On big game ranges, grazing use would reduce available forage and birthing cover. Some studies, e.g. Leckenby *et al* 1986, suggest that moderate livestock grazing may improve forage conditions on elk ranges. Other studies (Westenskow-Wall, et. al. 1994) have questioned this conclusion. On sage grouse nesting/brood-rearing areas, grazing use would reduce hiding cover for sage grouse chicks and nests. On key wildlife habitat sites, the removal of herbaceous vegetation by livestock would have potential to reduce the productivity and survival of wildlife species dependent on herbaceous vegetation. Herbaceous cover on steep slopes, ridgetops and other areas that receive little or no grazing use would be unaffected and would remain available for use by species that are capable of meeting their habitat needs on these areas.

20. Closing some areas to livestock use (21,343 acres) and implementing planning/design requirements for land use activities within key big game habitat areas (bighorn sheep and elk winter ranges) would eliminate and reduce competition between livestock and wildlife for forage and space, and help ensure that habitat conditions are maintained or improved to support wildlife populations in these areas.

21. Actions taken to hold canceled or nonuse AUMs until allotment vegetation objectives are met would improve wildlife habitat on allotments where this occurs. Opportunities to withhold use of AUMs are infrequent, however, and this action would have only limited potential benefit.

22. Managing for potential natural plant communities (PNC) and watershed cover objectives would provide a natural mix of good condition plant communities to provide for the needs of most wildlife populations. The provision for managing some sites for desired plant communities other than the PNC would provide opportunity to maintain habitats for species that are better adapted to range sites in early or mid-seral stages, but would result in a decline of habitat condition for species that are best adapted to range sites in late-seral or PNC.

Minerals

23. The probability of fluid mineral development in the Resource Area is low. Standard lease stipulations that may be applied to any fluid mineral leases are expected to be adequate for preserving the physical characteristics of crucial habitat areas, minimizing human disturbance of big game animals during crucial periods, and protecting key habitat components for raptors, sage grouse, and other wildlife species. Stipulations on permitted activities on or near important wildlife habitat areas (see PRMP: Wildlife Habitat, Goal 2, #8) would help mitigate adverse effects from energy mineral development on wildlife habitats and populations.

24. Sale of mineral materials would have potential for limited loss and degradation of wildlife habitat and disturbance of wildlife. However, the number of sale sites and acres disturbed would be small and potential for adverse effects would be limited. Selection of alternate sites or other considerations may mitigate adverse effects in most situations. Stipulations and limitations on mineral material sales within riparian areas would minimize potential for adverse effects on riparian dependent wildlife populations.

25. Non-energy mineral development would have little or no potential to affect wildlife due to the low potential for occurrence of non-energy minerals in the RA.

26. Locatable mineral development would have the potential to result in site-specific loss and degradation of wildlife habitat, or disturbance of wildlife on sites where mineral development occurs. The likelihood of significant loss or degradation of habitat would be low, unless extensive development occurred on key wildlife habitats within areas of high mineral occurrence (see *Map 30: Locatable Minerals Land Classification*). Designation of the Birch Creek ACEC, Donkey Hills ACEC, Cronk's Canyon ACEC and Thousand Springs ACEC would help limit the potential for adverse effects from locatable mineral development. Withdrawal of suitable WSAs from locatable mineral development and limitations on mineral development in riparian areas would help mitigate any adverse effects from mineral development on important wildlife habitats or

populations in those areas.

Off-Highway Vehicle Use

27. Limiting motorized vehicle use to existing roads and vehicle ways throughout the RA, and adopting additional closures or limitations in specific areas (e.g., Lone Bird ACEC, Sand Hollow ACEC, Burnt Creek WSA, Jerry Peak WSA), would help prevent damage to wildlife habitats from motorized vehicle use and limit disturbance of wildlife populations.

28. Motorized vehicle seasonal use limitations in the Birch Creek ACEC, Donkey Hills ACEC, Old Stage Road, Carlson Hills, Willow Creek Summit elk winter range, and Second Spring Basin would help ensure that big game populations in these areas are protected from human disturbance and stress-related mortality during crucial winter periods, and help prevent damage to wildlife habitats from OHV use during the wet spring period.

Rangeland Vegetation Treatment and Range Improvement Projects

29. The effects of new range improvements on wildlife habitat would vary, depending on the type of project, location, and size. Range improvements generally change patterns of livestock use, and these changes may reduce wildlife cover and forage on areas that previously received little or no livestock use. Range improvements may also result in lighter livestock use on some areas, resulting in an improvement of wildlife forage and cover. Requiring range improvement projects to be functional prior to livestock turnout would help improve livestock distribution and avoid overuse of wildlife forage and cover on many riparian and upland habitat sites.

30. Livestock water developments located on big game winter ranges would lead to greater use of forage that would otherwise be available to wintering big game. Water developments located away from important winter ranges may lead to lighter grazing pressure and increased availability of forage for wintering big game. In areas where lack of water limits use by big game, new water developments may improve the area's suitability for big game and other wildlife species. The use of an ID team during planning would help avoid some of the adverse effects of new water developments on important wildlife habitat areas.

31. New fences may improve wildlife forage and cover by improving livestock distribution and alleviating livestock concentration problems. However, fences can adversely affect big game animals by restricting movements between habitat areas or foraging areas and by hampering escape from predators. All fences have potential to increase wildlife mortality and injury through entanglement or collision. Design specifications requiring three-wire fences (except around riparian habitats and in domestic sheep allotments) would help alleviate some of the adverse effects of fences on wildlife movements, because big game animals can more easily pass through 3-wire fences.

32. Vegetation treatments may be located and designed to increase the availability and quality of wildlife forage and cover. Prescribed burning in particular would improve forage availability for big game species such as elk or bighorn sheep that are attracted to burned areas. Vegetation treatments can result in loss of important forbs, or the loss of significant browse or shrub cover if conducted on wildlife winter ranges. Loss of shrubs or forbs would reduce the abundance of some wildlife species in the area of the treatment or displace wildlife into adjacent habitats, depending on the location, design, or seed mix used. Stipulations on the design of vegetation treatments, development of treatment objectives, establishment of standards, interdisciplinary team involvement, and post-treatment forage allocations would significantly reduce or mitigate the potential for adverse effects on wildlife habitat and populations. Sagebrush-dependent wildlife species, such as sage grouse, antelope and Brewer's sparrows are likely to decline or be displaced regardless of the project's design if the treatment were carried out in a key habitat area.

Special Status Species

33. A biological assessment of potential effects on threatened or endangered wildlife species was prepared as required by the ESA. Consultation with the USFWS on this biological evaluation concluded that the PRMP may affect, but is not likely to adversely affect, any threatened, endangered or candidate terrestrial wildlife species.

34. Standard operating procedures requiring site-specific field assessments and analysis of management actions through the NEPA process would ensure consideration of potential effects on special status species from authorized actions. Prediction of effects from PRMP management decisions on special status species is limited by lack of specific locations and plans for future land use activities. Potential effects would vary widely between species, due to differences in habitat preferences and sensitivity to human disturbance or different types of land uses. In general, some special status animal species would benefit from maintenance and improvement of wildlife habitat condition, as described elsewhere in this analysis. For example, riparian habitat improvements would improve conditions for riparian-dependent species such as the river otter or spotted frog.

35. Requirements for site-specific field assessments and inventories or surveys for special status animal species would increase the amount and quality of biological data (*i.e.*, distribution of populations and habitat preferences) on special status animal species in the Resource Area. Better biological data would permit the incorporation of design specifications and other mitigation measures to avoid or reduce the potential for adverse effects. Design specifications or seasonal restrictions on human activities in special habitat areas (see PRMP: Wildlife Habitat, Goal 2, #8) would reduce or eliminate the potential for adverse effects on some populations of special status species, particularly raptors.

Wilderness Study Areas - Management if Released

36. Existing WSAs provide big game habitat that is relatively secure from motorized vehicle disturbance and other human activities as a result of restrictions on resource development, low road densities and limitations on motorized vehicle use. Motorized vehicle use and potential increases in new road construction and timber harvest activity in WSAs released from wilderness review would have the potential to displace big game animals into adjacent habitat areas or cause a decline in habitat condition. The two road closures in WSAs released from wilderness review would help protect wildlife habitat from damage by motorized vehicles and maintain habitat for big game animals that is secure from human disturbance. Limitations on new road construction, timber harvest and mineral development in WSAs, if released from wilderness review would help minimize adverse effects on wildlife habitat by helping reduce potential for disturbance or habitat degradation from motorized vehicle use or other land use activities.

Wild Horses and Burros

37. Maintaining existing numbers of wild horses would preclude improvement of wildlife habitat condition on some riparian and upland habitat sites in the Wild Horse Herd Management Area (HMA). The abundance and use by riparian dependent wildlife species would remain low on sites in the Corral Basin Creek and Horse Basin Creek watersheds, where most of the concentrated wild horse use occurs. Other effects of wild horse use on wildlife would be the same as described above for livestock grazing and wildlife species dependent on herbaceous vegetation (see #19). If wild horse numbers are reduced to improve resource conditions, wildlife habitat would improve.

Wildlife Habitat

38. Big game populations are expected to be maintained by the commitment to provide sufficient forage and habitat for current big game populations. If it is determined that forage competition between big game and livestock is causing a decline in habitat conditions, actions would be taken in consultation with livestock operators and the IDFG to resolve the conflict and improve habitat conditions. Reduction of big game numbers in the problem area may occur, if necessary to improve habitat conditions.

39. The requirement to plan, design, and manage land use activities on key bighorn and elk habitat areas to ensure the continued viability of these big game populations would help minimize the potential for competition between livestock and wildlife, and reduce potential for stress, mortality or population declines associated with conflicting land use activities in these areas.

40. Installation of wildlife water developments, modification of fences, use of prescribed fire, and providing wildlife water would improve habitat quality for big game, upland game, and nongame wildlife. Such projects would have potential to enhance habitat suitability and quality on up to 90,000 acres of public lands. More efficient range use by antelope (Copeland 1980), upland game birds, and nongame species would be expected. Implementing a formal program to maintain water for wildlife at key locations would have the potential to improve habitat suitability on extensive areas.

41. Construction of nesting platforms on BLM lands along the Salmon River would improve habitat suitability for ospreys and increase numbers of nesting pairs. In waterfowl habitat areas, construction of fences and placement of nest boxes, platforms, or nesting islands would increase the productivity of the Resource Area's waterfowl populations by increasing nesting cover.

42. Continued coordination with the U.S.D.A. Animal and Plant Health Inspection Service (APHIS) on animal damage control (ADC) activities on the RA's public lands would help ensure that ADC activities have no significant adverse effects on wildlife populations. Effects of the current ADC program were analyzed in an environmental assessment (EA) completed in October, 1993. The EA states that coyote and other populations would not be significantly affected by animal damage control. The EA would be updated by APHIS before any changes in the current program would be approved.

43. Restrictions and design requirements for BLM permitted activities in important big game habitats, raptor nesting territories, sage grouse strutting grounds, and fawning/calving areas, etc. would help prevent adverse effects on important habitat areas; reduce the potential for disturbance and associated stress or mortality from human activity during crucial winter, birthing, and rearing periods; and reduce the potential for decline of wildlife numbers and reproductive success.

44. Reintroductions of bighorn sheep or other native wildlife species into historic ranges or habitat areas may result in establishment of viable populations of native species that would otherwise remain absent from unoccupied habitats. Existing populations may be augmented by introducing additional animals to improve genetic viability and stability. IDFG proposals to reintroduce bighorn sheep into historic range around Jerry Peak, Germer Peak, and the Sheep Mountain area of the Herd Creek watershed are not anticipated to conflict with existing or future land uses. Any conflicts would be resolved through the ID team process, or the reintroduction would not occur.

Wild and Scenic Rivers

45. Wildlife habitats and populations associated with free-flowing streams and rivers (*e.g.,* river otters) would be protected from hydropower development on rivers found suitable for designation, or eligible for further study as wild and scenic rivers. Limitations on development along four segments with a tentative classification of Scenic or Wild would help protect habitat for riparian-dependent species along the river corridor.

Cumulative Effects

46. Factors such as weather, predation, disease, forage competition, hunter harvest, and subdivision or development of private lands may limit the productivity of big game populations over the long term. Habitat conditions on adjacent USFS lands (including management of roads and timber harvest) may also affect big game populations dependent on both USFS and public lands. However, big game populations are expected to be maintained over the long term.

47. Populations of riparian-dependent wildlife species would be maintained, although the abundance of some species is expected to decline as a result of habitat degradation or loss on adjacent private lands. Some populations of riparian-dependent neotropical migratory bird species are expected to decline due to the fragmentation and loss of winter habitats in the southern U.S. and countries to the south.

48. Populations of upland game birds are expected to be maintained. Climate, predation, and disease would continue to be the primary factors affecting the stability of upland game bird populations. Potential would exist for further declines in sage grouse populations due to the effects of climate, region-wide alterations of sagebrush-grassland habitat and other unknown factors. Implementation of PRMP decisions and management strategies that improve vegetation conditions would contribute to the maintenance of sage grouse and other upland game bird populations

49. Cumulative effects on nongame wildlife populations would vary widely by species. Populations of some neotropical nongame birds are likely to decline as a result of habitat degradation and loss in southern wintering areas. Populations of other riparian-dependent and upland-dependent species are expected to be maintained. Emphasis on suppression of wildfires on public, private, State and National Forest lands in the region is generally expected to continue, along with timber harvest practices selecting for large-diameter trees. Due to this emphasis, forested areas characterized by a mix of forest stands in early to late-seral stages, and large diameter trees and snags would continue to decline. The abundance of wildlife species dependent on these forested habitats are also expected to decline. PRMP stipulations on forested area management, buffer zones around sensitive raptor habitats, maintenance of undisturbed areas, and other forest resource and fire activity management actions would help mitigate these declines.

Wild and Scenic Rivers

Introduction: At present, no Wild and Scenic Rivers (WSR) are designated in the Challis Resource Area. The Wild and Scenic Rivers Act directs the BLM to manage rivers found eligible or suitable for possible inclusion into the National Wild and Scenic Rivers System in a manner that protects and/or enhances the outstandingly remarkable (OR) values and the free-flowing and water quality characteristics which caused the rivers to be found eligible. PRMP actions affecting eligible and suitable rivers must not degrade those values. Accordingly, the PRMP would provide at least the minimum standard of protection for eligible and suitable rivers required by the Wild and Scenic Rivers Act. Specific protection strategies would be developed in activity plans.

No Reasonably Foreseeable Effects to Wild and Scenic Rivers: Decisions listed in the PRMP under the following sections would have no reasonably foreseeable effect on Wild and Scenic Rivers: Air Quality, Hazardous Materials Management, Tribal Treaty Rights, Wilderness Study Areas - Management if Released from Wilderness Review, and Wild Horses and Burros.

Summary of Effects

1. The PRMP finds 5 river segments suitable for WSR designation and identifies 10 river segments as eligible for a coordinated river suitability study. These 15 rivers would receive the protection required by the WSR Act, unless later found unsuitable or released by Congress. PRMP actions which improve wildlife and fisheries habitat, water quality, riparian health, and watershed protection would provide high levels of protection to natural and aesthetic values. Thus, WSR values on all 15 segments would be maintained and probably enhanced.

Positive Effects

2. PRMP actions which go beyond the minimum protective requirements of the WSR Act would benefit WSRs by enhancing the values which have been identified. WSR-enhancing actions include PRMP decisions which are expected to improve natural and aesthetic values, riparian area health, visual quality, fish and wildlife habitat (including habitat for special status species), and primitive and some developed recreation opportunities (such as camping, interpretation, fishing, hunting, and sightseeing). Specific examples of such activities include (a) stabilizing riverbanks, which would decrease sedimentation, improve the natural visual appearance, and increase fish presence; (b) limiting or closing areas to OHV use to maintain wildlife lifecycle needs, protect fragile soils, and maintain visual aesthetics; (c) designing range, timber, and wildlife projects to be less visually intrusive; (d) modifying livestock grazing management on upland watersheds and riparian areas; (e) modifying fire suppression practices (*e.g.,* moving fire suppression staging areas and base camps outside of riparian areas); (f) limitations on new road construction in riparian areas; (g) acquiring wetlands and fish habitat within the WSR corridor; (h) minimum streamflow acquisition; (i) modified timber harvest practices (*e.g.,* clearcutting restrictions, riparian buffer zones); (j) increased standards for vegetative cover, and (k) recreation site development in segments with a tentative classification of "Scenic" or "Recreational."

Negative Effects

3. The types of actions listed above under "Positive Effects" would decrease the potential for adverse effects on WSR values. Some negative effects on WSR values could still occur (but not more than allowed by the WSR Act or other PRMP direction) from actions such as livestock grazing, road construction, and recreation facilities development in riparian areas, site-specific vegetation treatments, some OHV use, mineral and timber harvest practices which cause surface and visual disturbance, and transportation routes which intrude into the WSR corridor.

Cumulative Effects

4. The cumulative effects of BLM actions would be the same as described above in the "Summary of Effects."

   USFS actions on rivers which flow into BLM study segments could have a positive or negative impact on WSR values in those segments, specifically water quality and OR fisheries values, depending on USFS management decisions.

   Current uses of private lands along or adjacent to WSR segments could benefit WSR values by providing wildlife habitat and access to rivers and riparian areas. Changing private land uses (*e.g.*, conversion of hay grounds into residential subdivisions) could increase conflicts between land users, reduce visual aesthetics, decrease recreation use and access opportunities on private lands, and increase recreation demand on BLM lands.

[this page is intentionally blank]

Chapter 5

Consultation, Coordination, Consistency, and Comments and Responses

Introduction.

The Bureau of Land Management coordinated with Federally recognized tribes, representatives of various agencies, businesses, and organizations, and members of the general public throughout the planning process for the Challis RMP. ***Chapter 5*** provides details of those efforts in the following chapter sections: (a) consultation; (b) coordination (c) consistency efforts and determinations; (d) agencies, organizations, and persons who will be sent a copy of the Proposed RMP/Final EIS, and (e) comment letters and responses. Further information on tribal and public involvement during preparation of the Challis RMP is documented in the **Planning Record** (available for review at the Salmon Field Office, Highway 93 South, Salmon, Idaho).

Consultation.

Consultation with the Shoshone-Bannock Tribes:

The sovereign status of Indian tribes and special provisions of law set Native Americans apart from all other U.S. populations and define a special level of Federal agency responsibility to consult tribes on a government-to-government basis. The BLM has the responsibility to identify and consider how its plans, projects, programs, or activities may potentially impact Native American interests, including Indian trust resources and cultural resources.

The lands presently managed by the Challis Resource Area were transferred to the United States government by the Shoshone-Bannock Tribes through the signing of the *Treaty with the Eastern Band Shoshoni and Bannock* ("Fort Bridger Treaty") in 1868. Through treaty language, the Shoshone-Bannock tribal members retain legal rights to hunt, fish, and gather natural resources ("to obtain wild food") on public lands within the Challis Resource Area (Article 4 of the *Treaty with the Eastern Band Shoshoni and Bannock, 1868*; as clarified in *State v. Tinno* (1972)). Representatives of the Shoshone-Bannock Tribes were consulted during development of the Challis RMP to ensure that the Tribes' treaty rights and traditional cultural values are protected.

Consultation with the National Marine Fisheries Service and U.S. Fish and Wildlife Service:

In the spring of 1997 the BLM received concurrence on the Biological Assessment (BA) for the Challis Draft RMP - Preferred Alternative from the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service. In 1998 the BLM re-initiated consultation with these agencies and prepared a Biological Assessment for the Challis Proposed RMP because (a) several species had been listed as threatened since the agencies concurred with the BA for the Draft RMP, and (b) the Proposed RMP was somewhat different from the Draft RMP - Preferred Alternative. The BLM has received concurrence from the NMFS and the U.S. Fish and Wildlife Service on the BA for the Proposed RMP.

Coordination.

Tribal and public participation efforts which were implemented prior to publication of the Challis Draft RMP/EIS are described in the Draft RMP/EIS on pages 335-341. The following paragraphs summarize the tribal and public participation from publication of the Draft RMP/EIS until publication of the Proposed RMP/Final EIS.

In August 1996 the Challis Draft RMP/EIS was distributed to those individuals and representatives of Indian tribes, the media, government agencies, businesses, and special interest organizations who have, in the past, expressed an interest in land use planning in the Challis Resource Area. A "Notice of Availability" of the Draft RMP/EIS was published in the *Federal Register* by the BLM on Friday, August 2, 1996 and by the Environmental Protection Agency on Friday, August 9, 1996. Open-house style meetings were held at the BLM's Challis Field Station in Challis, Idaho on October 1 and 2, 1996 to discuss the Draft RMP/EIS and receive comments.

The original 90-day public comment period for the Draft RMP/EIS was scheduled to end on Thursday, November 21, 1996. However, based on requests by members of the public, the comment period was extended by 46 days to Monday, January 6, 1997. Notice of that extension was published by the BLM in the Friday, November 1, 1996 edition of the *Federal Register.* In addition, a general mailing explaining the comment period extension was sent to all persons and agencies who had received a copy of the Draft RMP/EIS. Finally, the amended comment period deadline was announced through the local media.

The BLM reviewed the written comments on the Challis Draft RMP/EIS which were submitted, and prepared responses to those letters. Photo-reduced copies of the original comment letters and the BLM's responses are shown beginning on page 457.

Involvement of the Challis Experimental Stewardship Program (ESP):

The Challis Experimental Stewardship Program (ESP) was authorized under Section 12 of the Public Rangeland Improvement Act of 1978 (PRIA) (43 USC 1908) to "...develop and implement, on an experimental basis on selected areas of the public rangelands which are representative of the broad spectrum of range conditions, trends, and forage values, a program which provides incentives to, or rewards for, the holders of grazing permits and leases whose stewardship results in an improvement of the range condition of lands under permit or lease. Such a program shall explore innovative grazing management policies and systems which might provide incentives to improve range conditions." The Challis ESP, as well as other organizations and individuals interested in management of the public resources, including, but not limited to, rangelands, were invited to participate in the development of the Challis RMP. Briefings and updates concerning development of the RMP were a routine agenda item for meetings of the Challis ESP Group.

Consistency Efforts and Determinations.

The BLM has reviewed the Challis Proposed RMP and believes the Plan is consistent with the officially approved or adopted resource-related plans, policies, and programs of other Federal agencies, State and local governments, and Indian tribes.

Agencies, Organizations, and Persons to Whom a Copy of the Challis Proposed RMP/Final EIS Will Be Sent.

Shown below is a partial list of the tribes, agencies, organizations, and persons who will be sent a copy of the Challis Proposed RMP/Final EIS.

Federal Agencies

U.S. Fish and Wildlife Service
National Marine Fisheries Service
National Park Service
Minerals Management Service
U.S. Geological Survey
U.S. Air Force
U.S. Army Corps of Engineers
U.S. Department of Energy
Environmental Protection Agency
Advisory Council on Historic Preservation
USDI Office of Environmental Policy
USDI Office of Communications
USDI Natural Resources Library
Director, Bureau of Land Management
Bureau of Reclamation
U.S. Forest Service

Native American Tribes:

Northwestern Band of the Shoshoni
The Shoshone-Bannock Tribes

State and Local Government:

Custer County Extension Agent
Lemhi County Extension Agent
Challis Chamber of Commerce
Mackay Public Library
Salmon City Mayor
Butte Soil & Water Conservation District
Lemhi Soil & Water Conservation District
ID Department of Water Resources
ID Department of Lands
ID Department of Health and Welfare
Idaho State Library
Idaho State Historical Society, SHPO
ID Department of Fish & Game
ID Department of Lands
ID Department of Agriculture
ID Department of Transportation
Office of the Governor, Idaho
Natural Resource Conservation Service

Congressional and Legislative Offices:

Larry Craig, U.S. Senator
Mike Crapo, U.S. Congressman
Dirk Kempthorne, U.S. Senator
Lenore Hardy Barrett, State Representative

Businesses, Media, Interest Groups, Other Organizations, Livestock and Recreation Permittees, and Individuals:

In addition to the specific businesses, interest groups, media contacts, other organizations, and livestock and recreation permittees listed below, more than 100 individuals will be sent a copy of the Challis PRMP/FEIS.

Horse Creek Outfitters
C&S River, Inc.
Outlaw Outfitters
4-4 Outfitters
Bill Mason Outfitters
L-B Fishing & Guide Service
Sawtooth Guide Service
White Cloud Outfitters
Hatch Livestock
Chamberlain Ranch
Prairie Basin Ranches
Moen Family Ranch
Circle PI Ranch
Bar G Farms
Aslett Ranches
Whitworth Ranches, Inc.
Sulphur Creek Livestock Co.
Dickey Livestock
Bar 13 LTD
Spur Cattle
Rena Ranch
Piva Brothers
Winter Camp Cattle Co.
D & L
Parsons Creek, Inc.
Idaho State University
Boulder-White Clouds Council, Inc.
Challis Creek Cattle Co.
Utah Power & Light
Alliance for the Wild Rockies
University of Idaho
Animal Welfare Institute
The Nature Conservancy
Churndasher Ranch
Greystone
Minerals Exploration Coalition
Thompson Creek Mining Co.
Mountain Springs Ranch
O'Neal Ranches
Chester Plumbing
Challis Messenger
Broebeck Phleger & Harrison
Natural Resource Defense Council
Idaho Conservation League
National Wildlife Federation
The Wilderness Society
Idaho Watersheds Project

Comment Letters and Responses.

Written comment letters on the Draft RMP/EIS were reviewed by the Challis Resource Area - BLM Planning Team (see *Table 1-1: List of Preparers*, pp. 15-16) according to criteria described in BLM Manual H-1790-1 (National Environmental Policy Act Handbook) on pages V-11 and V-12. This BLM Manual guidance is based upon implementing regulations set forth in 40 CFR 1502.19, 1503.3, 1503.4, and 1506.6. (Also see Department of Interior Manual 516 DM 4.17.) Comments were considered to be one or more of the following general types:

(a) *Comments on inaccuracies and discrepancies* - which generally identified inaccuracies or discrepancies in factual information, data, or analysis.

(b) *Comments on the adequacy of the analysis* - which expressed a professional disagreement with the conclusions or adequacy of the analysis.

(c) *Comments which identify new impacts, alternatives, or mitigation measures* which were not addressed in the Draft RMP/EIS.

(d) *Comments which disagree with determinations regarding the significance and/or severity of impacts.*

(e) *Comments which express the commentor's personal preference or opinion* on the proposal.

The following pages contain photo-reduced copies of the original comment letters on the Challis Draft RMP/EIS and the BLM's responses to those comments. Personal information (such as names, addresses, telephone numbers, and fax numbers) has been opaqued from comment letters submitted by individual respondents, in order to protect those individuals' privacy interests, while still making comments available to the public. This information is withheld in accordance with BLM guidance interpreting Exemption 6 of the Freedom of Information Act.

[this page is intentionally blank]

Comment Letters and Responses

Letter No. 1

NAME	ROUTING	INITIALS
CHALLIS		
LEMHI		
ADMIN		
EA/P&EC		
OPS		
OTHER		
ACTION		

August 23, 1996

Kathe Rhodes
RMP Coordinator, BLM
Salmon Field Office
Route 2 Box 610
Salmon, Idaho 83467

Dear Ms. Rhodes:

We are asking the BLM to review the old classification of this very small parcel of public land, described as:

Township 14 North, Range 19 East,
Section 7, Lot 7, containing 0.28 acres

1-1 Due to the error in the Johnston-Couch Survey, this tract is seperated from the U.S. Government lots to the North by Challis Creek Road. The land has no historic, cultural, scenic, or natural value, and it is unnecessary for the BLM management program.

The parcel is situated between our property and Challis Creek Road. As the adjoining private landowners, we wish to legalize our use of the tract, and protect our investment. We must cross the BLM land to access our rural homesite. The parcel is covered by meadow grass, some brush, and a few deciduous trees, and is mostly level. Improvements consist of a perimeter fence along the road, a driveway, and a utility pole.

The adjacent landowners, resolved a situation with the BLM that is similar to ours, on February 3, 1992. On that date, they were entitled to land patent number 11-92-0013, which conveyed title to the following described parcel, IDI-27115:

Boise Meridian, Idaho
T. 14 N., R. 19 E.
Sec. 7, Lot 8
Containing 0.67 acres

Letter No. 1 *continued*

the Rhodes
August 23, 1996
Page Two

We agree to pay the appraised fair market value for this small piece of land. What is the time frame for the completion of such a transaction? We know that you would like to finish this up and get it out of your way.

Thank you for helping us to resolve this matter.

Very truly yours,

BLM Response to Letter No. 1

1-1: The BLM public lands you are interested in acquiring (T14N, R19E, Section 7, Lot 7) were proposed for consideration as a sale tract under Alternatives 2 and 3 of the Draft RMP (see Attachment 17, p. 499). This sale tract has been listed in the Proposed RMP for potential disposal (see PRMP, Attachment 17).

Letter No. 2

To: Kathe Rhodes

From:

Subject: Resource Management Plan

Our property was established by a 1916 survey of section 25. Then in 1963, according to a new survey, our property lines were off apx. 1 1/5 acres on which our home and well were established. Reference:(T.8N., R.20 E., section 25.)
A land sale of .97 acres was made in 1995. Reference: 2710 IDI-30625. Lot 1, T. 8N., R. 20 E., section 25.

1 I would like to propose a land trade for the apx. 1/2 acre left. Reference: (T:8N., R.20E., section 25: SWSWSWNWSE).
I am willing to trade River Front Property, valued apx. $11,000 to $15,000 an acre. Reference:(T.8N., R.20E., section 25: NWSWSE).
The public would benefit from this trade inasmuch as there is sportmans' access, several species of mature trees, natural grasses, willows, and flowers. Deer, Elk, Moose, and a Black Bear have personally been seen on or near this riparian habitat. Fishing is at a premium for Rainbow, Brook, and Whitefish. The Otter is present also.
There are several campsites to the East for about 3 miles along the river that are used frequently.
May I present three proposals:

2 ____First: I would like to trade my 1/8 of an acre of river front for the apx. 1/2 acre of Dry Land Grazing. I would have to have apx. 6 more acres to the North and East of Lot 1 that would make it an aliquot part trade based on $11,000, if that is the price we settle on for river front value. Reference:(T.8N., R.20E., section 25: SWSWSWNWSE).
____Second: I would like to trade 10 acres, apx., of River Front Property. Reference:(T8N., R.20E., section 25: NWSWSE), for an aliquot part of Dry Land Grazing in section 35, in section 2 and 3 of T7N. R.20E. I am interested in this arid Dry Land Grazing parcel for the improvements that would benefit the Wildlife and Public. The BLM cannot manage this parcel because it is only accessible over a private bridge and through a locked gate. I have the intention of removing the Sage Brush and planting with good productive arid grasses and trees. Elk and Deer could forage on this land as a benefit to the Upland Game Herds.

3 ____Third: If the BLM is not interested in a land trade, I would like to sell the ten acres, apx., of River Front to the BLM. I would rather have the BLM manage the recreational, wildlife and fisheries that are available on my place, than to sell it to someone that may destroy it forever with houses and lots on that beautiful river.
My Land descriptions are not totally accurate and my acreage numbers are not exact. They all have been given in apx. numbers and locations so we can have a point of reference to negotiate from.
A general description of the Dry Land Grazing Parcel I am interested in trading for is all acreage West of section 36 in section 35 and section 2 and 3 of T.7N, R.20E., about a quarter

Letter No. 2 *continued*

mile South of the Big Lost River in an equivalent value to the value of the River Front Property as an aliquot part trade. Land values today are $200 for Dry Land Grazing Lands and $11,000 to $15,000 for River Front.
Another general description is a trade for apx. 8.5 acres in section 25 North and East of where my trailer sits.
Here is my best try to give you apx. readings:
_____T.8N.,R.20E.,section 35 Boise Meridian. E1/2 NE1/4 SE1/4: S1/2 NW1/4 NE1/4 SE1/4: SW1/4 NE1/4 SE1/4: NE1/8 SW1/4 SE1/4: W1/2 SE1/4 SE1/4: S1/2 SW1/4 SW1/4 SE1/4.
_____T.7N.,R.20E.,Section 2. W1/2 NW1/4: NE1/4 NW1/4
_____T.7N.,R.20E.,Section 3.NE1/4 SE1/4: W1/2 SE1/4: SE1/4 NE1/4: SE1/4 SW1/4.

I would appreciate hearing from you to know what procedures need to be gone through in order to put this land trade and or sale in motion.

Sincerely,

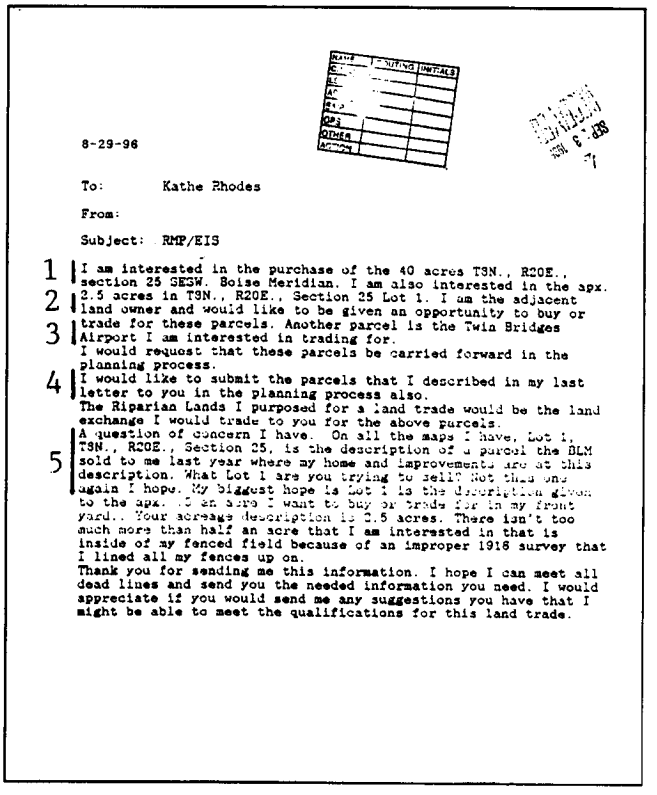
BLM Response to Letter No. 2

2-1: The BLM considered your proposal to exchange your river front property (T8N, R20E, Section 25, NWSWSE) for the 0.5 acres of public lands located adjacent to your private land (T8N, R20E, Sec. 25, SWSWSWNWSE). The BLM has decided to retain this 0.5 acres as a management area in the Proposed RMP because (1) this parcel does not meet the FLPMA criteria for disposal by sale and (2) a land exchange involving this small amount of acreage would not be cost-effective.

2-2: The public lands you would like to acquire through exchange (T7N, R20E, Sections 2 and 3, and T8N, R20E, Section 35) are not identified for disposal in the Proposed RMP. Please note that T7N, R20E, Section 2 is National Forest land and cannot be considered for disposal by the BLM. The public lands you reference in T7N, R20E, Section 3 and T8N, R20E, Section 35 are part of a grazing allotment and would continue to be managed by the BLM for multiple uses, as described in the PRMP.

2-3: Your offer is noted.

Letter No. 3



8-29-96

To: Kathe Rhodes

From:

Subject: RMP/EIS

1 I am interested in the purchase of the 40 acres T9N., R20E., section 25 SESW. Boise Meridian. I am also interested in the apx.
2 2.5 acres in T9N., R20E., Section 25 Lot 1. I am the adjacent land owner and would like to be given an opportunity to buy or
3 trade for these parcels. Another parcel is the Twin Bridges Airport I am interested in trading for.
I would request that these parcels be carried forward in the planning process.
4 I would like to submit the parcels that I described in my last letter to you in the planning process also.
The Riparian Lands I purposed for a land trade would be the land exchange I would trade to you for the above parcels.
A question of concern I have. On all the maps I have, Lot 1, T9N., R20E., Section 25, is the description of a parcel the BLM
5 sold to me last year where my home and improvements are at this description. What Lot 1 are you trying to sell? Not this one again I hope. My biggest hope is Lot 1 is the description given to the apx. .5 an acre I want to buy or trade for in my front yard.. Your acreage description is 2.5 acres. There isn't too much more than half an acre that I am interested in that is inside of my fenced field because of an improper 1916 survey that I lined all my fences up on.
Thank you for sending me this information. I hope I can meet all dead lines and send you the needed information you need. I would appreciate if you would send me any suggestions you have that I might be able to meet the qualifications for this land trade.

BLM Response to Letter No. 3

3-1: You express interest in a purchase or land exchange for 40 acres of public land located along the Big Lost River in T8N, R20E, Sec. 25, SESW. This parcel is identified in the Proposed RMP as an area available for disposal through exchange (see adjustment areas on Map A: Adjustment/Management Areas). It is not identified as a sale tract in Attachment 17, because it does not meet the FLPMA Section 203 criteria for disposal through sale.

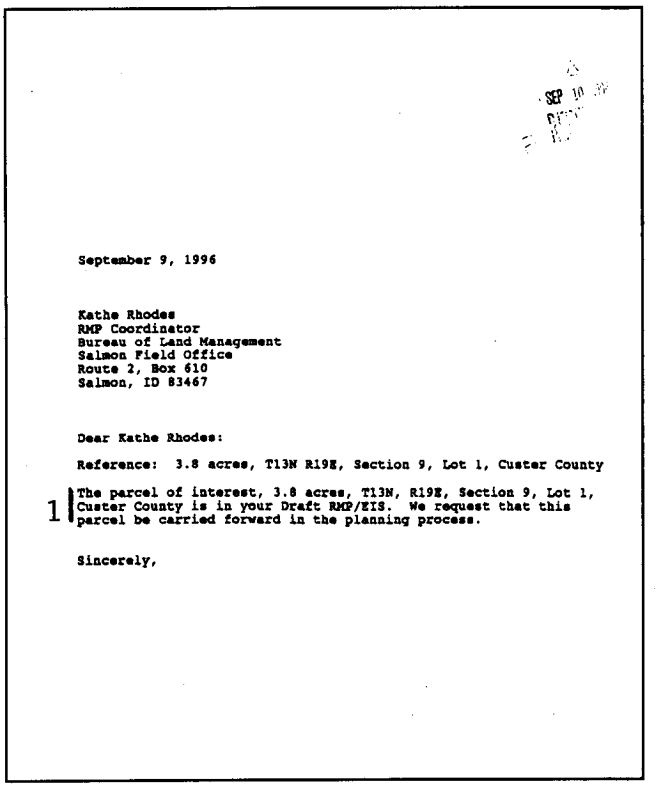
3-2: You express interest in purchasing or exchanging lands for about 2.5 acres in T8N, R20E, Section 25, Lot 1. As you mention later in your letter, you purchased .97 acres of this tract in 1995 (see response 3-5). The remaining acreage (approximately 0.5 acres) has not been identified for disposal in the Proposed RMP (please see response 2-1).

3-3: You express interest in acquiring the Twin Bridges Airport through exchange or purchase. The airport is currently under a 20-year Airport Lease with the Department of Aeronautics (until the year 2014). The BLM plans to continue authorizing the lease to the Department of Aeronautics for the purpose intended, which is as a public airstrip for emergencies and backcountry flights. The decision in the proposed RMP (Land Tenure and Access, Goal 2, #10) has been revised to clarify the BLM's intent to sell or exchange these public lands only to the State of Idaho.

3-4: Please see the responses to Letter 2.

3-5: The parcel listed in the Draft RMP, Attachment 17 (p. 399) as T8N, R20E, Section 25, Lot 1, included the .97-acre parcel sold to you in 1995. The Draft RMP was ready for press when you purchased the parcel, so the BLM decided to make the correction in the Proposed RMP. The public lands you purchased are not identified for disposal in the Proposed RMP.

Letter No. 4



September 9, 1996

Kathe Rhodes
RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

Dear Kathe Rhodes:

Reference: 3.8 acres, T13N R19E, Section 9, Lot 1, Custer County

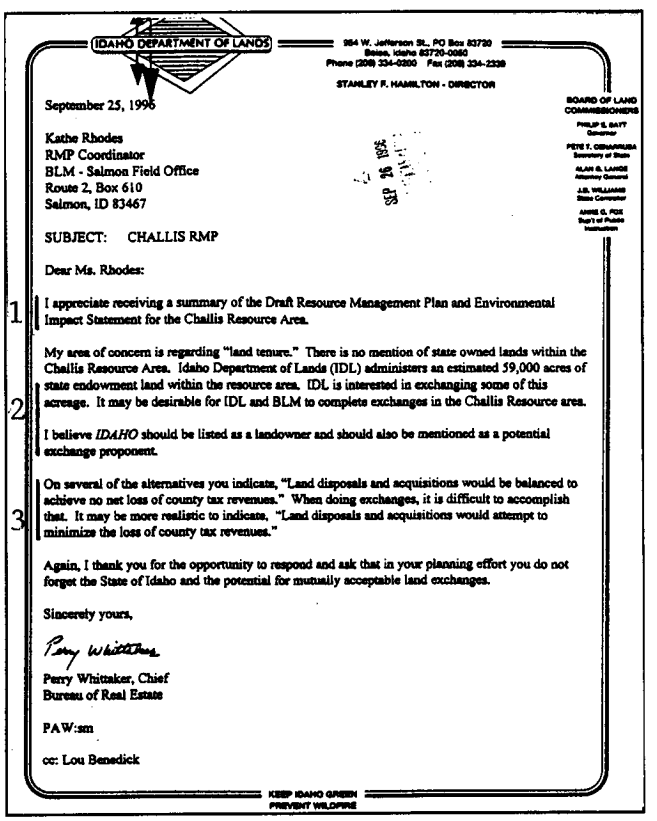
1 The parcel of interest, 3.8 acres, T13N, R19E, Section 9, Lot 1, Custer County is in your Draft RMP/EIS. We request that this parcel be carried forward in the planning process.

Sincerely,

BLM Response to Letter No. 4

4-1: The BLM public lands you are interested in acquiring (T13N, R19E, Section 9, Lot 1) were proposed for consideration as a sale tract under Alternatives 2 and 3 of the Draft RMP (see Attachment 17, p. 499). This sale tract has been listed in the Proposed RMP for potential disposal (see PRMP, Attachment 17).

Letter No. 5



IDAHO DEPARTMENT OF LANDS

954 W. Jefferson St., PO Box 83720
Boise, Idaho 83720-0050
Phone (208) 334-0200 Fax (208) 334-2339

STANLEY F. HAMILTON - DIRECTOR

BOARD OF LAND COMMISSIONERS
PHILIP E. BATT
Governor
PETE T. CENARRUSA
Secretary of State
ALAN G. LANCE
Attorney General
J.D. WILLIAMS
State Controller
ANNE G. FOX
Supt of Public Instruction

September 25, 1996

Kathe Rhodes
RMP Coordinator
BLM - Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

SUBJECT: CHALLIS RMP

Dear Ms. Rhodes:

1 I appreciate receiving a summary of the Draft Resource Management Plan and Environmental Impact Statement for the Challis Resource Area.

My area of concern is regarding "land tenure." There is no mention of state owned lands within the Challis Resource Area. Idaho Department of Lands (IDL) administers an estimated 59,000 acres of
2 state endowment land within the resource area. IDL is interested in exchanging some of this acreage. It may be desirable for IDL and BLM to complete exchanges in the Challis Resource area.

I believe *IDAHO* should be listed as a landowner and should also be mentioned as a potential exchange proponent.

On several of the alternatives you indicate, "Land disposals and acquisitions would be balanced to achieve no net loss of county tax revenues." When doing exchanges, it is difficult to accomplish
3 that. It may be more realistic to indicate, "Land disposals and acquisitions would attempt to minimize the loss of county tax revenues."

Again, I thank you for the opportunity to respond and ask that in your planning effort you do not forget the State of Idaho and the potential for mutually acceptable land exchanges.

Sincerely yours,

Perry Whittaker

Perry Whittaker, Chief
Bureau of Real Estate

PAW:sm

cc: Lou Benedick

KEEP IDAHO GREEN
PREVENT WILDFIRE

BLM Response to Letter No. 5

5-1: The Draft RMP lists the State of Idaho as an owner of lands within the Challis Resource Area boundary (see DRMP, p. 91, paragraph 3; p. 92, Table 3-6; and Map G: Land Ownership).

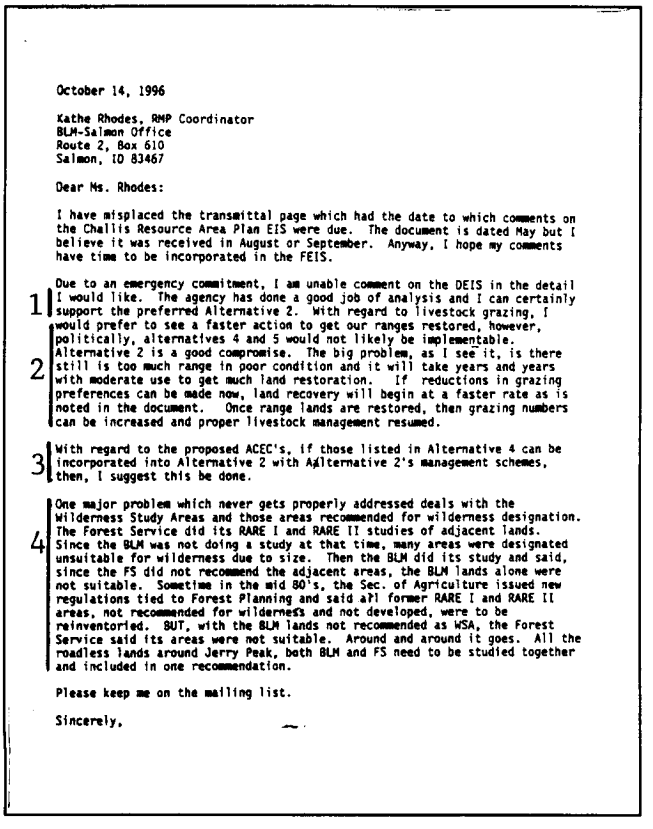
5-2: The Draft RMP mentions the State of Idaho as a potential exchange proponent (see DRMP, Management Concern: Land Tenure, Goal 1, #6 (p. 386) and #13 (p. 388); Goal 2, #8 and 9 (p. 389); and Map A: Adjustment/Management Areas). Land Tenure, Goal 2, #8 (DRMP, p. 389) specifically identifies approximately 36,915 acres for exchange only with the State of Idaho. Those acres are in addition to others identified for disposal with any proponent, as displayed on Map A. The Proposed RMP continues to make 37,035 acres available for exchange only with the State of Idaho (see PRMP, Land Tenure and Access, Goal 1, #6 and 13, and Goal 2, #7 and 8). In addition, the Proposed RMP revises a land tenure decision from the Draft RMP, Alternative 2, in order to clarify that two airport sites are available for sale or exchange only to the State of Idaho (see PRMP, Land Tenure and Access, Goal 2, #9).

5-3: The action you refer to (Land Tenure, Goal 2, #1, Alternatives 2, 4, and 5, p. 388a/b) has been revised in the Proposed RMP to reads as follows: "Offer sufficient public

BLM Response to Letter No. 5 *continued*

lands for sale or exchange to mitigate loss of tax revenue to Custer or Lemhi counties that may occur as a result of BLM acquisitions of private land needed to meet important public resource objectives." The BLM does not mean to imply that private tax revenue gains and losses would balance in every lands action. The BLM believes this revised wording indicates the BLM will *attempt* to balance disposals and acquisitions so as to mitigate loss of county tax revenues. It is, of course possible that the public lands offered for sale or exchange will not be purchased and therefore not produce private property tax revenue to the counties. It is also possible that more public lands will be disposed of than acquired over the life of the RMP, which could result in greater net private property tax revenue to the counties.

Letter No. 6



October 14, 1996

Kathe Rhodes, RMP Coordinator
BLM-Salmon Office
Route 2, Box 610
Salmon, ID 83467

Dear Ms. Rhodes:

I have misplaced the transmittal page which had the date to which comments on the Challis Resource Area Plan EIS were due. The document is dated May but I believe it was received in August or September. Anyway, I hope my comments have time to be incorporated in the FEIS.

1 Due to an emergency commitment, I am unable comment on the DEIS in the detail I would like. The agency has done a good job of analysis and I can certainly support the preferred Alternative 2. With regard to livestock grazing, I would prefer to see a faster action to get our ranges restored, however, politically, alternatives 4 and 5 would not likely be implementable. Alternative 2 is a good compromise. The big problem, as I see it, is there
2 still is too much range in poor condition and it will take years and years with moderate use to get much land restoration. If reductions in grazing preferences can be made now, land recovery will begin at a faster rate as is noted in the document. Once range lands are restored, then grazing numbers can be increased and proper livestock management resumed.

3 With regard to the proposed ACEC's, if those listed in Alternative 4 can be incorporated into Alternative 2 with Alternative 2's management schemes, then, I suggest this be done.

4 One major problem which never gets properly addressed deals with the Wilderness Study Areas and those areas recommended for wilderness designation. The Forest Service did its RARE I and RARE II studies of adjacent lands. Since the BLM was not doing a study at that time, many areas were designated unsuitable for wilderness due to size. Then the BLM did its study and said, since the FS did not recommend the adjacent areas, the BLM lands alone were not suitable. Sometime in the mid 80's, the Sec. of Agriculture issued new regulations tied to Forest Planning and said all former RARE I and RARE II areas, not recommended for wilderness and not developed, were to be reinventoried. BUT, with the BLM lands not recommended as WSA, the Forest Service said its areas were not suitable. Around and around it goes. All the roadless lands around Jerry Peak, both BLM and FS need to be studied together and included in one recommendation.

Please keep me on the mailing list.

Sincerely,

BLM Response to Letter No. 6

6-1: We have noted that you support Alternative 2.

6-2: We recognize that Alternatives 4 and 5 may result in more rapid improvement of resource conditions. The BLM determined that two primary options existed to manage livestock grazing and improve resource conditions. A reduction in livestock AUMs was one option, as described in Alternatives 4 and 5. The other option was to use management "triggers" to move livestock when a level of riparian use, upland utilization, or other resource use criterion was reached. The BLM chose (in the Preferred Alternative) specific resource use criteria or management triggers (*e.g.*, stubble-heights, utilization levels) to achieve RMP goals, since experience has shown that reductions in livestock grazing are not always effective in avoiding overuse of the forage resource. The impact analysis indicates that acceptable rates and levels of resource improvement would occur with the resource use criteria prescribed under the Preferred Alternative, without the requirement for immediate, across-the-board reductions in livestock AUMs called for under Alternatives 4 and 5.

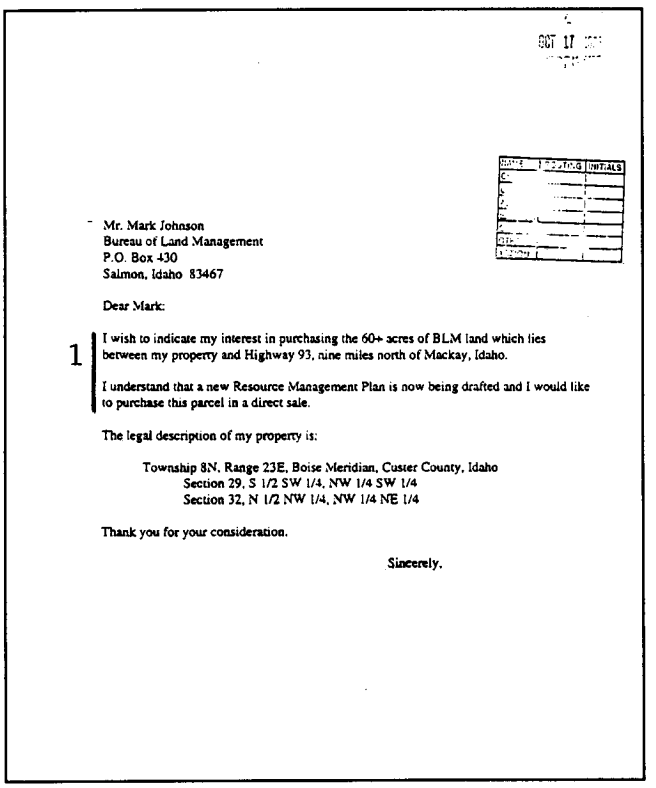
6-3: Your preference for Alternative 4 ACEC designations is noted. The BLM considered designation of both the Carlson Hills portion of the Donkey Hills ACEC and the Road Creek Watershed ACEC, but decided not to include these areas as ACECs in the Proposed RMP.

BLM Response to Letter No. 6 *continued*

6-4: Your suggestions are noted. However, the Federal Land Policy and Management Act of 1976, (FLPMA), Section 603(c) directed the Secretary of the Interior to report to the President on the wilderness suitability of lands managed by the Bureau of Land Management (BLM) by October 21, 1991. The Borah Peak, Goldburg, and Little Boulder Creek WSAs were studied under Section 202 of FLPMA, which authorized the wilderness study of roadless areas less than 5,000 acres in size, but contiguous to larger roadless areas.

The BLM's wilderness recommendations have been forwarded by the President to Congress. Only Congress can designate a wilderness or release from interim management areas that were placed under wilderness study by Congressional authority. Until Congress acts on these recommendations, Section 603(c) further directs the BLM to continue to manage these WSAs in a manner that will not "impair the suitability of such areas for preservation as wilderness." Until designation or release, the BLM will manage these areas as directed in "Interim Management Policy And Guidelines For Land Under Wilderness Review" (BLM, 1995). If Congress acts and some of the WSAs in the Challis Resource Area are released from wilderness review, those public lands would be managed according to the Proposed RMP decisions listed under WSAs - Management if Released from Wilderness Review.

Letter No. 7



OCT 17

Mr. Mark Johnson
Bureau of Land Management
P.O. Box 430
Salmon, Idaho 83467

Dear Mark:

1 I wish to indicate my interest in purchasing the 60+ acres of BLM land which lies between my property and Highway 93, nine miles north of Mackay, Idaho.

I understand that a new Resource Management Plan is now being drafted and I would like to purchase this parcel in a direct sale.

The legal description of my property is:

Township 8N, Range 23E, Boise Meridian, Custer County, Idaho
Section 29, S 1/2 SW 1/4, NW 1/4 SW 1/4
Section 32, N 1/2 NW 1/4, NW 1/4 NE 1/4

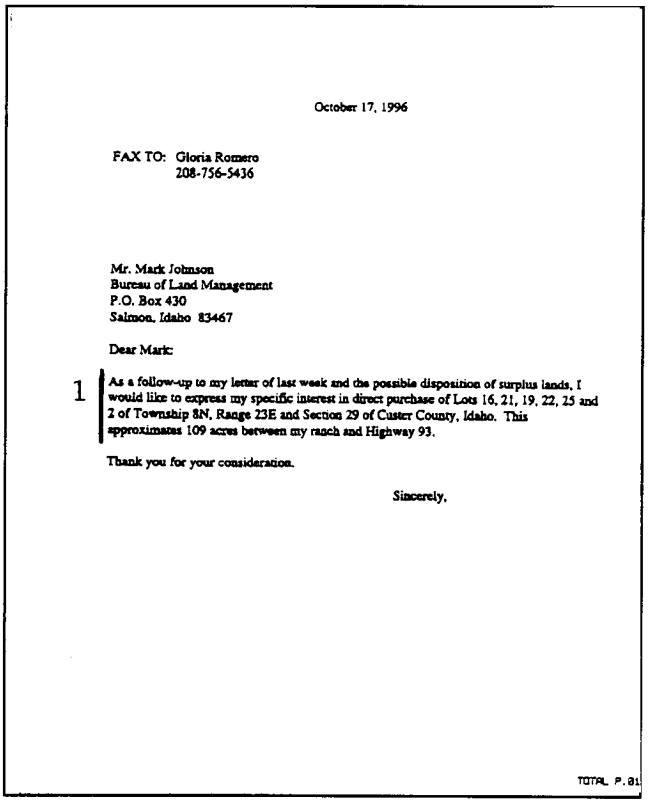
Thank you for your consideration.

Sincerely.

BLM Response to Letter No. 7

7:1: Please see the response to letter 8. (**Note:** In Letter 8 Mr. provides a more exact legal description of the public lands he would like to purchase.)

Letter No. 8



October 17, 1996

FAX TO: Gloria Romero
208-756-5436

Mr. Mark Johnson
Bureau of Land Management
P.O. Box 430
Salmon, Idaho 83467

Dear Mark:

1 As a follow-up to my letter of last week and the possible disposition of surplus lands, I would like to express my specific interest in direct purchase of Lots 16, 21, 19, 22, 25 and 2 of Township 8N, Range 23E and Section 29 of Custer County, Idaho. This approximates 109 acres between my ranch and Highway 93.

Thank you for your consideration.

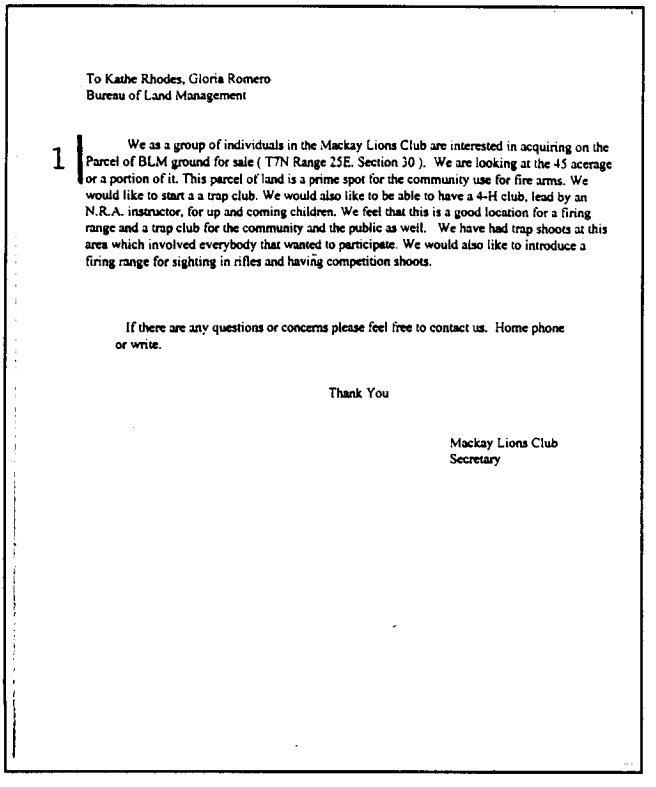
Sincerely,

TOTAL P.01

BLM Response to Letter No. 8

8-1: The Proposed RMP lists the public lands specified in your letter (T8N, R23E, Sec. 29, lots 16, 21, 19, 22, 25, and 2; approximately 109 acres) as tracts which can be considered for sale under the authority of FLPMA, Section 203(a)(1) (see PRMP, Attachment 17).

Letter No. 9



To Kathe Rhodes, Gloria Romero
Bureau of Land Management

1 We as a group of individuals in the Mackay Lions Club are interested in acquiring on the Parcel of BLM ground for sale (T7N Range 25E. Section 30). We are looking at the 45 acerage or a portion of it. This parcel of land is a prime spot for the community use for fire arms. We would like to start a a trap club. We would also like to be able to have a 4-H club, lead by an N.R.A. instructor, for up and coming children. We feel that this is a good location for a firing range and a trap club for the community and the public as well. We have had trap shoots at this area which involved everybody that wanted to participate. We would also like to introduce a firing range for sighting in rifles and having competition shoots.

If there are any questions or concerns please feel free to contact us. Home phone or write.

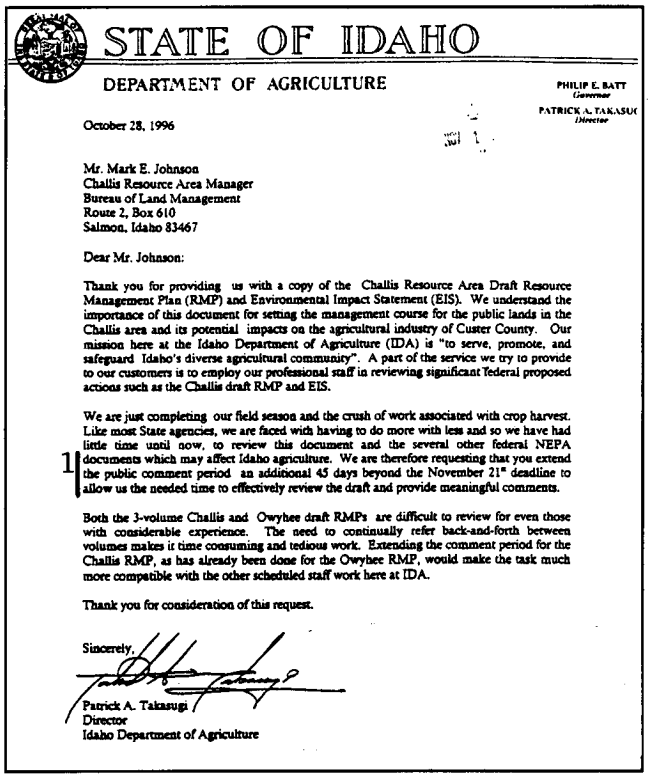
Thank You

Mackay Lions Club
Secretary

BLM Response to Letter No. 9

9-1: Approximately 50 acres in Lots 1 and 2 of the BLM lands you requested (*i.e.*, T7N, R25E, Section 30) have been included in the Proposed RMP for potential sale or exchange (see Attachment 17 and the adjustment areas identified on Map A: Adjustment/Management Areas).

Letter No. 10



STATE OF IDAHO

DEPARTMENT OF AGRICULTURE

PHILIP E. BATT
Governor

PATRICK A. TAKASUGI
Director

October 28, 1996

Mr. Mark E. Johnson
Challis Resource Area Manager
Bureau of Land Management
Route 2, Box 610
Salmon, Idaho 83467

Dear Mr. Johnson:

Thank you for providing us with a copy of the Challis Resource Area Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS). We understand the importance of this document for setting the management course for the public lands in the Challis area and its potential impacts on the agricultural industry of Custer County. Our mission here at the Idaho Department of Agriculture (IDA) is "to serve, promote, and safeguard Idaho's diverse agricultural community". A part of the service we try to provide to our customers is to employ our professional staff in reviewing significant federal proposed actions such as the Challis draft RMP and EIS.

We are just completing our field season and the crush of work associated with crop harvest. Like most State agencies, we are faced with having to do more with less and so we have had little time until now, to review this document and the several other federal NEPA documents which may affect Idaho agriculture. We are therefore requesting that you extend the public comment period an additional 45 days beyond the November 21st deadline to allow us the needed time to effectively review the draft and provide meaningful comments. 1

Both the 3-volume Challis and Owyhee draft RMPs are difficult to review for even those with considerable experience. The need to continually refer back-and-forth between volumes makes it time consuming and tedious work. Extending the comment period for the Challis RMP, as has already been done for the Owyhee RMP, would make the task much more compatible with the other scheduled staff work here at IDA.

Thank you for consideration of this request.

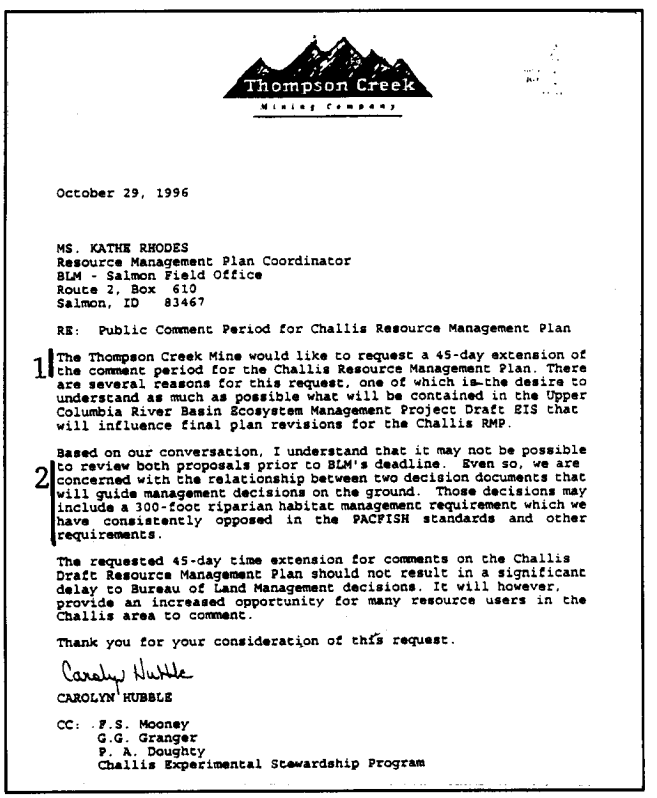
Sincerely,

Patrick A. Takasugi
Director
Idaho Department of Agriculture

BLM Response to Letter No. 10

10-1: The BLM extended the comment period by 46 days (to January 6, 1997), to provide the public with additional time to review the Challis Draft RMP/EIS and provide comments. The BLM notified the public of the comment period extension through a notice in the *Federal Register*, announcements in the local media, and a letter sent to all persons/agencies who had received a copy of the Draft RMP/EIS.

Letter No. 11



Thompson Creek
Mining Company

October 29, 1996

MS. KATHE RHODES
Resource Management Plan Coordinator
BLM - Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

RE: Public Comment Period for Challis Resource Management Plan

The Thompson Creek Mine would like to request a 45-day extension of the comment period for the Challis Resource Management Plan. There are several reasons for this request, one of which is the desire to understand as much as possible what will be contained in the Upper Columbia River Basin Ecosystem Management Project Draft EIS that will influence final plan revisions for the Challis RMP. 1

Based on our conversation, I understand that it may not be possible to review both proposals prior to BLM's deadline. Even so, we are concerned with the relationship between two decision documents that will guide management decisions on the ground. Those decisions may include a 300-foot riparian habitat management requirement which we have consistently opposed in the PACFISH standards and other requirements. 2

The requested 45-day time extension for comments on the Challis Draft Resource Management Plan should not result in a significant delay to Bureau of Land Management decisions. It will however, provide an increased opportunity for many resource users in the Challis area to comment.

Thank you for your consideration of this request.

Carolyn Hubble
CAROLYN HUBBLE

CC: F.S. Mooney
G.G. Granger
P. A. Doughty
Challis Experimental Stewardship Program

BLM Response to Letter No. 11

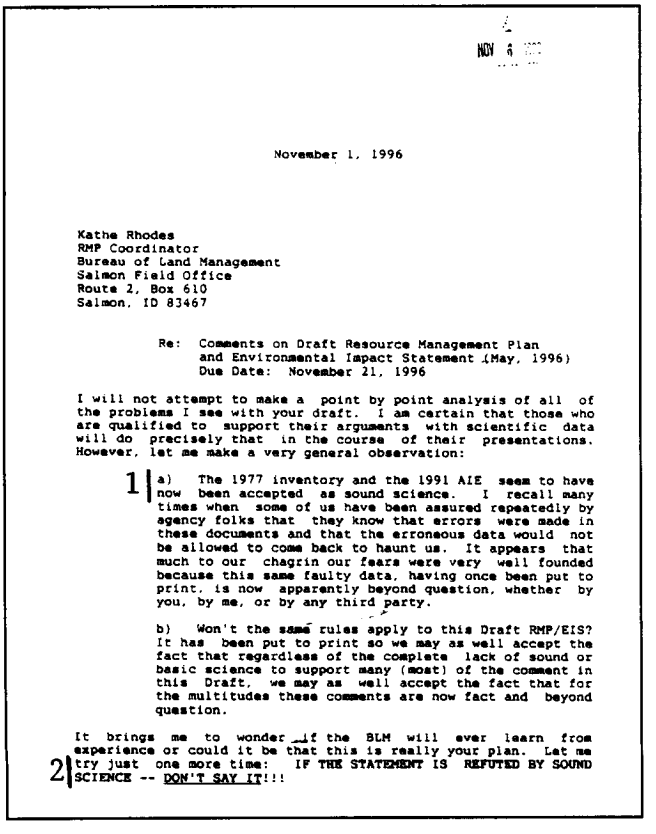
11-1: Please see the response to Letter 10.

11-2: The proposed riparian habitat width for perennial fish-bearing streams or perennial portions of intermittent fish-bearing streams in the majority of the Challis Resource Area is the 100-year floodplain (non-forested rangeland systems) (see PRMP, Attachment 4). The 300-foot slope distance riparian habitat width you oppose would only apply in forested systems. The BLM estimates that less than 2% of riparian areas in the Challis RA are within timber types (conifers) and only about 5 to 10 percent of riparian areas are within forested areas (including conifer, aspen, and cottonwood types). The BLM recognizes that "PACFISH" is an interim management strategy. The various standards and management decisions which are described in the Draft RMP - Preferred Alternative and included in the Proposed RMP were selected because they are expected to achieve the desired resource improvement and maintenance goals for the Challis Resource Area, including goals for aquatic and riparian habitats.

Future management direction to replace "PACFISH" should be contained in the Upper Columbia River Basin Ecosystem Management Project (Project). Once the Record of Decision for the Project is signed, all BLM Resource Management Plans and Management Framework Plans will automatically

be amended to be consistent with the Project. Standards contained in the Project which are different from, or more stringent than, standards contained in the Challis Proposed RMP will automatically be incorporated in the RMP. If the Challis Proposed RMP contains decisions which conflict with the Project, the RMP will be revised to be consistent. Decisions and standards in the RMP which are consistent with the Project could be implemented without revision, once the Record of Decision for the Challis approved RMP is signed.

Letter No. 12



NOV 6

November 1, 1996

Kathe Rhodes
RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

Re: Comments on Draft Resource Management Plan
and Environmental Impact Statement (May, 1996)
Due Date: November 21, 1996

I will not attempt to make a point by point analysis of all of the problems I see with your draft. I am certain that those who are qualified to support their arguments with scientific data will do precisely that in the course of their presentations. However, let me make a very general observation:

1 a) The 1977 inventory and the 1991 AIE seem to have now been accepted as sound science. I recall many times when some of us have been assured repeatedly by agency folks that they know that errors were made in these documents and that the erroneous data would not be allowed to come back to haunt us. It appears that much to our chagrin our fears were very well founded because this same faulty data, having once been put to print, is now apparently beyond question, whether by you, by me, or by any third party.

b) Won't the same rules apply to this Draft RMP/EIS? It has been put to print so we may as well accept the fact that regardless of the complete lack of sound or basic science to support many (most) of the comment in this Draft, we may as well accept the fact that for the multitudes these comments are now fact and beyond question.

It brings me to wonder if the BLM will ever learn from experience or could it be that this is really your plan. Let me
2 try just one more time: IF THE STATEMENT IS REFUTED BY SOUND SCIENCE -- DON'T SAY IT!!!

BLM Response to Letter No. 12

12-1: The 1991 San Felipe Allotment Analysis, Interpretation and Evaluation (AIE) is not a topic that was discussed or meant to be addressed in the Challis Draft RMP. We can only assume that you are using it as an example to emphasize your concern about the resource data that were used as a basis for development of the RMP, in addition to your reference to the 1977 Challis Rangeland Inventory.

The 1977 inventory was described in the Draft RMP-Affected Environment (Chapter 3) because planning guidance requires description of "the environment of the area(s) to be affected...by the alternatives under consideration" (36 CFR 1502.15). For some portions of the Challis Resource Area, the 1977 inventory is the only range condition information available. However, the 1977 Rangeland Inventory was ***not*** used as a primary source of information to develop the goals, objectives, and management actions proposed in the Challis RMP. RMP decisions are designed to improve the condition of areas that are currently in less than satisfactory condition, and maintain the condition of areas which are in satisfactory condition. Specific areas may or may not be the same areas identified in the 1977 inventory. To develop the goals, objectives, and management actions for the RMP alternatives, the RMP team reviewed the BLM's direction for managing resources on public lands and data from many sources, including recent ecological site inventories, the 1977 inventory, nested

Kathe Rhodes, RMP Coordinator
November 1, 1996
Page 2

I would be glad to list examples by page number but it would cover so much space I won't bother. Also, I am satisfied that and others will grant you that service in a very professional and scholarly way.

Given past history, any further time spent on analysis of the issues would be wasted.

Submitted by.

frequency trend studies, upland and riparian permanent photo point studies, and utilization pattern mapping studies.

12-2: The BLM regrets that you did not provide specifics to clarify your comment "If the statement is refuted by sound science -- don't say it!!!" Not knowing your meaning of "statements" or in which section of the Draft RMP these "statements" were made makes responding to this comment difficult. Very often "sound science" refutes "sound science" and it is the reader who must interpret how sound, meaningful and appropriate the science is. The Draft RMP cited over 250 references, approximately 80-85% of which were technical scientific journals. These references were used by the interdisciplinary team in the development of the RMP alternatives, description of the affected environment, and analysis of environmental consequences. The content of the Challis Draft RMP/EIS was also based on the professional judgment of resource specialists, extensive internal review, and external (State Office) BLM review. In sum, the BLM believes sound science was used throughout the RMP development process and, as a result, the product of that planning process (the Draft RMP/EIS) is itself "sound science."

November 14, 1996
Kathe Rhodes, Resource Management Plan Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

RE: Challis Draft RMP/EIS

Dear Ms. Rhodes,

My wife and I have enjoyed the spectacular beauty of the Pahsimeroi, Lost River, Little Lost and Birch Creek valleys for over 20 years. For the past 9 years we have owned land in the upper Big Lost, land that we purchased because of the unique aesthetic values then prevalent in this area. These values included solitude, minimal noise and light pollution, spectacular scenery, an intact but declining fishery, and fair populations of sage grouse, antelope, deer and elk. It has long been our goal to make our home in the Big Lost valley, so it was with great interest that we studied the Challis Draft RMP/EIS.

1 In our opinion, over-grazing by livestock is the biggest single problem on the Challis RA. The reduction of native grasses and forbs due to intense grazing on public land has contributed greatly to the severe decline in antelope and sage grouse populations. These two species are symbolic of a healthy high desert. Their alarming decline is a warning that the ecosystem is in serious trouble.

2 Healthy riparian areas are the very life blood of high desert valleys. Many wildlife species use these areas. Sage grouse broods depend upon the succulent vegetation and insect life found there. Cattle trample the vegetation along stream banks as well as the seeps and springs in the smaller gullies and canyons, contributing to the overall loss of sage grouse brood rearing habitat. The decline of sage grouse in the Challis RA is of great concern to us.

3 Fisheries, water quality and biodiversity are also negatively impacted by cattle. Fish and other aquatic creatures need water to survive. The diversion of water for irrigation, particularly in drought years, has reduced stream flows to the point where fish survival is very poor. High, cold streams like the Big Lost, Pahsimeroi and Little

4 Lost Rivers do not grow fish quickly. In addition to the regulation of sportsmen, management of these fisheries must include restrictions on grazing and the conservative use of irrigation water.

13-1: The BLM's analysis of existing information on antelope and sage grouse does not suggest that the ecosystem is in serious trouble or that current population levels are due to the effects of livestock grazing. Antelope and sage grouse populations fluctuate in response to many factors; hunting, predation, and weather may be some of the most significant factors affecting populations of these species.

Data on antelope and sage grouse populations have been gathered, and hunter surveys have been conducted, by the Idaho Department of Fish and Game (IDFG) in the Challis region, and statewide in Idaho, for more than 40 years. Anecdotal reports of population numbers go back to the 1920s. Discussions with IDFG personnel and review of anecdotal reports suggest that high sage grouse populations were historically present in the Challis RA during periods when livestock grazing more than likely exceeded the levels that exist today. Yoakum (1978) reported that antelope populations in the U.S. and Canada increased 1,500 percent between 1924 and 1976; control of hunting and transplanting were identified as the primary factors. This increase occurred in spite of livestock use levels that were likely much higher than levels of use that exist today.

13-2: The Proposed RMP (PRMP) makes a commitment to provide sufficient forage and habitat to support wildlife populations (see PRMP, Wildlife Habitat, Goals 1 and 2).

5 The projected economic impacts of the various alternatives seem acceptable to us. Alternative 5, which would restore rangeland health and natural values the fastest, (benefiting everyone in the long run) projects only a 2% economic decline for the Big Lost subregion, which is currently experiencing a land boom. Newcomers are not buying land at $2,000-$3,000 per acre in order to raise cattle. They are buying land because of the intrinsic natural beauty of the area. Simultaneously, ranchers are plowing up more and more private ground, thus rendering the remaining BLM desert lands even more valuable to wildlife.

The Pahsimeroi valley subregion, one of the most beautiful places in Idaho, might experience a 6-7% economic decline if Alternative 5 is implemented. This seems a small price to pay for living in such grand country, especially if the Challis RMP rapidly restores the public range to its former health. We (and many other taxpayers) would without hesitation take a 7% cut in our economic situation to enjoy living in such a place!

We believe it is unrealistic to assume that the extractive, commodity based philosophy of public land management will continue unabated into the next century. Grazing pressure will have to be reduced and fees increased as the public demands a greater say in the management of lands once used more or less exclusively by the livestock industry.

In conclusion, we think that a reduction in grazing and the protection of watersheds would most rapidly improve and

6 sustain the condition of resources in the Challis RA. We urge you to adopt Alternative 5 in your RMP.

Respectfully yours,

Livestock grazing management decisions (see PRMP, Livestock Grazing, Goals 1 and 2) are designed to improve upland range sites and riparian areas. Riparian use standards (PRMP, Riparian Areas, Goal 1, #4-7) would improve riparian wildlife habitats for sage grouse and other riparian-dependent wildlife species. Decisions listed under Floodplain/Wetland Areas, Goal 2, #1 and 2, and Attachment 8: Design Specifications - Rangeland Improvement, #4 would reduce livestock trampling and associated effects on springs and seeps.

13-3: Proposed RMP decisions on livestock grazing management are expected to improve water quality and fisheries. Biodiversity would be maintained. Livestock grazing impacts to biodiversity for each alternative are described in the DRMP on p. 191, #6; livestock grazing impacts to fisheries and aquatic habitats are listed on p. 213 (general discussion) and pp. 214-217, #2-6, 9, and 12; and livestock grazing impacts to water quality are shown on p. 291 (general discussion) and pp. 292-294, #2-11.

13-4: The BLM does not have the authority to impose fishing regulations; hunting and fishing regulations are developed and implemented by the State. Water rights and use of water for irrigation are also state-regulated. The BLM recognizes valid existing water rights, but may, under certain circumstances, have authority to specify the design and operation of diversion facilities (see PRMP, Floodplain/Wetland Areas, Goal 2, #4).

The BLM believes the decisions contained in the Proposed RMP will improve fisheries habitat and associated riparian areas. Riparian Areas, Goal 1 calls for restoring and maintaining riparian areas so that at least 90% of riparian areas along fish-bearing streams are in proper functioning condition by 2010. Management decisions listed under Riparian Areas, Goal 1 provide for (a) monitoring livestock impacts in riparian areas by measuring stubble height and bank disturbance, and (b) adjusting livestock use and allotment management plans to restore or maintain riparian areas and aquatic habitat in proper functioning condition.

13-5: Your preference of Alternative 5 is noted. The Proposed RMP incorporates portions of Alternative 5 to more rapidly improve and sustain resource conditions. Specifically, the PRMP limits off-highway vehicle use to existing roads, vehicle ways, and trails Resource Area-wide.

Letter No. 14

December 12, 1996

Kathe Rhodes, RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

Re: Support for Alternative 4 to the Challis Draft Resource Management Plan (RMP)/ Environmental Impact Statement (EIS)

Dear Kathe,

I am a member of the Upper Columbia-Salmon/Clearwater Resource Advisory Council and would like to offer the following comments regarding the Challis draft RMP/EIS.

1a The reason that I am in favor of Alternative 4 is twofold. First, according to page 545 of Volume 3 of the RMP, it states that only 25 (40%) of the grazing allotments are in the maintain category which means that the range condition and trend is satisfactory, 7 (11%) are in the custodial category where opportunities do not exist for positive economic return from public investments, and 30 (48%) are in the improve category which means that range condition and trend is unsatisfactory. Allotments in the custodial category should be removed from the grazing inventory altogether. Second, according to page 101 of Volume 1 of the RMP, only 21.4% of the riparian habitat is functional. **These two figures show that 79.6% of the riparian areas need improvement and at least 48% of the uplands need improvement. Alternatives 1, 2 and 3 all continue to allow the current grazing allocations of 51,069 AUM's to remain the same.** If the intent is to "sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations" (BLM's mission statement) then a reduced volume of AUM's is needed in order for the land to heal and repair itself in order to become sustainable. The fact that 95% of the BLM-administered public lands in the Challis RMP is currently allocated for livestock grazing (page 96 of Volume 1) reflects the overused condition of the land as stated above.

1b

1c

I urge you to support Alternative 4 because it reduces the grazing allocations from 51,069 AUM's to 20,679 AUM's while still allowing 87% of the land in the RMP to be utilized for livestock grazing. Reducing the AUM's is the only way to allow the land to recover from overgrazing in the past.

3 The proposed Alternative 2 lacks the following guidelines that are contained in Alternative 4 that would enable restoration of the land:

Range Management

2 1. Reduce existing grazing preference to 20,679 AUM's, based on allocating 50% of forage to watershed and plant maintenance, 25% to big game, and 4.4% to wild horses.

Letter No. 14 *continued*

3 2. No use on upland sites during the critical boot to flowering season of use.

3. Design grazing practices to be consistent with attainment of riparian and aquatic habitat standards in all perennial and intermittent streams. Locate new and existing livestock handling and management facilities and livestock training, bedding, watering, salting, loading and other handling efforts outside riparian areas in all perennial and intermittent streams where attainment of riparian and aquatic habitat standards cannot otherwise be achieved.

4. Grazing privileges that are lost, retired, relinquished, canceled, or have base property sold for subdivision would have attached AUM's held for watershed protection and wildlife habitat. Vacant allotments would remain unallocated to livestock grazing to improve range condition and to help protect watershed condition and wildlife habitat.

5. Prescribed burns or seedings would be done only to restore native plant communities, increase visual diversity, and improve wildlife habitat not just to promote a variety of resource objectives.

6. Vegetation treatment projects would only be considered when necessary to restore potential natural plant community composition, improve wildlife habitat, improve visual quality, reclaim disturbed areas, or to protect archaeological values.

7. One-half of the available forage resource (25% of allocated forage) would be allocated to provide forage and cover for wildlife, and to improve habitat quality to support wildlife populations.

Wildlife Habitat Management

1. One-half of the available forage resource (25% of allocated forage) would be allocated to provide forage and cover for wildlife, and to improve habitat quality to support wildlife populations.

2. Where conflicts between livestock and big game populations for available forage and habitat are identified, conflicts would be resolved to maintain existing big game populations.

4 3. Use only corrective control in response to actual livestock losses as the only type of Animal Damage Control work authorized on BLM lands. Note: The routine prophylactic killing of tens of thousands of coyotes is a travesty.

4. Commercial timber on the Willow Creek Summit elk winter range would be withdrawn from harvest.

5. Reintroduction of native wildlife would take precedence if competing land uses exist.

BLM Response to Letter No. 14

14-1: (a) Your preference for Alternative 4 is noted.

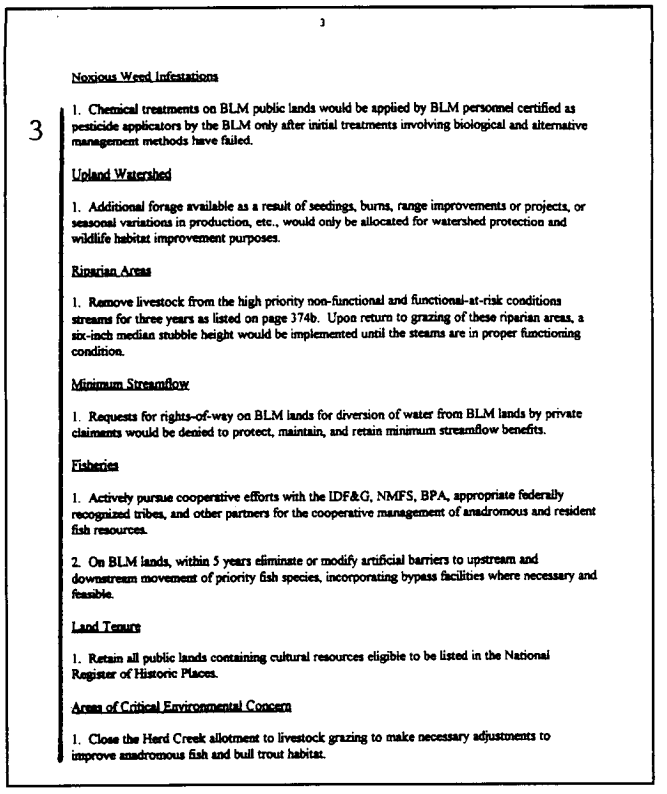
(b) Allotment categorization is one tool used to prioritize allotments for future management. Please note that the criteria for allotment categorization, as stated in the Glossary, include much more than just allotment condition. Placing an allotment into the "improve" category may be the result of potential opportunities, rather than an indication of major problems. Removing "custodial" allotments from the "grazing inventory" *(i.e.,* removing them from livestock grazing) would serve no useful purpose. Please note that areas within the Challis Resource Area that have been determined to be unsuitable for livestock grazing have been closed to livestock grazing (see PRMP, Livestock Grazing, Goal 1, #3).

(c) As the BLM debated possible livestock grazing management options for improving rangeland conditions (including riparian and upland conditions), two potential alternatives emerged. One method for improving rangeland conditions (proposed in Alternatives 4 and 5) was through reductions in livestock use (either reducing the numbers of livestock on an allotment, or reducing the amount of time that the livestock spend on the allotment). The other option (Proposed in Alternatives 2 and 3) was to define management "triggers" to move livestock when a level of plant utilization, bank shearing, or other criteria was reached. The BLM chose (in the Proposed RMP) management triggers to achieve RMP goals since experience has shown that reductions in livestock grazing, by themselves, are not effective in reducing livestock use in riparian zones. Livestock tend to concentrate in riparian zones regardless of the number of livestock that are present in a pasture. Even a few livestock, if left in a riparian zone for any length of time, can result in stubble heights below those necessary to assure proper functioning riparian condition. Across-the-board reductions of AUMs are not considered necessary for many allotments and would not be warranted based on existing knowledge.

14-2: A reduced number of AUMs is not the only way to achieve healthy, diverse, and productive public lands. The BLM feels that the combination of management actions contained in the Proposed RMP would have more beneficial impacts on the land than imposing large "up-front" reductions in livestock grazing preference that may or may not achieve the desired result. These Proposed RMP actions *(e.g.,* stubble height and bank shearing criteria for riparian areas, and cover requirements for uplands) will provide the BLM with the tools for effective livestock grazing management, and ensure that high value resources are protected.

14-3: Your suggestions for incorporating portions of Alternative 4 into the Preferred Alternative were considered. The Proposed RMP adopts the intent of the Alternative 4

Letter No. 14 *continued*



3

Noxious Weed Infestations

1. Chemical treatments on BLM public lands would be applied by BLM personnel certified as pesticide applicators by the BLM only after initial treatments involving biological and alternative management methods have failed.

Upland Watershed

1. Additional forage available as a result of seedings, burns, range improvements or projects, or seasonal variations in production, etc., would only be allocated for watershed protection and wildlife habitat improvement purposes.

Riparian Areas

1. Remove livestock from the high priority non-functional and functional-at-risk conditions streams for three years as listed on page 374b. Upon return to grazing of these riparian areas, a six-inch median stubble height would be implemented until the steams are in proper functioning condition.

Minimum Streamflow

1. Requests for rights-of-way on BLM lands for diversion of water from BLM lands by private claimants would be denied to protect, maintain, and retain minimum streamflow benefits.

Fisheries

1. Actively pursue cooperative efforts with the IDF&G, NMFS, BPA, appropriate federally recognized tribes, and other partners for the cooperative management of anadromous and resident fish resources.

2. On BLM lands, within 5 years eliminate or modify artificial barriers to upstream and downstream movement of priority fish species, incorporating bypass facilities where necessary and feasible.

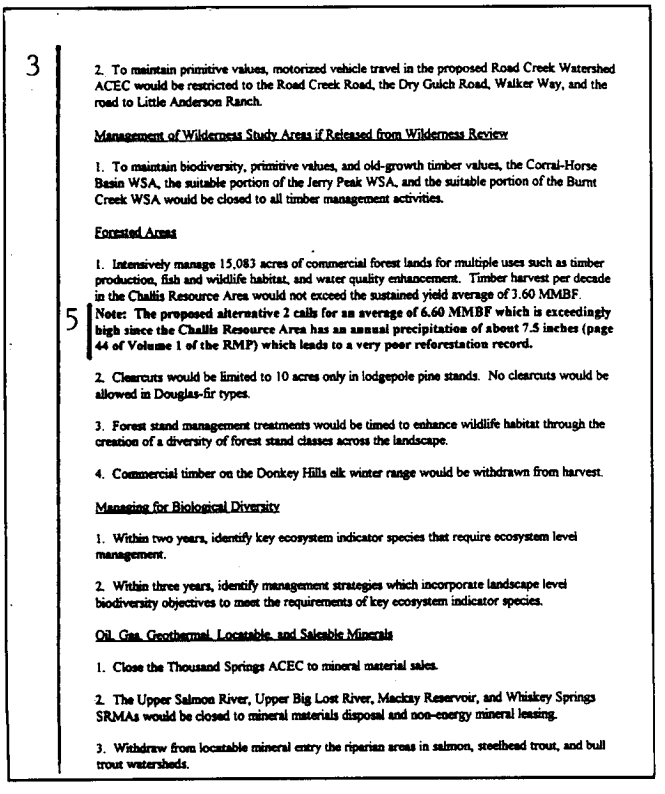
Land Tenure

1. Retain all public lands containing cultural resources eligible to be listed in the National Register of Historic Places.

Areas of Critical Environmental Concern

1. Close the Herd Creek allotment to livestock grazing to make necessary adjustments to improve anadromous fish and bull trout habitat.

Letter No. 14 *continued*



2. To maintain primitive values, motorized vehicle travel in the proposed Road Creek Watershed ACEC would be restricted to the Road Creek Road, the Dry Gulch Road, Walker Way, and the road to Little Anderson Ranch.

Management of Wilderness Study Areas if Released from Wilderness Review

1. To maintain biodiversity, primitive values, and old-growth timber values, the Corral-Horse Basin WSA, the suitable portion of the Jerry Peak WSA, and the suitable portion of the Burnt Creek WSA would be closed to all timber management activities.

Forested Areas

1. Intensively manage 15,083 acres of commercial forest lands for multiple uses such as timber production, fish and wildlife habitat, and water quality enhancement. Timber harvest per decade in the Challis Resource Area would not exceed the sustained yield average of 3.60 MMBF.

Note: The proposed alternative 2 calls for an average of 6.60 MMBF which is exceedingly high since the Challis Resource Area has an annual precipitation of about 7.5 inches (page 44 of Volume 1 of the RMP) which leads to a very poor reforestation record.

2. Clearcuts would be limited to 10 acres only in lodgepole pine stands. No clearcuts would be allowed in Douglas-fir types.

3. Forest stand management treatments would be timed to enhance wildlife habitat through the creation of a diversity of forest stand classes across the landscape.

4. Commercial timber on the Donkey Hills elk winter range would be withdrawn from harvest.

Managing for Biological Diversity

1. Within two years, identify key ecosystem indicator species that require ecosystem level management.

2. Within three years, identify management strategies which incorporate landscape level biodiversity objectives to meet the requirements of key ecosystem indicator species.

Oil, Gas, Geothermal, Locatable, and Saleable Minerals

1. Close the Thousand Springs ACEC to mineral material sales.

2. The Upper Salmon River, Upper Big Lost River, Mackay Reservoir, and Whiskey Springs SRMAs would be closed to mineral materials disposal and non-energy mineral leasing.

3. Withdraw from locatable mineral entry the riparian areas in salmon, steelhead trout, and bull trout watersheds.

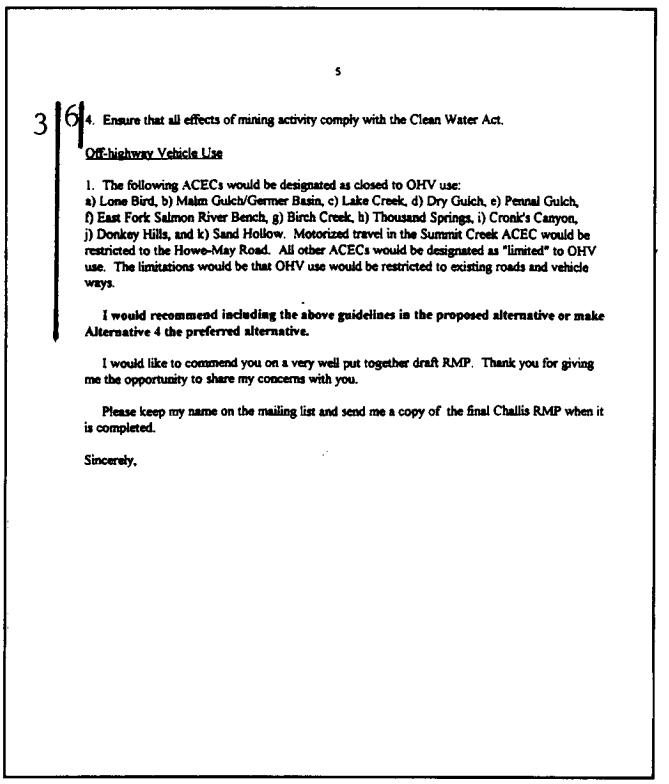
BLM Response to Letter No. 14 *continued*

decisions listed in your letter as Range Management #3 and ACECs #2.

14-4: Animal Damage Control (ADC) actions on BLM lands in the Challis RA were recently analyzed in the *Environmental Assessment: Predator Damage Management in Northern and Central Idaho* (USDA-APHIS-ADC September 1996). The Proposed RMP would continue the ADC program as outlined in this EA. Because livestock losses are documented annually from coyote predation, and wolves have recently been reintroduced into the Central Idaho Recovery Area, the BLM has determined that the environmentally responsible ADC program conducted by the Animal and Plant Health Inspection Service should be continued on public lands in the Challis RA.

14-5: The sustained yield figure for Alternative 2 (6.60 MMBF per decade) is based on the site productivity of the acres of suitable commercial timberlands which are available for harvest *(i.e.,* not withdrawn) under this alternative. This harvest level is considered sustainable and is the *maximum* allowed under this alternative. The low annual precipitation figure that you cite applies to lower elevation, non-timbered sites in the Resource Area. Higher elevation, cooler, timbered sites within the Resource Area receive greater precipitation.

14-6: Draft RMP decisions pertaining to water quality are the same for Alternatives 2 and 4 (see pp. 380a/b).



5

3 6 4. Ensure that all effects of mining activity comply with the Clean Water Act.

Off-highway Vehicle Use

1. The following ACECs would be designated as closed to OHV use: a) Lone Bird, b) Malm Gulch/Germer Basin, c) Lake Creek, d) Dry Gulch, e) Pennal Gulch, f) East Fork Salmon River Bench, g) Birch Creek, h) Thousand Springs, i) Cronk's Canyon, j) Donkey Hills, and k) Sand Hollow. Motorized travel in the Summit Creek ACEC would be restricted to the Howe-May Road. All other ACECs would be designated as "limited" to OHV use. The limitations would be that OHV use would be restricted to existing roads and vehicle ways.

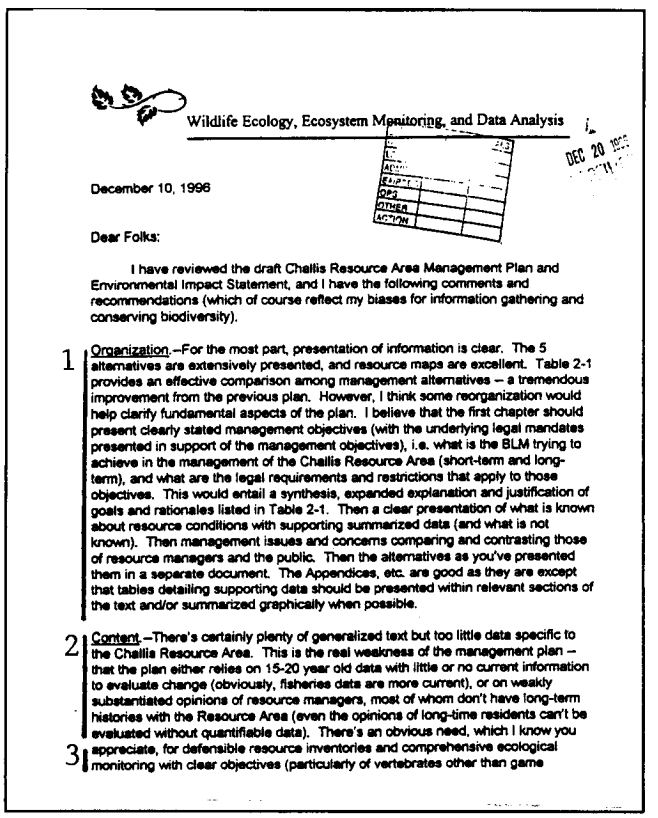
I would recommend including the above guidelines in the proposed alternative or make Alternative 4 the preferred alternative.

I would like to commend you on a very well put together draft RMP. Thank you for giving me the opportunity to share my concerns with you.

Please keep my name on the mailing list and send me a copy of the final Challis RMP when it is completed.

Sincerely,

Letter No. 15



Wildlife Ecology, Ecosystem Monitoring, and Data Analysis

DEC 20 19[illegible]

December 10, 1996

Dear Folks:

I have reviewed the draft Challis Resource Area Management Plan and Environmental Impact Statement, and I have the following comments and recommendations (which of course reflect my biases for information gathering and conserving biodiversity).

1 Organization.--For the most part, presentation of information is clear. The 5 alternatives are extensively presented, and resource maps are excellent. Table 2-1 provides an effective comparison among management alternatives -- a tremendous improvement from the previous plan. However, I think some reorganization would help clarify fundamental aspects of the plan. I believe that the first chapter should present clearly stated management objectives (with the underlying legal mandates presented in support of the management objectives), i.e. what is the BLM trying to achieve in the management of the Challis Resource Area (short-term and long-term), and what are the legal requirements and restrictions that apply to those objectives. This would entail a synthesis, expanded explanation and justification of goals and rationales listed in Table 2-1. Then a clear presentation of what is known about resource conditions with supporting summarized data (and what is not known). Then management issues and concerns comparing and contrasting those of resource managers and the public. Then the alternatives as you've presented them in a separate document. The Appendices, etc. are good as they are except that tables detailing supporting data should be presented within relevant sections of the text and/or summarized graphically when possible.

2 Content.--There's certainly plenty of generalized text but too little data specific to the Challis Resource Area. This is the real weakness of the management plan -- that the plan either relies on 15-20 year old data with little or no current information to evaluate change (obviously, fisheries data are more current), or on weakly substantiated opinions of resource managers, most of whom don't have long-term histories with the Resource Area (even the opinions of long-time residents can't be evaluated without quantifiable data). There's an obvious need, which I know you

3 appreciate, for defensible resource inventories and comprehensive ecological monitoring with clear objectives (particularly of vertebrates other than game

BLM Response to Letter No. 15

15-1: Your request to reorganize the document is well taken. Using the format you suggest would make a document that clearly and rationally presents goals, where we are now, and possible ways (alternatives) of achieving the goals. At this point in the RMP process, however, the Draft RMP/EIS has already been issued and will not be re-published. The Proposed RMP should be a much easier document for the public to use because it presents only the proposed plan, without alternatives. A major reorganization of the RMP/EIS format at this point might cause confusion and frustration on the reader's part.

15-2: During development of the Challis DRMP, which spanned a five year period, several allotments within the Challis Planning Unit of the Challis Resource Area had upland range inventories completed on them. These upland range inventories were conducted to address resource concerns within those allotments. Once completed, it takes considerable time to analyze the data and reduce it to a form where it can be summarized and presented. As of the time of the release of the Draft RMP, the table presenting a summary of upland range condition by allotment (*Appendix F: Livestock Grazing. Item 2: Range Condition Summary by Allotment*) could only be updated to reflect the results of the 1994 range inventory affecting the Mountain Springs (San Felipe), Warm Springs, and Thousand Springs allotments. Since that time, the information from the

Letter No. 15 *continued*

3 species, of important invertebrates particularly pollinators, and of biodiversity at several spatial scales). I know that inventories and monitoring are listed as activities in Table 2-1 but I think these must be emphasized. Everyone I've talked to who's reviewed the plan sees the need for long-term data and current data.

4 I'm also uncomfortable with using "Potential Natural Communities" and "Proper Functioning Condition" classifications for management objectives. These are paradigms or models, like the concept of "climax community," which are based on a view that ecosystems tend towards equilibrium. Most ecologists these days view ecosystems as dynamic where the only predictable condition is change, i.e. succession resulting from disturbance at multiple spatial and temporal scales. The challenge, of course, is to distinguish between stochastic or "natural" disturbance/variation and "unnatural" variation, but that can be done. So management objectives should be maintenance of conditions that allow variation or succession to occur within natural limits at several spatial and temporal scales. I know this seems more difficult than trying to manage for some percentage of the landscape in equilibrium condition but it seems to me to be more realistic. Potential natural community presupposes we can quantify what that is, and even though Min Hironaka and Maynard Fosberg did attempt to define habitat types for southern Idaho (which I noticed is not referenced in the plan), I'm not aware that we understand the seral stages or the dynamics of these communities well enough to predict trajectories of succession. Similarly, proper functioning condition presupposes that all streams function similarly and that most should be in a similar condition (and that it isn't natural for a particular stream to be in very different states along its length). The justification for an equilibrium view of landscapes and ecosystems isn't well documented in the plan.

5 Ecosystem integrity is used as a management goal yet that term, although commonly used for aquatic systems, is inadequately defined for terrestrial ecosystems. And although the documentation for the stubble height criteria is referenced, I think there should be a presentation of the justification for its use. It seems to be a "cookbook" approach that isn't justified to the reader on an ecological or management basis. This is another concern I've heard voiced repeatedly around Challis -- that management goals reflect paradigms currently popular in the natural resource profession which have not been adequately grounded in fact or adapted to the uniqueness of a locality.

6 A typo that I noticed was in Table 3-35 (Vol. 1, p. 163). Season of use dates for elk should be reversed showing more elk on BLM during winter. Also, in Appendix F, the acreage for the San Filipe Allotment in Item 1 is 77,146 ac versus 81,600 ac in Item 2.

Obviously, you're stuck with what you've inherited plus the usual lack of support for anything but current controversies. But you do have more data than is

Letter No. 15 *continued*

7a presented and there have been a number of studies that are only marginally referenced in the text. The reader needs more information to evaluate the concerns presented and the management direction advocated. I'd suggest that the data you do have be summarized clearly in tables and figures, and that the studies that have been conducted in the resource area be thoroughly summarized. This would add more credibility to the management plan. Also, a clear presentation of what data

7b are needed but not available, germane to current concerns, should be included in individual resource sections. Let the public become advocates for your needs.

My intent is to be constructive not overly critical. This is a better than average Management Plan and EIS, but, unfortunately, it's weaknesses are a result of management policies that for at least the past two decades have focused on putting out political "brushfires" rather than management focused on the development of long-term credible information. I know that with a planning process that's spanned 5 years you're not in a position to make big changes. And I know that efforts like this are usually notable more for what people don't like. Just like teachers you're often criticized and not rewarded but your efforts are fundamental to everyone's well-being. I appreciate your persistent and arduous labors to conscientiously manage our lands.

8 As for my recommendation for the management alternative to pursue, I'd wish for Alternative 5 but I can live and work with Alternatives 2 or 4 (except that I'm opposed to managing for higher numbers of wild horses as proposed under Alternative 4. Although the predecessors of horses were around during the Pleistocene, the current organism is an introduced exotic and should be managed at low numbers).

Happy Holidays!

BLM Response to Letter No. 15 *continued*

1995 upland range inventory of the Herd Creek and Warm Springs allotments has become available. Analysis of these data shows a generally favorable trend on the upland portions of those allotments. This favorable trend is mostly the result of implementing intensive grazing systems and a number of new range improvement projects.

The 1994 and 1995 updated inventories covered a total of about 163,275 acres, or about 20.6% of the Challis Resource Area acreage. These data suggest that similar improvement may have occurred on other allotments **within the Challis Planning Unit** because similar actions (intensive grazing systems, range improvement developments, etc.) were also implemented on those allotments. This general trend of improving upland range conditions may not have taken place on other allotments within the Resource Area (allotments in the Ellis-Pahsimeroi and Mackay Planning Units), because similar grazing systems and range improvements were not implemented on all of them. New inventories have also not been completed on these allotments, and the current status of their upland range condition is unknown.

When the RMP process was started, the BLM was aware that most of the existing vegetative inventories were dated, and that the quality of the data was questioned by some people. Please see the Draft RMP discussion on page 100, which describes some of the factors influencing the validity of existing vegetative inventories. For these reasons, the BLM relied heavily on the professional judgement of the Challis Resource Area staff (some of whom have 15 years or more experience within the Resource Area) during development of the resource goals and objectives outlined in the PRMP.

The Proposed RMP/Final EIS incorporates up-to-date information specific to the Challis Resource Area (for example, riparian habitat condition and trend, water quality, special status species listings, fish species distribution).

15-3: We agree that there is a need for updated inventories and for this reason the PRMP proposes *many* actions to gather new information and update current information (please see the response to 15-7(b).) The very fact that these inventory and monitoring decisions are listed in the PRMP gives them "emphasis."

15-4: We agree that there is currently an on-going debate over the proper model to use in describing vegetative succession. Unfortunately, there is little agreement or consensus among range scientists on one specific model to replace the old straight-line model proposed by Clements (1916) and others. In the absence of universal acceptance of a BLM alternative model of succession, we opted to go with the existing succession-retrogression model described by Dyksterhuis (1949) that has been institutionalized by

BLM, Soil Conservation Service, and Forest Service policy for many years. Throughout the RMP, however, are management decisions that provide the BLM with flexibility to address resource management issues related to vegetative succession. The BLM currently uses the concept of Potential Natural Community as used in the Soil Conservation Service (now Natural Resources Conservation Service) site guides. In our case, they are based on the local Custer-Lemhi soil survey.

15-5: The Challis Resource Area staff has had a great deal of practical, on-the-ground experience in the use of stubble height criteria as part of a package of knowledgeable and reasonable actions designed to improve riparian habitat. Riparian habitat improvement has been measured on numerous streams within the East Fork Salmon River drainage since initial baseline studies were established in 1993. Specific streams where stubble heights have been used include Road Creek, Bear Creek, Mosquito Creek, and Horse Basin Creek within the Mountain Springs (San Felipe) Allotment, and Herd Creek and Lake Creek within the Herd Creek Allotment. Quantitative studies indicate an upward trend towards expanding hydric plant communities, improved woody age structure and increased streambank stability. Improvements in these parameters directly relate to obtaining properly functioning riparian, aquatic and hydrologic conditions. This improvement can be attributed to applying a package of knowledgeable and reasonable practices which include changes in grazing management regarding season of use (timing) and days of use (intensity), and the application of stubble height and woody use standards. These management actions follow procedures similar to those described by Hall and Bryant, 1995 and Clary and Webster, 1989 and parallel those management decisions described in the PRMP under Riparian Areas, Goal 1, #4-6.

The applied knowledgeable and reasonable practices stated above are not the only recognized means to obtain improved riparian conditions. Other tools and applications integrated into riparian management which have also contributed to the improvement of riparian communities include periodic season-long rest, temporary fencing, and intensive herding. The Proposed RMP allows for other combinations of knowledgeable and reasonable practices, as long as they meet the criteria shown under Riparian Areas, Goal 1, #4.

15-6: Table 3-35 has been corrected in the PRMP/FEIS.

Appendix F, Item 2 acreage data for the Mountain Springs (San Felipe), Warm Springs, and Thousand Springs allotments were updated based on the 1994 range inventory of those allotments (see Draft RMP/EIS, p. 547, footnote 3). The PRMP also updates these acreage data in Appendix F, Item 1, so the two appendix items are consistent.

BLM Response to Letter No. 15 *continued*

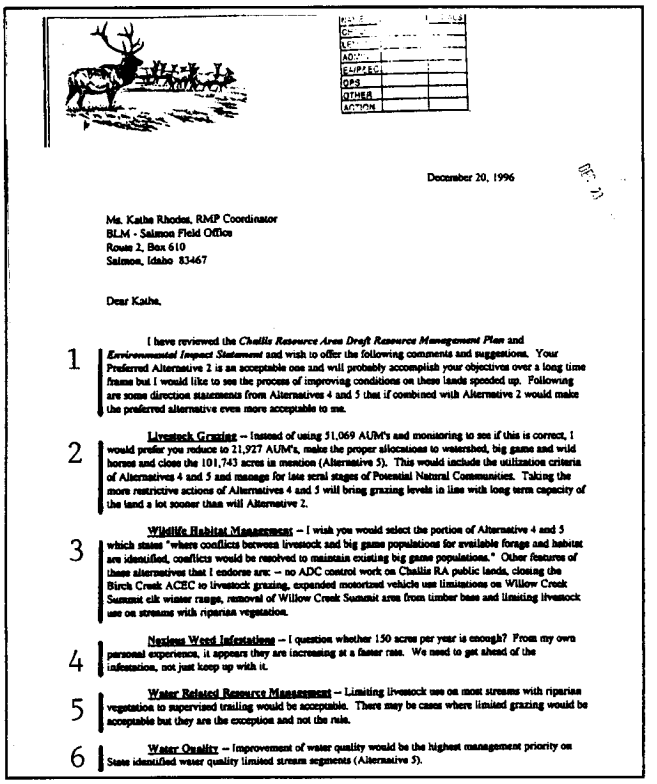
15-7: (a) The Affected Environment section of the Proposed RMP updates the Draft RMP information pertaining to water quality, rangeland condition and trend, fisheries habitat, and riparian function by summarizing additional data available since the Draft RMP/EIS was begun (approximately 1991).

The BLM considered your suggestion to provide a thorough summarization of all the upland, riparian and aquatic monitoring data; however such a summary would take volumes to present and, since monitoring is an ongoing endeavor, the summary would never be complete. The BLM feels the Affected Environment descriptions and Appendices provide a reasonable summary of resource information. A new appendix in the Proposed RMP, Appendix L, Item 1, lists the majority of studies, inventories, surveys, and other research activities pertinent to the Challis Resource Area which can be reviewed upon request at the Salmon BLM Office.

(b) To address information shortcomings, the PRMP carries forward numerous decisions from the Draft RMP Alternative 2 which emphasize gathering new information and updating current information. For example, please see the following PRMP decisions: Biological Diversity, Goal 1, #3; Cultural Resources, Goal 1, #1, 10, 13 and Goal 3, #2; Fisheries, Goal 1, #3, 12, 16; Forest Resources, Goal 1, #2; Hazardous Materials Management, Goal 1, #4; Paleontological Resources, Goal 1, #1; Recreation Opportunities and Visitor Use, Goal 3, #2 and Goal 5, #1; Riparian Areas, Goal 1, #9 and Goal 2, #1-3; Special Status Species, Goal 1, #1-5; Transportation, Goal 1, #8; Water Quality, Goal 1, #1; and Wildlife Habitat, Goal 2, #1.

15-8: Your preference for Alternative 5 is noted, as well as your willingness to live and work with Alternatives 2 or 4. Please note that wild horse numbers in the PRMP reflect Alternative 2 that you were in favor of, rather than the numbers in Alternative 4.

Letter No. 16



December 20, 1996

Ms. Kathe Rhodes, RMP Coordinator
BLM - Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

Dear Kathe,

1 I have reviewed the *Challis Resource Area Draft Resource Management Plan* and *Environmental Impact Statement* and wish to offer the following comments and suggestions. Your Preferred Alternative 2 is an acceptable one and will probably accomplish your objectives over a long time frame but I would like to see the process of improving conditions on these lands speeded up. Following are some direction statements from Alternatives 4 and 5 that if combined with Alternative 2 would make the preferred alternative even more acceptable to me.

2 Livestock Grazing -- Instead of using 51,069 AUM's and monitoring to see if this is correct, I would prefer you reduce to 21,927 AUM's, make the proper allocations to watershed, big game and wild horses and close the 101,743 acres in mention (Alternative 5). This would include the utilization criteria of Alternatives 4 and 5 and manage for late seral stages of Potential Natural Communities. Taking the more restrictive actions of Alternatives 4 and 5 will bring grazing levels in line with long term capacity of the land a lot sooner than will Alternative 2.

3 Wildlife Habitat Management -- I wish you would select the portion of Alternative 4 and 5 which states "where conflicts between livestock and big game populations for available forage and habitat are identified, conflicts would be resolved to maintain existing big game populations." Other features of these alternatives that I endorse are: -- no ADC control work on Challis RA public lands, closing the Birch Creek ACEC to livestock grazing, expanded motorized vehicle use limitations on Willow Creek Summit elk winter range, removal of Willow Creek Summit area from timber base and limiting livestock use on streams with riparian vegetation.

4 Noxious Weed Infestations -- I question whether 150 acres per year is enough? From my own personal experience, it appears they are increasing at a faster rate. We need to get ahead of the infestation, not just keep up with it.

5 Water Related Resource Management -- Limiting livestock use on most streams with riparian vegetation to supervised trailing would be acceptable. There may be cases where limited grazing would be acceptable but they are the exception and not the rule.

6 Water Quality -- Improvement of water quality would be the highest management priority on State identified water quality limited stream segments (Alternative 5).

Letter No. 16 *continued*

7 Minimum Streamflow -- Include Alternative 5 statement -- "Request for rights-of-way on BLM lands for diversion of water from BLM lands by private claimants would be denied to protect, maintain and retain minimum streamflow benefits."

8 Fisheries -- Include from Alternatives 4 and 5, "...improve 100% of nonfunctional and functional-at-risk aquatic and riparian habitats." Also include "Actively pursue cooperative efforts with the IDFG, NMFS, USFS and BPA,..." and "On BLM public lands, within 5 years eliminate or modify artificial barriers..."

9 Areas of Critical Environmental Concern -- Retain all existing ACEC'S and designate all the proposed areas (Pennal Gulch, Herd Creek Watershed, Sand Hollow, Donkey Hills and Carlson Hills, Birch Creek, Lone Bird and Road Creek Watershed) using the most restrictive management prescriptions of Alternatives 4 and 5.

10 Forested Areas -- Intensive timber management should be limited to 15,021 acres as per Alternative 5 and commercial timber on the Donkey Hills elk winter range and Lone Pine Peak should be withdrawn from harvest.

11 Off-highway Vehicle Use -- All of the ACEC's designated as "closed" to OHV use under Alternative 5 should be included.

I strongly urge you to combine these desirable features from Alternatives 4 and 5 with Preferred Alternative 2 and develop it for your final Preferred Alternative.

12 In my review, I failed to find a mention of the Salmon or Challis National Forest Management Plan in your list of Other Agencies' Plans. Is this an oversight?

Even though I don't completely agree with your decision, I compliment the BLM for writing such an exhaustive and easy to read document. It is quite evident that it was produced by a very dedicated group of well-trained natural resource management professionals who understand what is happening on the ground. Keep up the good work.

Sincerely,

BLM Response to Letter No. 16

16-1: We acknowledge your preference for incorporating some aspects of Alternatives 4 and 5 into Alternative 2.

16-2: Your preferences are noted. Please see response 6-2.

16-3: (a) Your preference is noted.

(b) Your preference is noted. Please see response 14-4.

(c) Your preference is noted.

(d) The Proposed RMP maintains a seasonal limitation on motorized vehicle use on the Willow Creek Summit elk winter range, but does not apply to the expanded acreage described in Alternatives 4 and 5. OHV use on the 9,200-acre area identified in Alternatives 4 and 5 would be limited to existing roads and vehicle ways, yearlong. The expansion area identified in Alternatives 4 and 5 encompasses the peripheral winter range around the core of the Willow Creek Summit winter range. The BLM believes that the motorized vehicle use limitations outlined above would be adequate to protect the wintering elk herd using this area.

(e) The PRMP would permit harvest of commercial timber on the Willow Creek Summit elk winter ranges only if harvest can be managed to protect elk habitat quality (see PRMP, Forest Resources, Goal 1, #19).

(f) Your preference is noted.

16-4: As of December 1997, ninety-six (96) weed-infested sites comprising approximately 180 acres had been located and inventoried in the Challis Resource Area. Planned inventories in future years may expand inventory of known sites. The planned treatment of 150 acres per year is expected to adequately control further expansion of weed populations on public lands in the RA. The PRMP does not preclude treatment of more acres, if necessary.

16-5: Your preference is noted.

16-6: Your preference is noted. The PRMP identifies water quality improvement as a priority throughout the Resource Area (see PRMP, Water Quality, Goal 1).

16-7: This decision has been rewritten to more accurately reflect BLM policy on the development and use of water resources on public lands. The Proposed RMP revises the decisions listed under Management Concern: Minimum Streamflow, Goal 1, #1, 2, and 3 (DRMP, p. 381a) and Management Concern: Floodplain/Wetland Areas, Goal 2, #3 and 4 (DRMP, p. 379a) so they are consistent with current water rights law and policy. To address fisheries and other resource concerns, the Proposed RMP retains language

BLM Response to Letter No. 16 *continued*

regarding acquisition of minimum streamflows and stipulations on rights-of-way for irrigation diversions.

16-8: Your preferences are noted.

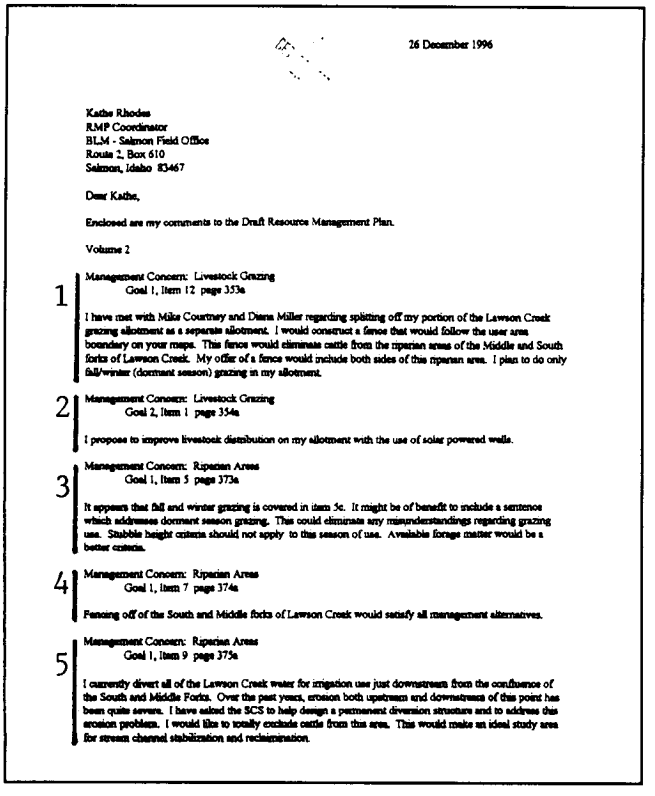
16-9: Your preferences are noted.

16-10: Your preferences are noted.

16-11: Your preference is noted.

16-12: The *Land and Resource Management Plan for the Salmon National Forest* (1988) and the *Land and Resource Management Plan for the Challis National Forest* (1989) were used during preparation of the Challis Draft RMP. Reference to these documents has been listed in the "Corrections to the Draft RMP/EIS" section of the PRMP/FEIS.

Letter No. 17



26 December 1996

Kathe Rhodes
RMP Coordinator
BLM - Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

Dear Kathe,

Enclosed are my comments to the Draft Resource Management Plan.

Volume 2

1 Management Concern: Livestock Grazing
Goal 1, Item 12 page 353a

I have met with Mike Courtney and Diana Miller regarding splitting off my portion of the Lawson Creek grazing allotment as a separate allotment. I would construct a fence that would follow the user area boundary on your maps. This fence would eliminate cattle from the riparian areas of the Middle and South forks of Lawson Creek. My offer of a fence would include both sides of this riparian area. I plan to do only fall/winter (dormant season) grazing in my allotment.

2 Management Concern: Livestock Grazing
Goal 2, Item 1 page 354a

I propose to improve livestock distribution on my allotment with the use of solar powered wells.

3 Management Concern: Riparian Areas
Goal 1, Item 5 page 373a

It appears that fall and winter grazing is covered in item 5e. It might be of benefit to include a sentence which addresses dormant season grazing. This could eliminate any misunderstandings regarding grazing use. Stubble height criteria should not apply to this season of use. Available forage matter would be a better criteria.

4 Management Concern: Riparian Areas
Goal 1, Item 7 page 374a

Fencing off of the South and Middle forks of Lawson Creek would satisfy all management alternatives.

5 Management Concern: Riparian Areas
Goal 1, Item 9 page 375a

I currently divert all of the Lawson Creek water for irrigation use just downstream from the confluence of the South and Middle Forks. Over the past years, erosion both upstream and downstream of this point has been quite severe. I have asked the SCS to help design a permanent diversion structure and to address this erosion problem. I would like to totally exclude cattle from this area. This would make an ideal study area for stream channel stabilization and reclamation.

BLM Response to Letter No. 17

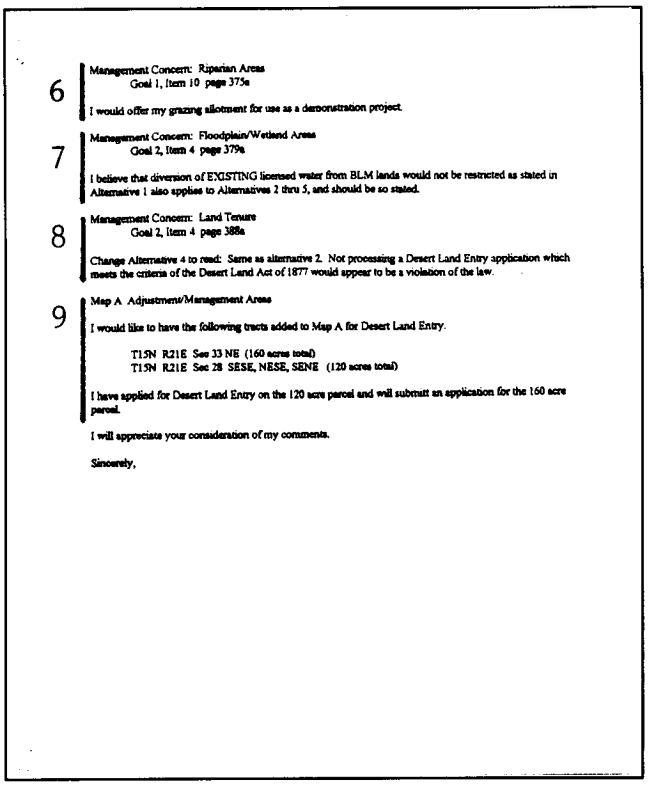
17-1: The proposal you suggest would be allowed under the PRMP (see Livestock Grazing, Goal 1, #12).

17-2: Construction of new range improvement projects would be allowed in the PRMP (see Livestock Grazing, Goal 2). Any site-specific impacts from your proposal would have to be analyzed in an environmental assessment.

17-3: Your suggestions are noted. Riparian area stubble height criteria (see PRMP, Riparian Areas, Goal 1, #5) would apply to dormant season grazing. A four-to-six inch stubble height is necessary in the spring to allow riparian zones to properly trap sediments that can be used to build streambanks, raise watertables, and promote the growth of riparian-dependent vegetation. Note that the PRMP has procedures to allow other knowledgeable and reasonable practices in lieu of stubble height (see Riparian Areas, Goal 1, #4).

17-4: Fencing off the riparian zones would likely promote riparian recovery at a more rapid rate than other management options involving controlled grazing.

17-5: Your proposal to exclude cattle from the erosion area would be compatible with the Proposed RMP. Decisions about how to best manage this area would be made by a



6 Management Concern: Riparian Areas
Goal 1, Item 10 page 375a

I would offer my grazing allotment for use as a demonstration project.

7 Management Concern: Floodplain/Wetland Areas
Goal 2, Item 4 page 379a

I believe that diversion of EXISTING licensed water from BLM lands would not be restricted as stated in Alternative 1 also applies to Alternatives 2 thru 5, and should be so stated.

8 Management Concern: Land Tenure
Goal 2, Item 4 page 388a

Change Alternative 4 to read: Same as alternative 2. Not processing a Desert Land Entry application which meets the criteria of the Desert Land Act of 1877 would appear to be a violation of the law.

9 Map A Adjustment/Management Areas

I would like to have the following tracts added to Map A for Desert Land Entry.

T15N R21E Sec 33 NE (160 acres total)
T15N R21E Sec 28 SESE, NESE, SENE (120 acres total)

I have applied for Desert Land Entry on the 120 acre parcel and will submitt an application for the 160 acre parcel.

I will appreciate your consideration of my comments.

Sincerely,

BLM interdisciplinary team, with public input, and with final approval by the BLM authorized officer.

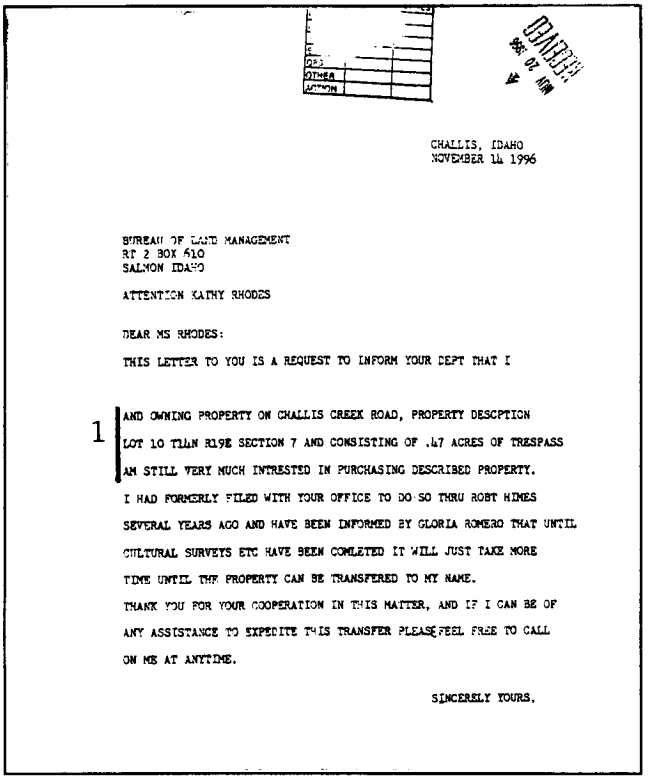
17-6 Your proposal to offer your allotment for a demonstration project on a perennial watershed would be compatible with the Proposed RMP, and is appreciated.

17-7: Please see response 16-7.

17-8: Language from Alternative 4 of the Draft RMP decision you are concerned about (Management Concern: Land Tenure, Goal 2, #4, Alternative 4) was not carried forth into the Proposed RMP. However, please note that land use plans, such as this RMP, *can* be used to constrain applications for DLEs. The Challis Resource Area's existing land use plans (Challis Management Framework Plan (MFP), Ellis-Pahsimeroi MFP, Mackay MFP) currently contain constraints on DLE applications. DLE applications received prior to signing of the Record of Decision for the Challis RMP/EIS will be processed consistent with the land use plan provisions in place at the time the application was received.

17-9: The DLE application for the 120-acre tract noted in your comment letter was rejected by the Challis Resource Area for Desert Land Entry (DLE) on July 30, 1997, because the soils fail to meet *existing* Land Use Plan (Ellis-Pahsimeroi MFP) criteria for DLEs, and the proposal failed to meet the economic farm requirements of 43 CFR 2520.0-8(d). The 160-acre tract also fails to meet these soils criteria, so it would be rejected under the existing criteria of the MFP, as well as those criteria that are carried forth into the PRMP (see PRMP, Land Tenure, Goal 2, #4). Because these tracts do not meet Desert Land Entry criteria or other BLM criteria for disposal, they have not been added to the general Adjustment Areas on Map A.

Letter No. 19



CHALLIS, IDAHO
NOVEMBER 14 1996

BUREAU OF LAND MANAGEMENT
RT 2 BOX 610
SALMON IDAHO

ATTENTION KATHY RHODES

DEAR MS RHODES:

THIS LETTER TO YOU IS A REQUEST TO INFORM YOUR DEPT THAT I

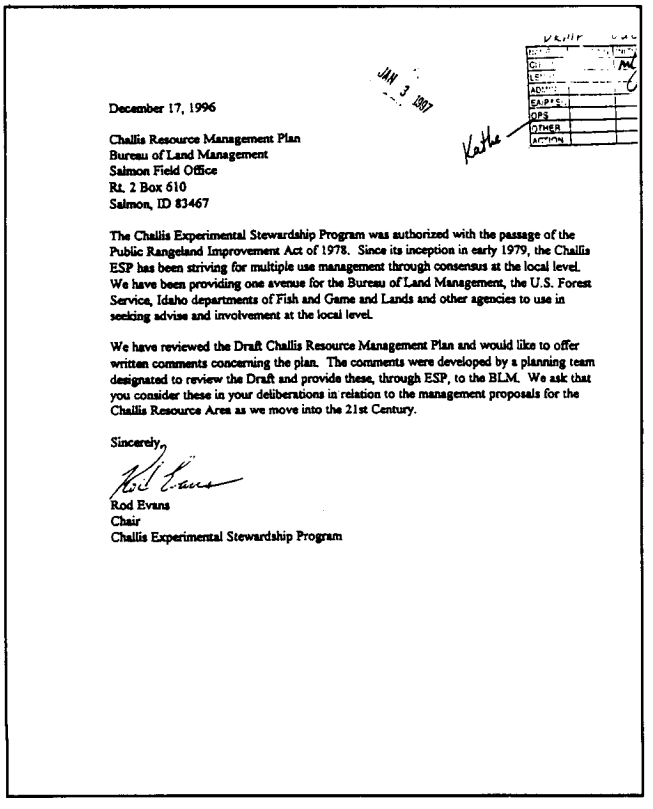
1 AND OWNING PROPERTY ON CHALLIS CREEK ROAD, PROPERTY DESCPTION
LOT 10 T14N R19E SECTION 7 AND CONSISTING OF .47 ACRES OF TRESPASS
AM STILL VERY MUCH INTRESTED IN PURCHASING DESCRIBED PROPERTY.
I HAD FORMERLY FILED WITH YOUR OFFICE TO DO SO THRU ROBT HIMES
SEVERAL YEARS AGO AND HAVE BEEN INFORMED BY GLORIA ROMERO THAT UNTIL
CULTURAL SURVEYS ETC HAVE BEEN COMLETED IT WILL JUST TAKE MORE
TIME UNTIL THE PROPERTY CAN BE TRANSFERED TO MY NAME.
THANK YOU FOR YOUR COOPERATION IN THIS MATTER, AND IF I CAN BE OF
ANY ASSISTANCE TO EXPEDITE THIS TRANSFER PLEASE FEEL FREE TO CALL
ON ME AT ANYTIME.

SINCERELY YOURS.

BLM Response to Letter No. 19

19-1: The BLM public lands you are interested in acquiring (T14N, R19E, Section 7, Lot 10) were proposed for consideration as a sale tract under Alternatives 2 and 3 of the Draft RMP (see Attachment 17, p. 499). This sale tract has been listed in the Proposed RMP for potential disposal (see PRMP, Attachment 17).

Letter No. 20



December 17, 1996

Challis Resource Management Plan
Bureau of Land Management
Salmon Field Office
Rt. 2 Box 610
Salmon, ID 83467

The Challis Experimental Stewardship Program was authorized with the passage of the Public Rangeland Improvement Act of 1978. Since its inception in early 1979, the Challis ESP has been striving for multiple use management through consensus at the local level. We have been providing one avenue for the Bureau of Land Management, the U.S. Forest Service, Idaho departments of Fish and Game and Lands and other agencies to use in seeking advise and involvement at the local level.

We have reviewed the Draft Challis Resource Management Plan and would like to offer written comments concerning the plan. The comments were developed by a planning team designated to review the Draft and provide these, through ESP, to the BLM. We ask that you consider these in your deliberations in relation to the management proposals for the Challis Resource Area as we move into the 21st Century.

Sincerely,

Rod Evans
Chair
Challis Experimental Stewardship Program

BLM Response to Letter No. 20

20-1: (a) Please see response 15-2, paragraphs 1 and 2; response 15-7(a), paragraph 1; and response 15-7(b). Because some of the inventories contained in the Proposed RMP were not specified in prior planning documents (Alternative 1), the management decisions and actions proposed in the Challis PRMP are required to even **begin** the process of gathering this information. Other inventory actions are carried forward from the Management Framework Plans, with modification, because they are considered to be valid, but have not been completed to date.

(b) Monitoring of resource conditions and trends in relation to current management indicates that "where we (currently) are" is not the direction "we want to go." The BLM's analysis of the effectiveness of past rangeland management actions indicated that past management has produced little change in resource conditions (see DRMP, "Rangeland Monitoring," p. 101). The Draft RMP therefore proposed four alternative management schemes for achieving the stated goals. The goal statements described in Volume 2 of the DRMP *(i.e.,* "where we want to go") were not developed from an analysis of current rangeland conditions. Rather, referenced goal statements were derived from the sources indicated in the rationale statement which accompanies each

Challis Experimental Stewardship Group
Comments on the Draft Challis Resource Management Plan

We found the report to be generally well-written and in many cases, based upon peer-reviewed research reports. We do feel that there are numerous points of potential debate spread throughout the document. These points of debate relate primarily to 2 or 3 major issues that are contained in or are underlying the planning document. These issues center upon the lack of inventory and monitoring information on which this decision is based and the potential for highly prescriptive short-term management at the sacrifice of long-term range and resource conditions. These issues and how they are dealt with are central to the longer-term management of the resource area.

1 Based upon our review of the RMP, there appears to be a general lack of information within the planning documents on condition and trend. This is not only true for rangelands, but also encompasses cultural resources, genetic diversity, biological diversity (or biodiversity), plant communities and a number of other critical factors. We find it incredible that information (including tables, maps and other citations within the Draft RMP) used in this RMP is based upon inventory and classification information developed as long ago as the 1977 Challis EIS. We believe it is extremely difficult (if not impossible) to decide where you are going (management plan) without having any idea of where you are (inventory). At the very least field inventories and/or range condition and trend studies should have been done by field staff to compare with earlier information to determine the results of past management, as well as set the stage for future direction. It does not appear from this document that this was done. How can you determine the successes or failures of past management without knowing the condition and trend of these resources in relation to those management alternatives used in the past? In other words, there is a cause and effect relationship in terms of natural resources (particularly rangelands) and you are missing the effect on the landscape by not doing the inventory.

For example, consider the following quotes, references and citations contained in the Draft RMP:
Biological Diversity, p. 52: "To date, the biological diversity of the Challis RA has not been formally inventoried, assessed or analyzed"
p. 53: "Virtually nothing is known about levels or distribution of genetic diversity in the RA."
p. 54: "Data on biodiversity are currently limited to inventories of vertebrate and vascular plant species and classification of vascular plant communities."
Plant Communities: p. 55: "The distribution of common plant communities is relatively well known in the RA. Table 3-21... and Table 3-22 ... list the principle plant communities that have been described for the RA."
Riparian/Wetland Vegetation, p. 131: "A riparian vegetation type classification has not been completed for central Idaho, but the areas covered by the above documents surround the Resource Area."

1 **Cultural Resources**, p. 57: "A Class I inventory has not been completed for the Challis Resource Area. An estimated 74,600 acres (9.5%) of the Challis Resource Area has been inventoried for cultural resources at a Class II level using a variety of methods. Approximately 12,500 acres (1.5%) of the Challis Resource Area have been intensively inventoried at a Class III level."
Vegetation (pp. 128-145 and Maps H and I) Range Condition and Trend (p.55 and pp.99-101): Most of these sections refer to information developed during the Grazing EIS period (1977-1983) and do not appear to have been updated. In addition, some very strong disclaimers must be put into the text concerning the fact that the Affected Environment information is extremely dated and of little use, unless updated through some sampling procedures. The paragraph on page 100 is a good start, but more is needed. The

2 Challis ESP Group urges you to put the highest priority on updating this information through sampling of critical areas and eventually progressing through most of the vegetation types in the resource area. We would urge you to put this at the utmost priority level, at the sacrifice of "studies" and monitoring efforts that result in no data. Many of these latter items appear to be aimed at the highly prescriptive management issues

3 such as utilization and stubble height. We would also encourage you to develop long term goals in terms of resource conditions (streambank stability, vegetation successional stages, etc.) and do away with the highly prescriptive items included in the document. To include items such as a "minimum of 4 (or 6) inch median of stubble height" in your alternatives implies that those are goals of management. The goals of your management should be based upon the desired condition of the basic resource that you are managing (eg. soil, water, vegetation). Remaining stubble height is but one of the ways that we have of

4 looking at our progress toward the real goals of resource improvement. If condition and trend, cover, actual use, photographs and other techniques listed on page 101 have in fact been gathered and used, then those data and results of the analyses should be presented here. That is the only way of determining if we are improving or degrading resource conditions over time. Most of these changes in resource conditions can be tied directly to on-the-ground management.

5 Statements concerning condition and trend also appear to contain erroneous and biased information. For example, "Early, mid, and late seral communities typically result from the effects of disturbance events such as fire, timber blowdown, insect infestation, or past and present land uses."(p. 55) Succession is a process that takes place with or without disturbance. Movement from early seral to mid seral communities may have nothing to do with "disturbance events", but is rather a case of annuals or short-lived perennial species being replaced in the community by perennials. There are obviously many factors that influence succession, many of which are not related to disturbances. Disturbance can in fact play a major role in moving down the successional ladder (ie. moving from late seral to early seral), but the conditions themselves do not "typically result from ...disturbance."

6 **Rangeland Monitoring**, p 101: Reference is made to trend studies and the lack of movement to upward trend. The concluding statement says, "These data seem to indicate that current management has not met existing land use plan objectives to *improve* range condition in the RA. Three reasons may account for the lack of improvement: (a) grazing

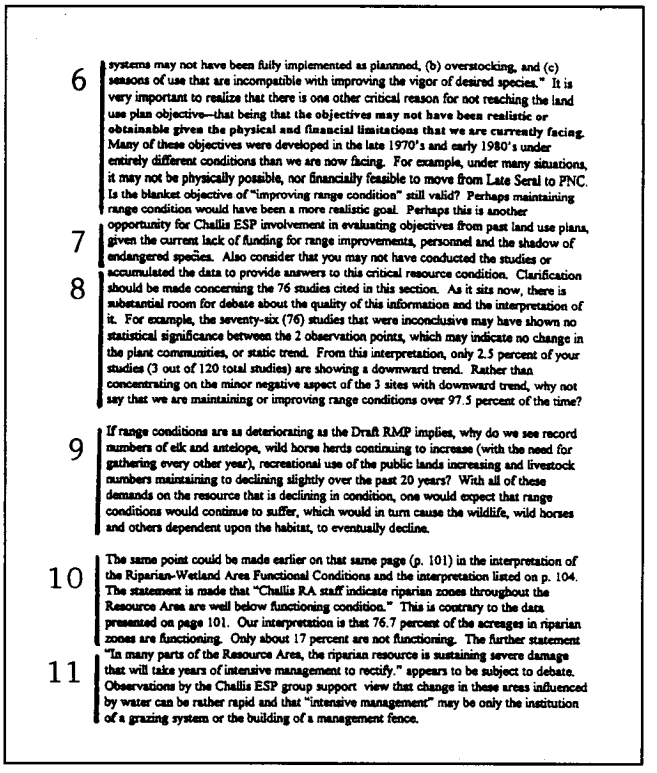
goal, including national initiatives, Bureau policies, and regulations.

20-2: The BLM will continue to monitor upland plant communities using nested frequency and permanent photo plots according to Idaho's Minimum Monitoring Standards (see PRMP, Livestock Grazing, Goal 1, #6) on the prioritized allotments listed in Livestock Grazing, Goal 1, #2, and expanding to other allotments as needed. Part of the monitoring process may include an upland inventory; however, upland inventories must be specific to individual management units. In addition, part of the monitoring process will include monitoring of use standards and (or) habitat conditions that may be applied to specific streams or upland habitats (*e.g.*, see Riparian Areas, Goal 1, #3; and Fisheries, Goal 1, #3). Sampling only the plant communities within critical areas would not provide information on resource conditions unique to a management unit or specific streams within that unit.

20-3: RMP goals are stated in terms of resource conditions, where appropriate (for example, see Proposed RMP: Livestock Grazing, Goal 1; Wildlife Habitat, Goals 2 and 3; Noxious Weed Infestations, Goal 3; Rangeland Vegetation Treatment Projects, Goal 1; and Upland Watershed, Goal 1). The various alternatives described a range of management decisions (such as stubble height criteria) which would be implemented to achieve these goals.

20-4: The "Rangeland Monitoring" discussion on page 101 accurately summarizes the analysis of 120 nested frequency study site data and photo plots. This analysis included climate, actual use, and utilization data, where available. Detailed descriptions of these data are available for review in the Challis Resource Area Office in Salmon, Idaho.

20-5: Much of the discussion on Biological Diversity (DRMP, pp. 52-56) is excerpted from the 1991 Keystone Center Report - *Biological Diversity on Federal Lands*. Plant succession is indeed a continuing, dynamic, natural process; however, the rate of succession and the particular path of plant succession are greatly influenced by the severity and frequency of natural and induced disturbances along with the composition of the present plant community. If a particular ecological site is not at "potential natural community" (PNC) seral stage, then it likely has undergone some sort of natural or induced disturbance that altered the site's plant community. This concept recognizes that PNC is dependent upon natural disturbances (fire, insects, climatic extremes) in order to remain dynamic and resilient within its historical range of variability. These disturbances can alter a site's plant community in the short term; but, as



6 systems may not have been fully implemented as plannned, (b) overstocking, and (c) seasons of use that are incompatible with improving the vigor of desired species." It is very important to realize that there is one other critical reason for not reaching the land use plan objective--that being that the objectives may not have been realistic or obtainable given the physical and financial limitations that we are currently facing. Many of these objectives were developed in the late 1970's and early 1980's under entirely different conditions than we are now facing. For example, under many situations, it may not be physically possible, nor financially feasible to move from Late Seral to PNC. Is the blanket objective of "improving range condition" still valid? Perhaps maintaining range condition would have been a more realistic goal. Perhaps this is another

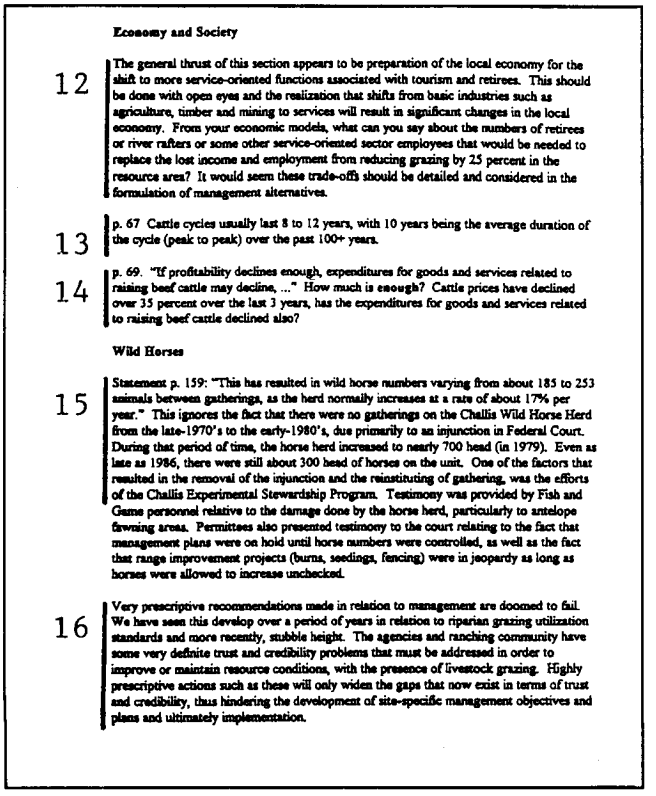
7 opportunity for Challis ESP involvement in evaluating objectives from past land use plans, given the current lack of funding for range improvements, personnel and the shadow of endangered species. Also consider that you may not have conducted the studies or

8 accumulated the data to provide answers to this critical resource condition. Clarification should be made concerning the 76 studies cited in this section. As it sits now, there is substantial room for debate about the quality of this information and the interpretation of it. For example, the seventy-six (76) studies that were inconclusive may have shown no statistical significance between the 2 observation points, which may indicate no change in the plant communities, or static trend. From this interpretation, only 2.5 percent of your studies (3 out of 120 total studies) are showing a downward trend. Rather than concentrating on the minor negative aspect of the 3 sites with downward trend, why not say that we are maintaining or improving range conditions over 97.5 percent of the time?

9 If range conditions are as deteriorating as the Draft RMP implies, why do we see record numbers of elk and antelope, wild horse herds continuing to increase (with the need for gathering every other year), recreational use of the public lands increasing and livestock numbers maintaining to declining slightly over the past 20 years? With all of these demands on the resource that is declining in condition, one would expect that range conditions would continue to suffer, which would in turn cause the wildlife, wild horses and others dependent upon the habitat, to eventually decline.

10 The same point could be made earlier on that same page (p. 101) in the interpretation of the Riparian-Wetland Area Functional Conditions and the interpretation listed on p. 104. The statement is made that "Challis RA staff indicate riparian zones throughout the Resource Area are well below functioning condition." This is contrary to the data presented on page 101. Our interpretation is that 76.7 percent of the acreages in riparian zones are functioning. Only about 17 percent are not functioning. The further statement

11 "In many parts of the Resource Area, the riparian resource is sustaining severe damage that will take years of intensive management to rectify." appears to be subject to debate. Observations by the Challis ESP group support view that change in these areas influenced by water can be rather rapid and that "intensive management" may be only the institution of a grazing system or the building of a management fence.



Economy and Society

12 The general thrust of this section appears to be preparation of the local economy for the shift to more service-oriented functions associated with tourism and retirees. This should be done with open eyes and the realization that shifts from basic industries such as agriculture, timber and mining to services will result in significant changes in the local economy. From your economic models, what can you say about the numbers of retirees or river rafters or some other service-oriented sector employees that would be needed to replace the lost income and employment from reducing grazing by 25 percent in the resource area? It would seem these trade-offs should be detailed and considered in the formulation of management alternatives.

13 p. 67 Cattle cycles usually last 8 to 12 years, with 10 years being the average duration of the cycle (peak to peak) over the past 100+ years.

14 p. 69. "If profitability declines enough, expenditures for goods and services related to raising beef cattle may decline, ..." How much is enough? Cattle prices have declined over 35 percent over the last 3 years, has the expenditures for goods and services related to raising beef cattle declined also?

Wild Horses

15 Statement p. 159: "This has resulted in wild horse numbers varying from about 185 to 253 animals between gatherings, as the herd normally increases at a rate of about 17% per year." This ignores the fact that there were no gatherings on the Challis Wild Horse Herd from the late-1970's to the early-1980's, due primarily to an injunction in Federal Court. During that period of time, the horse herd increased to nearly 700 head (in 1979). Even as late as 1986, there were still about 300 head of horses on the unit. One of the factors that resulted in the removal of the injunction and the reinstituting of gathering, was the efforts of the Challis Experimental Stewardship Program. Testimony was provided by Fish and Game personnel relative to the damage done by the horse herd, particularly to antelope fawning areas. Permittees also presented testimony to the court relating to the fact that management plans were on hold until horse numbers were controlled, as well as the fact that range improvement projects (burns, seedings, fencing) were in jeopardy as long as horses were allowed to increase unchecked.

16 Very prescriptive recommendations made in relation to management are doomed to fail. We have seen this develop over a period of years in relation to riparian grazing utilization standards and more recently, stubble height. The agencies and ranching community have some very definite trust and credibility problems that must be addressed in order to improve or maintain resource conditions, with the presence of livestock grazing. Highly prescriptive actions such as these will only widen the gaps that now exist in terms of trust and credibility, thus hindering the development of site-specific management objectives and plans and ultimately implementation.

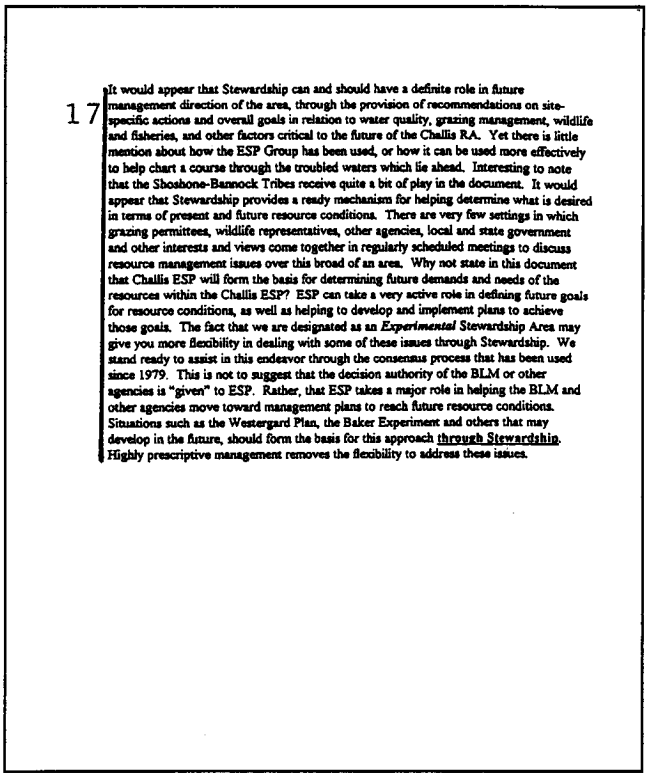
long as the site has maintained its site potential (through soil structure, fertility, water holding capacity, nutrient and energy cycles, etc.) the native plants will progress up the seral scale towards PNC. During this process other disturbances may occur which dictate the site's historical range of variability. Disturbances can direct a site beyond its historical range of variability towards a completely different vegetation path. This new pathway may be short or long term and may even become irreversible. This concept is described in "state-and-transition models" by Westoby et al. (1989) and others.

In order to clarify the RMP's discussion of succession processes, the Proposed RMP contains a revised definition of PNC and adds a definition of ecological site.

20-6: The BLM believes the goals of improving rangeland conditions and obtaining functioning riparian conditions where these conditions are not being realized are valid, regardless of the vintage of land use plan providing the direction. Your reference to move from Late Seral to PNC appears to be a mis-interpretation of Management Concern: Livestock Grazing, Goal #1 (DRMP, p. 350). The goal states that 40% of the uplands within the Resource Area should be Late Seral to PNC, meaning within the range of these high seral states. These goals are also realistic and obtainable, as indicated by the improvement in upland conditions in the Mountain Springs (San Felipe) Allotment and the favorable trends in the Herd Creek and Warm Springs allotments (see response 15-2). Riparian and aquatic conditions have also improved in Road and Herd creeks and their tributaries; data indicate an upward trend towards expanding hydric plant communities, improved woody age structure and increased streambank stability, leading to functional riparian systems. These positive results were obtained by modifying grazing management actions and applying use standards, while still providing for significant livestock grazing.

20-7: ESP's involvement in evaluating the RMP's proposals and goals has been welcomed throughout the RMP planning process, and will continue to be sought during RMP implementation following selection of the approved plan.

20-8: The trend analysis performed in 1992 indicated 76 of the 120 sites were inconclusive **due to insufficient data**, not because of a lack of statistical significance between data sets (which would indicate a static trend). Since 1992, an additional 25 nested frequency plots have been read showing the following results: seven (7) upward trend, nine (9) downward trend and nine (9) static trend. These new data generally indicate a lack of improvement when viewed throughout the Resource Area; however specific allotments (or management areas within an allotment) may be improving. The BLM will continue to monitor the uplands so that eventually there is sufficient data to determine trend



17 It would appear that Stewardship can and should have a definite role in future management direction of the area, through the provision of recommendations on site-specific actions and overall goals in relation to water quality, grazing management, wildlife and fisheries, and other factors critical to the future of the Challis RA. Yet there is little mention about how the ESP Group has been used, or how it can be used more effectively to help chart a course through the troubled waters which lie ahead. Interesting to note that the Shoshone-Bannock Tribes receive quite a bit of play in the document. It would appear that Stewardship provides a ready mechanism for helping determine what is desired in terms of present and future resource conditions. There are very few settings in which grazing permittees, wildlife representatives, other agencies, local and state government and other interests and views come together in regularly scheduled meetings to discuss resource management issues over this broad of an area. Why not state in this document that Challis ESP will form the basis for determining future demands and needs of the resources within the Challis ESP? ESP can take a very active role in defining future goals for resource conditions, as well as helping to develop and implement plans to achieve those goals. The fact that we are designated as an *Experimental* Stewardship Area may give you more flexibility in dealing with some of these issues through Stewardship. We stand ready to assist in this endeavor through the consensus process that has been used since 1979. This is not to suggest that the decision authority of the BLM or other agencies is "given" to ESP. Rather, that ESP takes a major role in helping the BLM and other agencies move toward management plans to reach future resource conditions. Situations such as the Westergard Plan, the Baker Experiment and others that may develop in the future, should form the basis for this approach through Stewardship. Highly prescriptive management removes the flexibility to address these issues.

throughout the Resource Area. Monitoring will focus on the allotments listed in the PRMP under Livestock Grazing Goal 1, #2.

20-9: The BLM disagrees with your interpretation that deteriorating conditions prevail throughout the Resource Area. Page 101 of the DRMP indicates improving or static upland conditions do exist. You are correct in referencing an increase in some big game numbers (specifically elk) and wild horse numbers. However, elk and wild horses are very adaptable and these species' population trends do not necessarily reflect the overall trend in habitat health. Many other indicators suggest that other resources may be in less than satisfactory condition in many locations throughout the Resource Area (aquatic habitat, water quality, sage grouse habitat, bighorn sheep habitat, etc). The BLM believes the analysis of impacts contained in the DRMP, Chapter 4 - Environmental Consequences adequately captures the adverse effects of competing and conflicting uses under Existing Management (Alternative 1). An increase in recreational activity is being realized throughout the West with the renewed interest in the nation's public lands and the increase in regional population, and not necessarily because of improved resource conditions or actions resulting from the RMP (see DRMP, p. 257, "Introduction" and "Summary of Effects," #2).

20-10: The statement in the Draft RMP, p. 104, you are concerned about has been revised in the Proposed RMP. You are correct in viewing "functional-at-risk" as "functional" because, by definition, it is. However, streams that are at-risk are lacking or cannot sustain some important attributes of properly functioning systems. Attributes such as channel type, downcutting and lateral cutting, poor vegetation, or unhealthy watersheds make the stream system susceptible to degradation during periodic high flow events. The RMP's goal is to obtain and maintain the full range of attributes characteristic of a properly functioning system (see PRMP, Livestock Grazing, Goal 1 and Riparian Areas, Goal 1).

20-11: The BLM believes the potential to improve riparian condition to properly functioning is still present, although the time frames to obtain success may be quite variable. Some stream reaches may indeed take several years to heal, even with intensive management. The original functionality assessment was made in 1993/1994 through contract inventory and staff review. The latest (1996) annual report to Congress indicated 35.5% properly functioning, 55.9% functional-at-risk and only 8.6% in a non-functional condition. A great deal of this improvement has been obtained on tributaries to the East Fork Salmon River specifically Road, Horse Basin, Mosquito, Bear, Herd and Lake Creeks) in a relatively short time frame through improved management strategies and the application of grazing standards. Other stream reaches within the

Resource Area may have to undergo further stream alteration in order to obtain balance with the hydrology and land form and then build from a new starting point. These situations will take several years to improve through use of very conservative management strategies. The consideration and application of physical structures to assist these management strategies are certainly valid on a case-by-case basis, and are not precluded by the PRMP.

20-12: The discussion of the two-county economy describes current characteristics of the local economy (employment, income, earnings), as well as economic trends during the past 20 to 25 years. The data compiled during the University of Idaho's study of the two counties indicates what ESP terms "basic industries" (grazing, mining, timber) comprise about 60% of employment and earnings for the area, while business associated with visitors to the area and retirees accounts for about 28% of employment and 20% of earnings (see DRMP, pp. 504 and 506). Both Custer and Lemhi counties have experienced consistent growth in the service sector since 1969, a trend which began prior to development of the Challis RMP (DRMP, p. 69) and is expected to continue regardless of BLM management. The quantitative analysis of impacts to the regional economy indicates that the slight effects which are expected to occur as a result of RMP actions are not significant (see DRMP, p. 205a, Alternative 2); *i.e.,* RMP actions are **not** expected to either cause "shifts from basic industries such as agriculture, timber and mining to services" or "result in significant changes in the local economy."

The estimated number of jobs "lost" in the two-county region as a result of expected grazing reductions under Alternative 2 would be approximately 13 jobs, or only .3% of regional employment (DRMP, Table 4-2, p. 210b). You cannot make a direct equivalency of jobs-lost-in-one-industry to jobs-gained-in-another-industry, for each industry has different economic patterns, income ranges, and purchasing patterns. Actual occurrence of service sector jobs is not a trade off or substitution for basic industry jobs, but a change in purchasing patterns or needs requirements. The "trade-offs" of impacts to the various economic sectors **were** considered in the development of RMP alternatives; please note that the analysis of impacts described on pp. 204-212 of the Draft RMP discloses a range of impacts among the alternatives.

20-13: A recent article in *Idaho Outlook* ("Beef Battles Back" May 1997) supports the BLM's discussion of the cyclical nature of cattle prices (DRMP, p. 67). The BLM recognizes that other data sources may describe cattle cycles with slightly different average durations.

20-14: The economic analysis for the Challis Draft RMP used the Custer-Lemhi Economic Model, which is a linear model. The model assumes that if a given reduction in livestock

numbers occurs, a commensurate reduction in the costs of goods and services to raise those livestock also occurs. For example, if an operator reduces his or her herd from 100 head to 80 head, the operator would have reduced costs per animal for feed, vaccinations, and the like. However, some costs to raise the livestock herd may remain the same, even if the herd size is reduced - *e.g.,* the cost of the pickup truck and trailer needed to transport stock or the cost of the mower and baler needed to harvest a hayfield. For this reason the BLM stated that expenditures for goods and services MAY decline.

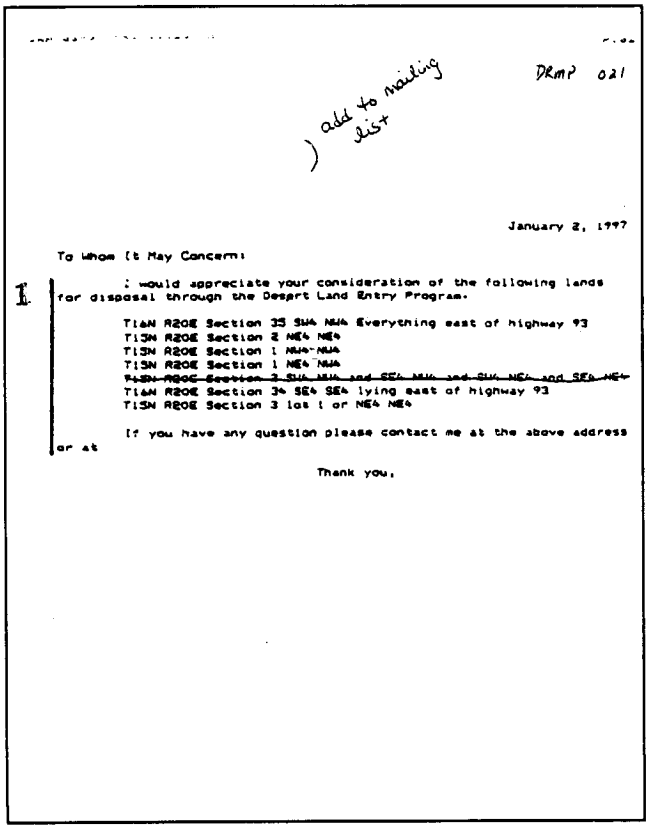
20-15: The Wild Horse and Burro affected environment section (DRMP, pp. 158-161) did not discuss **in detail** how the appropriate management level for the Challis wild horse herd was decided. However, the Draft RMP did state that equilibrium with other resource uses and winter forage requirements were the primary factors for the Challis herd. The interest, input and efforts of the ESP in reaching a satisfactory conclusion to the injunction (which defined the wild horse management level) are noted in the Introduction section of the 1989 Herd Management Area Plan Update. This document is incorporated in the Draft RMP by reference (see DRMP, p. 158).

20-16: It is very important to improve areas that are currently in less than satisfactory condition as quickly as possible, while considering ongoing social, economic, biological, and physical uses, needs, and constraints. Immediate changes in management are necessary to abate any ongoing impacts that may become irreversible if left unattended. The Proposed RMP clearly defines management actions that are likely to yield rapid response in areas most in need of improvement, while not eliminating commodity-based uses of the public lands. Since 1993, very positive results have been achieved using this approach on many upland habitats (see response 20-1) and riparian areas (see response 20-11). Other knowledgeable and reasonable practices (see PRMP, Livestock Grazing, Goal 1, #7 and Riparian Areas, Goal 1, #4) will be considered as a viable means of reaching the stated goals, providing these practices have been effective in past applications and can meet interdisciplinary team and environmental analysis (EA) review. Once the upland or riparian habitat has responded favorably and has become resilient and sustainable, then other management schemes, if meeting the knowledgeable and reasonable criteria, can be entertained with relative certainty of maintaining these productive habitats while providing additional flexibility to the public lands user. The BLM regrets you perceive that the RMP's management decisions encourage "distrust and credibility problems"; the BLM anticipates improved relationships with public land users as a result of the improved resource conditions that will occur from implementing RMP actions.

Response to Letter No. 20 *continued*

20-17: As stated in response 20-7, ESP's involvement and assistance are welcome. ESP involvement was actively pursued during the planning process for the Draft RMP; the RMP was an agenda item at regularly scheduled ESP meetings (see DRMP, pp. 335-338). Stewardship's role in providing recommendations, and ESP's assistance in developing and implementing specific plans to achieve defined objectives and goals, are certainly recognized and appreciated. The BLM agrees ESP's role in the management of the public lands within the Challis Resource Area can and should be utilized further in the future. ESP is encouraged to submit innovative proposals, to participate in the public involvement process and project planning, and to provide input and comments on environmental assessments. The BLM welcomes ESP's assistance and recommendations in developing resource objectives at the activity plan level (*e.g.*, grazing allotments, herd management areas), along with providing valuable information for future watershed assessment efforts.

Letter No. 21



DRMP 021

add to mailing list

January 2, 1997

To Whom It May Concern:

1 I would appreciate your consideration of the following lands for disposal through the Desert Land Entry Program.

T16N R20E Section 35 SW4 NW4 Everything east of highway 93
T15N R20E Section 2 NE4 NE4
T15N R20E Section 1 NW4 NW4
T15N R20E Section 1 NE4 NW4
~~T15N R20E Section 3 SW4 NW4 and SE4 NW4 and SW4 NE4 and SE4 NE4~~
T16N R20E Section 34 SE4 SE4 lying east of highway 93
T15N R20E Section 3 lot 1 or NE4 NE4

If you have any question please contact me at the above address or at

Thank you,

BLM Response to Letter No. 21

21-1: The BLM considered your request that certain public lands be made available for disposal through Desert Land Entry.

The following parcels were added to the Proposed RMP as adjustment areas on Map A: Adjustment/Management Areas to indicate they would be available for potential disposal through exchange or DLE:

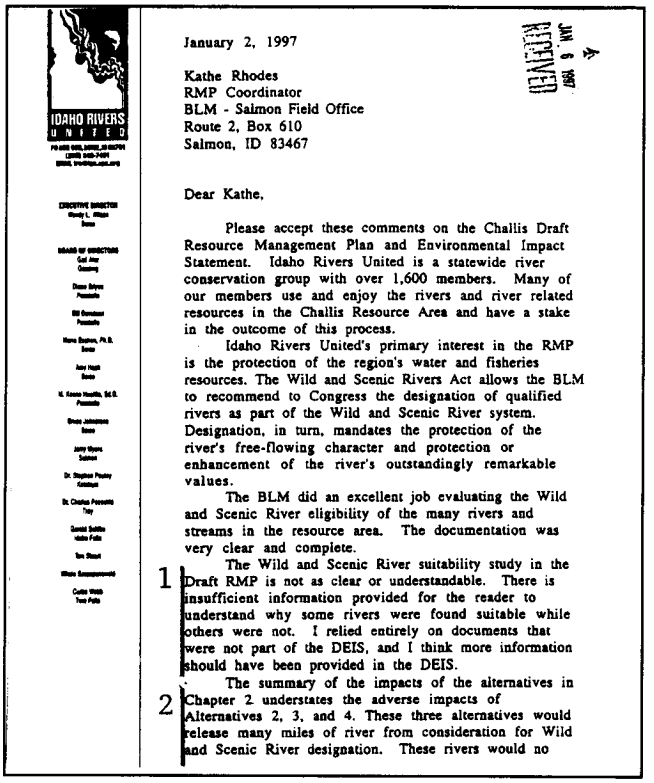
T16N, R20E, Sec. 35, SW4NW4 everything east of Highway 93
T15N, R20E, Sec. 2 NE4NE4
T15N, R20E, Sec. 1 NW4NW4
T15N, R20E, Sec. 1 NE4NW4

The following two parcels were not included in the Proposed RMP as adjustment areas because they do not meet the soils or slope criteria for Desert Land Entry (see PRMP, Land Tenure and Access, Goal 2, #4):

T16N, R20E, Sec. 34, SE4SE4 lying east of Highway 93
T15N, R20E, Sec. 3, lot 1 or NE4NE4.

In addition, the BLM wishes to retain these parcels because of resource concerns: these public lands are visible from an eligible Wild and Scenic River segment; are within the corridor for Visual Resource Management Class II, which emphasizes retention of existing visual quality; are in close proximity to a BLM campground; and contain pristine vegetation communities and other important resource values.

Letter No. 22



IDAHO RIVERS UNITED

RECEIVED JAN 6 1997

January 2, 1997

Kathe Rhodes
RMP Coordinator
BLM - Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

Dear Kathe,

Please accept these comments on the Challis Draft Resource Management Plan and Environmental Impact Statement. Idaho Rivers United is a statewide river conservation group with over 1,600 members. Many of our members use and enjoy the rivers and river related resources in the Challis Resource Area and have a stake in the outcome of this process.

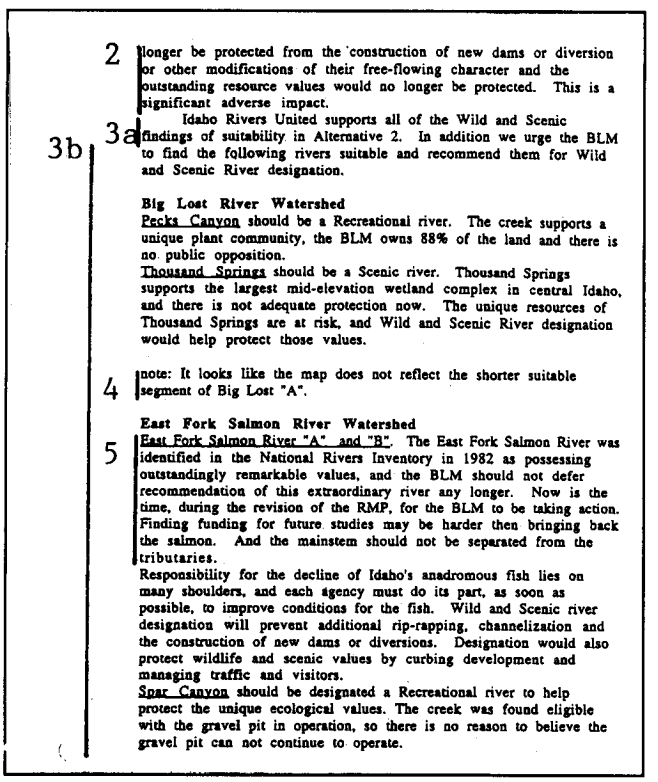
Idaho Rivers United's primary interest in the RMP is the protection of the region's water and fisheries resources. The Wild and Scenic Rivers Act allows the BLM to recommend to Congress the designation of qualified rivers as part of the Wild and Scenic River system. Designation, in turn, mandates the protection of the river's free-flowing character and protection or enhancement of the river's outstandingly remarkable values.

The BLM did an excellent job evaluating the Wild and Scenic River eligibility of the many rivers and streams in the resource area. The documentation was very clear and complete.

1 The Wild and Scenic River suitability study in the Draft RMP is not as clear or understandable. There is insufficient information provided for the reader to understand why some rivers were found suitable while others were not. I relied entirely on documents that were not part of the DEIS, and I think more information should have been provided in the DEIS.

2 The summary of the impacts of the alternatives in Chapter 2 understates the adverse impacts of Alternatives 2, 3, and 4. These three alternatives would release many miles of river from consideration for Wild and Scenic River designation. These rivers would no

Letter No. 22 *continued*



2 longer be protected from the construction of new dams or diversion or other modifications of their free-flowing character and the outstanding resource values would no longer be protected. This is a significant adverse impact.

3a Idaho Rivers United supports all of the Wild and Scenic findings of suitability in Alternative 2. In addition we urge the BLM 3b to find the following rivers suitable and recommend them for Wild and Scenic River designation.

Big Lost River Watershed

Pecks Canyon should be a Recreational river. The creek supports a unique plant community, the BLM owns 88% of the land and there is no public opposition.

Thousand Springs should be a Scenic river. Thousand Springs supports the largest mid-elevation wetland complex in central Idaho, and there is not adequate protection now. The unique resources of Thousand Springs are at risk, and Wild and Scenic River designation would help protect those values.

4 note: It looks like the map does not reflect the shorter suitable segment of Big Lost "A".

East Fork Salmon River Watershed

5 East Fork Salmon River "A" and "B". The East Fork Salmon River was identified in the National Rivers Inventory in 1982 as possessing outstandingly remarkable values, and the BLM should not defer recommendation of this extraordinary river any longer. Now is the time, during the revision of the RMP, for the BLM to be taking action. Finding funding for future studies may be harder then bringing back the salmon. And the mainstem should not be separated from the tributaries.

Responsibility for the decline of Idaho's anadromous fish lies on many shoulders, and each agency must do its part, as soon as possible, to improve conditions for the fish. Wild and Scenic river designation will prevent additional rip-rapping, channelization and the construction of new dams or diversions. Designation would also protect wildlife and scenic values by curbing development and managing traffic and visitors.

Spar Canyon should be designated a Recreational river to help protect the unique ecological values. The creek was found eligible with the gravel pit in operation, so there is no reason to believe the gravel pit can not continue to operate.

BLM Response to Letter No. 22

22-1: The background information used to arrive at the suitability findings presented in the Draft RMP is part of the Planning Record for the Challis RMP. This information is available upon request to anyone. In response to your suggestion, a more detailed explanation of the suitability process has been included in the Proposed RMP (see Attachment 18: Wild and Scenic Rivers Study).

22-2: The BLM disagrees that significant adverse impacts would occur to the OR values of the segments found unsuitable (see DRMP, p. 332a, #1, Alternative 2). Decisions throughout the RMP which would maintain or improve resource conditions would also maintain or improve many of the OR values. In addition, laws such as the Endangered Species Act, Archaeological Resources Protection Act, and the Historic Preservation Act would provide protection for many of the OR values.

The BLM agrees that free flowing character may not be protected on the river segments found unsuitable. However, the risk of hydropower development is believed to be low for 36 segments, moderate for 5 segments, and high for only 1 segment. Note that the W&SR Act provides for inclusion of rivers which are appropriate for a national system of rivers, and does not require that all eligible rivers be protected beyond completion of a suitability study.

22-3: (a) The BLM has noted your support for the suitability findings of Alternative 2. The Proposed RMP adopts the suitability findings of Alternative 2 with one change; river segment East Fork "B" (EF-01b) was incorrectly described as "Eligibility determination will be deferred" in the Draft RMP. In fact, this segment is eligible, with a suitability finding deferred until a coordinated river study (see response 22-5).

(b) Your preferences for additional suitability findings are noted. However, after reviewing your recommendations, the BLM has decided not to include any additional river segments in the PRMP beyond those which were included in Alternative 2 of the DRMP.

The BLM understands the charge of the W&SR Act to be to determine which, if any, river segments within the planning area would be suitable for inclusion in a national rivers system. Many factors were considered in making that determination, including such things as the length of the segment, outstandingly remarkable (OR) values present within the river corridor, floatability, flow status, importance to the suitability of other segments, water development potential, the BLM's ability to manage the segment as a designated river, other opportunities to manage the OR values present, commitment of other involved land owners in sharing administration of the segment, identified support of or opposition to designation, consistency with other approved plans, and estimated

3b Road Creek "A", Bear Creek, Horse Basin and Sand Hollow. Road Creek and Bear Creek support cutthroat trout and Horse Creek contributes flow to Road Creek. Sand Hollow has unique ecological values.

Little Boulder Creek, Big Boulder Creek, and Big Lake Creek should be found suitable because they support salmon, steelhead, bull trout and cutthroat. These creeks are fishery goldmines and are obviously part of a healthy East Fork Salmon River system. The omission of these creeks from Alternative 2 is completely unjustified and makes no sense whatsoever!

6 Marco Creek should be a "Wild" river. While the protected river corridor is not sufficient to protect the bighorn sheep, protection of the wild river corridor is a critical factor. The sheep would be adversely impacted if development was allowed in the river corridor.

7 Note: Fisheries, wildlife and recreation should be added to OR values
8 of Lake Creek. Recreation should be added to OR values of Little Boulder Creek. Geologic should be added to OR values of Spar Canyon.

9

3b **Little Lost River Watershed**

Dry Creek and Long Lost. It's illogical to recommend Dry Creek and not Long Lost as suggested in Alternatives 2 and 4. BLM team's notes point this out.

10 Summit Creek should be found suitable because of its unusual wetland system, it's threatened and endangered plant community and its high recreational value. The creek is threatened by hydropower development and Wild and Scenic river protection is the best defense against dams and diversions. No justification or explanation is offered to support Alternative B's finding of non suitable.

Main Salmon River Watershed

5 Main Salmon River, Cow Creek, Thompson Creek, Squaw Creek, and Bayhorse Creek. Further study should not be deferred for the same reasons put forth for the East Fork Salmon. These rivers support steelhead, salmon, bulltrout and are extraordinarily precious. Continuing to defer recommendation for inclusion in the Wild and Scenic Rivers system is like not getting your kids immunized or putting off getting a car seat - it's unjustifiable. The data is there, the public process is underway, and the need is great. As Nike says, "Just do it."

11 The threat to Thompson and Squaw Creek is exceptionally high because of operations of the Thompson Creek mine. The BLM must

3b 11 work with the Forest Service to ensure that the most effective method of preventing acid mine drainage is chosen in the supplemental EIS for the project.

McKim Creek should be found suitable because it supports bull trout, cutthroat and steelhead. It doesn't matter if there is a low amount of public land - Wild and Scenic designation will stop water resource development on private land next to the river.

Pennal Gulch should be found suitable because of its unique perennial riparian vegetation. Wild and Scenic designation should be adequate to protect riparian values.

12 Leaton Gulch spring should be protected and the draft EIS does not explain whether Wild and Scenic designation will accomplish this or if other mechanisms are in place to protect these cultural sites.

Malm Gulch should be found suitable because it is one of the most biologically diverse locations in Idaho. It's unclear if the corridor width will encompass all of the plant community, but the stream is obviously a critical component of the ecosystem.

Morgan Creek should be found suitable to protect it from water development and because it supports steelhead, chinook, bull trout and cutthroat trout. The creek was found eligible with the existing rip-rap site and the rotating grazing system and there is little reason to think these activities could not continue if the creek is designated. The purpose of Wild and Scenic designation is to protect existing values, not return the river to a more natural state.

13 West Fork Morgan Creek should also be found suitable. It's part of the Morgan Creek system. No justification was presented to support the finding of non suitable.

Note: There is insufficient data to evaluate Spud Creek.

Pashimeroi River Watershed

Donkey Creek should be found suitable because it supports cutthroat trout.

Goldburg Creek should be found suitable because it supports bull trout and cutthroat.

Burnt Creek should be found suitable because it supports bull trout.

5 Pahsimeroi River "A" and Mahogany Creek should be found suitable. The BLM should not defer further study for the reasons stated above for the Main Salmon and East Fork Salmon. These rivers both support bull trout, one of Idaho's troubled species. The state is making a special effort to protect known stocks of bull trout and the BLM should do its part by providing these rivers with the best protection available.

potential costs of administering the segment, if designated. In addition to considering the qualities of the river segment and its corridor, the BLM recognized that determining a river suitable for management as part of a national rivers system is an issue of allocation. For example, there may be rivers that have numerous OR values present within the river corridor, but because of other issues such as current or proposed uses in or near the corridor, the BLM may have chosen not to allocate that river for management as a national wild, scenic, or recreational river. In those cases the rivers were found unsuitable. Although the free-flowing character of the river, the presence and importance of OR values, and the protection that would be afforded under the W&SR Act were given heavy consideration, they were not viewed as circumstances that would require a finding of "suitable" on any given river segment.

22-4: Map K: Wild and Scenic River Suitability Findings - Alternative 2 accurately reflects the BL-17 Big Lost River "A" suitability proposal of the shortened segment. However, the segment was incorrectly labeled as "recreational" rather than "scenic." This error has been corrected in the PRMP. Map M in the DRMP properly reflects the Alternative 4 proposal.

22-5: In response to your comments about coordinated study and/or deferring study to a later date, the BLM offers the following explanation.

Section 5 of the W&SR Act states its intent for coordinated river study when it addresses the rivers designated in the Act for potential addition to the national rivers system. It states, "The study of any of said rivers shall be pursued in as close cooperation with appropriate agencies of the affected State and its political subdivisions as possible, shall be carried on jointly with such agencies if request for such joint study is made by the State, and shall include a determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river should it be proposed for inclusion in the national wild and scenic river system."

In 1991, the Idaho - BLM State Director entered into a Memorandum of Understanding (MOU) with the Governor, State of Idaho, and Regional Foresters of the Northern and Intermountain Regions of the Forest Service. The purpose of the MOU is to "formalize a cooperative relationship for conducting river planning efforts and Wild and Scenic Rivers Studies of Idaho's rivers; among the State of Idaho, the Forest Service, and the Bureau of Land Management. It affirms commitments to: prioritize Federal Wild and Scenic Rivers Studies and coordinate Federal studies with State planning activities; shares data and planning resources between State and Federal water resource planning agencies; and coordinates public education and information outreach programs." Further, in 1992 the

Letter No. 22 *continued*

Thank you for your consideration of these comments. Please inform us of your decision.

Sincerely,

Liz Paul
Associate Director

BLM Response to Letter No. 22 *continued*

affected Forest Supervisors, BLM District Manager, and Idaho Department of Water Resources representative entered into a Study Agreement whose purpose "is to coordinate river basin planning activities in the Upper Salmon River Basin consistent with the MOU dated February 14, 1991 between the signatory agencies. This will include definition of the study area, designation of agency roles, timing and funding for the planning process, collection and sharing of data, and implementing procedures." Three of the rivers included in the study agreement are the Pahsimeroi River, the East Fork Salmon River, and the Main Salmon River. As a result of these agreements, the Challis PRMP deferred completion of the suitability study for these rivers to a coordinated study effort.

In addition to the Main Salmon, East Fork Salmon, and Pahsimeroi rivers, the Challis DRMP and PRMP deferred suitability finding on nine other segments (see DRMP, p. 174, and PRMP, Wild and Scenic Rivers) which are closely linked to and should be studied with the three main deferred rivers, would be suitable only as part of a system, or are logical extensions of river segments administered by the Forest Service or Upper Snake River District - BLM. To study a portion of a river identified solely on the basis of management responsibility would not present a complete picture of the suitability of the entire river reach.

22-6: River Segment EF-28, Marco Creek was included in the suitability study in error. Marco Creek is not free flowing and is therefore ineligible for WSR study (Challis Resource Area National Wild and Scenic Rivers Eligibility Report, BLM 1993, p. 19).

22-7: The BLM determined that Lake Creek has a fisheries OR value because chinook salmon occupied habitat occurs below the lake. However, recreational and wildlife values within the WSR corridor are not considered to be outstandingly remarkable. Even though Lake Creek has an additional OR value, the BLM did not find the segment suitable for inclusion in a nationwide system of WSR.

22-8: The BLM considered your request, and determined that no outstandingly remarkable recreational values are present within the WSR corridor for Big Boulder Creek.

22-9: The BLM considered your request and determined that, since no new information has been added, there are still no geologic OR values present in the Spar Canyon segment.

22-10: River segment LL-01, Summit Creek is not "nonsuitable" [unsuitable] under "Alternative B" [Alternative 2], as you state; a suitability study of this segment has been deferred until a coordinated study with the Upper Snake River District - BLM. Until suitability is determined, this BLM

BLM Response to Letter No. 22 *continued*

segment will be managed to "maintain the level of development that resulted in its classification, to ensure non-degradation of its OR values, and to protect free-flowing characteristics" (PRMP, Wild and Scenic Rivers).

22-11: Your comment is noted. The BLM is a cooperating agency (with the USFS) on the proposed action to develop a Supplemental Plan of Operations for the Thompson Creek Mine in order to address acid mine drainage concerns.

22-12: The Leaton Gulch spring would be protected under the cultural resource laws mentioned in response 22-2.

22-13: Please note that the BLM did find the West Fork of Morgan Creek (MS-67) suitable (Recreational classification), but only as part of a system including USFS lands (PRMP, Wild and Scenic Rivers).

Letter No. 24

96-065-BLM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

JAN 02, 1997

Reply To
Attn Of: ECO-088

Kathe Rhodes
RMP Coordinator, Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

Re: Challis Resource Area Draft Resource Management Plan and Environmental Impact Statement

Dear Ms. Rhodes:

In accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act, the Environmental Protection Agency (EPA) has reviewed the above referenced draft Environmental Impact Statement (draft EIS). The draft EIS analyzes five alternative land use plans to address issues regarding resource management on BLM lands in the Challis Resource Area, located in Custer and Lemhi counties, Idaho.

1 Based on our review, we have rated the draft EIS EC-2 (Environmental Concerns – Insufficient Information). Our concerns are primarily based on water quality impacts from grazing activities. We strongly support alternatives that involve placing additional efforts on allowing degraded riparian areas to return to their natural conditions. Detailed comments on these points are attached.

This rating and a summary of our comments will be published in the *Federal Register*. A copy of our rating system is enclosed. Thank you for the opportunity to review this draft EIS. Please contact John Bregar at (206) 553-1984 if you have any questions about our comments.

Sincerely,

for Richard B. Parkin, Manager
Geographic Implementation Unit

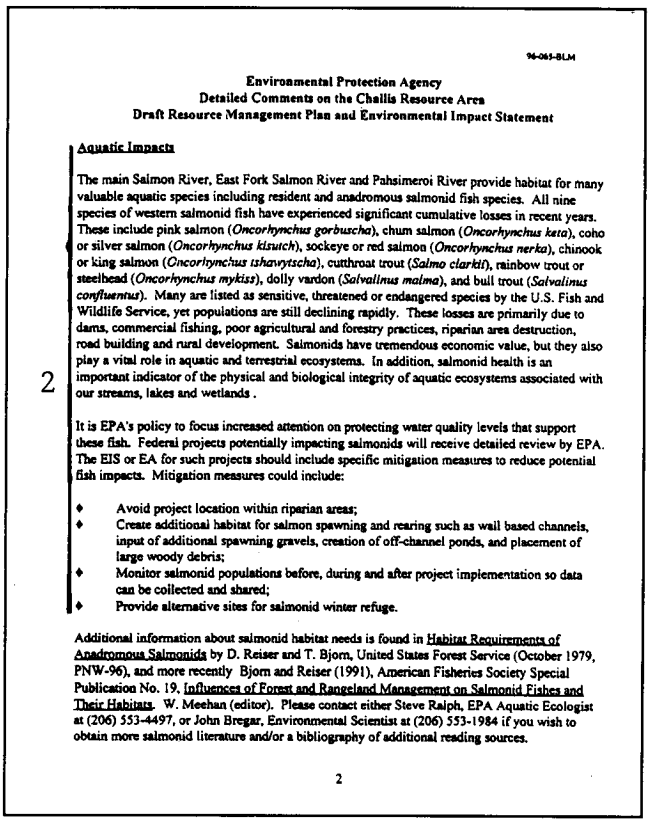
Printed on Recycled Paper

BLM Response to Letter No. 24

24-1: Several Draft RMP alternatives emphasize restoration of degraded riparian areas (see DRMP, Volume 2, Alternatives 2 through 5). The alternatives differ in the rate of restoration and the means through which restoration would be achieved. The Proposed RMP (PRMP) revises the Preferred Alternative (Alternative 2) in response to public comments. However, the PRMP retains an emphasis on restoring degraded riparian areas to their natural condition.

The PRMP's approach to maintaining good water quality and restoring degraded water quality in the Challis Resource Area is two-fold. First, the PRMP includes decisions which address water quality impacts from all non-point sources, including grazing. Second, the PRMP includes decisions to inventory and monitor resources and to manage resources and activities in order to restore uplands, riparian areas, and aquatic habitats; these actions have direct and indirect beneficial impacts to water quality, which are documented in Chapter 4.

24-2: The PRMP contains many specific actions to provide good quality aquatic habitat for resident and anadromous salmonid fish species, including several special status fish species. The U.S. Fish and Wildlife Service and National Marine Fisheries Service have reviewed our Biological Assessment of the Proposed RMP and given us concurrence on the BLM's determinations of "may affect, but not likely to adversely affect" for listed fish species. The BLM's revisions of Alternative 2 in preparation of the PRMP



96-065-BLM

Environmental Protection Agency
Detailed Comments on the Challis Resource Area
Draft Resource Management Plan and Environmental Impact Statement

Aquatic Impacts

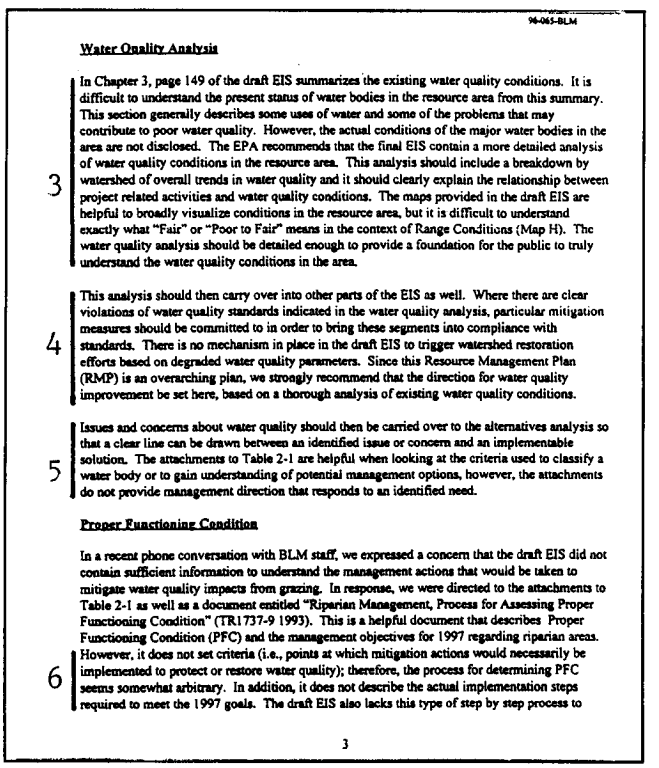
The main Salmon River, East Fork Salmon River and Pahsimeroi River provide habitat for many valuable aquatic species including resident and anadromous salmonid fish species. All nine species of western salmonid fish have experienced significant cumulative losses in recent years. These include pink salmon (*Oncorhynchus gorbuscha*), chum salmon (*Oncorhynchus keta*), coho or silver salmon (*Oncorhynchus kisutch*), sockeye or red salmon (*Oncorhynchus nerka*), chinook or king salmon (*Oncorhynchus tshawytscha*), cutthroat trout (*Salmo clarkii*), rainbow trout or steelhead (*Oncorhynchus mykiss*), dolly vardon (*Salvalinus malma*), and bull trout (*Salvalinus confluentus*). Many are listed as sensitive, threatened or endangered species by the U.S. Fish and Wildlife Service, yet populations are still declining rapidly. These losses are primarily due to dams, commercial fishing, poor agricultural and forestry practices, riparian area destruction, road building and rural development. Salmonids have tremendous economic value, but they also play a vital role in aquatic and terrestrial ecosystems. In addition, salmonid health is an important indicator of the physical and biological integrity of aquatic ecosystems associated with our streams, lakes and wetlands. 2

It is EPA's policy to focus increased attention on protecting water quality levels that support these fish. Federal projects potentially impacting salmonids will receive detailed review by EPA. The EIS or EA for such projects should include specific mitigation measures to reduce potential fish impacts. Mitigation measures could include:

- Avoid project location within riparian areas;
- Create additional habitat for salmon spawning and rearing such as wall based channels, input of additional spawning gravels, creation of off-channel ponds, and placement of large woody debris;
- Monitor salmonid populations before, during and after project implementation so data can be collected and shared;
- Provide alternative sites for salmonid winter refuge.

Additional information about salmonid habitat needs is found in Habitat Requirements of Anadromous Salmonids by D. Reiser and T. Bjorn, United States Forest Service (October 1979, PNW-96), and more recently Bjorn and Reiser (1991), American Fisheries Society Special Publication No. 19, Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats. W. Meehan (editor). Please contact either Steve Ralph, EPA Aquatic Ecologist at (206) 553-4497, or John Bregar, Environmental Scientist at (206) 553-1984 if you wish to obtain more salmonid literature and/or a bibliography of additional reading sources.

2



96-065-BLM

Water Quality Analysis

In Chapter 3, page 149 of the draft EIS summarizes the existing water quality conditions. It is difficult to understand the present status of water bodies in the resource area from this summary. This section generally describes some uses of water and some of the problems that may contribute to poor water quality. However, the actual conditions of the major water bodies in the area are not disclosed. The EPA recommends that the final EIS contain a more detailed analysis of water quality conditions in the resource area. This analysis should include a breakdown by watershed of overall trends in water quality and it should clearly explain the relationship between project related activities and water quality conditions. The maps provided in the draft EIS are helpful to broadly visualize conditions in the resource area, but it is difficult to understand exactly what "Fair" or "Poor to Fair" means in the context of Range Conditions (Map H). The water quality analysis should be detailed enough to provide a foundation for the public to truly understand the water quality conditions in the area. 3

This analysis should then carry over into other parts of the EIS as well. Where there are clear violations of water quality standards indicated in the water quality analysis, particular mitigation measures should be committed to in order to bring these segments into compliance with standards. There is no mechanism in place in the draft EIS to trigger watershed restoration efforts based on degraded water quality parameters. Since this Resource Management Plan (RMP) is an overarching plan, we strongly recommend that the direction for water quality improvement be set here, based on a thorough analysis of existing water quality conditions. 4

Issues and concerns about water quality should then be carried over to the alternatives analysis so that a clear line can be drawn between an identified issue or concern and an implementable solution. The attachments to Table 2-1 are helpful when looking at the criteria used to classify a water body or to gain understanding of potential management options, however, the attachments do not provide management direction that responds to an identified need. 5

Proper Functioning Condition

In a recent phone conversation with BLM staff, we expressed a concern that the draft EIS did not contain sufficient information to understand the management actions that would be taken to mitigate water quality impacts from grazing. In response, we were directed to the attachments to Table 2-1 as well as a document entitled "Riparian Management, Process for Assessing Proper Functioning Condition" (TR1737-9 1993). This is a helpful document that describes Proper Functioning Condition (PFC) and the management objectives for 1997 regarding riparian areas. However, it does not set criteria (i.e., points at which mitigation actions would necessarily be implemented to protect or restore water quality); therefore, the process for determining PFC seems somewhat arbitrary. In addition, it does not describe the actual implementation steps required to meet the 1997 goals. The draft EIS also lacks this type of step by step process to 6

3

clarify and strengthen many BLM management decisions which focus on riparian and aquatic habitat condition.

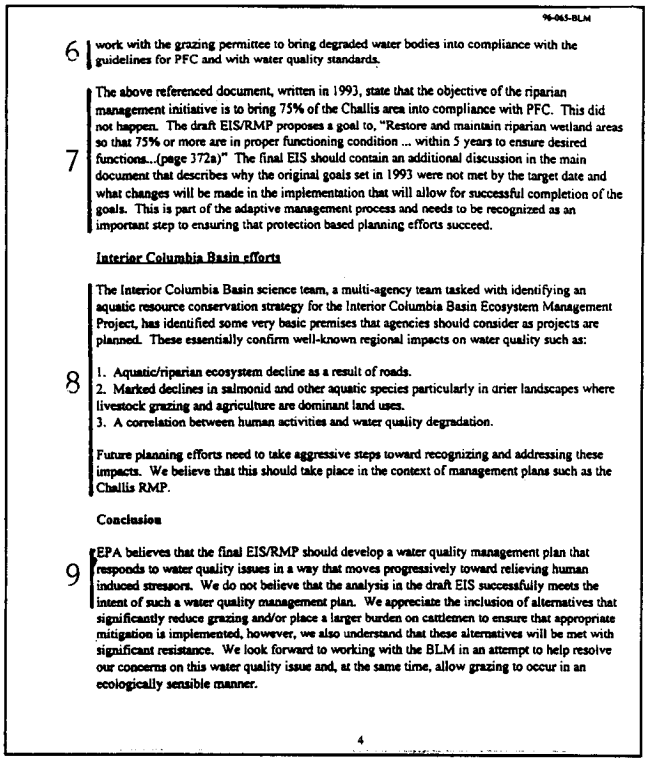
The following paragraphs document the BLM's responses to EPA's suggestions regarding actions to reduce potential fish impacts.

(1) *Avoid project location in riparian areas*: The PRMP sets standards for grazing management and riparian and aquatic habitat condition, and provides other management direction which would prevent adverse impacts to riparian areas and/or restore degraded riparian areas. The following are examples of management decisions in the PRMP which avoid and/or limit impacts in riparian areas: Fire Management, Goal 1, #5 and 6; Fisheries, Goal 1, #4; Floodplain/Wetland Areas, Goal 1, #2 and 3; Forested Areas, Goal 1, #15-17, 21; Hazardous Materials Management , Goal 1, #1, 2, and 5; Land Tenure, Goal 3, #1 and 4; Livestock Grazing, Goal 1, #8, 9, and 11; Minerals, Goal 1, #6, Goal 2, #6, and Goal 3 , #5; Off-highway Vehicle Use, Goal 1, #1; Recreation Opportunities, Goal 1, #3; Riparian Areas, Goal 1, #4-7, and 12; Transportation, Goal 1, #6-9; Upland Watershed, Goal 1, #1, 2, and 10; Water Quality, Goal 1, #5-7; Wild Horse and Burro Management, Goal 1, #7; Wildlife Habitat Management, Goal 1, #4 and Goal 2, #3; Attachment 5: Standard Operating Procedures - "General" #1-4; Attachment 8: Design Specifications for Forest Management (Roads), #2, Minerals, #1, and Rangeland Improvement, #2 and 5.

The analysis of environmental consequences (see PRMP, Chapter 4) indicates the decisions listed above would be effective in reducing potential impacts to riparian areas and fisheries habitat. Since 1993, similar riparian area grazing management has been implemented on some Challis Resource Area allotments within anadromous fish habitat, with noticeable improvement in riparian habitat condition (see response 15-5, paragraph 1).

(2) *Create additional spawning and rearing habitat for salmon*: The PRMP provides direction for maintaining or improving existing habitats (see Fisheries, Goal 1, #3, 4, 7, 9, 10, 13, and 14). Although the PRMP does not outline a specific plan for creating new habitat, it encourages cooperative efforts to manage fisheries habitat (see Fisheries, Goal 1, #6); these cooperative efforts could include activities such as those suggested by EPA.

(3) *Monitor salmonid populations before, during, and after project implementation so data can be collected and shared*: Please be aware that it is the BLM's role to manage fisheries habitats, but it is the State of Idaho's responsibility to manage fisheries populations, including conducting population monitoring. The BLM collects and shares data with other agencies on fisheries habitat



98-065-BLM

6 work with the grazing permittee to bring degraded water bodies into compliance with the guidelines for PFC and with water quality standards.

7 The above referenced document, written in 1993, state that the objective of the riparian management initiative is to bring 75% of the Challis area into compliance with PFC. This did not happen. The draft EIS/RMP proposes a goal to, "Restore and maintain riparian wetland areas so that 75% or more are in proper functioning condition ... within 5 years to ensure desired functions...(page 372a)" The final EIS should contain an additional discussion in the main document that describes why the original goals set in 1993 were not met by the target date and what changes will be made in the implementation that will allow for successful completion of the goals. This is part of the adaptive management process and needs to be recognized as an important step to ensuring that protection based planning efforts succeed.

Interior Columbia Basin efforts

The Interior Columbia Basin science team, a multi-agency team tasked with identifying an aquatic resource conservation strategy for the Interior Columbia Basin Ecosystem Management Project, has identified some very basic premises that agencies should consider as projects are planned. These essentially confirm well-known regional impacts on water quality such as:

8
1. Aquatic/riparian ecosystem decline as a result of roads.
2. Marked declines in salmonid and other aquatic species particularly in drier landscapes where livestock grazing and agriculture are dominant land uses.
3. A correlation between human activities and water quality degradation.

Future planning efforts need to take aggressive steps toward recognizing and addressing these impacts. We believe that this should take place in the context of management plans such as the Challis RMP.

Conclusion

9 EPA believes that the final EIS/RMP should develop a water quality management plan that responds to water quality issues in a way that moves progressively toward relieving human induced stressors. We do not believe that the analysis in the draft EIS successfully meets the intent of such a water quality management plan. We appreciate the inclusion of alternatives that significantly reduce grazing and/or place a larger burden on cattlemen to ensure that appropriate mitigation is implemented, however, we also understand that these alternatives will be met with significant resistance. We look forward to working with the BLM in an attempt to help resolve our concerns on this water quality issue and, at the same time, allow grazing to occur in an ecologically sensible manner.

4

with other agencies on fisheries habitat condition, species distribution (presence/absence within a stream) and water quality factors. This kind of inventory and monitoring would continue to be provided for in the PRMP (see Fisheries, Goal 1, #3, 12, 16; and Water Quality, Goal 1, #1 and 3). The PRMP provides for project-specific actions to reduce impacts to special status fish species (see Attachment 5: General SOP #4); these actions could include monitoring, if necessary. Attachment 12 also contains provision for monitoring (step #14) to ensure beneficial uses (including fisheries habitat) are being protected.

(4) *Provide alternative salmonid winter refuge sites*: There is no evidence to suggest that winter refuge is a limiting factor for fish in the Challis Resource Area. Therefore, the BLM feels there is no need to provide alternative sites for salmonid winter refuge.

24-3: As EPA suggested, the PRMP adds a discussion of water quality condition and trend by watershed (see Chapter 3 - Water Resources, "Summary of Surface Water Quality, By Principal Drainage Basin). The DRMP analysis of environmental consequences describes "...the relationship between project related activities and water quality conditions..." for each alternative (see DRMP, Chapter 4 - Water Resources). Because the PRMP emphasizes restoration of degraded riparian and aquatic habitats throughout the Resource Area, water quality in all of the watersheds described in the PRMP, Chapter 3 - Water Resources would be expected to improve (see PRMP, Chapter 4 - Water Resources).

24-4: The PRMP contains actions to initiate restoration of degraded stream segments and manage all authorized actions so that good water quality is maintained (see Water Quality, Goal 1; Attachment 3; and Attachment 12). Priority for restoring segments with degraded water quality parameters would be defined in the Implementation Plan for the approved RMP. (Current BLM direction for priority is to focus on functional-at-risk riparian areas with downward trend.) The PRMP also contains standards and decisions which would produce indirect benefits to water quality and prevent water quality degradation from occurring (see response 24-2 (1) above).

24-5: The Draft RMP/EIS identifies water quality as a management concern (Chapter 2), describes implementable solutions (Table 2-1 in Volume 2), and documents the analysis of impacts from the alternatives (Chapter 4). The analysis for Alternative 2 (preferred alternative) indicates "management actions would improve water quality condition and trend" Resource Area-wide (DRMP, p. 291, #1). The specific discussion of water quality impacts for each alternative is stated in the DRMP on pp. 291a-302a, #1-3, 5, 6, 8, 13, 15, 17-18, 21-23, 29-33.

The introduction to Chapter 4 has been expanded in the Proposed RMP/Final EIS to clarify that issues are identified in Chapter 2, management decisions to address the issues and concerns are listed in the Proposed RMP, and the analysis of impacts from those decisions is described in Chapter 4. In addition, where appropriate, the reader is referred from the Chapter 4 analysis to the relevant management decisions from the PRMP.

24-6: (a) If the RMP were to use "criteria...points at which mitigation actions would necessarily be implemented to protect or restore water quality," the BLM would have to wait for there to be a water quality problem before it could be addressed. Instead, the RMP includes resource condition objectives, management actions, and resource allocations which collectively maintain existing good water quality and improve degraded water quality. PRMP decisions address water quality both directly (see Water Quality, Goal 1) and indirectly, by managing upland, riparian and aquatic habitats (for example, see Upland Watershed, Goal 1, #1-3, 8-11; Riparian Areas, Goal 1; and Fisheries, Goal 1, #4).

(b) The PRMP's plan to achieve proper functioning condition is shown under Management Concern:, Riparian Areas, Goal 1; the definition of proper functioning condition is provided in Attachment 1. Please note that proper functioning condition results in good water quality. The RMP's decisions to achieve proper functioning riparian condition are complemented by many other decisions which would directly or indirectly reduce livestock grazing impacts to water quality (for example, see response 24-2 (1) above).

(c) The specific terms and conditions of individual grazing permits would continue to be established under the discretion of the authorized officer, in accordance with 43 CFR 4130.3. Any terms or conditions of grazing permits would be consistent with and/or implement the decisions in the approved Challis RMP. BLM grazing regulations provide administrative remedies for failure to meet the terms and conditions of grazing permits.

24-7: EPA's comments and suggestions are noted. Management actions to achieve the goals for riparian condition stated in Riparian-Wetland Initiative for the 1990's (BLM 1991) were implemented on some portions of the Challis Resource Area beginning in approximately 1993. These actions to manage and improve riparian habitat and water quality are very similar to management proposed in the PRMP. From 1993 to present, measurable riparian habitat improvement has occurred on the portions of the RA where this management has been implemented. This success on portions of the Resource Area indicates similar improvements can be expected throughout the Resource Area when the RMP is implemented. Thus, the BLM believes the five-year timeframe (from the date the Record of Decision for the

approved RMP is signed) to achieve 75% of riparian areas in proper functioning condition is realistic.

24-8: The BLM considered whether regional impacts to water quality such as the ones EPA lists currently have an impact in the Challis Resource Area.

The PRMP contains management to minimize water quality impacts from road construction and maintenance, livestock grazing, and other human activities within the Resource Area (e.g., mineral development, OHV use, recreation, timber harvest). The BLM analyzed the impacts to water quality from PRMP actions and actions on adjacent USFS, private, and State lands, and determined that water quality would improve Resource Area-wide under proposed management. The BLM also believes the RMP responds to regional trends which affect water quality in the local planning area. For example, (a) the PRMP contains OHV use and road construction/maintenance/closure decisions which reduce the proliferation of roads (OHV Use, Goal 1 and Transportation, Goal 1), and (b) the PRMP provides direction to remove barriers to anadromous fish migration (Fisheries, Goal 1, #9).

24-9: As noted in the above responses, the PRMP contains interdisciplinary management to address water quality issues, including impacts resulting from numerous types of "human induced stressors" (*e.g.*, livestock grazing, mineral development, OHV use, road construction, timber harvest). The analysis of impacts indicates PRMP management would effectively minimize adverse impacts to water quality and restore degraded water quality. For these reasons the BLM does not believe an additional "water quality management plan" is necessary to include in the PRMP.

Letter No. 25

JAN 6 1997

Kathe Rhodes, Resource Management Plan Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

COMMENTS ON: Challis Resource Area Draft Resource Management Plan & Environmental Impact Statement

Dear Kathe,

1 Our recommendation is for Alternative 2, the Preferred Alternative with the following exceptions. Furthermore, our comments pertain to the East Fork of the Salmon River.

2 1)Issue: Range Management-Management Concern: Livestock Grazing- Alt 2 #4 = Restrictions on livestock use on the bighorn sheep winter range on the East Fork should be lifted as in Alt #3. Throughout the Stewardship Project on the Baker Allotments we would like to investigate time grazing on the bighorn sheep range. The vegetation on this range has become old and rank and the old wolf plants are dying. The sheep are spending less time on their range and more time on our irrigated pastures where vegetation is lush. By time grazing, the cows could graze off these old plants and allow new growth, break up the crusted soil to allow new seedlings and the retention of more water.

3 2)SRMAs-Alt 2 expands the SRMAs. BLM lands are already being managed and an expansion of management is not necessary but would only be an added expense for another group of administrators and biologists under a different title.
An increase in recreation on the East Fork by listing Road Creek on the "Wild Horse" Back Country Byway (as stated on page 117) would only intensify problems in an area BLM feels already has problems in resource and water quality. We feel Alt 1 is a better standard here.

4 3) Table 2-1: Issue: Range Management- Management Concern: Livestock Grazing =Alt 2 #14 We feel that if AUMs are held for watershed protection and wildlife habitat until vegetative objectives are reached, make sure the objective is obtainable and realistic so the AUMs can be reallocated. Lost AUMs is a financial loss for the rancher and the BLM. We prefer Alt 1 on this.

5 4)Table 2-1: Issue: Range Management- Management Concern: Livestock Grazing = Alt 2 #19 Livestock would be excluded from the designated recreation sites identified in *Appendix D, Item 1.* Ziegler's Hole Rec. Site and Jimmy Smith Lake Rec.Site are both in

Letter No. 25 *continued*

5 BLM allotments. Neither are developed campgrounds. How can you justify developing campgrounds alongside streams that are considered by BLM as critical andronomous fish habitat? Neither campground is fenced, so keeping the cattle out is not feasible. Throughout the Draft RMP livestock are noted for negative impact. This is easy to find on almost every page having to do with livestock issues. Reading through the Draft RMP we did not note where recreation was sighted as having negative impact on the resource. Overuse by recreationalists can be more damaging than that of cattle. The campsite at Jimmy Smith Lake is a good example of over use by recreationalists.Yet in Alt 4 you want to increase recreational usage by building a ATV trailway. We feel recreation should be addressed, planned for, and monitored along with all other uses of the resource.

6 5) On BLM maps, we want private property on the East Fork left out of BLM areas of management and study, since BLM does not have authority to manage or study private property. This would help show a truer interpretation and not a misleading portrayal of BLM management.

7 6) Management Concern: Minimum Streamflow Alt 2- The water belongs to the State of Idaho. BLM does not control the amount of water private landowners divert and so this should be removed from the RMPs. BLM has no right interfering with private water rights. It is stated that BLM is working with IDFG. BLM is busy enough without worrying about minimum streamflow and diversions. The landowners of East Fork are working with the Model Watershed on a habitat project. BLM does have a person on the advisory board and so will have representation without spending more time and money setting up a team to deal with something that is already being handled by the Idaho Department of Water Resource, IDFG, landowners, and Model Watershed. We feel the wording on Alt 1 should be used here.

8 7) Management Concern: Floodplain/Wetland Areas = Goal 2: Alt 2 #1 The use of troughs or "waterholes" ponds with seeps should be decided on a case by case bases, not a blanket one or the other. Soil conditions and spring flow rate are two conditions that help decide which water development is feasible. We do feel all spring heads should be fenced to keep livestock and wildlife out. Ponds should not be removed from BLM allotments because they can be beneficial to all users of the resource.

9 8) Page 546 also Page 99 *Appendix F* Range Conditions The data for range conditions was from 1977 or '79. This is not a realistic representation of the present resource condition. Many different progressive improvements have been implemented since 1979 such as: rest rotation system, numerous water developments, numerous drift fences,prescribed burns, later turn on dates, decreased numbers, increased riding; to name a few. The records the BLM Range Con has collected from '79 to '96 should be on

BLM Response to Letter No. 25

25-1: Your preference for Alternative 2, with exceptions, is noted. The BLM's responses to the exceptions you recommend are stated in responses 25-2 through 25-12 below.

25-2: In response to your comment and after consultation with the Idaho Department of Fish and Game, the BLM revised the decision you are concerned about (Livestock Grazing, Goal 1, #4, Alternative 2; DRMP, p. 351a) and the decisions listed under Wildlife Habitat Management, Goal 2, #6, 7, and 8, Alternative 2 (DRMP, p. 358a). The BLM believes the wording in the Proposed RMP clarifies the BLM's intent, which is to protect critical bighorn sheep and elk winter ranges and allow land uses which do not have substantial adverse effects on those winter ranges (see PRMP, Wildlife Habitat, Goal 1, #6).

25-3: Your concerns about the expansion of SRMAs and the nomination of the Road Creek road as a potential addition to the BLM's Back Country Byway program have been noted.

25-4: Your preference for Alternative 1 is noted. Realistic and attainable vegetative objectives would be developed as appropriate during activity planning (e.g., AMP development or revision).

25-5: Adverse effects of recreational activities are a concern to the BLM. The recreation management decisions described in the PRMP are intended to help alleviate recreation caused impacts to resources (see PRMP, Recreation Opportunities and Visitor Use). Please note that the beneficial and adverse impacts of recreation management to other resources were discussed for all alternatives in the DRMP - Chapter 4 (e.g., pp. 201-202, #14 and 15; p. 208, #5; p. 219, #23; pp. 240-241, #28-29, 33; p. 272, #20; p. 283, #26; p. 286, #46; p. 297, #22; and p. 317, #64.)

25-6: A text note has been added to all PRMP maps where public/private/State ownership is not fully depicted, explaining that land ownership status is shown on Map E and proposed management only applies to BLM lands.

25-7: Your preference for Alternative 1 is noted. Please see response 16-7.

25-8: Your opinions are noted.

25-9: At the time of the release of the Draft RMP, the table presenting a summary of upland range condition by allotment (Appendix F, Item 2) could only be updated to reflect the results of the 1994 range inventory affecting the Mountain Springs (San Felipe), Warm Springs, and Thousand Springs allotments within the Challis Planning Unit. Information from the rest of the 1994 and 1995 upland range inventories in the Challis Resource Area was not available until after the Draft RMP was released.

Letter No. 25 *continued*

file and should have been used for current, accurate data of the present range condition. Once again you contradict your statements. In response to page 100, drought in the late 1980's has not offset the improvements that have been made. We understood that part of
9 BLM's management duties was to monitor the range for changing conditions. You cannot plan the future of a resource using outdated data and untrue information. How can anyone choose the best alternative for managing the resource when the data used is 20 years old?

9) Page 101 - 104 on Range Monitoring and Factors affecting livestock management. You have just contradicted your previous statement. On page 103- Table 3-11 is a Summary of Existing Range Improvements. Every allotment is different and should be managed differently. It is unrealistic to use the same criteria for every allotment. You admit that the big game population has increased during the past 15 years and state that SOME persons attribute poor range condition to increased use by wildlife. This is
10 true. You should consider that the wildlife population remains there year round. Not only do decreased grazing numbers cause a financial hardship so does the increased loss of pasture on our private property also being utilized by the big game population. You paint a bleak picture of range conditions - yet you have the authority to control this. There are several other factors contributing to this picture other than cattle grazing. It is due to increased number of recreationists, greatly increased numbers of big game herds (elk), and weather conditions to name a few.

10) Vol 3 Pages 524 and 525 *Appendix C:* Summary of Fisheries Habitat Condition in Drainage's of the Challis RA - East Fork Salmon River Drainage = BLM has stated that habitat has significantly degraded over the past 30 years, bank stability is rated fair to poor on most private ground, and the private sections have unstable banks and channels as a result of poor grazing management in the riparian zones. This is untrue.

In the Model Watershed Plan prepared by: Idaho Soil Conservation Commission
11 in cooperation with: Bonneville Power Administration, IDFG, NRCS, Northwest Power Planning Council, Shoshone-Bannock Tribe, U.S.F.S. and the BLM it states under Chapter 6-2: East Fork of the Salmon River Watershed: Fish Habitat Conditions: "Overall, the quality and quantity of salmon habitat in the East Fork watershed is good and conditions have changed very little in the past 50 years. The major problem is simply a lack of returning adult fish." The landowners on the East Fork are working in cooperation with the Model Watershed on a habitat project. This involves approximately 10 miles of river corridor through private property on the East Fork.

SUMMATION: This report has been a frustrating draft to read. Under every alternative
12 that supported cattle was a comment only showing negative consequences. We do not feel this was a true picture or a fair interpretation to present to the public. It set grazing up for sure failure regardless of your alternative.

Letter No. 25 *continued*

We feel the management by BLM using utilization standards and stubble height
12 further set the rancher up for failure. We feel all involved parties must allow for flexibility in managing the resource to reach its full potential. If BLM biologists weren't so biased towards cattle grazing, there would be opportunities for innovation if we work together towards the common goal of protecting and enhancing the environment. We feel the community can benefit economically and still improve the resource for cattle, wildlife, recreation and future generations.

Sincerely,

We reserve the right to amend our above comments and protest.

BLM Response to Letter No. 25 *continued*

Recent analysis of these data suggests that improvement may have occurred on other allotments within the Challis Planning Unit because similar actions (intensive grazing systems, range improvement developments, etc.) were also implemented on those allotments. However, this general trend of improved upland range conditions may not have taken place on other allotments within the RA (especially those within the Ellis-Pahsimeroi and Mackay Planning Units), because similar grazing systems and range improvements were not implemented on many of them.

New inventories are proposed in the Challis RMP to update or complete condition and trend information for the various resources in the Challis Resource Area. As explained on page 100 of the DRMP, rangeland inventories to determine ecological seral stage are very expensive and typically take several years to complete on a Resource Area of this size. The effectiveness of past rangeland management actions was evaluated through an analysis of 120 upland trend studies, which included nested frequency and permanent photo plots. This analysis indicated that past management produced little or no change in resource conditions (see Rangeland Monitoring, DRMP, p 101). The Proposed RMP proposes that livestock grazing management changes (e.g., application of use standards, seasons of use, stocking levels) will be determined through monitoring and evaluation of those areas currently in a less than satisfactory condition (see PRMP, Livestock Grazing, Goal 1, #2 and 6).

Drought and other climate-related impacts have had an effect on the amount and extent of resource improvement on some allotments. The BLM agrees that those allotments that went through intensive management adjustments including decreased numbers, later on-dates, rest rotation, and new water and fence developments have come through the drought years in better condition than those that had few or none of the above-mentioned changes.

One overall goal of the Challis RMP is to improve range condition where it is presently unsatisfactory. In areas where range conditions are currently satisfactory, this goal may already have been achieved. There are, however, sites in the RA where conditions are unsatisfactory.

25-10: The discussion on pages 101-104 is meant to suggest several possible reasons why land use plan goals were not met. The BLM agrees that there are a number of other factors contributing to range conditions other than livestock grazing, such as major storm events, recreational activities, off-highway vehicle use, and wildlife numbers. However, livestock grazing is the one activity occurring throughout 97.2% of the Resource Area that has the most direct impact on range condition. For example, the IDFG (see Comment Letter Number 32) estimates that big game

populations take approximately 8 percent of the forage consumed by grazing animals in the Challis RA, while livestock consume approximately 92 percent. When compared with livestock use, other factors such as recreation and off-highway vehicle use have very minor impacts on range condition. The PRMP has been revised to acknowledge climate as a factor influencing rangeland condition and trend (see PRMP, Chapter 3, Livestock Grazing). Please see Chapter 4, Vegetation for a discussion of the expected impacts other actions would have on vegetation.

25-11: The fisheries habitat assessment for the East Fork of the Salmon River provided in the Challis DRMP, Appendix C, is very similar to the habitat assessment in the Model Watershed Plan (November 1995). The Challis DRMP, Appendix C, pp. 524-525, states that bank stability ranges from fair to good, with an overall good rating, that cobble embeddedness averages 33% or less, and that the East Fork of the Salmon River is still considered important spawning habitat for chinook salmon. This assessment is essentially the same as discussed in the Model Watershed Plan, Chapter 6, which states that the East Fork from mouth to Herd Creek has good bank stability, but needs improvement in streamside vegetative cover and spawning/incubation areas (page 6-5), and the East Fork from Herd Creek to Germania Creek has approximately 70% bank stability (which would be equivalent to a fair to good rating), that improvement is needed in streamside vegetative cover and bank stability (especially on private land), and spawning/incubation areas are limited by fines in the gravel, which are greater than 20%.

25-12: Like mineral development, livestock grazing is a type of use that does not produce direct beneficial impacts to other resources and programs, such as soils, water, and vegetation. However, the BLM does acknowledge the beneficial impacts of livestock grazing to the local economy (see PRMP, Chapter 3, Economy and Society). The PRMP attempts to balance multiple renewable and non-renewable "consumptive" uses (grazing, minerals, timber harvest) with maintenance or improvement of the basic resources which sustain renewable consumptive uses (vegetation, soils, water). Livestock grazing can be managed to allow continued use of the grazing resource without damaging other resources or precluding other uses (such as recreation). Flexibility and innovation in livestock grazing management are provided for in the PRMP through the potential application of knowledgeable and reasonable practices (see PRMP, Livestock Grazing, Goal 1, #7 and Riparian Areas, Goal 1, #4).

Letter No. 26

January 3, 1997

Ms. Kathe Rhodes
RMP Coordinator
Salmon Field Office
Bureau of Land Management
Route 2, Box 610
Salmon, Idaho 83467

Dear Kathe:

Happy New Year! I have (finally) gotten time to read the Challis Draft Resource Management Plan and EIS, and would like to compliment you on a job well done. The document, for the most part, is thorough and well prepared. I would not expect that you would receive many adverse comments to the document.

1 Of the alternatives presented, I agree that Alternative 2 should be the preferred alternative. I believe that the balance desired is achieved, although there will be a reduction in some present services; it appears that the reduction is necessary to improve range health and future services.

With that introduction and statement of support, I would like to point out some minor concerns and editorial comments:

2 1. P. 35, Alternative 3, Wild and Scenic Rivers, is it 5 or 6 segments?

3 2. P. 60. I am surprised at the length and detail of the discussion on the Fort Hall Reservation, since it is so far from the Challis Resource Area. I understand that the Tribe can use the resources of the area, and that some discussion of the Tribe characteristics has relevance, but it seemed that it was excessive for the RMP. I would not edit it for the final, however, since it does not hurt anything, other than change the focus of the document, for a few pages, many miles to the south.

4 3. P. 76. In the section Factors Affecting Fisheries Habitat and Production, the discussion should have been more oriented to the less scientific reader. At a minimum, substrate embeddedness should have been defined in the Glossary. For the less scientific reader, "gravels (0).25 to 2.5 inches (in diameter,

Letter No. 26 *continued*

4 spaced?) with velocities (of the water?) ranging from 0.5 to 2 feet/second." The abbreviated language may be confusing to some.

5 4. P. 79. "Sensitive Species:" I believe that the BLM Policy, since it is not readily available to most readers, should be provided, either stated here or provided elsewhere.

6 5. P. 81. Table 3-4. Is this the way forest land is classified? Everything is a problem, either being on fragile soils, problem reforestation sites, non-commercial species, non-suitable, etc. I would believe, based on this classification, that there should be no timber harvest allowed on the Resource Area, but all alternatives allow it.

7 6. P. 86. I think there should be some explanation why the harvest of timber is less than 50% of the sustained yield cut. I recognize that some WSA lands have been removed from harvest, but only 6200 acres of 31,000. Is there no demand for timber? If the timber is all on the problem sites, the sustained yield cut should be reduced to recognize the difficulties.

8 7. P. 95. Power Site Reservation or Classification. I believe that there should be an explanation of who does the reviews and the fact that this is not within the control (authority) of the BLM.

9 8. P. 147. Second line: dominant should be dominate.

10 9. P. 151. It should be clarified, in the second paragraph, whether or not these are Federal water rights filings.

11 10. P. 227a and b. Point 1, Alternatives 2 and 3. Based on the discussion in the text, I think a more positive statement about the positive effects of prescribed fire should be made. The same is true for point 3, alternative 2, P 228a.

12 11. P. 238a. Point 18, Alternative 2. I believe that this is a requirement under all alternatives, including Alternative 1, and should be so stated.

13 12. P. 557. I do not have a copy of the Idaho rules at home, so cannot check the entries in the Table, but I am concerned about the language in the introductory paragraph. "Listed beneficial use classifications were either identified by the BLM...." The Use Classifications are set by the Idaho Legislature on the recommendation by the DEQ. If there are uses identified, other than those designated by the State, they should be removed. If there is a need to identify those uses which exist, but are not designated, I would recommend that they be identified differently in the table or in another table.

BLM Response to Letter No. 26

26-1: Your preference for Alternative 2 is noted.

26-2: Under Alternative 3, five segments are found eligible and an eligibility determination is deferred on one additional segment, for a total of 6 segments. Please note that an eligibility determination on East Fork Salmon River "B" (EF-01b) was made in the PRMP (see PRMP, Wild and Scenic Rivers).

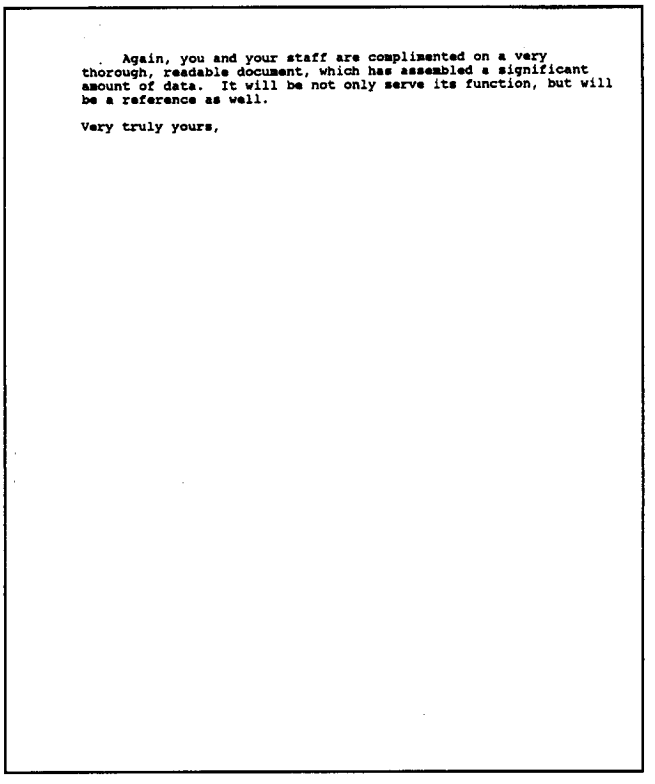
26-3: Information about the Fort Hall Indian Reservation was included at the request of the Shoshone-Bannock tribes to inform readers that the Tribes have made historic use of, and have a current social-economic interest in, the Challis Resource Area. The description of the Reservation was prepared to parallel the level of detail given in the description of the Lemhi County-Custer County area. This discussion of the affected environment was an essential first step in completing an analysis of impacts to tribal treaty rights and the Reservation economy and society.

26-4: Substrate embeddedness was not defined in the glossary; however, cobble embeddedness, which is essentially the same as substrate embeddedness, was defined. A cross-reference for substrate embeddedness has been added to the Glossary for the PRMP/FEIS.

The sentence you describe on page 76 should have been written as follows: "Spawning habitat for resident trout consists of gravels .25 to 2.5 inches in diameter, with water velocities ranging from 0.5 to 2 cubic feet per second." The PRMP includes this correction.

26-5: The current BLM policy on sensitive species as reflected in BLM manual section 6840 (Release 6-116; 9/16/88) is that the BLM shall carry out management, consistent with the principles of multiple use, for the conservation of sensitive species and their habitats, and shall ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as threatened or endangered. Reference to manual section 6840 is noted in the DRMP on pages 74, 129, and 162. Copies of this policy would be available to readers upon request.

26-6: The Timber Production Capability Classification system is used for all BLM forested land in Idaho, and is outlined at length in a supplement to BLM Manual Section 5251 (Release No. 5-10; 8/15/90). Some terms in the classification system (e.g., non-commercial species) indicate the site should be managed as woodland rather than commercial forest land. Other terms in the classification system (e.g., "problem reforestation site") point out various management considerations which should be taken into account when managing lands already classified as commercial forest lands. The Timber Production Capability Classification system's "problem site" classification was designed to alert forest managers to



Again, you and your staff are complimented on a very thorough, readable document, which has assembled a significant amount of data. It will be not only serve its function, but will be a reference as well.

Very truly yours,

potential difficulties in timber management so that such issues could be identified at the activity planning stage, rather than at or after project implementation. This would ensure that measures could be incorporated into projects that would eliminate or minimize such problems. For example, a site with the "Heat and Drought"' classification would use drought resistant lodgepole pine planting stock as opposed to Douglas-fir, and harvesting would seek to maximize shade patterns during the hottest period of the day.

26-7: (a) Although there is a demand for timber in the Challis RA, the sustained yield level estimate discussed on DRMP page 86 is higher than actual timber harvest for several reasons. First, forest products are not to be removed from Wilderness Study Areas (WSAs) currently under interim management guidelines (approximately 6,209 acres of commercial forest land) (Interim Management Policy for Lands Under Wilderness Review (7/5/95); p. 43). However, forest lands in the WSAs were included in the sustained yield level for Alternative 1 (existing management). Not harvesting in WSAs and moving the same harvest level to the remaining commercial forest land in the Challis RA would result in timber harvest significantly above the sustainable level on the non-WSA commercial forest land. To correct this problem, the sustained yield average described for Alternative 2 (and in the PRMP) removes forest lands in existing WSAs from the commercial timber base. Second, the sustained yield estimate for Alternative 1 is believed to be high because of the way it was calculated. All of Eastern Idaho BLM land was aggregated for the cut calculation, and most of the land designated as commercial forest land was higher in productivity than the Challis RA's forest lands. As a result, an elevated cutting level was likely projected on the Challis RA. For this reason the Challis RMP proposes to conduct an intensive forest inventory within 10 years. Third, conflicting resource values and issues may reduce the amount of commercial forest lands which can be made available for timber harvest in a given year. And fourth, until recently (1996) the Salmon Field Office's forest resources staff needed to spend most of their time on reforestation efforts in previously harvested sites which had inadequate regeneration.

(b) Problem site classifications ideally are reflected in the long term sustained yield harvest level. However, given the current situation discussed above regarding WSAs and harvest level calculation methods, problem reforestation and fragile site classifications may not be accurately reflected in the sustained yield level for Alternative 1. This is yet another reason for a conservative approach to timber harvest in the Challis RA until intensive inventories are completed.

26-8: Under section 204 (a) of the Federal Land Policy and Management Act of 1976, the Secretary of the Interior is

authorized to make, modify, extend, or revoke withdrawals. Field offices of the BLM analyze withdrawal proposals and make review recommendations to the Secretary. Clarification of the review process for power site classification and reservation withdrawals has been added to the PRMP/FEIS.

26-9: This typographical error has been corrected in the PRMP/FEIS.

26-10: The text has been clarified in the PRMP/FEIS to specify that these water rights claims have been filed by the BLM. All water sources on public land administered by the BLM were claimed under a state law basis (i.e., permit and license for beneficial use). In addition, all springs and waterholes on public land were reserved under Federal law by Public Water Reserve #107, dated 1926. Under the water right filing procedures defined by the Snake River Basin Adjudication (SRBA Court), water rights on springs and waterholes were filed having dual basis (i.e., being claimed both under State law as well as under Federal law).

26-11: The BLM feels the positive effects of prescribed fire are described adequately on p. 228, #3 and p. 232, #17. Many other factors besides fire can affect short and long term forest health and productivity (drought; disease/insect cycles; prescribed thinning, including timber harvest; historic vs. recent succession patterns *(i.e.,* fire suppression has altered site composition)). The positive effects of prescribed fire are not stated as an absolute "will occur" because many site-specific/event-specific factors will determine the nature of impacts from a given fire.

26-12: The analysis on p. 238, #18 refers to a management decision shown on pp. 380a/b (Management Concern: Water Quality, Goal 1, #2). In this decision the DRMP states that State approved BMPs for water quality must be followed under all alternatives. The different analysis shown under Alternative 1 reflects the fact that in the past (existing management), State approved BMPs were not available for many activities. Under Alternatives 2-5, State approved BMPs would be met or exceeded for all BLM authorized actions.

26-13 You are correct that the BLM cannot designate beneficial uses. The table on page 557 clearly differentiates between streams where the Idaho Department of Health and Welfare, Department of Environmental Quality has designated a beneficial use (labeled "D, S/T, P, U"), and those streams where the BLM has made a tentative identification of a beneficial use (labeled "x"). The BLM used the protocols in Idaho Department of Health & Welfare, Division of Environmental Quality, 1991, "Protocols for Conducting Use Attainability Assessments for Determining Beneficial Uses to be Designated on Idaho Stream Segments," *Water Quality Monitoring Protocols*, Report Number 7 to identify

BLM Response to Letter No. 26 *continued*

beneficial uses for stream segments. The BLM will continue to use these as water quality standards until such time as DEQ is able to assess all streams in the Resource Area for beneficial uses.

Letter No. 27

STATE OF IDAHO

(original) of fax

DEPARTMENT OF AGRICULTURE

PHILIP E. BATT
Governor

PATRICK A. TAKASUGI
Director

January 6, 1997

Ms. Kathy Rhodes, RMP Coordinator
Challis Resource Area
Salmon Field Office
Bureau of Land Management
Route 2, Box 610
Salmon, ID 83467

Dear Ms. Rhodes:

Attached are our comments to the May 1996 Challis Resource Area Draft Resource Management Plan and Environmental Impact Statement. We trust that our comments will be useful in preparing the final RMP. We appreciate the extra review time you provided in extending the comment period.

Sincerely

Patrick A. Takasugi
Director
Idaho Department of Agriculture

PAT:pc
encl.

BLM Response to Letter No. 27

27-1: The BLM agrees that the Challis Experimental Stewardship Program (ESP) has played a valuable role in management of the public rangeland in the Stewardship area. The BLM disagrees, however, that it is "imperative" to elaborate further on that program in a narrative discussion in the Proposed RMP/Final EIS (PRMP/FEIS). ESP's involvement was summarized in the DRMP in Chapter 5 - Consultation, Coordination, and Consistency (p. 341). The successes and/or failures of ESP proposals (as well as all other management strategies) applied to the public lands in the Challis Resource Area are reflected in the present condition of the rangeland resources. The Experimental Stewardship Program Report of December 1984, and subsequent reports further elaborate on the results of ESP. The BLM continues to support all opportunities, including partnerships with ESP, to improve the range condition of lands under grazing permits within the planning area.

27-2: (a) Please see response 15-2.

(b) The BLM recognizes all the various components involved in determining rangeland health, and does not base assessments of range condition solely on livestock utilization data.

Letter No. 27 *continued*

The Idaho Department of Agriculture offers the following comments regarding the May 1996 Challis Resource Area Draft RMP and EIS:

General

1. We were greatly surprised and disappointed that the draft hardly mentioned the Challis Experimental Stewardship Program (the only mention we could find was on page 341). It seems clear that the BLM would like to forget about the ESP program. Why? There is no single program in the Challis area that has impacted federal land management as much as Stewardship and the BLM has allocated significant human and fiscal resources to it's support since 1979. Salmon BLM District Managers have chaired the Steering Committee. BLM managers at all levels have voiced support for it and praised it's accomplishments both in improving communication and trust and in affecting positive change on the land. It is a great disservice to both the BLM and to the people of the Challis area to ignore the effort that has gone into this program. 1

If this document is to have any credibility at all it is imperative that a fair discussion of the ESP program, including its' successes and failures, be incorporated in the final. To imply as you have on page 341 that the Challis ESP is just a club or organization such as the Chamber of Commerce to which the BLM provided background information is outrageous. Finally, this is an opportunity for the BLM to dispel any doubts about how it views Stewardship and declare whether it will continue to support the ESP program in the future.

2.a 2. We are also concerned about the liberal use of supposition and the lack of factual data in discussing the present condition of rangeland resources in the Challis Resource Area. We realize that BLM human for resources have been taxed in the intervening years between the Challis Grazing EIS and this document. Rangeland condition and trend monitoring is a time consuming activity and there is rarely sufficient data to make clear determinations. Why don't you simply admit that you have insufficient hard data to support your perceptions of declining conditions? In fact, as you know, recent information collected by the San Felipe ranch indicate quite the opposite. Furthermore, if BLM's perception of declining range condition is based only on utilization data, fairly recognize in the document that utilization is a surrogate, perhaps the most subjective of all the monitoring techniques, and only one of several to be used in combination in deterring rangeland health. 2.b

3. In presenting and discussing the various alternatives, it is implied that each is exclusive of the other. Accelerating the development of AMPs and *effective* management strategies could be employed with the existing "level of use and resource protection" So could an effective weed management program, improved riparian management, wider use of prescribed fire, etc. It is obvious that the BLM line, consistent with the current national policy, is that reductions in stocking levels is the cure-all. This has never resolved management problems in the past, so why should we believe that it would do so now? 3

Letter No. 27 *continued*

3 If BLM can obtain the resources to advance management capability as purposed under alternative # 2, why can it not obtain those same resources to make the needed improvements without major reductions in grazing and the demise of many ranchers as well as the communities which depend on their economic well-being?

4. The RMP Team would do well to reconsider the resource condition goals based on ecological status. This is a concept which is dying because of the increasing evidence that the Clementsian theory of linear succession is invalid. We recommend that the team review the "Livestock Grazing" section (Chapter 2- Affected Environment) of the Upper Columbia River Basin draft EIS. This presents a fair and impartial discussion of the weaknesses of current successional theories and the need to look to emerging ones. 4

SPECIFIC COMMENTS

Volume 1

Page 8: 2nd sentence use "vegetation" not "vegetative". (There are many instances throughout the document where "vegetative" is used erroneously instead of "vegetation"). Also, "...primarily comprised of bluebunch wheatgrass/big sagebrush or Douglas fir" is hardly useful information. Either drop or at least differentiate between forested and non-forested communities. 5

Page 15: "BLM Policies and Initiatives"

You cite the document "The State of the Public Rangelands 1990, The Range of Our Vision (1990). This document was disavowed by new BLM Director Baca in 1994. After all, it stated that public rangelands were in the best condition in the last 100 years...a statement not supportive of Baca's Range Reform ideas. 6

Page 16: You should add to the list of MOU's, the April 1989 MOU between the Idaho Department of Agriculture and the Idaho State Director BLM for "...consultation, cooperation, and coordination..." in using the Section 8 process in Idaho to resolve conflicts between permittees and the BLM in matters related to AMP's. 7

Page 33: Vegetation What evidence is provided that "current allocations would not be sufficient for plant maintenance needs"? Even if there was evidence that plant maintenance needs were not being met, how is that related to "allocation" or stocking rate? Vegetation changes or maintenance is related equally **timing, intensity and duration of use** not to "allocation". 8

BLM Response to Letter No. 27 *continued*

27-3: The Draft RMP alternatives are purposely designed to look different from each other; a Draft RMP presents a range of alternative Resource Management Plans. Please note that Alternative 2 and the Proposed RMP carry forward many actions which are valid existing management and were listed as decisions under Alternative 1. The Proposed RMP was developed in response to public comment and is based upon Alternative 2, yet incorporates some aspects of Alternatives 1, 3, 4, and 5. Alternative 2 does not propose major reductions in grazing. The estimated 25% reduction in average annual livestock use stated in the analysis of impacts (DRMP, p. 235a) depends on permittees' actions to improve livestock management and is not an absolute AUM reduction. This estimated reduction in actual use is the BLM's analysis of impacts to the livestock grazing program, assuming RMP actions to achieve needed improvements in resource conditions are implemented, and permittees make no substantial adjustments in their livestock management. These potential reductions (mainly in time on public lands) could be offset by permittee actions to manage livestock (e.g., riding, salting, fencing).

27-4: The BLM agrees there is an on-going debate over the proper model to use in describing vegetative succession. Unfortunately, disagreement continues as to which specific model should replace the old straight-line model proposed by Clements (1916) and others. In the absence of universal acceptance of an alternative model of succession, the Challis Resource Area is using the succession-retrogression model described by Dyksterhuis (1949), as it has been BLM, Soil Conservation Service (now the Natural Resources Conservation Service), and Forest Service policy to do so for many years. The BLM currently uses the concept of Potential Natural Community as described in the Soil Conservation Service (Natural Resources Conservation Service) site guides. Potential Natural Community for the Challis Resource Area is based on the local Custer-Lemhi soil survey (referred to in the DRMP, p. 119). Throughout the PRMP, however, are instances where an interdisciplinary team can vary from the goals and objectives shown in various decisions, provided there is a sound ecological basis for the variance.

27-5: This portion of the Summary has been revised in the PRMP/FEIS.

27-6: The BLM believes this is a valid and reasonable document to list as one of the existing BLM Policies and Initiatives used during preparation of the Challis RMP. The policy was not formally changed or abandoned by Director Baca or subsequent BLM Directors.

27-7: Omission of the April 1989 MOU between the Idaho Dept. of Agriculture and the Idaho State Director- BLM was an oversight; reference to the MOU has been listed in the PRMP/FEIS as a correction to the Draft RMP.

Letter No. 27 *continued*

9 There is also good evidence that the "potential for noxious weeds to invade and spread" can only be reduced by an effective weed management program. Why should that be different irrespective of the alternative?

10 **Page 36:** Again you raise the contention that "forage allocation" is the deciding factor in vegetation vigor, health etc. when it is only one factor in managing vegetation (see comment from page 33).

11 **Page 97:** (1st full paragraph, last sentence) You imply that the current practice "...livestock must be off during the summer months (when hay is being produced) in order to have a viable, year-around livestock operation" is the only one possible. Not so. Considering current economic conditions, there may be good reason to reexamine the cost of traditional haying practices with a look toward use of standing hay crops.

12 (Last paragraph, last sentence: Correct as follows: "In order to address these concerns, most of the AMP's for the 40 allotments would be revised under...".

13a **Page 101 & 102:** If the facts are as BLM implies ("These data seem to indicate that current management has not met existing land use plan objective to *improve* range condition in the Resource Area") why not simply state that grazing management changes (timing, intensity, and duration) will be adjusted as necessary instead of "fishing"?

13b To imply that there is a "true" capacity defies our understanding of the dynamic nature of ecosystems. There are simply too many variables to assume that there is a magic number. This statement is extremely naive and foolish.

14 **Page 103:** Do not use the term "reinvasion" when describing increased shrub cover or density. The term reinvasion implies that shrubs are alien when they are natives and always a significant component of sagebrush/grass communities. Furthermore, to imply that because sagebrush and other native shrub species continue to increase after prescribed fire treatment, the treatment is "questionable" is certainly an over-generalization and should be deleted. Also, there is no evidence that a post treatment rest of "2 or 3 growing seasons" is required. In fact, carefully timed use in the years immediately following the treatment can be beneficial.

15 **Page 104:** Either use the term "ecological status" or "range condition" but not "ecological range condition" This only confuses readers and is not consistent with the excepted terms nor your own glossary.

16 The subject of range "suitability" for grazing has always been controversial because of its subjectivity. If you intend to apply suitability in future management, please define the term and how it will be applied. It is not defined in the glossary nor in any detail in the text.

Letter No. 27 *continued*

17 "Noxious weed continue to spread within the Resource Area, in spite of a control program undertaken by Custer County under agreement with the BLM". This is true of every county in Idaho and in most of the West. How do you intend to reverse this trend on the public lands? That fact that noxious weeds continue to spread has nothing to do with the agreement per se but with how the agreement is carried out and what resources are made available.

18 **Page 129:** Vegetation management practices, in order of priorities: 1) preventive 2) non-use chemical where feasible, 3) herbicides after considering everything else. Considering the safety of modern chemical and the ineffectiveness of current weed management, we believe there is good reason to consider much more emphasis on instant action with the best known method. Harm to the environment is likely to be much less with the use of herbicides than with the spreading weeds.

19 **Page 144:** (1st full paragraph) "Poisonous plants, while posing a threat to livestock, are not designated as noxious weeds." This sentence should be revised to read " Most poisonous plants or most native poisonous plants..." Poison hemlock is poisonous to livestock and is on the list.

20 **Page 145:** Table 3-29, the Idaho noxious weed list is inaccurate. The Resource Area should request an updated list, along with the law and rules, from the Custer County weed supervisor.

21 **Page 152:** The statement "Coliform levels at BLM sites below private land are nearly always higher than at BLM sites above private land." is puzzling. What are you implying—that the coliform comes from private land? If so, does the same thing apply to private land below BLM Land (which is very common)?

22 **Page 180:** The idea that you would even mention methane production from livestock in an air quality analysis on rangelands in the Challis area is ludicrous.

23 **Page 187:** "Livestock grazing management decisions may reduce adverse effects on special status anadromous and resident fish populations and fish habitat." Does this simply relate to stocking reductions? If so, say so. Otherwise, elaborate.

24 **Page 191a:** "Grazing use is expected to be lighter in riparian areas and adjacent upland sites.....Many plant communities maintained in early seral stages by livestock grazing under alternative 1 may advance to mid-seral stage under Alternative 2." Again, broad sweeping statements used to fill up space. There is no detail given to determine whether such statements are justified.

25 **Page 205a:** In # 2, Alternative 2, an estimated 25% reduction in AUMs is planned (12,658 AUMs), resulting in a "negligible" decrease on the regional level. This could be true, but the impact on some individual communities would be much worse, and even

BLM Response to Letter No. 27 *continued*

27-8: The absence of appropriate plant composition, age structure, and vigor on many upland sites within the Challis Resource Area indicates that plant maintenance needs are not being met under existing management. Review of current allocation levels indicates that the ratio of existing consumptive use is not properly balanced to provide for plant maintenance and watershed protection. (The Management Framework Plans indicate that 50% residual forage is essential for watershed protection and plant maintenance needs.) This current imbalance among plant use allocations may have led to some range sites and riparian systems within the Resource Area exhibiting a static or downward trend. The DRMP analyzes the effects of vegetative allocations in Chapter 4, pages 191a (#6); 278a (#1 and 2); and 279a (#5, 6 and 7). In Chapter 3, forage allocation and rangeland condition and trend are discussed on pages 99 and 100.

The BLM agrees that the factors affecting plant maintenance are related to the timing, duration, and intensity of grazing use. However, plant maintenance is only one component of the residual plants' overall benefits to the water and energy cycles. Litter, cover, microbiotic crust, and other components enhance the watershed's ability to resist erosion, allowing sites to retain water available for plant growth. Static to downward trends on range sites indicate to land managers that some components essential to rangeland health are either not present, and/or that those components which are present are not functioning to their potential. The PRMP proposes a variety of utilization and residual herbaceous material requirements to provide for not only plant maintenance, but also watershed health (increased cover) and riparian function (increased hydric species).

27-9: The potential for noxious weeds to invade and spread does not vary by "action" alternative; Alternatives 2 through 5 propose an effective weed management program. Existing management (Alternative 1) is not effective.

27-10: Please see response 27-8 above.

27-11: The PRMP/FEIS contains revised wording of the sentence mentioned in your comment.

27-12: The PRMP/FEIS contains clarified wording of the sentence you are concerned about.

27-13: (a) The "action" alternatives (Alternatives 2 through 5) all propose changes in livestock grazing management in order to improve resource conditions. These management decisions are described in Volume 2 - Description of Alternatives, rather than in the Affected Environment. The analysis of impacts for Alternative 1 provides details to support the BLM's statement that current grazing management has not met land use plan objectives to

25 more so on individuals. This is in addition to anticipated increases in livestock management costs (page 206a, alternative 2, 1st paragraph).

26 Page 236a: #3- Again, the polly-anna notion that reducing stocking rates will be the driving force is improving forage quality. After 50 years of reductions, we ought to consider something else.

Volume 2:

Page 363a: Good noxious weed goals and strategies. We are pleased to see that a weed-free hay requirement for commercial stock or wildlife is planned.

27 Page 364a: "Sensitive areas would be treated initially with non-chemical alternatives." Why not just get in and eradicate the weed with the best method available whether it be chemical or non-chemical. If anything less than the best method is used, there is a greater risk of the infestation escaping.

Volume 3:

28 Page 546: The San Felipe allotment appears to be in very good condition, compared to the other allotments. Could this be the case for most of the other allotments if an updated inventory were carried out?

improve range condition (see DRMP, pp. 278-280, #1-12 and p. 281, #16-18).

(b) Alternative 2 does not propose a "true" capacity, but rather ties stocking levels to resource condition objectives for various resources: aquatic habitat, riparian condition, residual cover and food for wildlife species, etc.

27-14: Portions of the paragraph you commented on have been revised in the PRMP/FEIS in response to your comments.

27-15: The PRMP/FEIS has been revised in response to your comments.

27-16: No PRMP decisions identify or require the use of suitability criteria. A definition of "suitable ranges" has been added to the Glossary for the PRMP/FEIS.

27-17: The PRMP proposes an integrated weed control program which is expected to be effective through the efforts of all partners named in existing and future cooperative agreements (see PRMP, Noxious Weed Infestations).

27-18: (a) The Challis Draft RMP incorporates the FEIS Vegetative Treatment on BLM Lands in 13 Western States by reference (DRMP, p. 129), and must adhere to its priorities and Standard Operating Procedures.

(b) The Draft RMP action alternatives (Alternatives 2 through 5) and the PRMP propose integrated pest management, and allow for chemical control; the RMP contains this flexibility to use a mix of weed control strategies in order to minimize adverse environmental impacts and maximize the effectiveness of noxious weeds treatments.

27-19: The sentence you are concerned about has been revised in the PRMP/FEIS.

27-20: The noxious weed list depicted in Table 3-29 has been updated in the PRMP/FEIS.

27-21: Generally, the combination of pasture irrigation and livestock along streams and rivers on private land result in higher coliform levels downstream. Livestock on privately owned lands are often concentrated in pastures adjacent to streams, and irrigation runoff from the pastures delivers fecal matter into streams, increasing fecal coliform counts downstream. This happens regardless of where BLM land is located. Fecal coliform levels in streams flowing through and downstream of public land are generally lower than coliform levels downstream of private land. Livestock and wildlife on public lands are normally dispersed over a larger area, often farther away from rivers and streams, with no irrigation runoff to increase input of fecal matter to streams.

27-22: This topic was discussed briefly in the Draft RMP to address concerns from readers who may envision a "feedlot" environment and might view methane production as an air quality issue.

27-23: This analysis point purposely says "livestock grazing management decisions" (*i..e.*, plural) because it summarizes impacts from many management decisions listed under Management Concern: Livestock Grazing (see DRMP, Volume 2). Although livestock grazing management within the Herd Creek and Road Creek watersheds could include stocking rate reductions in some cases, the management decisions and analysis do not state or imply that stocking rate reductions are the BLM's preferred grazing management option.

27-24: This analysis is based on impacts from all the Draft RMP decisions shown under Management Concern: Livestock Grazing (pp. 350-355) and Management Concern: Upland Watershed (pp. 367-368).

27-25: The following information is in response to your comment that "the impact on some individual communities would be much worse" than the impacts to the regional economy. Table 4-2 (DRMP p. 211) displays the estimated quantitative impacts to the agriculture sector, by county, for Alternative 2. Because the economic model estimated only 11 jobs decrease would occur in Custer County, the cell size is too small to analyze for each of the 4 subregions in that county. However, the BLM can estimate a "worst case" impact to the subregion most dependent on agriculture: If, hypothetically, the subregion most dependent on agriculture in Custer County (*i.e.*, the Pahsimeroi subregion, where 84% of subregion's employment and 96% of earnings are in the agriculture sector - see Appendix B, Items 2 and 4) lost ALL of those 11 jobs, this would be a 16% decrease in employment (11 of 68 jobs) and a 9% decrease in earnings ($255,000 divided by $2,823,000). Under this hypothetical situation, the economic impacts to the Pahsimeroi subregion would be greater than the impacts to the regional economy. However, it is highly unlikely all economic impacts would be in one subregion, since the regional economy is interconnected among subregions.

27-26: Please note that the Draft RMP proposes to establish proper stocking levels in the context of revised grazing management, and not as an isolated action. Proper stocking rates and changes in livestock grazing management would both contribute to improved vegetation composition and vigor and improved forage quality.

27-27: (a) Your support for the noxious weed goals and strategy are noted. (b) Chemical eradication of target weed species is not always appropriate because these areas are sensitive. In many cases, chemicals cannot be used in these areas because of legal label restrictions.

27-28: Please see response 15-2, paragraph 2.

Letter No. 28

January 2, 1997

Ms. Kathe Rhodes
RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2 Box 610
Salmon, Idaho 83467

Dear Ms. Rhodes:

The Challis Draft RMP provides an inappropriately bleak, assessment of resource conditions and will further provoke the already contentious fight over resource use in the Challis area. In numerous instances the RMP exaggerates resource problems or assumes resource problems without a factual basis and suggests management actions based on inappropriate assumptions of cause and effect. The Draft RMP, rather than being an objective assessment and analysis of reasonable management actions, verges on promoting the environmental agenda and extending the Bureaus' authority well beyond public lands.

The following are some specifics which illustrate the lack of objectivity in the Draft RMP:

1 Page 52 - The table on Road Creek proposed ACEC twice states that riparian conditions are poor. In fact Road Creek riparian conditions are good and this statement is incorrect and misleading. This is not an objective description of current condition on Road Creek. Refer to EOY monitoring reports prepared by the BLM on San Felipe Allotment 95 and 96.

Letter No. 28 *continued*

-2-

2 Page 76 & 77 - Fisheries habitat and factors affecting fisheries habitat and production: This entire discussion claims poor anadromous and resident fish production is the result of poor fisheries habitat and irrigation diversions. This is an exaggeration of habitat problems and lack of recognition of fish passage problems through the many dams on the lower Snake and Columbia River systems. This biased discussion leads the reader to believe land use is the main cause of Salmon and Steelhead population declines. This same biased message is found on page 6 and again in the second paragraph of page 526 (volume 3). These biased assessments appear to be an attempt by the RMP authors to justify unreasonable and unnecessary restrictions on public land use and to extend BLM control beyond beyond public lands to regulate private water rights and irrigation diversions. The discussion on page 536 of volume 3 goes far beyond the Bureaus' legal authority and reflects an environmental agenda that is radical and destructive of the local communities. Furthermore it is not justifiable by the biologic conditions of resources as they currently exist.

3 Page 101 & 102 - This discussion of range condition and trend is atrocious. The statement that "current management has not met existing land use plan objectives to improving range condition.." is a shakey conclusion based on flawed assumptions and inadequate data. How can it be logically concluded that current management is inappropriate when the trend data was analyzed in 1992 after nearly a decade of severe drought. Even at that only three trend data sets of 120 studies showed a downward trend. What kind of a rationale could justify this conclusion? The impact of prolonged drought on range trend or condition is not even mentioned in the discussion on page 101 (last paragraph) or on page 99 (next to last paragraph).

On page 101 and 102 there is a lengthy analysis of why land use plan objectives have not been met. Again only livestock grazing aspects are considered. Yet one of the most obvious possibilities would be to at least consider that the objectives are flawed and/or unattainable. Those objectives were based on the 1977 ESI Inventory which supposedly showed most public lands in the Challis Resource Area to be in poor or fair condition. However, this was a flawed document which was challenged by the range science community and the Society for Range Management virtually from the date of issue. The methodology used in the 1977 inventory was later discredited and there is good reason to believe this 1977 assessment was inappropriately disparaging of range condition. The land use plan objective to improve range condition was based on the 1977 results.

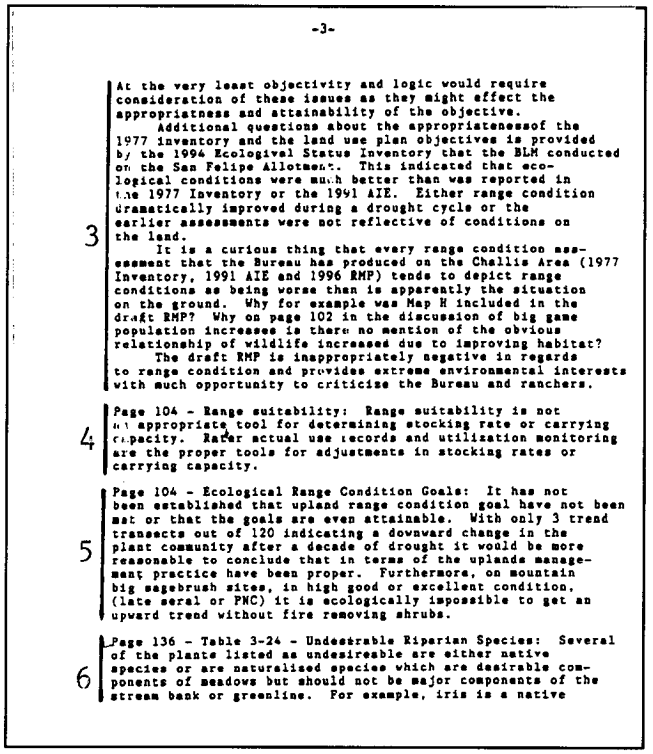
BLM Response to Letter No. 28

28-1: Table 3-2 on page 52 reflected a subjective assessment of conditions on the ground as they existed at the time the Draft RMP was started in approximately 1991. The BLM acknowledges conditions have improved along Road Creek since that time; the PRMP has been revised to reflect this fact. Because the Road Creek watershed was not designated as an ACEC in the PRMP, the portion of the document describing Relevance and Importance within this watershed has been deleted. For your information, ongoing riparian functional condition assessments were last displayed in the 1997 riparian report for the Challis Resource Area, which listed the following riparian conditions for Road Creek: 35% in proper functioning condition and 65% functional at-risk, with an upward trend.

28-2: (a) The Affected Environment describes the condition of affected resources within the planning area, which in this case encompasses the Challis Resource Area. Although actions on public lands within the Challis RA may impact downstream waters, BLM cannot manage migration and adult habitat for anadromous species once they leave the public lands for waters in the Columbia River system and the ocean. BLM does indicate that factors beyond the Challis RA limit anadromous fish survival (see DRMP, p. 77, paragraph 2). That is why interagency and Northwest regional cooperation which addresses multiple factors in anadromous fish survival is necessary. The Challis Draft RMP Affected Environment must, however, describe resource conditions and uses relevant to fisheries habitat conditions of waters within RA boundaries. The Affected Environment describes conditions on non-public lands to provide a context for a cumulative effects analysis. The DRMP presentation on irrigation diversions in Appendix C: Fisheries, Item 8, page 536; the Appendix Table C-3 listing Irrigation Diversion Structures on Public Lands (p. 537); and Appendix C, Item 4, pages 520 and 521 which describes fisheries habitat condition along privately-owned as well as BLM-administered segments, are all included in the document to provide sufficient background to analyze cumulative effects.

(b) Irrigation diversions, both unscreened and screened, are a major limiting factor for fisheries management, for the reasons stated on page 536. Table C-3 on page 537 lists forty-three unscreened diversions that result in either a reduced flow, or a dry stream channel on public lands. The BLM recognizes that Snake and Columbia river dams increase mortality rates of migrating anadromous fish; however, data show substantial mortality of outmigrating steelhead and chinook smolts occurs before they reach the uppermost dam, Lower Granite. The National Marine Fisheries Service and Idaho Department of Fish and Game estimate that only 21% of spring/summer chinook released from the Sawtooth Fish Hatchery and 37% of spring/summer chinook released from the Pahsimeroi Fish Hatchery reach Lower Granite Dam (NMFS, 1997). The

Letter No. 28 *continued*



-3-

At the very least objectivity and logic would require consideration of these issues as they might effect the appropriatness and attainability of the objective.

Additional questions about the appropriateness of the 1977 inventory and the land use plan objectives is provided by the 1994 Ecological Status Inventory that the BLM conducted on the San Felipe Allotment. This indicated that ecological conditions were much better than was reported in the 1977 Inventory or the 1991 AIE. Either range condition dramatically improved during a drought cycle or the earlier assessments were not reflective of conditions on the land.

3 It is a curious thing that every range condition assessment that the Bureau has produced on the Challis Area (1977 Inventory, 1991 AIE and 1996 RMP) tends to depict range conditions as being worse than is apparently the situation on the ground. Why for example was Map H included in the draft RMP? Why on page 102 in the discussion of big game population increases is there no mention of the obvious relationship of wildlife increased due to improving habitat?

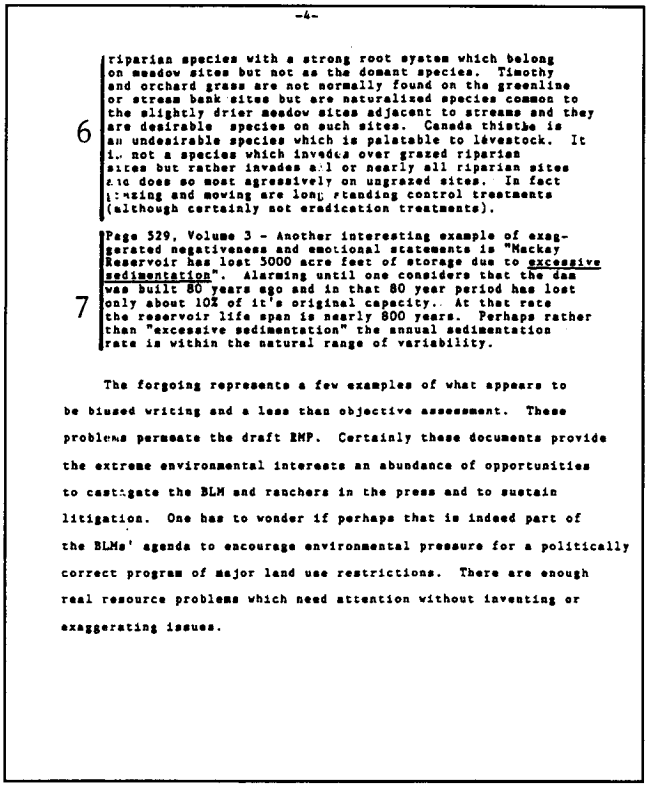
The draft RMP is inappropriately negative in regards to range condition and provides extreme environmental interests with much opportunity to criticize the Bureau and ranchers.

4 Page 104 - Range suitability: Range suitability is not an appropriate tool for determining stocking rate or carrying capacity. Rather actual use records and utilization monitoring are the proper tools for adjustments in stocking rates or carrying capacity.

5 Page 104 - Ecological Range Condition Goals: It has not been established that upland range condition goal have not been met or that the goals are even attainable. With only 3 trend transects out of 120 indicating a downward change in the plant community after a decade of drought it would be more reasonable to conclude that in terms of the uplands management practice have been proper. Furthermore, on mountain big sagebrush sites, in high good or excellent condition, (late seral or PNC) it is ecologically impossible to get an upward trend without fire removing shrubs.

6 Page 136 - Table 3-24 - Undesirable Riparian Species: Several of the plants listed as undesireable are either native species or are naturalized species which are desirable components of meadows but should not be major components of the stream bank or greenline. For example, iris is a native

Letter No. 28 *continued*



-4-

6 riparian species with a strong root system which belong on meadow sites but not as the domant species. Timothy and orchard grass are not normally found on the greenline or stream bank sites but are naturalized species common to the slightly drier meadow sites adjacent to streams and they are desirable species on such sites. Canada thistle is an undesirable species which is palatable to livestock. It is not a species which invades over grazed riparian sites but rather invades all or nearly all riparian sites and does so most agressively on ungrazed sites. In fact grazing and mowing are long standing control treatments (although certainly not eradication treatments).

7 Page 529, Volume 3 - Another interesting example of exaggerated negativeness and emotional statements is "Mackay Reservoir has lost 5000 acre feet of storage due to excessive sedimentation". Alarming until one considers that the dam was built 80 years ago and in that 80 year period has lost only about 10% of it's original capacity. At that rate the reservoir life span is nearly 800 years. Perhaps rather than "excessive sedimentation" the annual sedimentation rate is within the natural range of variability.

The forgoing represents a few examples of what appears to be biased writing and a less than objective assessment. These problems permeate the draft RMP. Certainly these documents provide the extreme environmental interests an abundance of opportunities to castigate the BLM and ranchers in the press and to sustain litigation. One has to wonder if perhaps that is indeed part of the BLMs' agenda to encourage environmental pressure for a politically correct program of major land use restrictions. There are enough real resource problems which need attention without inventing or exaggerating issues.

BLM Response to Letter No. 28 *continued*

BLM is an active member of the Model Watershed Program, as are several landowners, state agencies, and other federal agencies. This group has collaborated on several projects designed to restore and enhance both native and anadromous fish habitat, mostly through diversion redesign, consolidation, and screening.

28-3: (a) The section describing Rangeland Monitoring and Evaluation has been revised in the PRMP to incorporate more current information. Inventories and monitoring are proposed in the PRMP to update or complete condition and trend information for the various resources in the Challis Resource Area. Please also see response 15-2.

(b) The BLM agrees that drought and other climate-related impacts should also have been listed as a reason for lack of resource improvement. Chapter 3 has been revised in the PRMP to acknowledge climate as an important factor in resource condition and trend.

(c) The objective of the RMP is to improve range condition where it is presently unsatisfactory. The PRMP proposes that livestock grazing management changes (e.g., application of use standards, seasons of use, stocking levels) will be determined through monitoring and evaluation of those areas currently in less than satisfactory condition (see PRMP, Livestock Grazing, Goal 1, #2 and 6).

28-4: The BLM agrees that range suitability alone is not an appropriate tool for determining stocking rate or carrying capacity. BLM's preferred method to monitor and adjust stocking rates is through utilization pattern mapping, along with implementation of utilization standards for key livestock forage species. PRMP decisions under Livestock Grazing, Goal 1, #2, 6, 7 specify that levels of livestock use will be determined for various allotments based upon monitoring.

28-5: Livestock Grazing, Goal #1 states that 40% of uplands within the Resource Area should be Late Seral to PNC, meaning within the range of these high seral states. Livestock Grazing, Goal 1, #10 allows an interdisciplinary team the flexibility to determine if some other Desired Plant Community would better meet the goals of rangeland health. The BLM believes the RMP's goal for rangeland condition is realistic and obtainable, as indicated by recent improvement in upland conditions in the Mountain Springs (San Felipe) Allotment and favorable trends in the Herd Creek and Warm Springs allotments. These positive results were obtained by modifying livestock management actions and applying use standards, while still providing for significant livestock grazing.

28-6: Undesirable characteristics of some riparian species, as depicted in Table 3-24, are discussed in the last paragraph on page 131: "Other common riparian species are classified

as 'undesirable' because they are indicators of reduced functioning or they replace species with high functional values." In contrast, desirable riparian species are those with extensive root systems that typically comprise the majority of the hydric plant species found adjacent to the stream zone in highly functional systems. These species are the most resilient to water flow and hold streambanks together during peak flows. Those species on the list of undesirable riparian species do not have the same beneficial characteristics; many are introduced species, and the intent of Table 3-24 was to list plants with characteristics that are less than desirable for **riparian** health and function.

28-7: BLM agrees that the term "excessive" as it relates to the sedimentation rate of Mackay Reservoir is not appropriate. As you point out, the annual sedimentation rate for this reservoir appears to be within the natural range of variability. The paragraph has been dropped from the PRMP.

Letter No. 29

IDAHO DEPARTMENT OF LANDS

EASTERN IDAHO AREA
3563 Ririe Hwy, Idaho Falls, Idaho 83401
Phone (208) 525-5396 Fax (208) 525-2834
Text Phone (800) 377-3529

STANLEY F. HAMILTON - DIRECTOR

BOARD OF LAND COMMISSIONERS
PHILIP E. BATT Governor
PETE T. CENARRUSA Secretary of State
ALAN G. LANCE Attorney General
J.D. WILLIAMS Controller
ANNE C. FOX Sup't of Public Instruction

Kathe Rhodes, RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

Dear Ms. Rhodes:

Thank you for providing the Idaho Department of Lands, Eastern Idaho Area, an opportunity to comment on the draft Challis Resource Area - Resource Management Plan (RMP).

The Idaho Department of Lands manages close to 50,000 acres of State endowment land within the borders of the Challis Resource Area. Most of these lands are scattered sections or smaller parcels of land that are essentially captivated by surrounding Federal lands managed by the Bureau of Land Management. 1 Consequently, implementation of any of your identified alternatives will greatly affect the management and income from the use of State endowment lands.

2 We would like to note a possible inadvertent omission referencing cooperative relations with the Idaho Department of Lands. The Bureau of Land Management (BLM) and Idaho Department of Lands (IDL) have signed a memorandum of understanding for land exchange 3 (See enclosed). No reference to land exchange with the State could be located in the RMP and Environmental Impact Statement. Also, in none of the alternatives, appendices or references to land disposal was land exchange with the State mentioned. We hope that you want to continue to pursue a land exchange strategy as both of our agencies have agreed.

One of the goals stated by both agencies in this exchange agreement is to consolidate their land ownership for more efficient management. In the case of the State, we must also maximize revenue from use of endowment land in accordance with the Constitution of the State of Idaho. This could mean that without future land exchanges, the State may need to develop or make use of these State endowment lands that is inconsistent with uses of surrounding Federal lands.

Because State endowment lands are minor components of most BLM allotments, most past management activities by the BLM and permittees/ lessees have benefited State endowment lands. For this the State is appreciative. However, as the BLM's goals are orientated toward multiple use rather than revenue maximization, income from use of State endowment land may not always have been maximized.

BLM Response to Letter No. 29

29-1: Under the PRMP, livestock grazing on State lands within the Challis RA boundaries should be able to continue.

29-2: The MOU you mention was inadvertently omitted from Table 1-1 in the Draft RMP. Reference to the MOU has been included in the Proposed RMP/Final EIS in the section titled "Corrections to the Draft RMP/EIS."

29-3: Please see response 5-2.

29-4: Your preference of alternatives is noted. Please notice, however, that in addition to Alternative 1, Alternatives 2 and 3 also propose maintaining very near current AUM levels, at least for the short term and possibly longer. All five alternatives described in the Challis Draft RMP would make public lands available for exchange with the State of Idaho (see Challis Draft RMP/EIS, Volume 2, pp. 389a/b, #8). The Challis Proposed RMP would make approximately 36,915 acres of public lands available for exchange with the State of Idaho (see PRMP, Land Tenure and Access, Goal 2, #7).

29-5: The list of agencies noted in the Draft RMP/EIS on p. 335, paragraph 2, sentence 2 only refers to agencies which are "consulted periodically to supplement BLM data and information" and is not all inclusive ("such as..."). The third sentence in paragraph 2, p. 335 refers

Letter No. 29 *continued*

Kathe Rhodes
January 2, 1997
Page 2

Since most income generated from use of State endowment lands in the Challis Resource Area comes from grazing, although mineral extraction and timber harvesting play some role, planned grazing management is very important to the IDL. Management Plan Alternative 1 seems to be the only alternative which likely maintains current AUM's. Therefore, the IDL Eastern Idaho Area would tend to favor Alternative 1. However, with an active land exchange program, Alternatives 2 or 3 could become acceptable. 4

In Chapter 5, in the second paragraph which begins "Consultation and coordination ---", no mention is made of either the IDL or the Challis Experimental Stewardship Program (CESP). Both the IDL and the BLM are active participants in the CESP. Neither could we find reference to the Federal legislation authorizing the CESP which involves many acres of public land as well as State endowment land. It is our understanding that many of the forty (40) Allotment Management Plans (AMPS) currently in place on the Challis Resource Area were developed in close cooperation with the Challis Experimental Stewardship Steering Group (CESSG). It is also our understanding that a holistic approach to revising at least one and possibly more AMPs in the near future is being planned with cooperation from all interested parties including both our agencies, the permittee/lessees, other Federal agencies, state agencies, and environmental groups. 5

We believe that through coordination and cooperation in groups such as the CESSG, our mutually beneficial goals can be achieved. We therefore recommend that reference to cooperation with the IDL, CESSG and the favorable opportunity for land exchange with the State be added to all alternatives. 6

To conclude, we have these few specific comments:

1. On page 7 - Vol.1 under "Land Tenure and Access" there is no mention of intermingled State endowment lands which are generally Sections 16 or 36. Neither is mention made of future land exchange with the State. 7

2. We respectfully disagree with your conclusion that there will be more negative impacts under Alternatives 1 and 3 if true holistic approaches are undertaken. On page 235a under summary of effects, we believe that with a holistic approach, range conditions could improve and provide more and better forage. Range improvement projects and management intensity might of necessity increase over the short term. However, Aum's should also increase. 8

3. We believe the likelihood of reaching your RMP goals could be as short as 10-15 years. 9

Letter No. 29 *continued*

Kathe Rhodes
January 2, 1997
Page 3

We hope these comments about the draft RMP relating to mandatory revenue maximization and quality resource management for the State endowments will be helpful to you.

If there are any questions, please call me at 208-523-5398.

Sincerely,

James Mackley

James Mackley - SRM

c: Jay Biladeau - AD, LM & R

BLM Response to Letter No. 29 *continued*

to the BLM's formal agreements with other agencies, as listed in Table 1-1. Omission of the IDL/BLM Memorandum of Understanding has been noted (see response 29-2 above).

The Challis Experimental Stewardship Program (ESP) is specifically discussed on p. 341 of the Draft RMP/EIS. This discussion includes a reference to the Public Rangelands Improvement Act which authorizes the Challis ESP. The Challis Experimental Stewardship Steering Group (CESSG) is a sub-unit of the Challis ESP and may be considered to be included in any discussion of the Challis ESP.

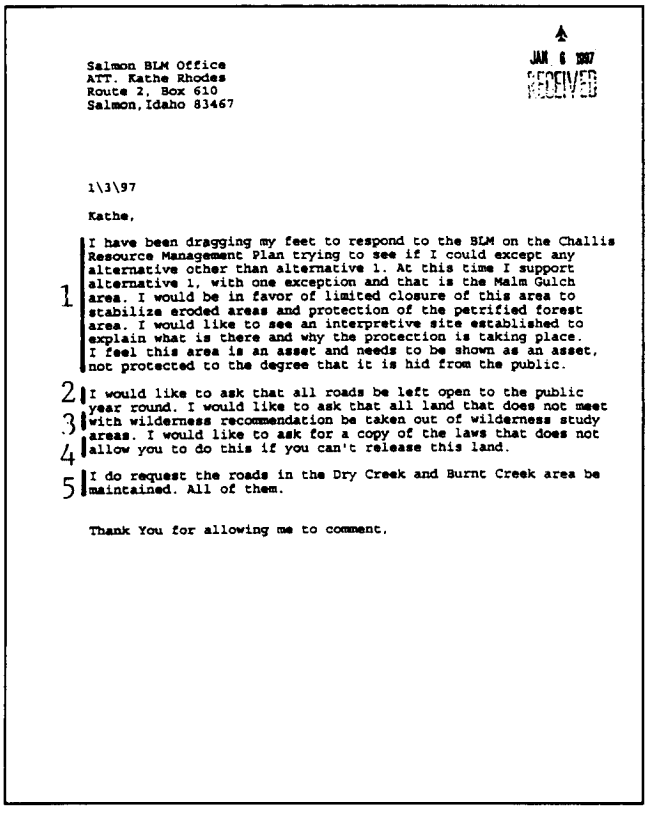
29-6: The Challis PRMP includes only one plan and does not restate alternative plans. References to IDL, CESP, and land exchange opportunities with the State are included in the PRMP as discussed in responses 29-2, 29-3, and 29-5 above.

29-7: The "Affected Environment" summary of the PRMP has been corrected to add a reference to intermingled State lands under the discussion of "Land Tenure and Access." Please note that an expanded discussion of State lands within the Challis Resource Area's boundaries was provided in the Draft RMP/EIS on p. 91, paragraph 3, and p. 92, Table 3-6. "Future land exchange with the State" was discussed in the Draft RMP/EIS in Volume 2, pp. 389a/b #8 (all five alternatives). This proposed management would be inappropriate to include in the summary of affected environment (existing condition) on p. 7.

29-8: The summary of impacts you refer to does not say that there will be negative impacts from Alternative 1 or 3. It states that the likelihood of reaching RMP range condition goals would be very slight under Alternative 1, and that the goals would take many years to achieve. Holistic approaches could be used in some instances to improve range conditions; however, under any alternative, the BLM does not expect that holistic approaches would be adopted widely enough to make a significant difference in the amount of range achieving RMP goals Resource Area-wide. Based on the analysis of impacts, the BLM still believes that the rate of improvement expected under Alternative 1 or 3 would not be as rapid as under any other alternative.

29-9: The BLM does not estimate a timeframe for overall completion of all goals in the RMP since most goals involve ongoing implementation (e.g., Cultural Resources, Goal 1). In addition, the time needed to achieve Proposed RMP goals which do set specific timeframes and/or imply a standard to be achieved (e.g., Riparian Areas, Goal 1) may be influenced by factors such as the date that a Record of Decision is signed, and staffing, budget, or program priorities identified by Congress, the Department of Interior, BLM Headquarters, or the BLM - Idaho State Office.

Letter No. 30



Salmon BLM Office
ATT. Kathe Rhodes
Route 2, Box 610
Salmon, Idaho 83467

JAN 6 1997
RECEIVED

1\3\97

Kathe,

1 I have been dragging my feet to respond to the BLM on the Challis Resource Management Plan trying to see if I could except any alternative other than alternative 1. At this time I support alternative 1, with one exception and that is the Malm Gulch area. I would be in favor of limited closure of this area to stabilize eroded areas and protection of the petrified forest area. I would like to see an interpretive site established to explain what is there and why the protection is taking place. I feel this area is an asset and needs to be shown as an asset, not protected to the degree that it is hid from the public.

2 I would like to ask that all roads be left open to the public year round. I would like to ask that all land that does not meet
3 with wilderness recommendation be taken out of wilderness study areas. I would like to ask for a copy of the laws that does not
4 allow you to do this if you can't release this land.

5 I do request the roads in the Dry Creek and Burnt Creek area be maintained. All of them.

Thank You for allowing me to comment.

BLM Response to Letter No. 30

30-1: Your preference for Alternative 1 is noted. Your suggestions for management of the Malm Gulch area have been incorporated into the Proposed RMP (see PRMP, ACECs - Malm Gulch/Germer Basin ACEC, #4 and 9).

30-2: In general, the Proposed RMP limits motorized vehicle use to existing roads, vehicle ways, and trails throughout the Resource Area, in response to public concern about the impacts of off-road use on other resources. Most roads within the Resource Area would remain open to motorized vehicle use year long. To protect important resource values, a few roads would be designated "closed" to OHV use yearlong or limited seasonally (see PRMP, OHV Use).

30-3: Only Congress can designate wilderness or release from interim management areas that were placed under wilderness study by Congressional authority. The Federal Land Policy and Management Act of 1976 (FLPMA), Section 603(c) directed the Secretary of the Interior to report to the President on the wilderness suitability of lands managed by the Bureau of Land Management (BLM) by October 21, 1991.

The BLM's wilderness recommendations have been forwarded by the President to Congress. Until Congress acts on these recommendations, Section 603(c) further directs the BLM to continue to manage these WSAs in a manner that will not "impair the suitability of such areas for preservation as wilderness." Until designation or release, the BLM will manage these areas as directed in "Interim Management Policy And Guidelines For Land Under Wilderness Review" (BLM, 1995).

If Congress acts and some of the WSAs in the Challis Resource Area are released from wilderness review, those public lands would be managed according to the Proposed RMP decisions listed under WSAs- Management if Released from Wilderness Review.

30-4: The BLM sent you copies of the enabling acts of Congress that apply: The Wilderness Act of 1964 and The Federal Land Policy and Mangement Act of 1976. Please also see response 30-3 above regarding the BLM's Wilderness policy.

30-5: As stated in the response to 30-2 above, most roads in the Challis Resource Area would remain open yearlong, including the roads in the Burnt Creek area. These open roads would be maintained in accordance with guidance described in the PRMP under Transportation, Goal 1.

Your preference for maintaining the Dry Creek Road is noted. However, the BLM has decided to carry forward the intent of the Draft RMP decision listed under Management Concern: OHV Use, Goal 1, #4, Alternative 2 (p. 434a), which closes the Dry Creek Road at T9N, R24E, Sec. 1,

BLM Response to Letter No. 30 *continued*

N 1/2. This decision was modified in the PRMP to indicate the road would be closed for safety reasons and to maintain primitive values (see PRMP, OHV Use Goal 1, #3). The Dry Creek Road and other BLM roads which are closed would not receive any maintenance.

Letter No. 31

Idaho Watersheds Project

Hailey, Idaho 83333
(208)788-2290
fax (208) 788-2298

Protecting and restoring school endowment watersh

Increasing returns for the schoolchildren of Ida

NAME	ROUTING	INITIALS
CHALLIS		
LEMHI		
ADMIN		
EA/P&EC		
OPS		
OTHER		
ACTION		

JAN 6 1997
RECEIVED

January 3, 1997

Kathe Rhodes
Challis Resource Management Plan Coordinator
Bureau of Land Management, Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83647

Dear Ms. Rhodes:

This letter and the attached comments on the Challis Draft Resource Management Plan and Environmental Impact Statement (CDRMP & EIS) are offered together by Idaho Watersheds Project and The Committee for Idaho's High Desert as substantive responses to the draft and in the hope that the BLM will take seriously the shortcomings of the CDRMP which are cataloged in these comments.

In addition to the attached comments, IWP and CIHD wish to include the following additional general comments on the CDRMP and EIS:

1 1. Proposing the use of bluebunch wheatgrass as the sole upland indicator species in most locations is not ecosystem management, it is single species management; and, therefore, not a suitable choice to make. The BLM must choose a utilization standard of less than 50% for all upland species consumed by livestock (see Holecheck) and establish a group of key upland species for all ecotypes which will ensure sustainable use in perpetuity.

2 2. The BLM must be more specific in analyzing anticipated use of any chemicals in "vegetative treatment" for all alternatives. For example, monitoring of the effects on non-target species of plants, groundwater and resident animals (including insects) must be required in all areas where chemicals are used. Mitigation must be required subsequent to any chemical use such as eliminating livestock use for the life of the chemical which may persist for as long as ten to twenty years in the environment. Tebuthiuron is a good example of a persistent herbicide which is mobile in the soil environment and which can kill non-target species.

3 3. The BLM has no data on non-game wildlife in the CDRMP. The BLM must provide full analysis of existing populations of non-game wildlife before adopting any alternative under this planning process.

4 4. The CDRMP has insufficient data on all fish species in the Resource Area. Bull trout and westslope-cutthroat trout are proposed to be listed under the Endangered Species Act (ESA) and both are present in the CRA. It is not reasonably possible to determine the consequences on these and other fish species of any of the alternatives of the CDRMP without a more thorough analysis of existing population and habitat conditions of all species of fish.

5 5. The BLM should stop focusing its attention in the alternatives of the CDRMP on what should happen if Wilderness Study Areas (WSAs) are released by Congressional action. Instead, the agency must analyze these areas as possible biodiversity reserves with a management

BLM Response to Letter No. 31

31-1: This choice reflects the importance of bluebunch wheatgrass to overall ecosystem health, and is appropriate for most Challis RA sites. Other species are used as key species, either singly or collectively, on non-bluebunch wheatgrass sites. Livestock Grazing, Goal 1, #7 (see PRMP) shows utilization levels for all key species by season; in some cases the standard for bluebunch wheatgrass is below 50%.

31-2: Your concerns were addressed in the Final EIS, Vegetation Treatment on BLM Lands in Thirteen Western States (USDI-BLM 1991) and the Northwest Area Noxious Weed Control Program Final EIS (USDI-BLM 1985, supplemented 1987). The Challis RMP will not duplicate these efforts.

31-3: The DRMP described existing data on nongame wildlife as "limited" for the 290 species of vertebrate non-game, furbearing, and predatory wildlife species that inhabit the RA. Appendix L (see PRMP/FEIS) describes the research studies, inventories, surveys and other data which pertain to nongame wildlife in the Challis Resource Area. The BLM agrees that additional information on the abundance and population trends of nongame species would be useful in the planning process. However, the BLM believes the data available are

Letter No. 31 *continued*

5 emphasis on maintaining natural systems along with the removal of all human disturbance factors. A goal statement as follows might be suitable: "All WSAs will be the core areas for the establishment of larger biological reserves to maintain and restore natural processes which have been degraded by human intervention." The Challis Resource Management Plan should establish a timetable for the inventory of existing WSAs and surrounding and connecting areas to be included in Special Management Areas protecting the full range of local biodiversity.

6 6. The BLM in the CRMP should specify that when the RMP is fully adopted and in place that all existing Allotment Management Plans (AMPs) will be revised to reflect the new plan, and that all allotments where no AMPs exist will have their permit authorizations amended to contain stipulations contained within the RMP.

7 7. IWP and CIHD propose that no season long use be authorized on any allotment within the CRA, and that no temporary non-renewable use be permitted over new AUM preference levels established by the RMP.

8 8. IWP and CIHD propose that the allocation of available vegetative forage in the final selected alternative be adjusted to increase the allocation for wildlife and watershed values to no less than 90% and that livestock be allocated no more than 10% of available forage.

9 9. IWP and CIHD support the termination and retirement of grazing permits and allotments in the event a base property is ever subdivided and for other reasons as proposed for alternatives 2,4,&5 number 14, Range Management.

10 10. The BLM must require permittee compliance with all terms and conditions of a grazing permit with specific consequences for failure to perform.

11 11. The BLM must establish within all alternatives of the CDRMP specific timetables for the recovery of less than high seral upland areas and for the recovery of non-functioning or functioning-at-risk streams or degraded riparian and wetland areas.

12 12. The BLM should initiate under any selected alternative an analysis of the capability and suitability of all lands for livestock use with a specific timetable not to exceed 4 years. Capability can be defined as accessible lands with adequate forage and water available to make them economically useful for livestock use; suitability is defined as lands which can be authorized for livestock use only when all other multiple uses can be sustained without significant negative effects. For example, water quality meeting state standards must be able to be maintained at any level of livestock authorization and habitat for all native plant and animal species is fully maintained without degradation. Both capability and suitability should be established before livestock use is continued to be authorized.

13 13. IWP and CIHD support the inclusion of some positive aspects of management of riparian areas and streams from alternative 5 of the CDRMP in regard to livestock use and proposes adding them to the final selected alternative: for example, only permitting the supervised trailing of livestock in riparian areas.

As a full-time and part-time resident of Custer County since 1969, I can attest to the historical use of the Challis Resource Area as a feedlot for livestock permittees. This fact will change only very slowly under the preferred alternative of the CDRMP, and as such this alternative is a considerable disappointment. Other uses of these public lands have suffered tremendously over the years as the BLM's own documentation of existing conditions affirms. The implementation of so-called "range improvements" including 121 pipelines over the years has not significantly improved conditions in riparian areas throughout the Resource Area. The hundreds of thousands of dollars spent on the San Felipe Allotment over the last 5 years while resource degradation still continues on parts of that large allotment brings into question the ability of the BLM to bring about thorough change on even one allotment. The conditions in the Spring Basin unit and on Sheep Creek on the San Felipe in 1996 create considerable doubt as to the commitment of the agency to making change in public lands management. The

2

Letter No. 31 *continued*

14 agency should choose specific and measurable terms and conditions of use for all livestock allotments in the RA and not defer making hard decisions by establishing longer term study groups with no public involvement that will only result in delaying necessary changes. Meeting these terms and conditions should be the responsibility of permittees with permit action resulting in a decrease in permitted use by 25% each subsequent year that the terms and conditions are not being met as a reasonable consequence. This is the only way, given declining federal budgets for public lands management, for improvement to be assured for currently damaged resources.

IWP and CIHD appreciate the opportunity to comment; however, we would appreciate much more seeing positive change in management on all lands and waters of the Challis Resource Area in 1997. The time is long past for the failures of the past to be corrected.

Idaho Watersheds Project

Jon Marvel, President

Committee for Idaho's High Desert

Pam Marcum, Chair

3

BLM Response to Letter No. 31 *continued*

adequate to select an alternative.

31-4: The BLM believes available fisheries data are sufficient to determine the environmental consequences of the alternatives. The USFWS and NMFS concurred with the BLM's analysis of "may affect, but not likely to adversely affect" for listed fish species in the CRA (bull trout, sockeye and chinook salmon, steelhead trout), for both the DRMP - Preferred Alternative and the PRMP.

31-5: Your opinions are noted. WSAs in the Challis RA, if released, would generally be managed to maintain existing values and uses, including biodiversity (see PRMP, WSAs - Management if Released from Wilderness Review, goal statement).

31-6: The PRMP has a decision to revise AMPs as needed, with priority outlined (see Livestock Grazing, Goal 1, #4). The specific terms and conditions of individual grazing permits will continue to be established under the discretion of the authorized officer, in accordance with 43 CFR 4130.3. Any terms or conditions deemed necessary to add to grazing permits will also be consistent with, and/or implement the decisions in the approved Challis RMP.

31-7: (a) If allotments can be grazed season long without exceeding the RMP's grazing criteria, the BLM believes resource conditions will continue to improve, and season long grazing will not be inappropriate. (b) Temporary nonrenewable use would be allowed only after related allotment objectives have been met (see PRMP, Livestock Grazing, Goal 1, #16).

31-8: Your opinion is noted.

31-9: Your opinion is noted.

31-10: The grazing regulations (43 CFR) contain penalties for non-compliance.

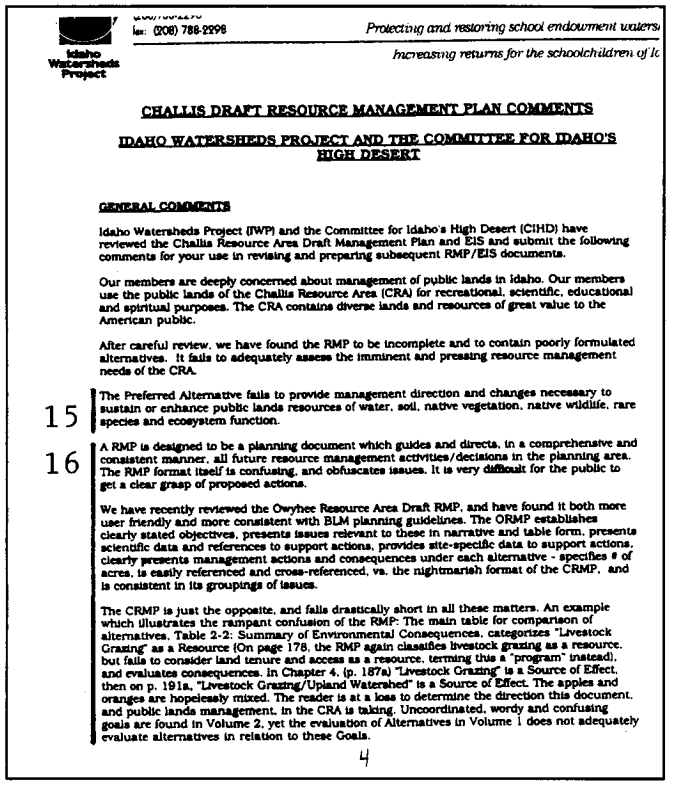
31-11: Timetables have been included in the PRMP where appropriate.

31-12: Your suggestions on capability and suitability analysis as defined in your comment are noted. However, the BLM does not feel an analysis of suitability or capability is appropriate. Please also see response 31-144.

31-13: The BLM believes proposed livestock management actions will enable the BLM to meet RMP goals for riparian improvement (see PRMP, Livestock Grazing, Goals 1 and 2; and Riparian Areas, Goal 1). Please also see Response 6-2.

31-14: PRMP actions such as stubble height and utilization

Letter No. 31 *continued*



Idaho Watersheds Project

fax: (208) 788-2998

Protecting and restoring school endowment waters

Increasing returns for the schoolchildren of Id

CHALLIS DRAFT RESOURCE MANAGEMENT PLAN COMMENTS

IDAHO WATERSHEDS PROJECT AND THE COMMITTEE FOR IDAHO'S HIGH DESERT

GENERAL COMMENTS

Idaho Watersheds Project (IWP) and the Committee for Idaho's High Desert (CIHD) have reviewed the Challis Resource Area Draft Management Plan and EIS and submit the following comments for your use in revising and preparing subsequent RMP/EIS documents.

Our members are deeply concerned about management of public lands in Idaho. Our members use the public lands of the Challis Resource Area (CRA) for recreational, scientific, educational and spiritual purposes. The CRA contains diverse lands and resources of great value to the American public.

After careful review, we have found the RMP to be incomplete and to contain poorly formulated alternatives. It fails to adequately assess the imminent and pressing resource management needs of the CRA.

15 The Preferred Alternative fails to provide management direction and changes necessary to sustain or enhance public lands resources of water, soil, native vegetation, native wildlife, rare species and ecosystem function.

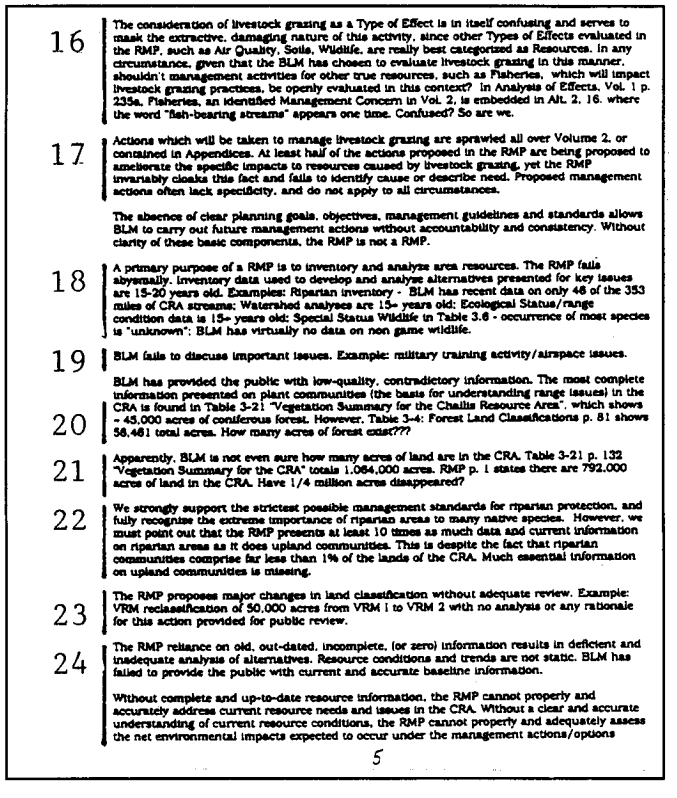
16 A RMP is designed to be a planning document which guides and directs, in a comprehensive and consistent manner, all future resource management activities/decisions in the planning area. The RMP format itself is confusing, and obfuscates issues. It is very difficult for the public to get a clear grasp of proposed actions.

We have recently reviewed the Owyhee Resource Area Draft RMP, and have found it both more user friendly and more consistent with BLM planning guidelines. The ORMP establishes clearly stated objectives, presents issues relevant to these in narrative and table form, presents scientific data and references to support actions, provides site-specific data to support actions, clearly presents management actions and consequences under each alternative - specifies # of acres, is easily referenced and cross-referenced, vs. the nightmarish format of the CRMP, and is consistent in its groupings of issues.

The CRMP is just the opposite, and falls drastically short in all these matters. An example which illustrates the rampant confusion of the RMP: The main table for comparison of alternatives, Table 2-2: Summary of Environmental Consequences, categorizes "Livestock Grazing" as a Resource (On page 178, the RMP again classifies livestock grazing as a resource, but fails to consider land tenure and access as a resource, terming this a "program" instead), and evaluates consequences. In Chapter 4, (p. 187a) "Livestock Grazing" is a Source of Effect, then on p. 191a, "Livestock Grazing/Upland Watershed" is a Source of Effect. The apples and oranges are hopelessly mixed. The reader is at a loss to determine the direction this document, and public lands management, in the CRA is taking. Uncoordinated, wordy and confusing goals are found in Volume 2, yet the evaluation of Alternatives in Volume 1 does not adequately evaluate alternatives in relation to these Goals.

4

Letter No. 31 *continued*



16 The consideration of livestock grazing as a Type of Effect is in itself confusing and serves to mask the extractive, damaging nature of this activity, since other Types of Effects evaluated in the RMP, such as Air Quality, Soils, Wildlife, are really best categorized as Resources. In any circumstance, given that the BLM has chosen to evaluate livestock grazing in this manner, shouldn't management activities for other true resources, such as Fisheries, which will impact livestock grazing practices, be openly evaluated in this context? In Analysis of Effects, Vol. 1 p. 235a, Fisheries, an identified Management Concern in Vol. 2, is embedded in Alt. 2, 16. where the word "fish-bearing streams" appears one time. Confused? So are we.

17 Actions which will be taken to manage livestock grazing are sprawled all over Volume 2, or contained in Appendices. At least half of the actions proposed in the RMP are being proposed to ameliorate the specific impacts to resources caused by livestock grazing, yet the RMP invariably cloaks this fact and fails to identify cause or describe need. Proposed management actions often lack specificity, and do not apply to all circumstances.

The absence of clear planning goals, objectives, management guidelines and standards allows BLM to carry out future management actions without accountability and consistency. Without clarity of these basic components, the RMP is not a RMP.

18 A primary purpose of a RMP is to inventory and analyze area resources. The RMP fails abysmally. Inventory data used to develop and analyze alternatives presented for key issues are 15-20 years old. Examples: Riparian inventory - BLM has recent data on only 48 of the 353 miles of CRA streams; Watershed analyses are 15+ years old; Ecological Status/range condition data is 15+ years old; Special Status Wildlife in Table 3.6 - occurrence of most species is "unknown"; BLM has virtually no data on non game wildlife.

19 BLM fails to discuss important issues. Example: military training activity/airspace issues.

20 BLM has provided the public with low-quality, contradictory information. The most complete information presented on plant communities (the basis for understanding range issues) in the CRA is found in Table 3-21 "Vegetation Summary for the Challis Resource Area", which shows - 45,000 acres of coniferous forest. However, Table 3-4: Forest Land Classifications p. 81 shows 58,461 total acres. How many acres of forest exist???

21 Apparently, BLM is not even sure how many acres of land are in the CRA. Table 3-21 p. 132 "Vegetation Summary for the CRA" totals 1,084,000 acres. RMP p. 1 states there are 792,000 acres of land in the CRA. Have 1/4 million acres disappeared?

22 We strongly support the strictest possible management standards for riparian protection, and fully recognize the extreme importance of riparian areas to many native species. However, we must point out that the RMP presents at least 10 times as much data and current information on riparian areas as it does upland communities. This is despite the fact that riparian communities comprise far less than 1% of the lands of the CRA. Much essential information on upland communities is missing.

23 The RMP proposes major changes in land classification without adequate review. Example: VRM reclassification of 50,000 acres from VRM 1 to VRM 2 with no analysis or any rationale for this action provided for public review.

24 The RMP reliance on old, out-dated, incomplete, (or zero) information results in deficient and inadequate analysis of alternatives. Resource conditions and trends are not static. BLM has failed to provide the public with current and accurate baseline information.

Without complete and up-to-date resource information, the RMP cannot properly and accurately address current resource needs and issues in the CRA. Without a clear and accurate understanding of current resource conditions, the RMP cannot properly and adequately assess the net environmental impacts expected to occur under the management actions/options

5

BLM Response to Letter No. 31 *continued*

criteria will take effect upon signing of the Record of Decision for the approved RMP. Meeting these terms and conditions will be the responsibility of the grazing permittees (see response 31-10).

31-15: Your opinion is noted.

31-16: Your opinions are noted. (a) The PRMP describes Livestock Grazing as a land use, rather than a resource. (b) The impacts of resource and land use management activities on livestock grazing were analyzed in the DRMP (see pp. 235a-242a, including riparian/aquatic management analyzed on pp. 238a/b, #15-16).

31-17: Your opinions are noted.

31-18: Your comments are noted. Please see responses 12-1, paragraph 2; 15-2; 15-3; and 15-7(b).

31-19: This topic was not identified as a planning issue (see *Glossary*).

31-20: The two sets of numbers are based on two different inventories. The coniferous and juniper forest acreage in Table 3-21 (46,744 acres) is the result of independent range inventories conducted in each applicable planning unit. These inventories calculated forest land by soil mapping units. As a result, where trees grew outside of forest soil mapping units (which is quite common, particularly along ecotones), those trees were not counted as forest land. The total forest land acreage in Table 3-4 (58,461 acres) was based on all forest land (see definition: DRMP, p. 80) inventoried in 1984.

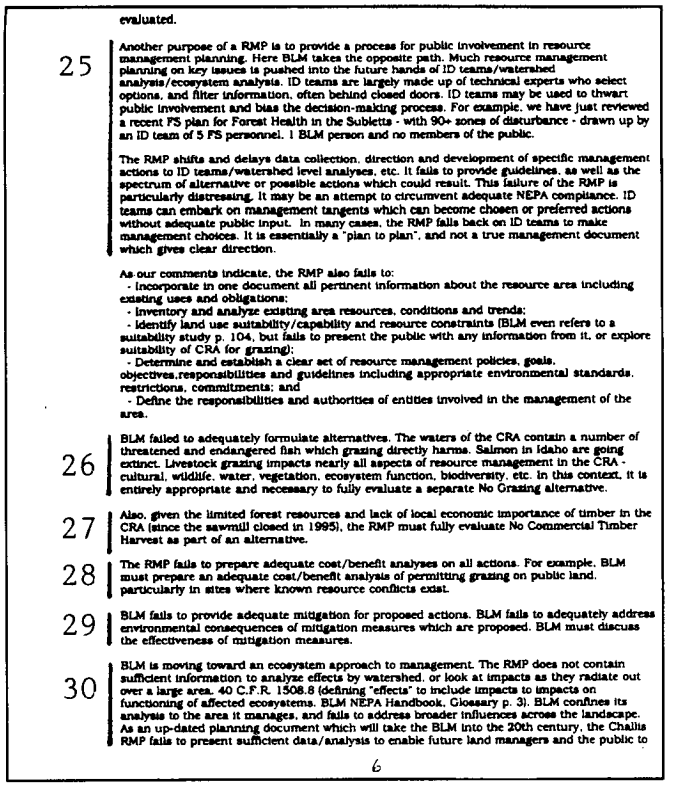
31-21: Table 3-21 has a footnote that explains the difference. The Big Lost-Mackay Draft EIS contained land in the Big Lost area of the Idaho Falls BLM district, which lies outside the boundary of the Challis Resource Area. The Challis Resource Area contains 792,567 acres of public land, which is the figure you will see used throughout the PRMP/FEIS.

31-22: Your comments are noted. The BLM believes the affected environment discussion of uplands provided in the PRMP (see Chapter 3: Forest Resources, Livestock Grazing, and Vegetation) provides a sufficient context for the analysis of environmental consequences.

31-23: The 50,000 acres you have referred to represent acreage along the Salmon River. Proposed management of these acres is not consistent with the BLM definition for VRM Class I (see Glossary: Visual resource management classes), so these public lands were moved into the more correct VRM Class II.

31-24: Please see response 31-18.

Letter No. 31 *continued*



evaluated.

25 Another purpose of a RMP is to provide a process for public involvement in resource management planning. Here BLM takes the opposite path. Much resource management planning on key issues is pushed into the future hands of ID teams/watershed analysis/ecosystem analysis. ID teams are largely made up of technical experts who select options, and filter information, often behind closed doors. ID teams may be used to thwart public involvement and bias the decision-making process. For example, we have just reviewed a recent FS plan for Forest Health in the Subletts - with 90+ zones of disturbance - drawn up by an ID team of 5 FS personnel. 1 BLM person and no members of the public.

The RMP shifts and delays data collection, direction and development of specific management actions to ID teams/watershed level analyses, etc. It fails to provide guidelines, as well as the spectrum of alternative or possible actions which could result. This failure of the RMP is particularly distressing. It may be an attempt to circumvent adequate NEPA compliance. ID teams can embark on management tangents which can become chosen or preferred actions without adequate public input. In many cases, the RMP falls back on ID teams to make management choices. It is essentially a "plan to plan", and not a true management document which gives clear direction.

As our comments indicate, the RMP also fails to:
- incorporate in one document all pertinent information about the resource area including existing uses and obligations;
- inventory and analyze existing area resources, conditions and trends;
- identify land use suitability/capability and resource constraints (BLM even refers to a suitability study p. 104, but fails to present the public with any information from it, or explore suitability of CRA for grazing);
- Determine and establish a clear set of resource management policies, goals, objectives,responsibilities and guidelines including appropriate environmental standards, restrictions, commitments; and
- Define the responsibilities and authorities of entities involved in the management of the area.

26 BLM failed to adequately formulate alternatives. The waters of the CRA contain a number of threatened and endangered fish which grazing directly harms. Salmon in Idaho are going extinct. Livestock grazing impacts nearly all aspects of resource management in the CRA - cultural, wildlife, water, vegetation, ecosystem function, biodiversity, etc. In this context, it is entirely appropriate and necessary to fully evaluate a separate No Grazing alternative.

27 Also, given the limited forest resources and lack of local economic importance of timber in the CRA (since the sawmill closed in 1995), the RMP must fully evaluate No Commercial Timber Harvest as part of an alternative.

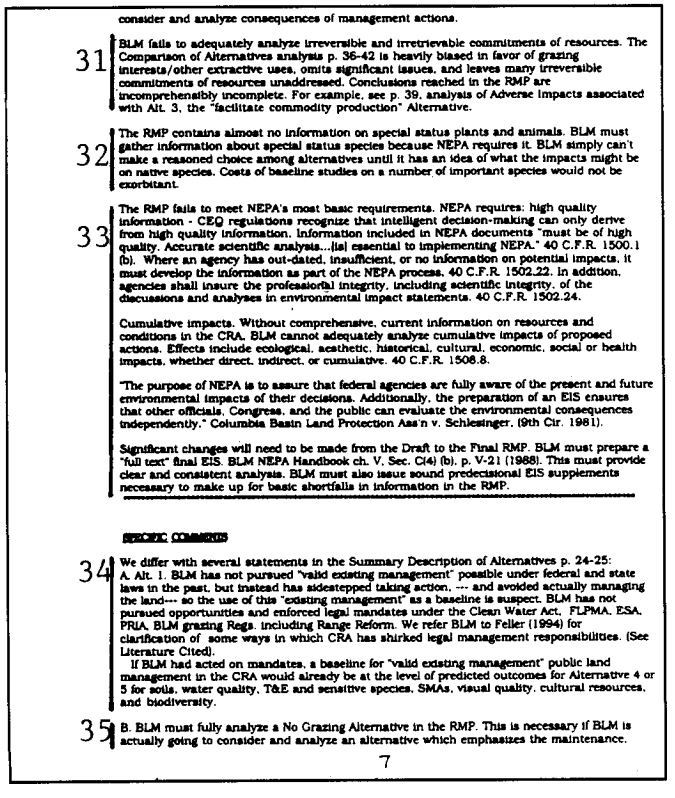
28 The RMP fails to prepare adequate cost/benefit analyses on all actions. For example, BLM must prepare an adequate cost/benefit analysis of permitting grazing on public land, particularly in sites where known resource conflicts exist.

29 BLM fails to provide adequate mitigation for proposed actions. BLM fails to adequately address environmental consequences of mitigation measures which are proposed. BLM must discuss the effectiveness of mitigation measures.

30 BLM is moving toward an ecosystem approach to management. The RMP does not contain sufficient information to analyze effects by watershed, or look at impacts as they radiate out over a large area. 40 C.F.R. 1508.8 (defining "effects" to include impacts to impacts on functioning of affected ecosystems. BLM NEPA Handbook, Glossary p. 3). BLM confines its analysis to the area it manages, and fails to address broader influences across the landscape. As an up-dated planning document which will take the BLM into the 20th century, the Challis RMP fails to present sufficient data/analysis to enable future land managers and the public to

6

Letter No. 31 *continued*



consider and analyze consequences of management actions.

31 BLM fails to adequately analyze irreversible and irretrievable commitments of resources. The Comparison of Alternatives analysis p. 36-42 is heavily biased in favor of grazing interests/other extractive uses, omits significant issues, and leaves many irreversible commitments of resources unaddressed. Conclusions reached in the RMP are incomprehensibly incomplete. For example, see p. 39, analysis of Adverse Impacts associated with Alt. 3, the "facilitate commodity production" Alternative.

32 The RMP contains almost no information on special status plants and animals. BLM must gather information about special status species because NEPA requires it. BLM simply can't make a reasoned choice among alternatives until it has an idea of what the impacts might be on native species. Costs of baseline studies on a number of important species would not be exorbitant.

33 The RMP fails to meet NEPA's most basic requirements. NEPA requires: high quality information - CEQ regulations recognize that intelligent decision-making can only derive from high quality information. Information included in NEPA documents "must be of high quality. Accurate scientific analysis...[is] essential to implementing NEPA." 40 C.F.R. 1500.1 (b). Where an agency has out-dated, insufficient, or no information on potential impacts, it must develop the information as part of the NEPA process. 40 C.F.R. 1502.22. In addition, agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. 40 C.F.R. 1502.24.

Cumulative impacts. Without comprehensive, current information on resources and conditions in the CRA, BLM cannot adequately analyze cumulative impacts of proposed actions. Effects include ecological, aesthetic, historical, cultural, economic, social or health impacts, whether direct, indirect, or cumulative. 40 C.F.R. 1508.8.

"The purpose of NEPA is to assure that federal agencies are fully aware of the present and future environmental impacts of their decisions. Additionally, the preparation of an EIS ensures that other officials, Congress, and the public can evaluate the environmental consequences independently." Columbia Basin Land Protection Ass'n v. Schlesinger, (9th Cir. 1981).

Significant changes will need to be made from the Draft to the Final RMP. BLM must prepare a "full text" final EIS. BLM NEPA Handbook ch. V, Sec. C(4) (b), p. V-21 (1988). This must provide clear and consistent analysis. BLM must also issue sound predecisional EIS supplements necessary to make up for basic shortfalls in information in the RMP.

SPECIFIC COMMENTS

34 We differ with several statements in the Summary Description of Alternatives p. 24-25:
A. Alt. 1. BLM has not pursued "valid existing management" possible under federal and state laws in the past, but instead has sidestepped taking action, --- and avoided actually managing the land--- so the use of this "existing management" as a baseline is suspect. BLM has not pursued opportunities and enforced legal mandates under the Clean Water Act, FLPMA, ESA, PRIA, BLM grazing Regs. including Range Reform. We refer BLM to Feller (1994) for clarification of some ways in which CRA has shirked legal management responsibilities. (See Literature Cited).
If BLM had acted on mandates, a baseline for "valid existing management" public land management in the CRA would already be at the level of predicted outcomes for Alternative 4 or 5 for soils, water quality, T&E and sensitive species, SMAs, visual quality, cultural resources, and biodiversity.

35 B. BLM must fully analyze a No Grazing Alternative in the RMP. This is necessary if BLM is actually going to consider and analyze an alternative which emphasizes the maintenance.

7

BLM Response to Letter No. 31 *continued*

31-25: The decisions made in the PRMP are appropriate for this level of planning. The intent of ID teams is to encourage interdisciplinary interaction, including public involvement, where appropriate.

31-26: Early public scoping for the Challis RMP revealed a concern about how livestock grazing would be managed, but did not demonstrate support for total removal of livestock from the public lands. The concerns you have raised about the "harms" caused by livestock grazing, and the impacts to resource values, were carefully considered by the Challis Planning Team. Impacts from livestock grazing to each resource have been reviewed. It has been determined that the adverse impacts have been appropriately mitigated by the many requirements which the PRMP imposes on livestock grazing activities, including site-specific removal of livestock when appropriate. Both the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, agencies responsible for oversight of activities which might affect species in peril, have concurred that livestock grazing activities, as proposed in the Challis PRMP, are not likely to adversely affect the species of concern.

In addition, planning criteria were presented to the public for comment, prior to approval by the District Manager (see DRMP p. 12). These criteria identified the "sideboards" or direction for the Challis planning effort. Total removal of livestock from the entire Resource Area would not be consistent with the following planning criteria:

1) *Social and economic values* — Livestock grazing is a major part of the local economy and historic lifestyle within the planning area.

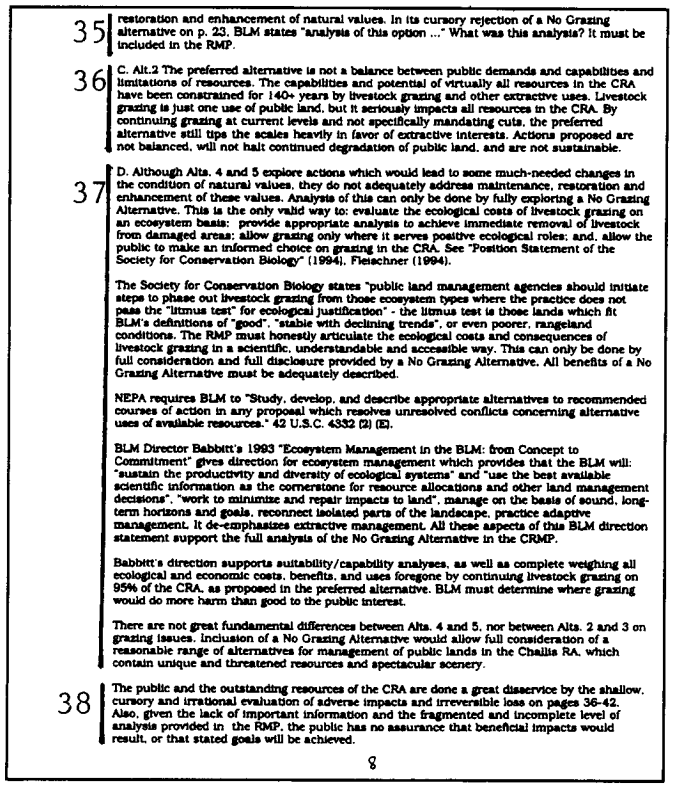
4) *Future needs and demand for existing or potential resource commodities and values* — Because approximately 94% of the lands in Custer County are either State or Federally managed, livestock operators depend heavily on the availability of BLM public lands for livestock grazing.

7) *Past and present use of public and adjacent lands* — See comments on planning criteria #1 and 4 above.

8) *Public value of providing goods and services in relation to the costs* — Although monetary costs are often associated with management of livestock grazing, consideration was also given to the social costs of not making public lands available for grazing (see comments on planning criterion #4 above).

31-27: Your opinion is noted. The Challis RA does not consider "no timber harvest" reasonable management to include in the PRMP for two reasons. First, contrary to your

Letter No. 31 *continued*



35 restoration and enhancement of natural values. In its cursory rejection of a No Grazing alternative on p. 23, BLM states "analysis of this option ..." What was this analysis? It must be included in the RMP.

36 C. Alt.2 The preferred alternative is not a balance between public demands and capabilities and limitations of resources. The capabilities and potential of virtually all resources in the CRA have been constrained for 140+ years by livestock grazing and other extractive uses. Livestock grazing is just one use of public land, but it seriously impacts all resources in the CRA. By continuing grazing at current levels and not specifically mandating cuts, the preferred alternative still tips the scales heavily in favor of extractive interests. Actions proposed are not balanced, will not halt continued degradation of public land, and are not sustainable.

37 D. Although Alts. 4 and 5 explore actions which would lead to some much-needed changes in the condition of natural values, they do not adequately address maintenance, restoration and enhancement of these values. Analysis of this can only be done by fully exploring a No Grazing Alternative. This is the only valid way to: evaluate the ecological costs of livestock grazing on an ecosystem basis; provide appropriate analysis to achieve immediate removal of livestock from damaged areas; allow grazing only where it serves positive ecological roles; and, allow the public to make an informed choice on grazing in the CRA. See "Position Statement of the Society for Conservation Biology" (1994), Fleischner (1994).

The Society for Conservation Biology states "public land management agencies should initiate steps to phase out livestock grazing from those ecosystem types where the practice does not pass the "litmus test" for ecological justification" - the litmus test is those lands which fit BLM's definitions of "good", "stable with declining trends", or even poorer, rangeland conditions. The RMP must honestly articulate the ecological costs and consequences of livestock grazing in a scientific, understandable and accessible way. This can only be done by full consideration and full disclosure provided by a No Grazing Alternative. All benefits of a No Grazing Alternative must be adequately described.

NEPA requires BLM to "Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which resolves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. 4332 (2) (E).

BLM Director Babbitt's 1993 "Ecosystem Management in the BLM: from Concept to Commitment" gives direction for ecosystem management which provides that the BLM will: "sustain the productivity and diversity of ecological systems" and "use the best available scientific information as the cornerstone for resource allocations and other land management decisions", "work to minimize and repair impacts to land", manage on the basis of sound, long-term horizons and goals, reconnect isolated parts of the landscape, practice adaptive management. It de-emphasizes extractive management. All these aspects of this BLM direction statement support the full analysis of the No Grazing Alternative in the CRMP.

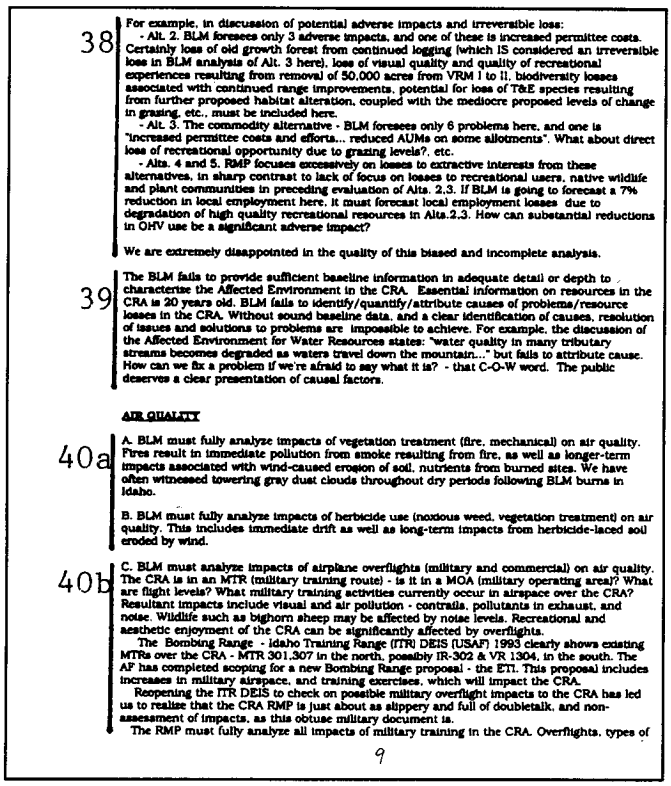
Babbitt's direction supports suitability/capability analyses, as well as complete weighing all ecological and economic costs, benefits, and uses foregone by continuing livestock grazing on 95% of the CRA, as proposed in the preferred alternative. BLM must determine where grazing would do more harm than good to the public interest.

There are not great fundamental differences between Alts. 4 and 5, nor between Alts. 2 and 3 on grazing issues. Inclusion of a No Grazing Alternative would allow full consideration of a reasonable range of alternatives for management of public lands in the Challis RA, which contain unique and threatened resources and spectacular scenery.

38 The public and the outstanding resources of the CRA are done a great disservice by the shallow, cursory and irrational evaluation of adverse impacts and irreversible loss on pages 36-42. Also, given the lack of important information and the fragmented and incomplete level of analysis provided in the RMP, the public has no assurance that beneficial impacts would result, or that stated goals will be achieved.

8

Letter No. 31 *continued*



38 For example, in discussion of potential adverse impacts and irreversible loss:
- Alt. 2. BLM foresees only 3 adverse impacts, and one of these is increased permittee costs. Certainly loss of old growth forest from continued logging (which IS considered an irreversible loss in BLM analysis of Alt. 3 here), loss of visual quality and quality of recreational experiences resulting from removal of 50,000 acres from VRM I to II, biodiversity losses associated with continued range improvements, potential for loss of T&E species resulting from further proposed habitat alteration, coupled with the mediocre proposed levels of change in grazing, etc., must be included here.
- Alt. 3. The commodity alternative - BLM foresees only 6 problems here, and one is "increased permittee costs and efforts... reduced AUMs on some allotments". What about direct loss of recreational opportunity due to grazing levels?, etc.
- Alts. 4 and 5. RMP focuses excessively on losses to extractive interests from these alternatives, in sharp contrast to lack of focus on losses to recreational users, native wildlife and plant communities in preceding evaluation of Alts. 2,3. If BLM is going to forecast a 7% reduction in local employment here, it must forecast local employment losses due to degradation of high quality recreational resources in Alts.2,3. How can substantial reductions in OHV use be a significant adverse impact?

We are extremely disappointed in the quality of this biased and incomplete analysis.

39 The BLM fails to provide sufficient baseline information in adequate detail or depth to characterize the Affected Environment in the CRA. Essential information on resources in the CRA is 20 years old. BLM fails to identify/quantify/attribute causes of problems/resource losses in the CRA. Without sound baseline data, and a clear identification of causes, resolution of issues and solutions to problems are impossible to achieve. For example, the discussion of the Affected Environment for Water Resources states: "water quality in many tributary streams becomes degraded as waters travel down the mountain..." but fails to attribute cause. How can we fix a problem if we're afraid to say what it is? - that C-O-W word. The public deserves a clear presentation of causal factors.

AIR QUALITY

40a A. BLM must fully analyze impacts of vegetation treatment (fire, mechanical) on air quality. Fires result in immediate pollution from smoke resulting from fire, as well as longer-term impacts associated with wind-caused erosion of soil, nutrients from burned sites. We have often witnessed towering gray dust clouds throughout dry periods following BLM burns in Idaho.

B. BLM must fully analyze impacts of herbicide use (noxious weed, vegetation treatment) on air quality. This includes immediate drift as well as long-term impacts from herbicide-laced soil eroded by wind.

40b C. BLM must analyze impacts of airplane overflights (military and commercial) on air quality. The CRA is in an MTR (military training route) - is it in a MOA (military operating area)? What are flight levels? What military training activities currently occur in airspace over the CRA? Resultant impacts include visual and air pollution - contrails, pollutants in exhaust, and noise. Wildlife such as bighorn sheep may be affected by noise levels. Recreational and aesthetic enjoyment of the CRA can be significantly affected by overflights.
The Bombing Range - Idaho Training Range (ITR) DEIS (USAF) 1993 clearly shows existing MTRs over the CRA - MTR 301.307 in the north, possibly IR-302 & VR 1304, in the south. The AF has completed scoping for a new Bombing Range proposal - the ETI. This proposal includes increases in military airspace, and training exercises, which will impact the CRA.
Reopening the ITR DEIS to check on possible military overflight impacts to the CRA has led us to realize that the CRA RMP is just about as slippery and full of doubletalk, and non-assessment of impacts, as this obtuse military document is.
The RMP must fully analyze all impacts of military training in the CRA. Overflights, types of

9

BLM Response to Letter No. 31 *continued*

statement, there continues to be local demand for and economic importance of timber from the Challis Resource Area since the Salmon Intermountain sawmill closed in 1995. Successful bidders on recent BLM sales have all been local. In addition, continuing to provide commercial timber is consistent with the approved planning criteria for the Challis RMP (Idaho criteria #4 and 8; Draft RMP, p. 12). Second, timber harvest is a valid means of managing forest lands in order to promote or maintain the health and sustainability of all resources related to forest lands, and therefore supports the accomplishment of Forest Resources, Goal 1 (see PRMP, Forest Resources).

31-28: Your opinions are noted. The NEPA planning regulations discuss cost-benefit analyses in 43 CFR 1502.23. This section states that "the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." The BLM displayed a "cost-benefit" analysis of the Draft RMP alternatives in Chapter 2 on pages 25-42. The comparison of alternatives describes, in qualitative and quantitative terms, the likelihood and significance of adverse and beneficial impacts which would be expected to occur from implementation of the various alternatives. The costs and benefits of all RMP actions are disclosed in the Draft RMP for all alternatives in Chapter 4 - Environmental Consequences.

31-29: Mitigation measures are incorporated into the management decisions in the PRMP; the effects of proposed management are analyzed in Chapter 4 Environmental Consequences.

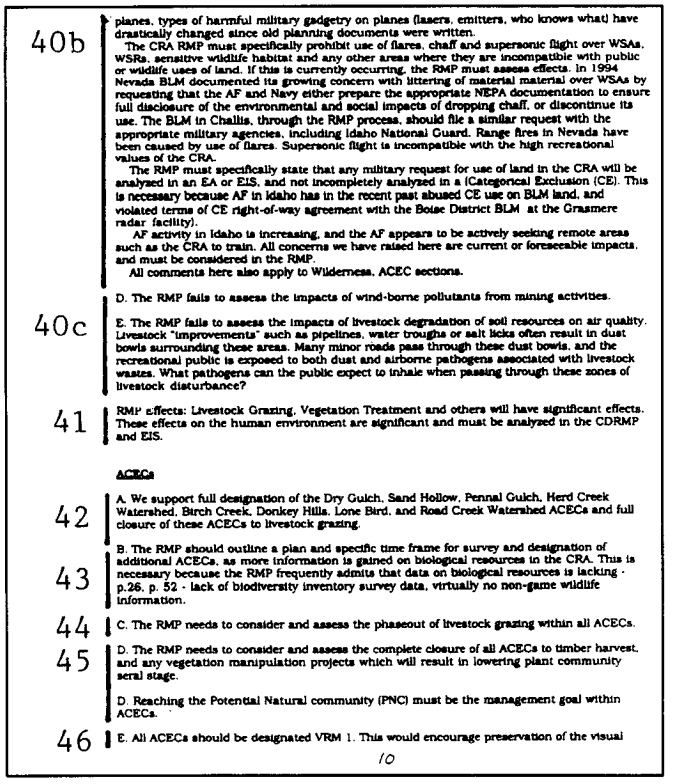
31-30: The watershed level of analysis would be inappropriate for an RMP. Rather, the PRMP establishes direction for the circumstances which would require a watershed assessment (see Attachment 5, "General" Standard Operating Procedure #1).

31-31: The discussion on page 39 is meant to be a summary comparison of the alternatives, rather than a comprehensive discussion of impacts. See Chapter 4 for a detailed discussion of impacts.

31-32: Your opinion is noted. The PRMP contains decisions which will improve the BLM's knowledge of special status species (see PRMP, Special Status Species, Goal 1, #1 and Goal 2, #2).

31-33: Since no specific examples are given, it is difficult to respond to this comment. Please note that in several cases in the RMP, the BLM has described where information is lacking, and provided decisions requiring the BLM to inventory or monitor to acquire the needed

Letter No. 31 *continued*



40b planes, types of harmful military gadgetry on planes (lasers, emitters, who knows what) have drastically changed since old planning documents were written.
The CRA RMP must specifically prohibit use of flares, chaff and supersonic flight over WSAs, WSRs, sensitive wildlife habitat and any other areas where they are incompatible with public or wildlife uses of land. If this is currently occurring, the RMP must assess effects. In 1994 Nevada BLM documented its growing concern with littering of material material over WSAs by requesting that the AF and Navy either prepare the appropriate NEPA documentation to ensure full disclosure of the environmental and social impacts of dropping chaff, or discontinue its use. The BLM in Challis, through the RMP process, should file a similar request with the appropriate military agencies, including Idaho National Guard. Range fires in Nevada have been caused by use of flares. Supersonic flight is incompatible with the high recreational values of the CRA.
The RMP must specifically state that any military request for use of land in the CRA will be analyzed in an EA or EIS, and not incompletely analyzed in a (Categorical Exclusion (CE). This is necessary because AF in Idaho has in the recent past abused CE use on BLM land, and violated terms of CE right-of-way agreement with the Boise District BLM at the Grasmere radar facility).
AF activity in Idaho is increasing, and the AF appears to be actively seeking remote areas such as the CRA to train. All concerns we have raised here are current or foreseeable impacts, and must be considered in the RMP.
All comments here also apply to Wilderness, ACEC sections.

D. The RMP fails to assess the impacts of wind-borne pollutants from mining activities.

40c E. The RMP fails to assess the impacts of livestock degradation of soil resources on air quality. Livestock "improvements" such as pipelines, water troughs or salt licks often result in dust bowls surrounding these areas. Many minor roads pass through these dust bowls, and the recreational public is exposed to both dust and airborne pathogens associated with livestock wastes. What pathogens can the public expect to inhale when passing through these zones of livestock disturbance?

41 RMP effects: Livestock Grazing, Vegetation Treatment and others will have significant effects. These effects on the human environment are significant and must be analyzed in the CDRMP and EIS.

ACECs

42 A. We support full designation of the Dry Gulch, Sand Hollow, Pennal Gulch, Herd Creek Watershed, Birch Creek, Donkey Hills, Lone Bird, and Road Creek Watershed ACECs and full closure of these ACECs to livestock grazing.

43 B. The RMP should outline a plan and specific time frame for survey and designation of additional ACECs, as more information is gained on biological resources in the CRA. This is necessary because the RMP frequently admits that data on biological resources is lacking - p.26, p. 52 - lack of biodiversity inventory survey data, virtually no non-game wildlife information.

44 C. The RMP needs to consider and assess the phaseout of livestock grazing within all ACECs.

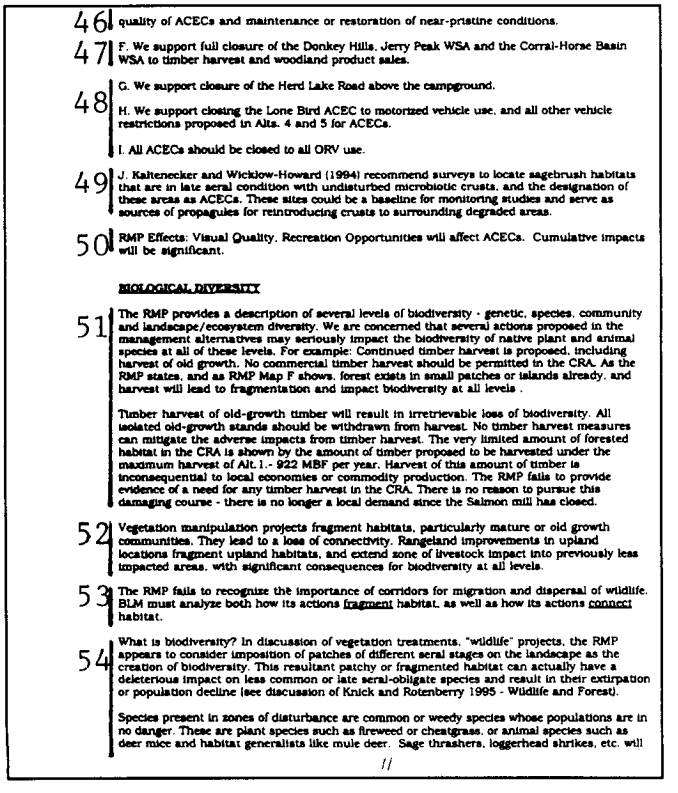
45 D. The RMP needs to consider and assess the complete closure of all ACECs to timber harvest, and any vegetation manipulation projects which will result in lowering plant community seral stage.

D. Reaching the Potential Natural community (PNC) must be the management goal within ACECs.

46 E. All ACECs should be designated VRM 1. This would encourage preservation of the visual

10

Letter No. 31 *continued*



46 quality of ACECs and maintenance or restoration of near-pristine conditions.

47 F. We support full closure of the Donkey Hills, Jerry Peak WSA and the Corral-Horse Basin WSA to timber harvest and woodland product sales.

48 G. We support closure of the Herd Lake Road above the campground.

H. We support closing the Lone Bird ACEC to motorized vehicle use, and all other vehicle restrictions proposed in Alts. 4 and 5 for ACECs.

I. All ACECs should be closed to all ORV use.

49 J. Kaltenecker and Wicklow-Howard (1994) recommend surveys to locate sagebrush habitats that are in late seral condition with undisturbed microbiotic crusts, and the designation of these areas as ACECs. These sites could be a baseline for monitoring studies and serve as sources of propagules for reintroducing crusts to surrounding degraded areas.

50 RMP Effects: Visual Quality, Recreation Opportunities will affect ACECs. Cumulative impacts will be significant.

BIOLOGICAL DIVERSITY

51 The RMP provides a description of several levels of biodiversity - genetic, species, community and landscape/ecosystem diversity. We are concerned that several actions proposed in the management alternatives may seriously impact the biodiversity of native plant and animal species at all of these levels. For example: Continued timber harvest is proposed, including harvest of old growth. No commercial timber harvest should be permitted in the CRA. As the RMP states, and as RMP Map F shows, forest exists in small patches or islands already, and harvest will lead to fragmentation and impact biodiversity at all levels .

Timber harvest of old-growth timber will result in irretrievable loss of biodiversity. All isolated old-growth stands should be withdrawn from harvest. No timber harvest measures can mitigate the adverse impacts from timber harvest. The very limited amount of forested habitat in the CRA is shown by the amount of timber proposed to be harvested under the maximum harvest of Alt.1.- 922 MBF per year. Harvest of this amount of timber is inconsequential to local economies or commodity production. The RMP fails to provide evidence of a need for any timber harvest in the CRA. There is no reason to pursue this damaging course - there is no longer a local demand since the Salmon mill has closed.

52 Vegetation manipulation projects fragment habitats, particularly mature or old growth communities. They lead to a loss of connectivity. Rangeland improvements in upland locations fragment upland habitats, and extend zone of livestock impact into previously less impacted areas, with significant consequences for biodiversity at all levels.

53 The RMP fails to recognize the importance of corridors for migration and dispersal of wildlife. BLM must analyze both how its actions fragment habitat, as well as how its actions connect habitat.

54 What is biodiversity? In discussion of vegetation treatments, "wildlife" projects, the RMP appears to consider imposition of patches of different seral stages on the landscape as the creation of biodiversity. This resultant patchy or fragmented habitat can actually have a deleterious impact on less common or late seral-obligate species and result in their extirpation or population decline (see discussion of Knick and Rotenberry 1995 - Wildlife and Forest).

Species present in zones of disturbance are common or weedy species whose populations are in no danger. These are plant species such as fireweed or cheatgrass, or animal species such as deer mice and habitat generalists like mule deer. Sage thrashers, loggerhead shrikes, etc. will

11

BLM Response to Letter No. 31 *continued*

information.

31-34: Your opinion is noted.

31-35: Please see response 31-26.

31-36: Your opinion is noted.

31-37: Please see response 31-26.

31-38: Pages 36-42 were meant to provide an overview of impacts, not a rigorous, thorough review. See Chapter 4 - Environmental Consequences for a full discussion of impacts.

31-39: Your opinions are noted. Please see response 31-18.

31-40: (a) These impacts were discussed in the DRMP on page 180, as well as in the FEIS, Vegetation Treatment on BLM Lands in Thirteen Western States and the Northwest Area Noxious Weed Control Program Environmental Impact Statements, which are incorporated in the DRMP/EIS by reference.

(b) Again (see response to comment 31-19), these topics were not identified as a planning issue for the Challis RMP. The Air Force completed an analysis for the proposed Idaho Training Range (ITR). The existing proposal for the ITR does not involve any changes in military activity in the Challis RA. The Challis RMP will not attempt to duplicate the analysis in the Air Forces's EIS.

(c) Air quality impacts from mining activities and concentrated livestock use were considered in the general statement about impacts at project sites (see DRMP, p. 180, #1).

31-41: Your opinion is noted.

31-42: Your preference for designation of all proposed ACECs is noted. The BLM considered designation of both the Carlson Hills portion of the Donkey Hills ACEC and the Road Creek Watershed ACEC, but decided not to include these areas as ACECs in the Proposed RMP. All other proposed ACECs would be designated. The PRMP would maintain grazing closures or would close to grazing the following proposed and existing ACECs: Cronk's Canyon, East Fork-Salmon River Bench, Malm Gulch-Germer Basin, and Sand Hollow. The remainder of the existing and proposed ACECs were not closed to grazing because BLM determined that existing ACEC values could be adequately protected without grazing closures.

31-43: The process for nomination of additional ACECs is

Letter No. 31 *continued*

not nest in early successional habitats, and will be impacted by disturbance. These old-growth shrub obligate species may be eliminated from habitats/ecosystems fragmented by human-imposed "diversity".

54 Thus, a longer-term, broader based ecosystem view of biodiversity strives to maintain necessary habitat for old growth species and those which are declining in numbers, not just tally up the maximum number of species that can be crammed into an area.

55 Goal 1 p. 419 is not congruent with and does not foster maintenance and restoration of biological diversity. It specifically stresses continued sustained production of ecosystem "products" - including forage and timber. Bizarrely, it calls clean water, wildlife and fisheries "products", too - the same as forage and timber. It is commodity-oriented. The Biodiversity Goal must be rewritten to correspond to Secretary Babbitt's 1993 Ecosystem Management Statement - Ecosystem Management in the BLM: From Concept to Commitment. The biological diversity goal must: stress sustaining natural ecological processes and functions to provide resilience and adaptation to long-term change; be based on science; and minimize ecosystem fragmentation, reconnect fragmented parts. Biodiversity and "products" do not mesh.

56 Secretary Babbitt gave BLM clear direction to implement management that conserves the diversity and protects the integrity of the land. Obtaining crucial baseline data must be a BLM priority, as well as objective evaluation of scientific information.

57a Due to the lack of data on biological diversity and many plant and animal species in the CRA, BLM must be highly conservative in taking actions which could fundamentally alter or fragment habitats, destroy connectivity, or affect the capacity for habitat recovery. This includes all commercial harvesting of trees from the "islands" of forested habitat, any vegetation manipulation projects, and all range improvement projects which fragment

57b sagebrush communities. BLM must act quickly and firmly to restrict activities such as livestock grazing which are known to be major causes of biodiversity loss (Fleischner 1994).

58 Where an agency has out-dated, insufficient, or no information on potential impacts, it must develop the information as part of the NEPA process. 40 C.F.R. 1502.22. BLM cannot promise that a biodiversity analysis will be done in 4 years (Alt. 2), or 2 years (Alts. 4, 5). It must be prepared as part of the RMP process. Key ecosystem indicator species must be identified and landscape level biodiversity objectives and management strategies included in the RMP. This is critical to full evaluation of impacts of all RMP alternatives. If this is not done as part of the RMP process, it will never get done - funds will be diverted to other purposes.

59a RMP Effects: Land Tenure, Minerals, Visual Quality, others will affect Biodiversity. Cumulative impacts will be significant.

59b See Wildlife, Forest, Vegetation for additional comments on biodiversity.

CULTURAL RESOURCES

60 A.The RMP states that there is currently a probable downward trend in condition of cultural resources in the CRA. It is the direct observation of our members that the impacts of grazing and trampling by livestock are primary causes of this downward trend. Livestock in the CRA destroy or alter site stratigraphy, expose artifacts and cultural remains to view of looters, directly break or damage and displace artifacts, rub and drool on pictographs and petroglyphs, etc. Trampling and erosion cause irreparable and irretrievable harm to sites. If sites are disturbed before being studied, and chronological sequences/artifacts destroyed, scientific information is permanently lost.

61a B. Sites where livestock are harming cultural resources must be closed to all grazing use.

/2

Letter No. 31 *continued*

61b C. How much site damage in the RA is occurring which can be attributed to grazing impacts? Why does the RMP p.59 carefully avoid any direct mention of the very harmful effects of livestock grazing on cultural resources and ludicrously term both erosion and grazing as impacts of "maintenance activities"?!

62a RMP Effects: Wild Horse and Burro Management, Upland Watershed, Riparian Areas, WSRs, WSAs, Special Status Species , Biological Diversity, Visual Quality, will affect Cultural Resources.
Cumulative impacts will be significant.

62b 1,7. All Alts. Construction and placement of rangeland facilities, particularly water developments and pipelines, destroy archaeological sites. Springs and seeps with fragile resources must be protected by exclusion or elimination of grazing. Vegetation manipulation projects such as burns, discing, seedings whose underlying motive is inevitably based on commodity interests, result in ground disturbance and destruction of archaeological sites.

62c RMP discusses controlling vandalism - how will BLM control site impacts/destruction by livestock?

62d We support archaeological inventory of maximum acres.

62e Burns and seedings should not be termed "wildlife projects". The underlying motivation is almost always commodity production, and describing them as wildlife projects is a subterfuge. Reducing the area for commodity resource use (grazing, forest harvest) reduces damage to archaeological sites.

62f 2. Alts 4,5. A decrease in grazing WILL decrease the general impacts to cultural resources, not "could" decrease impacts.

62h 16, 23. Alts. 2,3,4,5. We support designating the RA as limited to OHV use, the aggressive closure of areas with important archaeological resources, or where site damage is occurring, to all vehicle use - closing the Lone Bird ACEC, and the retention of all cultural resources in Federal ownership.

62i 24. All Alts. We support NSO stipulations and livestock grazing closures in all Native American burial areas, and other sites with important religious significance. We are glad to see the BLM recognizing that cows degrade the quality of aesthetic and spiritual experiences on public land.

ECONOMY AND SOCIETY

63 A. The importance of commodity production is overstated throughout the RMP.

B. The RMP does not adequately discuss or measure the economic benefits of non-use values.

C.The RMP fails to address central socioeconomic questions facing the planning process: What role does the Challis Resource Area play in attracting and retaining people and business to the area, to Idaho? How do roadless areas, wildlife and scenic vistas play a role in attracting people/business to the area, to Idaho? How will alternatives described in the RMP affect people and businesses who are in the area/Idaho for quality of life reasons? How will alternatives affect quality of life?

64 D. Will below-cost timber sales occur?

65a E. How much is each AUM costing the American public? The costs to taxpayers of subsidized public lands grazing "welfare ranching" on the CRA are entirely ignored. The RMP is silent on the economic costs of administering livestock grazing on public land. /////

65b F. The costs in resources impaired, damaged or lost, and alternative uses foregone, as a result of

/3

BLM Response to Letter No. 31 *continued*

outlined in BLM Manual Section 1613; it would not be appropriate to reiterate BLM Manual guidance in the RMP. If a new ACEC nomination is received after implementation of the approved RMP, the BLM authorized officer would assess whether the proposed ACEC's values meet relevance and importance criteria, as defined in the manual. If it is determined that the nominated ACEC should be proposed for designation, the RMP would be amended in accordance with planning guidance and regulations.

31-44: Your opinion is noted. Some ACECs are closed to livestock grazing, and all "open" ACECs have actions to manage livestock grazing. Grazing is normally compatible with ACEC designation, and would be considered in ACEC management.

31-45: (a) In order to protect identified ACEC values approximately 2,398 acres of forest land within the Cronk's Canyon, Malm Gulch/Germer Basin, and Herd Creek Watershed ACECs would continue to be closed to woodland product sales, and 327 acres of commercial timber in the Malm Gulch/Germer Basin and Herd Creek Watershed ACECs would continue to be withdrawn from harvest. The BLM believes forest management practices in the remaining ACECs would not be inconsistent with the protection of identified ACEC values.

(b) Unless another desired plant community better meets resource needs, PNC is the management goal for rangeland sites throughout the Resource Area, including ACECs (see PRMP, Livestock Grazing, Goal 1, #11). Vegetation treatments that may alter seral stage, in the short term, could be an integral part of this management.

31-46: Your opinion is noted. Because visual quality was not identified as an ACEC value by the BLM in any of the proposed or existing ACECs, the PRMP does not emphasize preservation (VRM Class I) of these land areas.

31-47: Your opinion is noted.

31-48: Your preferences for OHV management in ACECs are noted. Some of the OHV management you desire has been included in the PRMP (see PRMP, OHV Use). However, the BLM did not determine it was necessary to close all ACECs to OHV use in order to protect ACEC values.

31-49: This information has been noted.

31-50: Your opinion is noted. The BLM believes that the ACECs analysis stated in the DRMP is accurate.

31-51: Your opinions on commercial timber harvest and

Letter No. 31 *continued*

65b grazing in the CRA are ignored.

66 G. The importance of natural resources in the CRA to residents of Idaho outside of a 2 County area are largely ignored. Example: River uses in the CRA result in sales of recreational equipment in Boise, Twin Falls.

67a H. Positive aspects of the ranching lifestyle/ image are discussed, while negative aspects are not. For example, p. 72 "Ranchers adhere to the attitudes of customary use and legal rights to water and grazing, the importance of sharing....and the need to manage resources responsibly and voluntarily." How do persons who value recreational use view ranching?

67b The RMP repeatedly states the rancher view that water and grazing use on public land are their "rights". BLM must clearly state that they are not.

68a I. Agriculture v. ranching. The RMP fails to separate and analyze employment in agriculture in Custer and Lemhi County from employment in public lands ranching and agriculture associated with it.

68b J. The RMP fails to discuss the economic and social impact of the increasing number of "hobby ranchers - some millionaires or billionaires - who hold grazing permits in the CRA. These individuals/corporations enjoy the benefits of public lands "welfare ranching", yet grazing is an inconsequential part of their income. Indeed, this type of wealthy rancher commonly exploits the local work force - employing workers in low wage jobs, and profits from the ranching operation are often exported from the community.

69 K. Both Custer and Lemhi County have experienced consistent growth in the service sector from 1969 to 1991. The trend is expected to continue. Lemhi County has had steady increases in non-farm income. These trends show an increasing lack of dependence on public lands ranching.

70a L. The lumber mill in Salmon closed in 1995. This has certainly resulted in a significant change in the timber employment sector in the 2 county area. Yet, BLM presents material in Appendix B Items 1,2,3,4,5 and Tables 4- 1-5 based on 1991 statistics. Closure of the mill has resulted in almost zero employment in the timber industry in the area. RMP discusses the "timber sector" throughout the Analysis of Effects as if the timber industry still existed as a fixture of the local economy. There is no need to continue logging in the marginal timber land of the CRA to buoy up a mill and jobs that no longer exist.

70b M. The closing of the mill, and the resulting unimportance of logging to the local economy necessitate the full and complete evaluation of a "No Logging in the CRA" Alternative in the RMP.

70c N. BLM must do a complete cost:benefit analysis of continued logging in the CRA.

71 O. BLM must perform a complete cost:benefit analysis of grazing in the CRA. BLM must analyze cost:benefit of a No Grazing Alternative.

72 P. The information developed by the Custer-Lemhi County Economic Model study must have incorrect population figures for the Pahsimerol sub-region which appear to be far higher for that valley than they really are. However, since the information provided shows only 81 full time employment equivalent jobs in that sub-region and 43% of the income for that area coming from outside income sources, it would appear that the analysis of job losses as shown for alternatives 4 and 5 may exaggerate the effects in the Pahsimerol and perhaps for the two county region as a whole. In any case, even if the assumptions relating to direct job losses are correct as stated in the EIS, the watershed, wildlife, and recreation benefits of alternatives 4 and 5 far exceed any minor economic and social dislocations which might result from their selection.

73a RMP Effects: All aspects affect economy and society. Significant cumulative impacts will occur.

Letter No. 31 *continued*

73b-1 1. Alts. 2,3,4,5. BLM analysis concludes that all impacts of Alt. 4 on the local economy would be negligible, but appears to be afraid to state that the impact of Alt. 5 would be negligible, also. Why?

73b-2 Alt. 5. Why does the RMP state that tourism would benefit less (qualitative impact) under this Alt. than Alt. 4?

73b-3 Alts. 2,3,4,5. RMP claims increased costs for livestock operators under these Alts. What are these costs? Specify, quantify. Haven't permittees been fencing, riding, salting all along?

2. Alts. 2,3,4,5. Again the RMP claims increased permittee costs. Specify, quantify.

73c 3. All Alts. BLM must stop perpetrating the sham that sustainable timber production in the CRA is possible. RMP p. 6: "the majority of the forest habitat types are low productivity....all commercial forest lands are in areas that indicate management difficulty..." "Currently there is little demand for either commercial timber or other woodland products from the Challis RA."

73d 5. Alt. 5. What is the basis for the conclusion that this Alt. may not meet recreation demand? Under this Alt., many areas would still be open to recreational site development. Managing for a more pristine condition in parts of the CRA does not preclude recreational use.

73e Also, p. 204, BLM again disclaims any role in managing populations. Yet, the quality of habitat, which BLM is responsible for managing, is a greater determinant of population size than hunting, except in rare circumstances.

FISHERIES

74 The Challis RA has had the hammer of the ESA hanging over its head for years. Yet, the BLM continues to drag its feet on making hard decisions on watershed, water quality, and riparian habitat issues related to livestock grazing.

Waters of the CRA contain 6 resident salmonids and 3 anadromous salmonids! These are species cherished by the public. Effective and aggressive BLM management of public lands is necessary to protect and restore vital habitat degraded by livestock grazing. We are distressed and saddened by the lack of effective management strategies in the RMP preferred alternative.

The RMP does little to reassure the public that concrete change necessary to protect and enhance native fish will ever be accomplished. For example, the proposed action on P. 382a 3. states "identify crucial habitats in RA within 7 years...special emphasis on drainages sustaining special status fish populations". This is precisely the key information which should have been presented in the RMP to enable a reader/BLM to evaluate impacts of proposed actions. How can the public be expected to wait another 7 years (minimum) for such information?

75 The CRA has conducted recent inventories on only 43 miles of the 353 miles of streams in the RA. (only 21% of stream miles surveyed were in proper functioning condition). Watershed analyses used in the RMP are - 20 years old.

76a The proposed action does not mandate necessary cuts in livestock numbers and removal of livestock from critical habitats, streams in non-functioning or functioning at risk condition. Instead, it hedges, and relies on the good behavior of ranchers to meet stubble height, bank trampling standards. This is despite repeated past failure of livestock grazers to meet riparian objectives on critical CRA streams. And repeated past failure of BLM to enforce existing grazing criteria.

76b The management actions described by BLM for riparian areas in the preferred alternative on pages 372-376 do not go far enough to sustain populations of native fish. BLM fails to act. There

15

BLM Response to Letter No. 31 *continued*

maintenance of biodiversity are noted. The BLM estimates that up to 50% of commercial forest land acres in the RA have old growth characteristics. The BLM agrees some of these stands are in need of maintenance and retention, especially where they form habitat islands (see PRMP, Forest Resources, Goal 1, #22). However, stands with old-growth characteristics may in fact be above historical levels in the RA, as very few stands in early seral condition exist. Therefore, in addition to the maintenance and retention of some existing old growth stands, natural regeneration of early seral stands is an objective (see PRMP, Forest Resources, Goal 1, #8). The BLM believes the PRMP's proposed management of forested areas will facilitate achievement of the goal statement for biological diversity (see PRMP/FEIS: PRMP decisions regarding Biological Diversity, Goal 1 and Forest Resources, Goal 1; and Chapter 4- Biodiversity, analysis of Forest Resource management impacts). Please also see response 31-27.

31-52: BLM believes the analysis of impacts to biodiversity from rangeland vegetation treatment projects is correct (see PRMP, Chapter 4 - Biological Diversity). Vegetative manipulations would affect relatively few acres and thus would have little effect on biodiversity. BLM believes that the PRMP decisions related to vegetation treatments would adequately protect other resource values, including biodiversity of the RA (see PRMP, Rangeland Vegetation Treatment Projects, Goal 1, #1-7). Also, before any vegetative manipulation or other range improvement project could be done, an analysis of impacts to biodiversity would be completed (PRMP, Biological Diversity, Goal 1, #1).

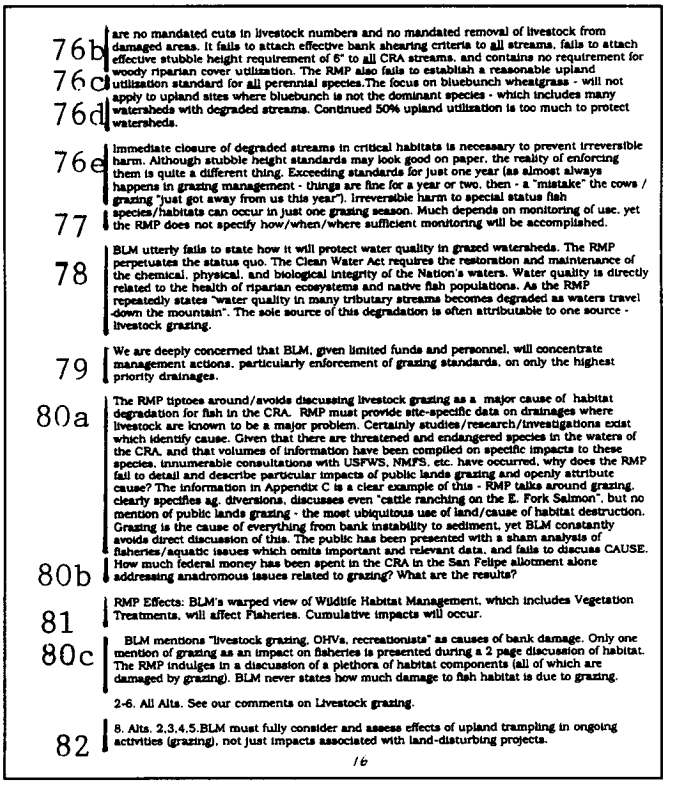
31-53: The BLM determined that the PRMP would have no reasonably foreseeable effects on the dispersal or migration corridors of most terrestrial wildlife species. Therefore, corridors were not discussed in the affected environment or environmental consequences. The effects of fences on the movements of big game animals are analyzed in Chapter 4 - Wildlife, "Rangeland Vegetation Treatments and Range Improvement Projects." Fragmentation of aquatic habitats was discussed in the DRMP on page 56, last paragraph; this discussion is expanded slightly in the PRMP. The Chapter 4 discussion of effects on biodiversity has been revised in the PRMP to more specifically mention impacts on the connectivity of aquatic habitats.

31-54: Your comments are noted. Please see response 31-52.

31-55: Your opinions are noted. The biological diversity goal statement has been revised to describe both "values" and "products."

31-56: The decisions outlined in the PRMP are consistent with

Letter No. 31 *continued*



76b are no mandated cuts in livestock numbers and no mandated removal of livestock from damaged areas. It fails to attach effective bank shearing criteria to all streams, fails to attach effective stubble height requirement of 6" to all CRA streams, and contains no requirement for woody riparian cover utilization. The RMP also fails to establish a reasonable upland
76c utilization standard for all perennial species.The focus on bluebunch wheatgrass - will not
76d apply to upland sites where bluebunch is not the dominant species - which includes many watersheds with degraded streams. Continued 50% upland utilization is too much to protect watersheds.

76e immediate closure of degraded streams in critical habitats is necessary to prevent irreversible harm. Although stubble height standards may look good on paper, the reality of enforcing them is quite a different thing. Exceeding standards for just one year (as almost always happens in grazing management - things are fine for a year or two, then - a "mistake" the cows / grazing "just got away from us this year"). Irreversible harm to special status fish

77 species/habitats can occur in just one grazing season. Much depends on monitoring of use, yet the RMP does not specify how/when/where sufficient monitoring will be accomplished.

78 BLM utterly fails to state how it will protect water quality in grazed watersheds. The RMP perpetuates the status quo. The Clean Water Act requires the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters. Water quality is directly related to the health of riparian ecosystems and native fish populations. As the RMP repeatedly states "water quality in many tributary streams becomes degraded as waters travel down the mountain". The sole source of this degradation is often attributable to one source - livestock grazing.

79 We are deeply concerned that BLM, given limited funds and personnel, will concentrate management actions, particularly enforcement of grazing standards, on only the highest priority drainages.

80a The RMP tiptoes around/avoids discussing livestock grazing as a major cause of habitat degradation for fish in the CRA. RMP must provide site-specific data on drainages where livestock are known to be a major problem. Certainly studies/research/investigations exist which identify cause. Given that there are threatened and endangered species in the waters of the CRA, and that volumes of information have been compiled on specific impacts to these species, innumerable consultations with USFWS, NMFS, etc. have occurred, why does the RMP fail to detail and describe particular impacts of public lands grazing and openly attribute cause? The information in Appendix C is a clear example of this - RMP talks around grazing, clearly specifies ag. diversions, discusses even "cattle ranching on the E. Fork Salmon", but no mention of public lands grazing - the most ubiquitous use of land/cause of habitat destruction. Grazing is the cause of everything from bank instability to sediment, yet BLM constantly avoids direct discussion of this. The public has been presented with a sham analysis of fisheries/aquatic issues which omits important and relevant data, and fails to discuss CAUSE.
80b How much federal money has been spent in the CRA in the San Felipe allotment alone addressing anadromous issues related to grazing? What are the results?

81 RMP Effects: BLM's warped view of Wildlife Habitat Management, which includes Vegetation Treatments, will affect Fisheries. Cumulative impacts will occur.

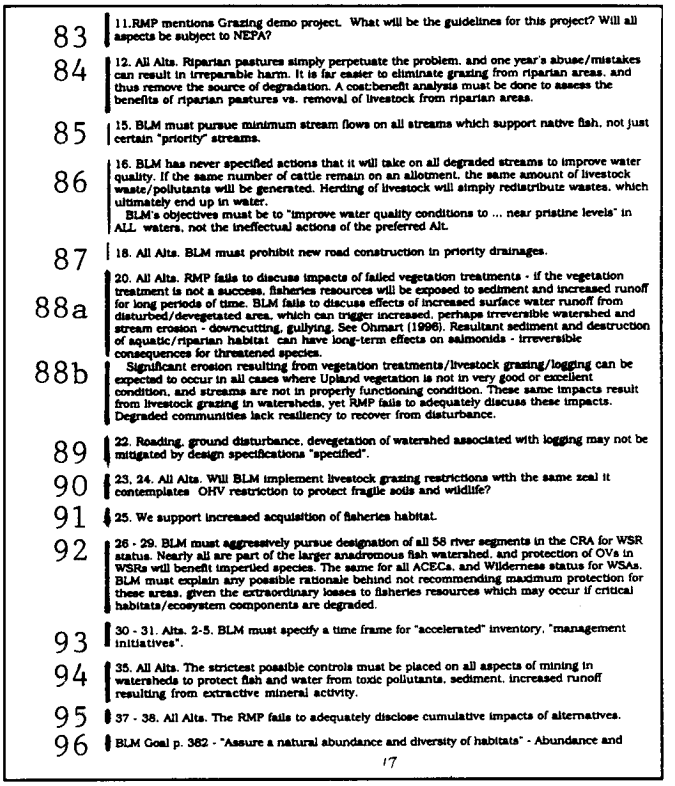
80c BLM mentions "livestock grazing, OHVs, recreationists" as causes of bank damage. Only one mention of grazing as an impact on fisheries is presented during a 2 page discussion of habitat. The RMP indulges in a discussion of a plethora of habitat components (all of which are damaged by grazing). BLM never states how much damage to fish habitat is due to grazing.

2-6. All Alts. See our comments on Livestock grazing.

82 8. Alts. 2,3,4,5.BLM must fully consider and assess effects of upland trampling in ongoing activities (grazing), not just impacts associated with land-disturbing projects.

16

Letter No. 31 *continued*



83 11.RMP mentions Grazing demo project. What will be the guidelines for this project? Will all aspects be subject to NEPA?

84 12. All Alts. Riparian pastures simply perpetuate the problem, and one year's abuse/mistakes can result in irreparable harm. It is far easier to eliminate grazing from riparian areas, and thus remove the source of degradation. A cost:benefit analysis must be done to assess the benefits of riparian pastures vs. removal of livestock from riparian areas.

85 15. BLM must pursue minimum stream flows on all streams which support native fish, not just certain "priority" streams.

86 16. BLM has never specified actions that it will take on all degraded streams to improve water quality. If the same number of cattle remain on an allotment, the same amount of livestock waste/pollutants will be generated. Herding of livestock will simply redistribute wastes, which ultimately end up in water.
BLM's objectives must be to "improve water quality conditions to ... near pristine levels" in ALL waters, not the ineffectual actions of the preferred Alt.

87 18. All Alts. BLM must prohibit new road construction in priority drainages.

88a 20. All Alts. RMP fails to discuss impacts of failed vegetation treatments - if the vegetation treatment is not a success, fisheries resources will be exposed to sediment and increased runoff for long periods of time. BLM fails to discuss effects of increased surface water runoff from disturbed/devegetated area, which can trigger increased, perhaps irreversible watershed and stream erosion - downcutting, gullying. See Ohmart (1996). Resultant sediment and destruction of aquatic/riparian habitat can have long-term effects on salmonids - irreversible consequences for threatened species.

88b Significant erosion resulting from vegetation treatments/livestock grazing/logging can be expected to occur in all cases where Upland vegetation is not in very good or excellent condition, and streams are not in properly functioning condition. These same impacts result from livestock grazing in watersheds, yet RMP fails to adequately discuss these impacts. Degraded communities lack resiliency to recover from disturbance.

89 22. Roading, ground disturbance, devegetation of watershed associated with logging may not be mitigated by design specifications "specified".

90 23, 24. All Alts. Will BLM implement livestock grazing restrictions with the same zeal it contemplates OHV restriction to protect fragile soils and wildlife?

91 25. We support increased acquisition of fisheries habitat.

92 26 - 29. BLM must aggressively pursue designation of all 56 river segments in the CRA for WSR status. Nearly all are part of the larger anadromous fish watershed, and protection of OVs in WSRs will benefit imperiled species. The same for all ACECs, and Wilderness status for WSAs. BLM must explain any possible rationale behind not recommending maximum protection for these areas, given the extraordinary losses to fisheries resources which may occur if critical habitats/ecosystem components are degraded.

93 30 - 31. Alts. 2-5. BLM must specify a time frame for "accelerated" inventory, "management initiatives".

94 35. All Alts. The strictest possible controls must be placed on all aspects of mining in watersheds to protect fish and water from toxic pollutants, sediment, increased runoff resulting from extractive mineral activity.

95 37 - 38. All Alts. The RMP fails to adequately disclose cumulative impacts of alternatives.

96 BLM Goal p. 382 - "Assure a natural abundance and diversity of habitats" - Abundance and

17

BLM Response to Letter No. 31 *continued*

this direction. The PRMP emphasizes assessment of biodiversity (see Biological Diversity, Goal 1).

31-57: (a) The PRMP provides for maintenance of forested area "islands" (see PRMP, Forest Resources, Goal 1, #22). Please also see responses 31-51 and 31-52. (b) Your opinion is noted. Biological Diversity, Goal 1, #1 requires an assessment of biodiversity as part of project and activity planning.

31-58: Your comments are noted. The BLM believes the biodiversity information available was sufficient to prepare an analysis of impacts from the alternatives.

31-59: (a) The PRMP adds an analysis of impacts from Land Tenure and Access and Minerals decisions. The BLM believes no reasonably foreseeable impacts to biodiversity would occur from Visual Resources decisions. (b) Your opinion is noted.

31-60: The DRMP mentions cultural resources have been disturbed by various agents, including "human and animal intrusion," and recognizes that grazing, as well as other activities, have adversely affected known cultural resources (DRMP, p. 59). The DRMP also analyzes the impacts of livestock trampling and range improvement projects on cultural resources by alternative (pp. 198a-199b).

31-61: (a) Your opinion is noted. Efforts to protect significant cultural resources from impacts due to livestock grazing will be introduced through the project or activity planning process on a case-by-case basis. The BLM feels that cultural resources can be protected from grazing-related impacts through a variety of methods such as fencing, changes in grazing systems (including changes in seasons of use), and moving livestock. All of these options are provided for in the PRMP. (b) The DRMP described the impacts of livestock trampling and range improvement projects on cultural resources under existing management (Alternative 1) ((DRMP, pp. 198a-199a). The statement in the Affected Environment you are concerned about has been revised in the PRMP.

31-62: (a) Decisions within each of the Management Concerns you listed were reviewed; the BLM still believes that there will be minimal or no impacts (including cumulative impacts) to cultural resources from these decisions.

(b) The National Historic Preservation Act (NHPA) of 1966, as amended, and the implementing regulations that define the Section 106 process of that Act reduce or eliminate the potential for destroying archaeological sites through construction and placement of rangeland facilities, vegetation manipulation projects, or any other

Letter No. 31 *continued*

96 diversity can include abundant/diverse degraded habitats, consumptive uses such as livestock grazing/disturbance. The goal must be changed.
We suggest a simpler, clearer goal: To protect and restore native fish and their habitat.

97 BLM proposes taking 7 years to:
1) identify crucial habitats and determine distribution of priority fish species.
2) Inventory anadromous fish habitat on a watershed basis, and determine current distribution of anadromous fish.
3) Develop and implement a plan for enhancing fisheries habitat along 5.7 miles of the Big Lost River.
4) Eliminate or modify natural or artificial barriers to upstream and downstream movement of prority fish species.
5) inventory Bull Trout and Westslope Cutthroat Trout. This is ridiculous! In 7 years, most of the priority fish species will be extirpated or extinct. Further irreversible habitat losses will have occurred.

98 All this information should already be known, and presented to the public in the RMP. BLM must pursue "net gain" of critical habitats.

FIRE

99 A. Fire must be actively suppressed in all sage grouse habitat. See IDFG Idaho Sage Grouse Management Plan Summary 1996-2000.

100 B. All fire in Wyoming big sagebrush habitat and all vegetation types vulnerable to cheatgrass invasion (see Monsen 1994 for discussion of these vegetation types). Fire must be actively suppressed, due to susceptibility of plant communities to exotic species invasions following fire.

101 C. All fire rehabilitation efforts should involve the use of native plant species only. Sagebrush must be seeded in all fires in sagebrush communities.

102 D. Specific post-fire rehabilitation stipulations must be established in the RMP.

E. RMP must establish specific post-fire standards for site recovery which must be met before any livestock grazing can resume.

103 F. A comparison of Maps 14 and 15 reveals that BLM is proposing a great change in Fire management in the CRA. The RMP fails to provide necessary analysis to fully consider impacts of this change. BLM has shifted ~ 95% of the CRA into a conditional suppression zone (currently only~15% is in the conditional suppression zone. Nearly all Wyoming sagebrush habitat in the CRA has been placed in the conditional suppression zone. No consideration of sage grouse habitat needs, needs of other wildlife species, impact of fire on spread of exotic species, cumulative impacts of sagebrush habitat loss on wildlife species, etc. has been presented. BLM must provide a complete analysis of this proposed change.

Also, see additional comments Forest, Vegetation, Livestock Grazing, Wildlife, etc.

FOREST RESOURCES

104a The RMP falls victim to the forest health/ ecosystem salvation through intense manipulation and human interference craze which is currently in vogue. Much scientific evidence exists which negates unsubstantiated and unproven assumptions on forest health and vegetation manipulation made in the RMP. Intensive management forest proposals remain largely undeveloped, untested, and unsupported by empirical evidence (Wright 1996).

18

Letter No. 31 *continued*

104b RMP Effects: Vegetation Treatment and Biological Diversity will affect forest resources. Cumulative impacts will be significant.

105a 1, 2, 3, All Alts. Timber harvest does NOT decrease susceptibility to fire, insects, or diseases. Unprecedented fire and insect outbreaks are not causes of forest health problems; they are symptoms of underlying problems caused by a century and a half of logging, grazing, road building, mining, introduction of exotics, etc. (Beschta et.al. 1995). Addressing the ultimate,

105b underlying causes of fire and disease, and not simply harvesting more trees, is the solution to achieving healthier forests. The RMP must focus on modifying management to fix forest conditions. The proliferation of human-caused disturbance across the landscape is the

105c principle cause of forest health problems (Henjum et.al. 1994). (Beschta et. al. 1995). Human disturbance does not mimic natural disturbance.

105d The ability of intensive management to control fire and insect outbreak on a landscape scale is speculative. (Wright 1996). Scientific evidence does not support the hypothesis that intensive salvage, thinning, and other logging activities reduce the risk of catastrophic fire. Della Sala et.al. (1995a). No consensus exists on silvicultural practices for minimizing effects of fire, drought, insects and pathogens (Henjum et.al. 1994). Logging may actually increase fire

105e damage, even when fuels (slash) is treated afterwards. (Weatherspoon and Skinner 1995). Fire behavior is predominantly determined by weather (Bessie and Johnson 1995). (Weatherspoon and Skinner 1995). Turner et. al. (1994) found that the severity of a burn was a function of weather: fuel load did not determine burn severity.

105f Insect pests fluctuate on a large geographic scale (Wright 1996). The population fluctuations of defoliators often are driven by dynamic processes that are part of a large population system operating at a regional scale. The degree to which insect outbreaks can be reduced in the interior Pacific northwest by modifying landscape patterns is untested...and speculative." (Mason and Wickman 1994).

105g Management actions may exacerbate problems. In dry areas (fir forests of CRA), opening forest canopies can dry forest understories out earlier in the season; the disruption of soil and litter by heavy equipment can reduce soil moisture retention, creating drier conditions (Harvey et. al. 1994). Fine fuels left behind by logging contribute more to the spread of fires than large fuels (Della Sala 1995b). (Beschta et.al. 1995). Closed canopies reduce sunlight and wind movement

105h and drying of fuels. Opening a stand with partial cutting adds fuels and creates a microclimate conducive to increased fire frequencies. (Weatherspoon and Skinner 1995). (Wright 1996).

105i Roads associated with management activities lead to increased human access and fire risk (Wright 1996)

105j Management techniques may exacerbate insect problems by removing predators (parasitic wasps, birds, ants) and their habitat. Prescribed burning may increase insect pest densities by eliminating nesting substrate for ant colonies (Bull 1994). Many insect-eating birds and predatory or parasitic insect species are dependent on dead wood for nesting. Removing dead wood through prescribed fire eliminates habitat for natural control agents.

105k Tree disease may be increased by roads or management activities. Fragmentation of forested tracts has increased the incidence of soil-borne tree diseases. Disease may be spread directly by disseminating spores or indirectly by altering stand structure and composition. Logging roads alter soil drainage patterns and facilitate spread of fungal disease. (Castello et. al. 1995). Thinning may increase the spread of root rots into adjacent trees. (Heather 1976).

1051 Prior to European settlement, disturbed areas were nested in a mainly undisturbed landscape; now undisturbed areas are surrounded by a sea of recent disturbance (Della Sala 1995a). (Wright 1996). The CRMP fails to consider or address the consequences of further disturbance (logging, thinning, prescribed fire) to the landscape under proposed management scenarios.

The goal of intensive management should be to:

19

BLM Response to Letter No. 31 *continued*

ground disturbing projects. Through the NHPA, particularly Sections 106 and 110 of that Act, areas which may be affected by ground disturbing activities are inventoried for cultural resources prior to project implementation. If cultural resources are identified, they are evaluated for their eligibility to the National Register of Historic Places and effects are mitigated. Inventory, evaluation and mitigation of cultural resources are done in consultation with the Idaho State Historic Preservation Office, the Advisory Council on Historic Preservation, and appropriate Tribal governments, if necessary.

(c) Please see response 31-61(a).

(d) Your preference for inventory of maximum acres (Alternative 5) is noted. The BLM believes 500 acres of Class III non-project intensive inventory is more realistic and attainable. This objective does not preclude completing additional inventory if funding and staffing permit.

(e) The BLM disagrees. Prescribed burns and seedings can be described as wildlife habitat management projects when the primary objective is to provide forage for wildlife. For example, a number of prescribed burn treatments have been conducted in the Challis RA specifically for bighorn sheep on bighorn winter ranges.

(f) The BLM agrees that reducing the number of acres within the RA that are used for commodity purposes (such as grazing and timber harvest) will also reduce damage to archaeological sites from those activities.

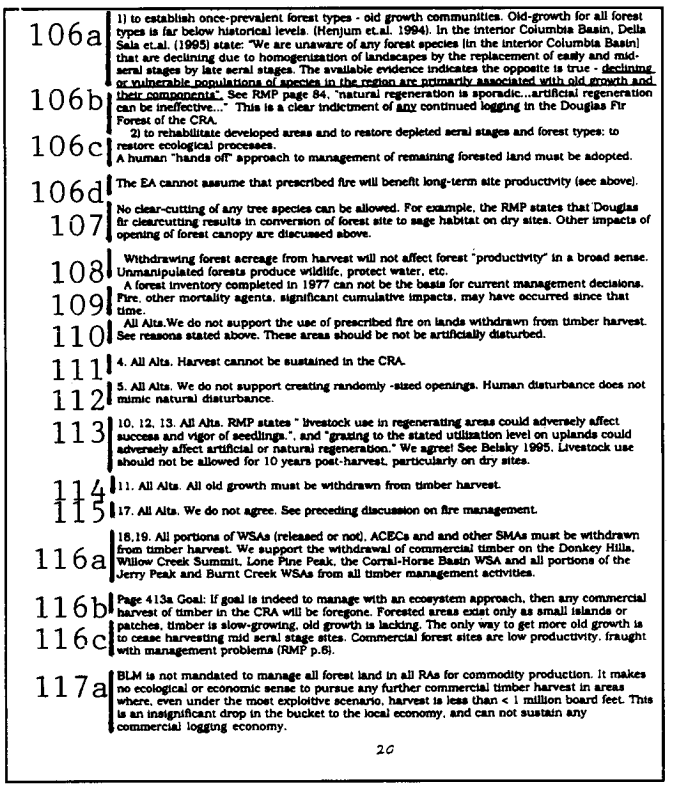
(g) The BLM disagrees. A decrease in livestock grazing within a specific allotment will not always result in a decrease of impacts to cultural resources. Other aspects of grazing activities which are contributing to the impacts may also need to be changed.

(h) Your alternative preferences are noted. In general, the PRMP limits OHV use in the RA to existing roads, vehicle ways, and trails. Areas where there are concerns for cultural resources are designated "closed" to OHV use. The BLM prefers Alternative 2 of Management Concern: Cultural Resource Management, Goal 1, #6, because it retains the flexibility for sale or exchange to other agencies who may be better suited to manage these values for the public benefit.

(i) Your support of proposed management is noted.

31-63: The economic analysis describes quantitative and qualitative impacts to the economic sectors for which data were gathered during the social and economic study of Lemhi/Custer counties (timber, agriculture, government, tourism, mining). Some of these economic

Letter No. 31 *continued*



106a 1) to establish once-prevalent forest types - old growth communities. Old-growth for all forest types is far below historical levels. (Henjum et.al. 1994). In the interior Columbia Basin, Della Sala et.al. (1995) state: "We are unaware of any forest species [in the interior Columbia Basin] that are declining due to homogenization of landscapes by the replacement of early and mid-seral stages by late seral stages. The available evidence indicates the opposite is true - declining or vulnerable populations of species in the region are primarily associated with old growth and their components". See RMP page 84, "natural regeneration is sporadic...artificial regeneration can be ineffective..." This is a clear indictment of any continued logging in the Douglas Fir Forest of the CRA.

106b 2) to rehabilitate developed areas and to restore depleted seral stages and forest types: to restore ecological processes.

106c A human "hands off" approach to management of remaining forested land must be adopted.

106d The EA cannot assume that prescribed fire will benefit long-term site productivity (see above).

107 No clear-cutting of any tree species can be allowed. For example, the RMP states that Douglas fir clearcutting results in conversion of forest site to sage habitat on dry sites. Other impacts of opening of forest canopy are discussed above.

108 Withdrawing forest acreage from harvest will not affect forest "productivity" in a broad sense. Unmanipulated forests produce wildlife, protect water, etc.

109 A forest inventory completed in 1977 can not be the basis for current management decisions. Fire, other mortality agents, significant cumulative impacts, may have occurred since that time.

110 All Alts.We do not support the use of prescribed fire on lands withdrawn from timber harvest. See reasons stated above. These areas should be not be artificially disturbed.

111 4. All Alts. Harvest cannot be sustained in the CRA.

112 5. All Alts. We do not support creating randomly -sized openings. Human disturbance does not mimic natural disturbance.

113 10, 12, 13. All Alts. RMP states " livestock use in regenerating areas could adversely affect success and vigor of seedlings.", and "grazing to the stated utilization level on uplands could adversely affect artificial or natural regeneration." We agree! See Belsky 1995. Livestock use should not be allowed for 10 years post-harvest, particularly on dry sites.

114 11. All Alts. All old growth must be withdrawn from timber harvest.

115 17. All Alts. We do not agree. See preceding discussion on fire management.

116a 18,19. All portions of WSAs (released or not), ACECs and and other SMAs must be withdrawn from timber harvest. We support the withdrawal of commercial timber on the Donkey Hills, Willow Creek Summit, Lone Pine Peak, the Corral-Horse Basin WSA and all portions of the Jerry Peak and Burnt Creek WSAs from all timber management activities.

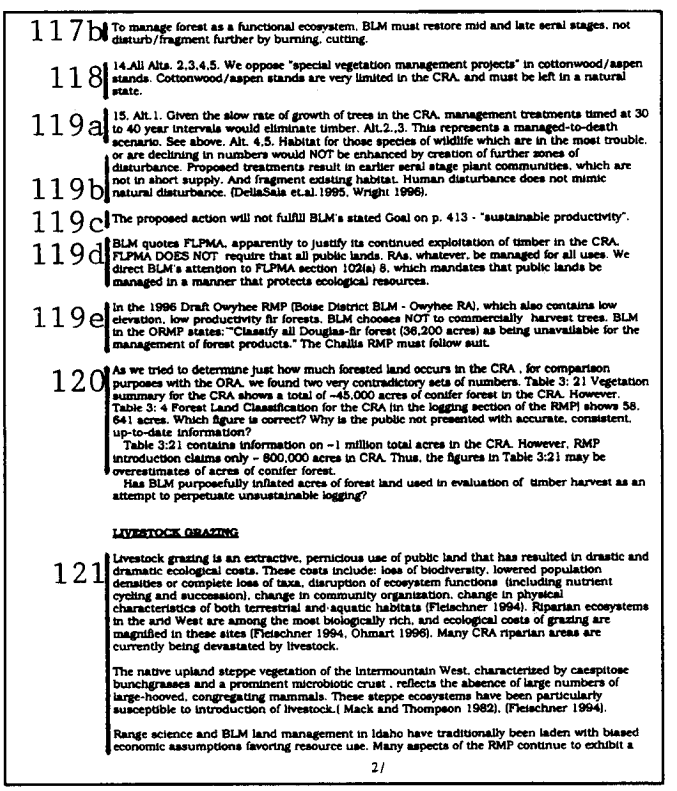
116b Page 413a Goal: If goal is indeed to manage with an ecosystem approach, then any commercial harvest of timber in the CRA will be foregone. Forested areas exist only as small islands or patches, timber is slow-growing, old growth is lacking. The only way to get more old growth is

116c to cease harvesting mid seral stage sites. Commercial forest sites are low productivity, fraught with management problems (RMP p.6).

117a BLM is not mandated to manage all forest land in all RAs for commodity production. It makes no ecological or economic sense to pursue any further commercial timber harvest in areas where, even under the most exploitive scenario, harvest is less than < 1 million board feet. This is an insignificant drop in the bucket to the local economy, and can not sustain any commercial logging economy.

20

Letter No. 31 *continued*



117b To manage forest as a functional ecosystem, BLM must restore mid and late seral stages, not disturb/fragment further by burning, cutting.

118 14.All Alts. 2,3,4,5. We oppose "special vegetation management projects" in cottonwood/aspen stands. Cottonwood/aspen stands are very limited in the CRA, and must be left in a natural state.

119a 15. Alt.1. Given the slow rate of growth of trees in the CRA, management treatments timed at 30 to 40 year intervals would eliminate timber. Alt.2.,3. This represents a managed-to-death scenario. See above. Alt. 4,5. Habitat for those species of wildlife which are in the most trouble, or are declining in numbers would NOT be enhanced by creation of further zones of disturbance. Proposed treatments result in earlier seral stage plant communities, which are

119b not in short supply. And fragment existing habitat. Human disturbance does not mimic natural disturbance. (DellaSala et.al.1995, Wright 1996).

119c The proposed action will not fulfill BLM's stated Goal on p. 413 - "sustainable productivity".

119d BLM quotes FLPMA, apparently to justify its continued exploitation of timber in the CRA. FLPMA DOES NOT require that all public lands, RAs, whatever, be managed for all uses. We direct BLM's attention to FLPMA section 102(a) 8, which mandates that public lands be managed in a manner that protects ecological resources.

119e In the 1996 Draft Owyhee RMP (Boise District BLM - Owyhee RA), which also contains low elevation, low productivity fir forests, BLM chooses NOT to commercially harvest trees. BLM in the ORMP states: "Classify all Douglas-fir forest (36,200 acres) as being unavailable for the management of forest products." The Challis RMP must follow suit.

120 As we tried to determine just how much forested land occurs in the CRA , for comparison purposes with the ORA, we found two very contradictory sets of numbers. Table 3: 21 Vegetation summary for the CRA shows a total of ~45,000 acres of conifer forest in the CRA. However, Table 3: 4 Forest Land Classification for the CRA [in the logging section of the RMP] shows 58, 641 acres. Which figure is correct? Why is the public not presented with accurate, consistent, up-to-date information?

Table 3:21 contains information on ~1 million total acres in the CRA. However, RMP introduction claims only ~ 800,000 acres in CRA. Thus, the figures in Table 3:21 may be overestimates of acres of conifer forest.

Has BLM purposefully inflated acres of forest land used in evaluation of timber harvest as an attempt to perpetuate unsustainable logging?

LIVESTOCK GRAZING

121 Livestock grazing is an extractive, pernicious use of public land that has resulted in drastic and dramatic ecological costs. These costs include: loss of biodiversity, lowered population densities or complete loss of taxa, disruption of ecosystem functions (including nutrient cycling and succession), change in community organization, change in physical characteristics of both terrestrial and aquatic habitats (Fleischner 1994). Riparian ecosystems in the arid West are among the most biologically rich, and ecological costs of grazing are magnified in these sites (Fleischner 1994, Ohmart 1996). Many CRA riparian areas are currently being devastated by livestock.

The native upland steppe vegetation of the Intermountain West, characterized by caespitose bunchgrasses and a prominent microbiotic crust , reflects the absence of large numbers of large-hooved, congregating mammals. These steppe ecosystems have been particularly susceptible to introduction of livestock.(Mack and Thompson 1982). (Fleischner 1994).

Range science and BLM land management in Idaho have traditionally been laden with biased economic assumptions favoring resource use. Many aspects of the RMP continue to exhibit a

21

BLM Response to Letter No. 31 *continued*

sectors are based on commodities which are normally traded in the marketplace, e.g., timber, livestock, and minerals. The economic analysis may seem to focus attention on these commodity resources, but this is only because these aspects of the regional economy are readily quantifiable. Please note that the DRMP/EIS also analyzes the economic benefits of what IWP terms "non-use values." The economic analysis of the tourism sector specifically addresses the economic benefits of non-commodity resources such as fisheries habitat, wildlife habitat, visual quality, and water quality (see DRMP, p. 208a/b). The economic analysis of the government sector (p. 209a/b) indirectly discusses "quality of life" impacts on local residents, since local taxes provide for many public goods and services (see DRMP, pp. 68-69). The analysis of social effects more specifically documents impacts to "quality of life" considerations such as air quality, water quality, visual/aesthetic/scenic values, and recreational values (see DRMP, p. 209a). The analysis of impacts to recreation opportunities (DRMP, p. 257a/b, #2) indicates that although visitor use of the RA would probably increase as the regional population increases, the increase attributable to RMP actions would not be significant.

31-64: Below cost timber sales occurred in the Salmon District prior to 1990. However, increased stumpage prices and an informal cost accounting process initiated in the Salmon Field Office have prevented below cost sales since that time.

31-65: (a) The economic analysis for the Challis RMP focused on the economy and society of the two regions which primarily use lands in the RA and could be affected by RMP decisions (see DRMP, pp. 204-212). Estimates of economic impacts to other groups/regions (such as the State of Idaho, adjacent counties, "the American public", Canada...) are beyond the scope of this EIS. Laws, regulations, and policies establish AUM costs and grazing administration procedures on all public lands, not just the Challis Resource Area. The PRMP describes management guidance for the physical and biological resources within the Challis RA. It does not set economic policy, although some actions in the PRMP are specifically intended to reduce economic impacts (e.g., Land Tenure and Access, Goal 2, #1). Regarding the topic of what IWP terms "welfare ranching," please see response 31-68b.

(b) The Draft RMP/EIS analyzed the beneficial and adverse impacts of managed livestock grazing (see DRMP, Chapter 4).

31-66: The importance of natural resources in the Challis Resource Area to residents outside the two-county area were not ignored, since comments from residents

Letter No. 31 *continued*

121 bias towards livestock.

The RMP must honestly and fairly evaluate impacts, and adopt strict measures necessary to rectify 140+ years of abusive grazing practices.

RMP Effects: If BLM pursues aggressive management necessary to protect Forests, Visual Quality, Tribal Treaty Rights, and Cultural Resources, livestock grazing will be affected.

122 1. Alt.1. The summary of effects states that existing management would result in static range condition. This is dead wrong. BLM information on range condition is based on a 20 year old survey. Existing management would lead to continued degradation and downward trend in upland and riparian areas: irreversible harm to soil, vegetative, water, animal, ecological processes would occur.

Alt. 2. The great inadequacy of this Alt. in meeting BLM criteria for rangeland health is clearly shown here. BLM states: "Riparian stubble height and upland cover criteria would be difficult to meet without additional management by permittees." BLM cannot rely on management by permittees to affect necessary change. BLM MUST mandate reductions and changes in the RMP - not only establish criteria, but state the reductions in livestock numbers which will be necessary in each allotment to attain minimum criteria, and incorporate these necessary reductions in the RMP.

123 2. Alt.2. This is so wishy washy, filled with words like "would probably", "unless", "could", etc., indicating BLM's uncertainty that objectives will be ever be met, or any action taken. As stated above, BLM must dictate necessary reductions in livestock numbers as part of the preferred alternative. Establishment of criteria is necessary, but it will take close monitoring of compliance each year - cost in BLM in personnel $. Although permittee compliance may occur at some times, serious resource damage can occur in a very short period of time if livestock exceed standards, particularly in already damaged riparian areas. It is far simpler to cut #s, closer to realistic levels for achieving standards. BLM must do this in the RMP.

Permittees have been responsible for ongoing resource damage and the current failure to meet management goals. Why does BLM expect permittee compliance to change this time? We foresee compliance shortfalls, making cuts a necessity.

Alt. 3. It is naive to think that utilization and stubble height requirements will result in livestock moving more rapidly through allotments - it has been our experience that BLM repeatedly looks the other way when annual standards are exceeded, unless intense public pressure is applied. First, cut, based on known data on resource problems and past failure to meet management objectives, then institute reasonable criteria.

If permittee management could minimize need for change, WHY hasn't this been occurring all along??? Permittees could have been actively managing livestock to attain BLM goals all along, and have not done so. Why does BLM think that additional criteria will be obeyed?

Alts. 4,5. The use of seedings, fire can not restore native plant communities.

124 3. Alts. 2,3,4,5. We are confused by the direction BLM appears to be taking regarding specific allotment level planning. BLM discusses nebulous yet-to-be-conducted watershed analyses (elsewhere), ecosystem level plans, etc. What specific plan will be presented to the public and permittees as a firm basis for allotment management in the CRA?

125a 4 - 6. All Alts. Wildlife and wild horses must be given precedence in any identified conflicts with livestock.

125b RMPs bias toward large, huntable wildlife species stands out here. BLM overwhelmingly considers wildlife to be grass-eating charismatic megafauna. Why are sage grouse, pygmy rabbits, migratory songbirds not discussed here? Many of these species have populations which are significantly declining, and simple human manipulation such as shortening hunting seasons, will have no effect on reversing downward trends. These species need suitable habitat, and their habitat requirements conflict with livestock grazing methods in the CRA.

125c RMP assumes that increasing big game forage allocations would result in increased conflicts between big game and livestock. If BLM makes necessary cuts in livestock numbers and changes grazing practices, conflicts will not result. Big game numbers are affected by a multitude of factors, and not simply forage: winter range, disease transmitted by livestock.

22

Letter No. 31 *continued*

hunting seasons, etc.

126 All Alts. BLM cannot describe prescribed burns and development of additional water sources as "wildlife management actions". It is our direct experience that these actions by BLM are aimed at sustaining unrealistic numbers of livestock on public land, and in most cases have significant adverse impacts on native wildlife.

127 7. Reintroduction of native species must take precedence over livestock. Livestock are mainly responsible for the extirpation of native species in the CRA.

128 8. Alts. 1,2,3. The RMP must clearly state that livestock grazing impacts are the primary cause of spread of noxious and other weeds in the CRA. The best way to limit the spread of weeds is to limit site disturbance (Sheley 1994), protect native plant communities and microbiotic crusts (Kaltenecker and Wicklow-Howard 1994). This can only be achieved through limits on livestock grazing.

There is absolutely no need to treat (kill) or worry about native plants such as larkspur, death camas, etc. These plants are simply responding to livestock degradation of land. Livestock have depleted or eliminated nonpoisonous plants on sites, and increaser species have responded. Poisonous plants pose no harm to natural ecosystems, or native wildlife species, and are integral parts of native ecosystems. We refer BLM to recommendations in USDA Bulletin 415, "Plants poisonous to livestock in the western states:" develop grazing plan to improve range, graze ranges at proper time, do not overgraze ranges," etc... Killing or controlling native plants is done solely to placate livestock interests.

126 10 - 14. All Alts. BLM cannot describe prescribed burns and development of additional water sources as "wildlife habitat management actions". These actions by BLM are aimed at sustaining unrealistic numbers of livestock on public land, and in nearly all cases have significant adverse impacts for native wildlife species. See Peterson (1995), Jacobs (1991).

Range "improvements" are only improvements for livestock grazing, and degrade the land and impact public use. Range improvements do NOT promote ecosystem health and diversity.

Water developments such as spring developments and pipelines: benefit livestock to the detriment of native plant and wildlife species, result in increased zones of soil disturbance (construction, livestock use) which provide ideal sites for weed invasion, increase erosion in uplands, lead to the drying and desiccation of water sources which feed the development, act as sites for disease transmission, deplete limited funds available for restoration projects, serve as foci for exotic species which normally would not be abundant (brown-headed cowbirds, starlings), destroy microbiotic crusts through associated livestock trampling and trailing, result in increased long-term disturbance to the site (roads associated with construction, maintenance, - cause increased wildlife stress and vulnerability to disturbance, hunting), detract significantly from the visual environment and aesthetics of scenic shrub-steppe and woodland areas, detract significantly from recreational use of area, disrupt ecological processes and proper ecological function.

Native wildlife species do NOT need water developments. Water developments impact the last refugia or bastions of native wildlife species and plant communities which have not been degraded by 140+ years of livestock grazing. Significant cumulative impacts result. Complex communities are sensitive to initial conditions; even small perturbations can have large effects on interactions among community components.

Water developments simply spread zones of livestock disturbance, and are common ploys used to temporarily sustain excessive numbers of livestock on stressed arid lands. They only serve to delay BLM making hard management decisions.

Prescribed burns and seedings are NOT wildlife projects - they are livestock projects. They disturb sites - resulting in vulnerability to exotic species, disruption of ecosystem processes in face of exotics, and changes in patterns of grazing. See discussion -Vegetation, Wildlife.

Increased fencing simply breaks up a diminishing pie into smaller and smaller pieces, and often results in areas being more uniformly degraded, at the expense of native species. BLM must fully consider the harmful impacts of fences to wildlife, cultural resources, recreational use. Fences - construction activity involves blading or cutting native vegetation, roading. Wires kill and maim wildlife - particularly birds - raptors, sage grouse, migratory songbirds, - and domestic animals of recreational users - dogs. They impede migration and restrict movement of large animals. They serve as unnatural predator perches in open country terrain. All

23

BLM Response to Letter No. 31 *continued*

throughout Idaho were considered in development of the Draft RMP and preparation of the Proposed RMP. Information on economies outside of Custer and Lemhi counties were not included in the economic analysis because purchases outside of the region do not contribute to the local economy. In fact, people residing in Custer or Lemhi counties who purchase goods and services outside the two-county region are not contributing to the local economy. If the BLM were to enlarge the region of influence to include Twin Falls or Boise, then the contributions to the economy of the Challis RA would not be measurable because of the size of the greater Idaho region. Please also see response 34-12.

31-67: (a) The DRMP (pp. 70-72) summarizes a recent sociological study of Custer and Lemhi counties. The sociological study did not interview every resident in the two counties; therefore, the results do not show all possible viewpoints which may occur.

(b) RMP decisions address private and public water rights; these decisions were revised in the PRMP to be consistent with current water rights law and policy (see PRMP, Minimum Streamflow, Goal 1, #1-3). Valid existing water rights are recognized; however, stipulations on rights-of-way for water diversions are described in order to protect public lands resources such as fisheries habitat. In addition, the Challis RA describes its intention to pursue minimum streamflows (i.e., to pursue water rights in the BLM's name).

Livestock grazing on public lands in the RA is clearly described as a privilege (allocation), not a right. RMP actions state that adjustments in livestock use can occur (e.g., see Livestock Grazing, Goal 1, #2 and 6; and Riparian Areas, Goal 1, #7).

31-68: (a) An accurate analysis of the economy for the two-county area considers interconnected aspects of the economy; it is not accurate to analyze employment associated with grazing on public lands separately. For example, employment in the agriculture sector includes all of the following: jobs associated with livestock operations which do not utilize public lands, livestock operations which do use public lands; and businesses which supply goods and services to livestock operations which do and do not use public lands (such as veterinarians, feed stores, farm equipment supplies/repairs, etc.).

(b) The BLM does not decide who should and should not receive grazing permits based on outside income. Rather, a grazing permit is based on land base (land that a ranching operation has owned and maintained over a considerable period of time). The term "hobby" rancher usually means a small ranch operation with fewer than 20

Letter No. 31 *continued*

126 impacts of additional and current fences must be fully analyzed.
We do not support the "pasture-ization" of land in the CRA through the construction of new fences.
The RMP must analyze and set a timetable for removal of unnecessary fences. Instead of segmenting land into smaller pieces, remove fences in areas where livestock grazing is not feasible.

129 13, 14. All Alts. Sagebrush IS a dominant plant species in the western U.S. See Vale (1975), Peterson (1995), and its occurrence as a dominant plant species is a natural part of shrub-steppe CRA ecosystems.
The BLM wrongly assumes that prescribed fire will result in improved forage, ecosystem health and function. We refer BLM to Peterson (1995), our discussions elsewhere.

130 15, 16. All Alts. The RMP constantly fusses over increased permittee work or costs. Water quality, fisheries are extremely important issues to the public, and permittee costs/hardship cannot be used as an obstacle to necessary change. Alt. 2,3,4. Water quality and beneficial uses of streams are of paramount importance here, not forage production. RMP does not evaluate costs if status quo continues. What about T&E fish - why aren't impacts to them discussed here?
Alt. 4. What is the minimum habitat condition standard? 100% of unsatisfactory aquatic and riparian habitats must be improved to satisfactory.
Alt. 5. Pastures should be closed in areas where grazing is unfeasible or incompatible with attainment of management objectives for streams/springs/seeps. BLM certainly has a good idea which streams/springs/seeps these are, and should specify these areas in the RMP.

131 17. All Alts. The CRA is riddled with pipelines, pocked with dug out wetlands destroyed by conversion to muddy cow water ponds, laced with pipelines which have spread zones of destruction to upland areas, and filled with archaeological sites destroyed by "spring developments". Instead of taking the backward looking, destructive approach that additional water developments will occur, the RMP must fully examine removal of spring developments pipelines, etc. An analysis of ecological impacts - including wetland desiccation, must be a part of the RMP. RMP must not allow new water developments.
Alt. 2,3,4. All waterholes developed from springs or seeps should be removed and spring/seep areas restored to natural condition and removed from livestock grazing.
Alt. 5. NO alternative sources of water should be developed in upland areas using the excuse of enabling livestock to avoid stream areas. This simply spreads zones of destruction, degrades watersheds, impacts native vegetation, wildlife. (See previous discussion). This is in direct contradiction to the contention of BLM elsewhere that Alt. 5 will move land to a more pristine condition.

132 18. All Alts. All aspects of livestock grazing in the CRA must meet or exceed all state or federal water quality standards. For those allotments which include watercourses, the BLM, pursuant to Section 401 of the CWA must receive written certification from the State of Idaho Department of Environmental Quality which shall be provided by proposed permittees. This certification shall show compliance with State of Idaho standards for all beneficial uses under the CWA. For grazing allotments where streams already listed as water quality limited exist or where tributaries of such streams exist, there is an even greater necessity to show that the authorization of livestock grazing will not further impair beneficial uses under Idaho law and the CWA.

133 19. Alt. 2,4,5. Minimum streamflows should be pursued, and requests for rights-of-way denied for water diversion. This is necessary to protect water for native aquatic and terrestrial species.

134 20. The proposed livestock closures in all Alts. are not sufficient to assure land health and properly functioning ecosystems. Closures based on a suitability and capability study must be specified in RMP.

135a 21. 2,4,5. We are pleased to see the BLM paying attention to the physiological requirements of

24

Letter No. 31 *continued*

135a bluebunch wheatgrass in seeking management direction. However, the physiological requirements of other native bunchgrasses, shrubs and forbs must be given the same measure of consideration as those of bluebunch wheatgrass. This is particularly necessary in sites

135b where bluebunch wheatgrass is not the dominant grass species. On how many acres in the CRA is bluebunch wheatgrass the dominant grass species? BLM must tell us how much land this will affect. This is critical information for understanding effects.

135c Livestock use should not be shifted to other areas in order to meet bluebunch goals. Shifting use to already exploited sites will result in negative impacts to grass, forbs ,shrubs = although protecting bluebunch wheatgrass is laudable, other species/resources should not be sacrificed to achieve this aim by shifting use. BLM does not go far enough to protect bluebunch wheatgrass. "One time (emphasis added) growing season utilization of 50% + (as commonly occurs under a number of grazing systems) has been shown to cause very long term (upwards of a decade) significant reductions in rigor and productivity, even if followed by complete protection." (Anderson 1991).

136a 22. Alt. 2 seems to be saying that some existing exclosures will be converted to riparian pastures. We strongly oppose this - all existing exclosures should remain closed to livestock grazing, due to their importance as reference areas and informational areas to increase public cognizance of the impacts of livestock grazing.

136b Alt. 4. Removal of livestock from high-priority non-functional and functional-at-risk streams for 3 years may not achieve necessary change in stream condition - specific standards must be met before any grazing resumes.

136c Alt. 5. livestock grazing closures necessary to achieve riparian improvement/protection should involve a minimum of new fencing. Herding, total closure of already fenced pastures, should be used as alternatives to fencing.

137a 23, 24. All Alts. We oppose disposal of public land (See Lands). We specifically oppose disposal of lands to the current permittee. This encourages trespass,abuse, and fosters the idea that public land is actually theirs all along. Again here, the RMP frets excessively over permittee hardship. BLM has a mandate to foster and protect environmental resources on public lands, not custom and culture.

137b Alt. 5.Mentions land tenure adjustments to benefit permittees. What does this mean?

138 25,26. We support designation of all stream segments inventoried as Wild and Scenic Rivers. All WSR corridors should be closed to livestock grazing.
BLM must manage WSRs and candidate WSRs for non-impairment of values. We believe grazing use above "slight" violates the VRM designation of these areas. Realistically, there is no way that livestock grazing can occur in steep, rugged WSR corridors without concentrations of livestock use occurring which will have noticeable and undesirable visual impacts: concentrations of use in excess of slight, resultant unnatural patchy appearance to landscape, and accumulations of livestock waste. Ugly physical impacts of livestock grazing are discussed throughout.
The above comments apply to ACECs, other SMAs.

139 27. All Alts. WSAs released or retained - We oppose the construction of any range improvements, including fences, in these lands. Apply above comments in 25,26.

140a 28. All Alts. Reductions in grazing preference will be necessary to protect recreational uses from negative impacts of livestock grazing - accumulations of livestock wastes, polluted water, etc.

140b 29. Recreational use in SRMAs should take precedence over livestock use; however, recreation use should not take precedence over habitat needs of native plant and animal species. Full impacts of livestock on recreational use - aesthetic, public health, loss of wildlife must be evaluated.

141 Access for Livestock Management. Livestock permittees should not be granted exemptions for OHV use except under the most extenuating of circumstances. Livestock permittees own horses

25

BLM Response to Letter No. 31 *continued*

head of cattle where more than 50-75% of the wages earned are from part- or full-time work in or around nearby communities. Millionaires and billionaires do not invoke a mental picture of a "hobby" rancher in most people's minds. However, some people raise livestock as a secondary activity and do not necessarily need the additional income to sustain their standard of living; they may operate the ranch solely for income tax purposes. If, hypothetically - as IWP states, these ranch operations employ workers in low wage jobs and export profits from the community, these impacts are not resource utilization issues to be resolved in the RMP but rather issues of public tax and labor policies.

31-69: The trends you mention from the Affected Environment (growth in the service sector; increases in non-farm income) do not correspond to a change in ranchers' dependence on grazing on public lands. They are not at all related - a rancher may be as dependent on grazing on public lands today as he or she was 20 years ago.

31-70: (a) In 1991 timber-related employment in the 2-county area was 314 FTE (DRMP, p. 504). The Salmon Intermountain sawmill employed an estimated 50 workers, or about 16% of this total (DRMP, p. 207; Idaho Employment, August 1995, p. 7). When the mill closed in 1995, it is unlikely all those jobs left the timber sector. Even if they did, remaining timber-related employment would not be "zero" as IWP states. The Affected Environment explains that Salmon Intermountain Lumber depended on timber resources from the Challis Resource Area for only a small fraction of the mill's annual demand (DRMP, p. 88). Instead, timber sales offered by the Challis Resource Area are likely to be purchased by small local sawmills or non-local mills in southwestern Montana or Boise, Idaho. (DRMP, p. 88) Timber resources from the Challis Resource Area were, and are, in demand by sawmills other than Salmon Intermountain Lumber. Forest resource management which includes timber harvest would be beneficial to the local economy (DRMP, p. 207), not unimportant - as IWP states.

(b) The BLM considered a "no-logging alternative" during the process of RMP revision. Please see response 31-27.

(c) The costs and benefits of forest resource management which includes continued timber harvest were analyzed in the Draft RMP/EIS, Chapter 4. Please also see response 31-28, regarding the topic of cost-benefit analyses in general.

31-71: (a) The Draft RMP included a cost-benefit analysis of all RMP actions, including livestock grazing (see DRMP, Chapter 4 and response 31-28). (b) Please see response

Letter No. 31 *continued*

141 (part of custom and culture) and must be required to use them in places with road closures. This is particularly necessary for such things as salt distribution, since many eroding roads on public lands exist for the sole purpose of salt distribution, fence, pipeline maintenance.

142 34. We support Alt. 5. An analysis of biodiversity and site-specific field inventory must be conducted as part of project or activity planning. NEPA requires site-specific data. BLM should have been doing this all along.

143 35. All ADC activity must be prohibited on public land. Predation is simply a cost of doing business on public land. Killing predators disrupts ecosystem processes, can often result in destabilizing predator social structures causing even greater predation problems. RMP must discuss this.
It is absurd to call this section "wildlife habitat management". It is predator killing - whose eyes is BLM pulling the wool over here?

144 36,37. A Suitability/Capability Analysis, as described below, must be part of the RMP. BLM in the past has conducted a suitability study (RMP p. 104), this data should be presented and updated.

Comments: TABLE 2-1. Issue: Range management:

145 GOAL 1 only includes: bringing 75% of riparian/wetland areas into proper functioning condition in 5 years - What about remaining 25%?; increasing rangelands in late seral to PNC from 37 to 40 %. Why so little? BLM must attempt to increase ALL lands in earlier seral stages to later seral stages. Estimates of time and management necessary to achieve this must be included in RMP.

146 1. All Alts. BLM must allocate forage/other resources to wildlife other than big game. For example, nesting requirements of sage grouse - minimum stubble heights for nesting - See Draft Idaho Sage Grouse Management Plan Summary 1996-2000, recommends fall stubble height of 7". Also, DeLong et.al. 1992.

147 2. All Alts.What is meant by "supervised trailing"? Does this include holistic grazing?

148 5. All Alts. BLM must institute additional monitoring in locations which realistically reflect areas where livestock are having negative impacts. The public should be involved in location of monitoring sites. No more 3 monitoring sites in an allotment - all located on top of hills, away from use areas. Analyze degree and intensity of monitoring necessary to assess site-specific land condition.
Grazing permits must specify that permittees shall be held responsible for providing monitoring compliance affidavits signed by themselves or a qualified scientist at the end of each season of use. The BLM will spot-check to verify compliance affidavits. Misrepresentation on compliance affidavits or fraudulent compliance affidavits will result in grazing permit cancellation.

149a 6. All Alts. We recommend upland utilization : 25%.

149b The RMP preferred alternative proposes upland utilization of 50% on ALL sites where bluebunch wheatgrass is not an identified key species. This is simply status quo grazing. Utilization of 50% of upland vegetation in CRA has resulted in degraded watersheds, depleted native plant communities and unhealthy ecosystems.

149c The preferred alternative still allows 50 and even 60 % utilization on bluebunch in all early, late and dormant season grazing.

149d The proposed dormant season grazing utilization on ALL upland sites is 60%, vs. current 50% utilization. This is a major step BACKWARDS. It fails to provide residual cover necessary for: wildlife habitat - sage grouse, other species nesting requirements; watershed protection in steep, erodible or poor and fair condition areas (much of CRA); and exceeds the amount

26

Letter No. 31 *continued*

149e necessary for maintaining vigor of many species (Mack and Thompson 1982).
25% would be a reasonable attempt at a restoration level. This also gives leeway for those species whose physiological responses to grazing are not as well documented as bluebunch wheatgrass. Holechech (1988) and Pieper (1992) indicate sagebrush-grassland range types should be grazed at 30-40% for key species. Valentine (1990) supports lower utilization levels. Holechech (1993) states: "A 50 per cent use level works well in the flat, humid regions of the Great Plains and Southeast...in most cases it causes range destruction in the rugged, arid ranges of the West."

149f BLM does not mention any utilization standards on woody species. Are any contemplated?

150 7. 11. BLM must specify what is meant by "livestock management systems designed to improve riparian habitat." Does this mean holistic grazing?

151a 8. Riparian pastures require new fencing and are very costly. Electric fences are fraught with problems - if knocked over, or malfunction, livestock will gain access to fenced area. Most riparian areas in non-functioning or functioning -at-risk condition can only recover if livestock grazing is eliminated. Repeatedly, we have seen riparian pastures abused - and it just takes one season of excessive grazing to set any recovery back substantially, or to cause irreparable erosion.

151b 9. All Alts. Just as BLM frets about elk calving, it must include altering livestock turnout/use to accommodate nesting sage grouse, migratory songbirds in the RMP.

152 10. All Alts. Society of Conservation Biologists: grazing should be phased out of lands in Good, or worse, condition. Alts.2,3,4,5. BLM must manage for late seral or PNC communities in very good or better condition.

153 11. Livestock management facilities, including salting, should be located in already degraded or disturbed sites. We have too often encountered native communities in the best condition quickly degraded by establishment of salt licks.

154 13. Herd Creek AMP - IWP and CIHD support closing the Herd Creek Allotment to livestock grazing.

155 14. We fully support Alts. 4 and 5. "Grazing privileges that are lost, retired, relinquished, canceled, or have base property sold for subdivision would have attached AUMs held for watershed protection and wildlife habitat. Vacant allotments would remain unallocated to livestock grazing improve range condition and to help protect watershed condition and wildlife habitat."

156 15.Alts. 2,3,4. What is meant by vegetative cover? Cheatgrass and noxious weeds can make up 70% vegetative cover of watershed. Management MUST be to achieve late seral or PNC on site.
The RMP ignores the "cover" and soil protection provided by microbiotic crusts. How will the BLM manage for intact microbiotic crusts?

157 17. All Alts. Improvements to the grazing permitting process must be implemented:
a) Include 5, 14 above.
b) Grazing permits that require public access easements across private land. If permittees refused to grant access to public land, then all permits shall be canceled.
c) Before issuing any grazing permits on public land, the BLM shall conduct a capability analysis (which identifies lands that can be physically grazed by domestic livestock) followed by a suitability analysis (which determines whether the capable lands have other conflicts with other multiple uses which would result in a choice not to graze those lands by domestic livestock); before any livestock use is authorized. For example, an upper pasture of an allotment is essentially unmanageable for grazing. The land is too rough and difficult to clean livestock out, livestock invariably congregate in flatter riparian areas. On the ground experience indicates that this is fact. The BLM should eliminate livestock grazing from that

27

BLM Response to Letter No. 31 *continued*

31-26.

31-72: The Pahsimeroi subregion is a census tract; population numbers for the subregion are based on information gathered during the 1990 census (DRMP, p. 65, Table 3-3, footnote 1). These are official numbers, and no other population figures are available. The economic analysis of impacts to the Pahsimeroi subregion under Alternatives 4 and 5 is correct as presented in the DRMP. Your opinion regarding the economic vs. resource impacts of Alternatives 4 and 5 has been noted.

31-73: (a) All actions in the RMP were considered when developing the quantitative and qualitative analysis of regional and Fort Hall economic impacts. The level and significance of direct, indirect, and cumulative impacts are described. (See Draft RMP/EIS, pp. 204-212.)

(b-1) The Alternative 5 analysis begins: "Same effects as Alternative 4,..."; i.e., the quantitative impacts to the regional economy would also be negligible for Alternative 5.

(b-2) The tourism sector would likely benefit less under Alternative 5 because this alternative placed less emphasis on developed recreation than Alternative 4, and the primary recreation demands in the Challis Resource Area are for developed recreation opportunities.

(b-3) Permittee costs are discussed under the qualitative summary because it is not possible to quantify those costs, since they would vary by operator and circumstances in a given year (such as precipitation). Yes, permittees are currently riding, salting, and fencing. The analysis estimates an increase in those efforts, when compared with present management.

(c) The BLM believes that harvest can be sustained in the Challis Resource Area, based on the fact that most trees removed by natural causes or human intervention are being replaced by natural regeneration. Commercial forest sites are relatively low productivity and have management problems, but are manageable. Please also see responses 26-6 and 31-27.

(d) Alternative 5 emphasizes dispersed, undeveloped recreation opportunities. The BLM estimates that under Alternative 5 the demand for developed recreation opportunities is likely to increase at a faster rate than the available supply. In addition, Alternative 5 greatly reduces off-highway vehicle use recreational opportunities.

(e) Your opinion is noted. However, the BLM disagrees. In addition to species harvest regulations, many factors outside the BLM's control and management responsibility

Letter No. 31 *continued*

157 pasture because the area is not capable of being managed properly for grazing!
d) Idaho State water quality standards shall be met as a condition of issuing any grazing permit. Applicants for permits shall provide the BLM with state certification of compliance before the issuance of any grazing permit to graze livestock on public lands. A recent court decision Oregon associated livestock grazing with being a "discharge" point associated with water quality as affected by the CWA. Therefore, State certification will be required before a grazing permit can be completed.
e) All livestock permittees shall be accountable for meeting all standards, guidelines, and other requirements of their permit. Failure to meet annual standards of use shall result in significant reduction of permitted use the following year. A second failure within three years to meet annual standards of use shall result in permit cancellation.
f) The BLM fails to discuss the logistical aspects of ranching on the public lands and how they impact the public lands. The use of reservoirs, pipelines, water tanks, access roads, trailing of livestock, etc. are all important issues that can impact visual resources, soils, water quality, and more. The BLM should address these issues during the permitting process and specify them in the CRMP.
g) No temporary non-renewable forage permits will be granted.

158 18. No TNR!

159 20. All Alts. Livestock must be excluded from areas of known human burial concentration, and all sites with significant archaeological values which could be jeopardized by grazing impacts.

160 Goal 2: This goal should be reworded to state: Limit livestock distribution. The CRA streams, seeps, riparian areas, and many entire watersheds are degraded simply because too many livestock are too "well distributed". The small amount of land in excellent condition (< 10, 526 acres, or PNC (what is this #???? certainly indicates livestock distribution has extended into nearly every nook and cranny of the CRA.

161 2.4. All Alts. Prescribed burns, seedings, as discussed in Vegetation Management, rarely restore native communities or mimic natural processes. Nor do they improve range condition and health- so they should not be included in this goal. They are incompatible with land condition moving toward PNC or later seral stages.

162 3.All Alts. Watershed Level analyses should be done before any new project is undertaken.

163 4.The goal of any vegetation treatment should be to lead the community towards PNC, not to remove it further from it.

164 5.The I, M,C allotment categorization is an outmoded way to classify lands. Given that less than 10,000 acres of land in the CRA are in Excellent condition, ALL allotments should be improved.

165 8. Disturbed areas should be seeded with native woody shrubs, grasses and forbs. See Veg. Treatment.

166 Additional comments on livestock grazing:
A. Due to the historic proclivity of BLM to improve the livestock industry, at the expense of sustainable public lands, future identified conflicts between livestock use and other uses (recreation, wildlife) should be made in favor of the latter.

167 B. Savory or holistic grazing is damaging to shrub-steppe ecosystems in the arid West. Holistic grazing has recently been used in the interior Columbia Basin to 1) buy time and delay management change on degraded lands by continuing to graze unsustainable numbers of livestock, and 2) as an attempt to increase or maintain unreasonable stocking rates on degraded lands. Native plant community structure pre-settlement consisted of spaced bunchgrasses, forbs and shrubs with microbiotic crust covering interspaces between plants.

28

Letter No. 31 *continued*

167 Mack and Thompson (1982) luckily describe the characteristics of native bunchgrass species in shrub-steppe communities which make them susceptible to grazing and trampling. These bunchgrass characteristics include:
- Growth in discrete clumps, do not send out runners or tillers,and do not readily regrow after grazing.
- Growing points are elevated above soil surface = are damaged by trampling and grazing; grazer removes elevated seed-producing parts.
- Erect bunchgrass stems trap snow and insulate plants with a snow blanket preventing winter damage. Grazing removes blanket.
- Growth form channels water, traps snow.
Limited numbers of bison occurred west of the Rockies. The plant communities of the CRA have not evolved with intense grazing - as lack of rhizomatous grasses, absence of dung beetles indicate.
The fragility and vulnerability of microbiotic crusts to trampling (Kaltenecker and Wicklow-Howard 1994, Belnap 1995) also illustrates the ecosystem unsuitability to holistic or other styles of intensive herding grazing. Once damaged, crusts may take long periods of time to recover (>50 years).
Many studies on trampling unequivocally negate assumptions made by holistic grazers. See Gifford (1966), Johansen (1966), Warren et.al. (1968), Skovlin (1967), Pieper and Heitschmidt (1988), Weltz et.al. (1989).
The steep and rugged topography of the CRA, the limited distribution of water, and current degraded condition of lands make the CRA particularly unsuited to holistic grazing. The RMP must clearly state if use of holistic or other intensive herding methods are contemplated, and if so, discuss all potential impacts of this method on native communities.

168 C. It should be BLM policy to remove all existing water, fence, or similar livestock systems as they become worn out or non-functional for whatever reason - to be paid for with 8100 funds.

169 D. A complete cost:benefit analysis of all proposals - range improvements, water developments, fences, trailing, herding, monitoring costs, other administrative costs must be included.

170 E. Management Decisions pertaining to livestock grazing impacts in Table 2:, including, but not limited to, Issues of Range Management, Wildlife Habitat Management, Vegetation Treatment Projects, Upland Watershed, Water Related Resource Management, Water Quality, Fisheries do not contain adequate standards for livestock grazing management in the CRA.

F.Additional criteria which must be established/evaluated include (at allotment and/or watershed level):
171 - Specific reductions of livestock in all alternatives.
172 - Adjust stocking rates to allow a maximum of 25-30% utilization of key perennial species. Adjust stocking rates further to protect full spectrum of environmental, ecological, cultural and recreational values of the CRA.
173 - Allow a maximum of 10% utilization of woody riparian vegetation within each allotment.
174 - In the absence of an improved or implemented grazing system designed to provide for satisfactory and functional riparian/wetland areas, immediately eliminate livestock grazing
175 by July 15, or earlier if necessary in all pastures with riparian/wetland areas to meet resource objectives, regardless of the size of riparian /wetland areas and regardless of monitoring status of pasture.
176 - A minimum stubble height of 6 inches will be present on all riparian areas at the end of the growing season.
177 - Eliminate grazing within riparian/wetland areas after the growing season.
178 - Reintroduce livestock grazing to areas from which it has been removed only after a specific time period and specific criteria have been met.
179 - Upon reintroduction of livestock to areas from which grazing has been completely removed for a period of time (as in Alt. 4), adjust stocking rates to sustain and restore proper condition.
- Review stocking rates and grazing systems at least every 5 years.
180 - Removing livestock grazing or reducing stocking rates will be the first choice in achieving

29

BLM Response to Letter No. 31 *continued*

can affect populations; for example: climate, disease, predation, and downstream migration barriers.

31-74: BLM believes the decisions in the PRMP (especially see those decisions under Livestock Grazing, Riparian Areas, Fisheries) will restore and protect riparian and aquatic habitats. The BLM has received concurrence on the Biological Assessment of impacts due to PRMP actions from both the National Marine Fisheries Service and U.S. Fish and Wildlife Service. The DRMP decision you are concerned about has been changed in the PRMP to delete the 7 year timeframe, because identification of crucial habitats was completed in 1994 (see response 34-83).

31-75: The Affected Environment in the PRMP has been updated to reflect the changes in current conditions observed since the DRMP was originally drafted, including changes in riparian functioning condition. Some information presented in the DRMP and carried forward into the PRMP is "old" information. Appendix L has been included in the PRMP to indicate the types of ongoing monitoring being used to build on this information and help the BLM analyze the effectiveness of past and present management actions. In addition, numerous decisions in the PRMP identify the need for new or updated inventories for a variety of resources where data are lacking (see response 15-7(b)).

31-76: (a) Your comments are noted.

(b) The PRMP would apply bank shearing criteria to all fish-bearing streams (see Riparian Areas, Goal 1, #6). The six-inch stubble height standard would apply only to functional-at-risk, with downward trend, and non-functional condition streams (see Riparian Areas, Goal 1, #5b). However, the four-inch herbaceous stubble height criterion in #5a is believed to be sufficient to improve and/or maintain proper functioning condition. If riparian improvement to meet objectives (including fisheries habitat objectives) is not occurring, other livestock management measures would be implemented (Riparian Areas, Goal 1, #7).

(c) Woody vegetation use requirements would be developed as needed (see PRMP, Attachment 3). In most cases, specific standards would be developed by an interdisciplinary team in specific activity plans.

(d) Upland species are managed for proper degrees of utilization through the use of key species, described in BLM handbook TR-4400-3 (Rangeland Monitoring Utilization Studies, 1984), and defined as (1) those species which must, because of their importance, be considered in a management program; or (2) forage species whose use serves as an indicator to the degree of use of associated species. The BLM believes that the

Letter No. 31 *continued*

goals, objectives, improving ecological site condition. Rotational stocking rates, herding schemes, will be considered only after stocking rate reductions are first implemented.

181 - Grazing use will be adjusted before the next growing season where it is visually obvious or where monitoring data or professional judgment reveal that key resources or watershed
182 functional requirements are not being met because of livestock overuse.
- Continuous season-long grazing will not be authorized.
183 - Terms and conditions of each permit or lease will include stocking rate, season of use, deferment, rest, and completely specify strategies that maintain (good/excellent) and improve (poor/satisfactory) vegetation communities and ecosystem function.
184 - BLM will retain sole ownership of all future permanent range improvements. Where deemed necessary, BLM will acquire sole title and ownership of existing range improvements.
185 - No wells will be drilled.
- Complete AMPs/watershed analyses within a specific timeframe - 3-5 years.
186
187 Herding may at times be somewhat effective in adjusting livestock use, but fundamental changes necessary to reverse downward trend, improve stream condition, can only come about through substantial cuts in livestock numbers and strict conditions on use of public land by livestock industry.

MINERALS

Comments on minerals are included in other sections.

PALEONTOLOGICAL RESOURCES

188 Our comments under Cultural Resources also apply to Paleontological resources.

RECREATION

189a A. The RMP fails to analyze the impacts of livestock grazing on the health of recreational users of public land. People are exposed to livestock waste and livestock-associated pathogens in air, soil, dust during recreational outings. Our members have often inhaled dense clouds of dust while passing through areas being beat out by livestock, camped in sites where livestock waste was ubiquitous, swatted flies associated with and spread by livestock waste, and tried to recreate in polluted water. What are the health risks/costs of livestock contamination of the environment?

189b B. The EA fails to address the physical impacts on recreational use caused by livestock grazing. Barbed wire fences cut and maim people, and pets; they kill wildlife. Barbed wire washed into streams poses serious danger to water recreationists. Steep cut banks resulting from grazing hamper safe walking near streams.

C. The RMP completely fails to analyze the aesthetic impacts of livestock grazing on recreational users of public land. These include large-scale visual impacts/intrusions which detract from a sense of wildness and naturalness - such as networks of bare, eroding livestock trails, metal cow water tanks in otherwise pristine areas, salt lick roads, etc., as well as smaller-scale impacts - wet meadows and seeps degraded by livestock surrounded by a sea of cow pies covering them.

190 How has the BLM measured/monitored impacts of livestock recreational users? How will BLM monitor impacts in the future?

189b D. Exotic species such as cheatgrass spread by livestock abuse of land are visually ugly, as well as damaging to pets (awns get in ears, feet) - not to mention the annoyance caused by cheatgrass

30

Letter No. 31 *continued*

awns to hikers.

191 E. The RMP must fully analyze the impacts of range improvement projects on roading of public land. Construction of range improvements may result in heavy equipment/vehicles traveling across sites and forming new trails which then become routinely driven. Maintenance activity (water systems, salt licks) results in ranchers routinely driving existing roads or ways, and pioneering new ones.
RMP 4, Alt. 1 - Succinctly sums up the impacts of ALL range developments/vegetation treatments. " Land treatments ... degrade natural aesthetics, viewsheds, and primitive recreation and sightseeing opportunities by creating obvious visual intrusions."

192 F. RMP must fully analyze and develop a timetable for removal of all range improvements fences/water systems from areas where livestock grazing is eliminated.

193 G. Motorized travel should be limited to designated roads only, with all designated roads marked as such.

194 H. How will BLM resolve conflicts between livestock and recreation under the preferred alternative? Specify.

195 I. Water quality. BLM must ensure that all waters of the CRA fully support all beneficial uses of the State of Idaho.

196 J. BLM must implement and enforce livestock grazing restrictions in all areas where OHV restrictions are instituted. This is only fair, since sites deemed necessary for protection from OHVs due to their fragile soils, high wildlife values, are also subject to ongoing degradation from livestock. Why should one group be restricted, and the other not?

197 K. Table 3-13 p.112 indicates 118,000 recreational visits to the CRA in 1993. There are 95 livestock operators in the CRA. BLM must stop compromising recreational values for the
198 benefit of 95 people, some of whom are billionaires.
RMP Effects: Vegetation Treatment, Biological Diversity, Air Quality will affect Recreation. Cumulative impacts will be significant.

199 1. Alts. 2,3,4,5. Protection of natural and aesthetic values would benefit all recreation opportunities, not just primitive ones.
200 All Alts. RMP makes predictions about increases in visitor use - less of increase if primitive values are enhanced. What is the basis for this? Provide data to back it up.

201 4. All Alts. It is very difficult to make human-induced disturbance of any kind, including vegetation treatment, look natural.

202 8. We support limiting OHV use in the entire CRA to existing roads and vehicle ways - March 1-Nov. 30.

203 12. All Alts. Why no discussion of beneficial uses here. What "actions" is BLM referring to?

204 16. BLM must maintain or enhance OR values on 58 river segments. Water-associated recreation opportunities in wild settings are extremely important to the recreational public of Idaho. Once these values are degraded, they may be lost forever, resulting in irreparable losses to recreational users, wildlife.

205 18. All Alts. All OHV use must be prohibited in WSAs, including any WSAs released from review. See comments - WSA section.

206 19. Disturbance and treatments cannot mimic natural events: harvested areas do not have an aesthetic appearance - Is BLM planning to remove all stumps and erase evidence of logging?

31

BLM Response to Letter No. 31 *continued*

degree of utilization prescribed for bluebunch wheatgrass and other upland key species is sufficient to protect watersheds. The PRMP also manages upland watersheds through cover standards (Livestock Grazing, Goal 1, #14) and other upland management actions (Upland Watershed, Goal 1).

(e) Your opinion is noted. The BLM believes that resource conditions on degraded streams will improve with implementation of the six-inch residual stubble height grazing standard and bank stability standard prescribed in the PRMP (see response 31-76b above).

31-77: The RMP provides a general vegetative monitoring framework in the following decisions: Livestock Grazing, Goal 1, #2 and #6. However, an RMP is not the place to describe the details of how, when or where resource monitoring will be performed. These details are provided at the activity plan level where specific, measurable objectives are identified, which in turn guide the direction of monitoring.

31-78: BLM believes that the following PRMP decisions will be adequate to protect water quality in grazed watersheds: Livestock Grazing, Goal 1, #7 and 14; Riparian Areas, Goal 1, #4-7; and Water Quality, Goal 1, #2, 3, and 7.

31-79: As stated in the PRMP, Fisheries, Goal 1, #4, management strategies and objectives would be developed for all fish-bearing streams, to ensure good quality aquatic and riparian habitats. In addition, grazing practices would be designed to be consistent with attainment of desired riparian and aquatic habitat conditions in all fish-bearing streams (PRMP, Livestock Grazing, Goal 1, #11). The PRMP's grazing and cover criteria on upland sites (Livestock Grazing, Goal 1, #4 and 14) and riparian areas (Riparian Areas, Goal 1, #4-7) are expected to benefit watershed and riparian function (and therefore fisheries habitat) throughout the Resource Area, not just on certain streams.

31-80: (a) The DRMP discusses the effects of livestock grazing management on fisheries habitat for all alternatives, including existing management (see p. 213a, General Discussion of Effects to Fisheries, third paragraph; and pp. 214-217, #2, 3, 5, 6, 9, 11, and 12). The emphasis the PRMP places on management of livestock grazing is a direct result of the BLM's concern about the effects of livestock grazing on fisheries habitat.

(b) The results of monitoring to date indicate that substantial progress has been made by the permittee toward achievement of resource management objectives, particularly with respect to fisheries habitat improvement.

(c) The DRMP, pp. 213a/b provide a general discussion

Letter No. 31 *continued*

206 RMP must recognize the value of intact old-growth communities (forest or shrub-steppe) to recreational users. These communities are essential to everyone from birdwatchers to photographers to persons seeking religious and spiritual experiences on public land.

207 23. RMP mentions development of a hiking, biking, OHV trail. Where is this planned? Biking and OHV trails must be carefully located so that they do not lead to degradation of other resources. The RMP must fully analyze impacts, locations.

208 24. We support Alt. 5. limiting OHV use on the entire RA to existing roads and ways, and closing areas to OHV use.

209 27. We oppose new road construction for campground purposes. Campgrounds can easily be located by existing roads.

210 28. Alt. 5. A scarcity of developed sites on BLM land may be a boon to the local economy and taxpayers. Private landowners can establish and profit from campgrounds, and BLM will have no maintenance/resource damage costs.

SOILS

211 A. Microbiotic crusts are vital to the health of soils and properly functioning ecosystems in the CRA. None of the goals, or discussion of alternatives provide guidance relative to microbiotic crusts. The importance of crusts in reducing erosion has been well-documented. (Eldridge and Green, 1994). (Williams et. al. 1995 a and b). Microbiotic crusts provide provide important protection from erosion. See Vegetation comments also.

212 B. Microbiotic crusts are essential for nitrogen nutrient cycling in arid ecosystems (Fleischner 1994). Crusts fix nitrogen (Kaltenecker and Wicklow-Howard 1994). Proper nutrient cycling is critical to maintaining or improving biomass. The RMP fails to discuss nutrient cycling. Livestock grazing, fire, and logging disrupt nutrient cycling (Belsky 1996). The RMP must discuss impacts of these activities.

213 C. The RMP fails to analyze impacts of livestock trampling on upland and riparian areas, watersheds. These impacts are well documented (Gifford and Hawkins 1978), (Gifford 1986), (Warren et.al. 1986), (Pieper and Heitschmidt 1988), (Weltz et. al. 1989), (Thurow 1992), (Wilcox 1994).

214 D. RMP must focus on upland sites as well as riparian areas. Although riparian resistance to soil erosion is vital, the condition of upland vegetation and soils impacts rate and volume of runoff, particularly in drainages with damaged riparian zones - where riparian areas are not in properly functioning condition, and will not be for a considerable period of time.

215 E. The RMP is sorely lacking in analysis at the watershed level, even though data of the same age as most other info in the RMP is available. What do late 70's watershed analyses say about soils, erosion?

216 F. The RMP fails to quantify erosion rates, estimate soil loss, and attribute cause. This is necessary for the public to understand the magnitude of losses caused by extractive practices and OHVs. How much soil loss, gullying in the CRA is caused by grazing?

217 G. The BLM fails to discuss the issue of desertification. Desertification of western arid lands is a reality, brought about by the abuse and mismanagement of lands. Livestock grazing is a major cause of desertification (Sheridan, CEQ Report 1981). Desertification includes declining groundwater tables, salinization of topsoil and water, reduction of surface waters, unnaturally high soil erosion, desolation of native vegetation (Sheridan, CEQ Report 1981). The existence of any one of these symptoms can indicate that the area is undergoing desertification. We have witnessed reduction of surface waters at spring sites and in streams, high soil erosion - gullies,

32

Letter No. 31 *continued*

217 cut banks, and vegetation changes specifically caused by livestock. BLM must address desertification. Cumulative impacts must be analyzed.

218 H. The lack of concern for soils - RMP states: "the soils resource will not be a priority issue". The RMP fails to include Soils as a Management Concern in Volume 2. Currently, soils and soil health are prominent parts of regulations and policies relating to BLM resource management. C.F.R. 4180.1: Fundamentals of rangeland health - 9 (a) Watersheds specifically mentions "soil and plant conditions support infiltration,soil moisture storage..." Current Standards and Guidelines drafted by the Idaho Resource Advisory Councils repeatedly discuss soil characteristics. Soils are a priority issue, and the incomplete discussion in the RMP must be redone - causes of soil damage identified, corrective management actions specified.

219 I. How will BLM determine, through life of RMP, if management actions have net positive or negative impact on soil erosion, and therefore modify actions to take advantage of this knowledge?

220 Management decisions which WILL impact soils include: Wildlife Habitat Management, Water Quality, WSR, Visual Quality, Cultural Resource Management.

221 1(a). All Alts. Would improvements expected outweigh losses?

222 1(b). All Alts. The RMP must fully discuss livestock grazing and range improvements as irreversible and irretrievable commitments of soil resources, on both localized and generalized basis. Why is road building any different than livestock gullying? The RMP must quantify losses, and develop specific management actions to limit these.

223 2 - 6. All Alts. Impacts of livestock grazing to soil resource are not adequately addressed. BLM "improvements" in livestock distribution will lead to increased soil losses in wider areas due to soil disturbance in previously less used sites. Trails can rapidly erode and be incipient sites of gully formation. Impacts of "improvements" and range management techniques which further extend the zone of livestock impact, or the amount of trampling activity, must be fully analyzed.

224 8. Alt. 4. Maintenance of a 6" stubble height will not ensure improvement.

225 11. All Alts. The impacts of "pasture-ization"/more fences = more concentrated use of areas must be adequately analyzed. More uniform use of areas as smaller pastures are developed may result in LESS vegetation cover remaining and greater microbiotic crust damage overall, particularly in upland areas, and hence GREATER soil impacts. Impacts are magnified in steep terrain.

226 14. All Alts. Fire causes long-term damage to microbiotic crusts.

227 17. All Alts. The analysis of impacts of vegetation treatment are based on an optimistic assumption that vegetation treatments would be successful. What would happen if there were only 50% success in revegetation/ 10% success? Scenarios exist in which revegetation fails, and serious long-term impacts result (Hagmann 1996). How will BLM determine through length of plan if management actions have positive or negative impact on soil

228 19. All Alts. Many aspects of logging have serious impacts on soils; mitigation measures in RMP are inadequate.

RMP Effects: Wildlife Habitat Management, Water Quality, Land Tenure, WSRs, Visual Quality, Cultural Resources will affect soils. Cumulative impacts will exist.

VEGETATION

33

BLM Response to Letter No. 31 *continued*

of impacts as a context for understanding the specific analysis on pp. 214a-226a; specific livestock grazing impacts on fisheries habitat are described in the analysis points listed in response 31-80(a) above. Please note that the specific analysis discusses the same factors as the summary (*e.g.*, sedimentation, vegetation condition).

31-81: Your opinion is noted. The BLM believes no reasonably foreseeable impacts to fisheries would occur from wildlife habitat actions. Impacts to fisheries from rangeland vegetation treatment projects are described in the PRMP, Chapter 4 - Fisheries, #20.

31-82: The impacts of trampling on upland sites by livestock, wild horses, big game, recreationists or any other activity were not specifically addressed or analyzed in the Draft RMP impact analysis. Trampling impacts were analyzed as a component of or companion to the application of management actions. Reducing impacts from trampling is implied through applying utilization and plant cover criteria, managing for late seral and PNC, and improved livestock distribution (DRMP, p. 279, #5, 6, 9), limiting livestock trailing and structural facilities (DRMP, p. 283, #29), and limiting OHV use (DRMP, p. 283, #26). Where appropriate, the PRMP impact analysis has been revised to discuss the effects of trampling more directly. Upland Watershed, Goal 1, #2 (as revised in the PRMP) requires the BLM to consider the effects of resource use timing and intensity on soils before new soil disturbing actions (including changes in livestock grazing) are authorized.

31-83: No specific guidelines for Management Concern: Riparian Areas, Goal 1, #10 were considered necessary in the DRMP; however, this project would require an environmental assessment (EA). The BLM expects this would involve a cooperative effort with a grazing permittee or permittees to manage riparian habitats on perennial streams on all or part of an entire watershed. Development of the San Felipe AMP/EA is an example of such an effort and would meet the intent of this decision once the AMP/EA is completed.

31-84: Your opinion is noted. The BLM feels that riparian pastures are a valuable opportunity for demonstrating that livestock use and riparian improvement are compatible. The "cost-benefit" analysis you desire is provided in the DRMP on p. 217, #12, Alternatives 2 (riparian pastures) and 5 (supervised trailing only). Please also see comment 31-28 regarding cost-benefit analyses in general.

31-85: The decision to set priorities doesn't mean the BLM won't pursue minimum streamflows on the other fish-bearing streams - it just says the BLM will apply for minimum streamflows on certain streams first.

Letter No. 31 *continued*

A. We are appalled at the lack of up-to-date information about vegetation resources presented to the public in the RMP. A primary purpose of an RMP is to inventory and analyze area resources. Table 3-21, "Vegetation Summary for the Challis Resource Area", illustrates the problem - It is a summary based on old planning documents from 15 to 20 years ago. Total

229 acreage of vegetation contained in Table 3-21 is ~1 million acres. RMP page 1 states that there are 792, 567 acres in the CRA. Has BLM somehow lost 200,000 acres???? The public must be presented with accurate, site-specific, current information.

230 B. Although only a small percent of the CRA is riparian communities (total riparian acres in Table 3-21 is 2,170, the RMP contains far more information and analysis of riparian areas than it does uplands. Indeed, almost NO specific data on uplands is presented to the public.

231 C.Springs and seeps are of vital importance to native wildlife species in the arid CRA, yet the RMP contains virtually no discussion of management of them. According to BLM's definition of riparian area on p. 131, springs and seeps are riparian areas. Will the same management standards applied to streams be applied to all springs and seeps? We urge the BLM to fully protect these areas, which our members have observed are commonly the most degraded sites in the CRA.

232 D.Table 3-23 again exhibits a big-game bias. Structure of all woody vegetation in Table is vital for nesting of many species of migratory songbirds, and far more critical to reproduction and viable populations of these birds than it is of importance to deer or cows. Duff (1979), Taylor (1986) show that woody riparian vegetation is of fundamental importance to abundance of these birds, and that grazing significantly affects bird abundance and species richness. Duff found that after 4 years raptors and passerines increased 350% within an exclosure. Taylor found that abundance of passerines was negatively correlated with frequency of grazing.

233 E. Our repeated observations contradict statements in Table 3-23. Roses and red osier dogwood are often severely grazed, sandbar willow is rarely over-utilized by wildlife.

234 F. RMP p.137 states that little is known about distribution, size, trend of special status vascular plant species, and no data exist for non-vascular plants. This information must be developed as part of the RMP process, particularly where vegetation treatment, prescribed burns, etc. are commonly discussed, and where livestock grazing is a known impact to these plants.

235 G. We recommend the use of biocontrol agents to control weeds on BLM land. Where no known agents exist, mechanical or hand control of weeds is necessary. Sheley (1994) states that limiting disturbance is necessary to control spread of noxious weeds = limiting livestock,OHV use.

236 H.Intact, healthy microbiotic crusts limit the spread of exotic species (Kaltenecker and Wicklow-Howard 1994) = management to protect crusts from harmful effects of grazing and trampling is vital to control of weeds and protection of soil resource.

237 I. Microbiotic crusts must be discussed fully, and impacts of proposed actions of all alternatives
evaluated on them. Crusts stabilize soil, contribute to soil fertility - fix nitrogen (limiting nutrient in arid western lands, facilitate nutrient uptake by vascular plants, aid in establishment of vascular plants and may aid in soil moisture infiltration and retention (Kaltenecker and Wicklow-Howard 1994). Physical disruption of crust by trampling impacts reduce coverage values, species richness, and rates of nitrogen fixation. "Land use by domestic livestock results in compaction and disturbance of the surface soil, with resulting negative impacts on microbiotic crusts." Kaltenecker and Wicklow-Howard 1994).

238 J. "Maintenance and Restoration of Native Vegetation Communities" must be included/analyzed as a Management Concern in Vol. 2. The RMP fails to adequately discuss importance of native species. There are no identified Vegetation goals. If the RMP can analyze

34

Letter No. 31 *continued*

238 Vegetation Treatments, as it does in Vol. 2, it can certainly analyze the importance of native plant communities. The RMP fails to clearly state goals for vegetation.

239 K. The RMP is grossly negligent in failing to analyze impacts of cheatgrass/exotic species on native vegetation, and its impacts for management actions. This huge shortcoming is magnified by the numbers in Table 3-21, which shows that almost 200,000 acres of the CRA is classified as Wyoming big sagebrush. All Wyoming sagebrush sites are vulnerable to invasion by cheatgrass following fire or site disturbance by livestock. Additionally, salt desert shrub, low sagebrush, mountain big sagebrush and low elevation conifer forests, juniper woodlands and mountain mahogany are now being invaded by cheatgrass following disturbance, as cheatgrass is rapidly adapting to grow at higher elevations(Monsen 1994). Cheatgrass appears to pave the way for subsequent invasion by noxious weeds in arid ecosystems (Monsen, pers.comm.). This means that virtually ALL of the CRA, except higher elevation conifer forests,and highest elevation mountain sagebrush communities are in danger of cheatgrass invasion and dominance. Our members have observed cheatgrass dramatically increasing in abundance in the CRA, particularly in burned areas and sites heavily degraded by livestock.

Cheatgrass profoundly alters site conditions, and post-burn cheatgrass dominance dooms native ecosystems (Billings 1994). Rehabilitation of cheatgrass-dominated sites is very, very expensive, and may not be possible. Rosentreter (1994) discusses impacts of cheatgrass on rare native plants. Whisenant (1990) articulates the impacts of cheatgrass on changing fire frequency on cheatgrass sites. The shortening of fire frequencies - from 60 -110 years or longer in pre-settlement sagebrush communities - to every 2 to 5 years in cheatgrass range - represents a significant change with direct and cumulative impacts to virtually all native species in these ecosystems, as well as to human uses of public land.

Actions which result in cheatgrass invasion represent an irreversible and irretrievable commitment of resources. Impacts of fire in the CRA in 1996 are Unnatural in sites where cheatgrass gains post-disturbance dominance. Disturbance may push plant community across a threshold from which it cannot recover, resulting in a permanent early seral state. All the glorious results of prescribed fire trumpeted throughout the RMP will not occur on cheatgrass-vulnerable sites.

BLM cannot blithely assume, as is ubiquitously done in the RMP, that outcome of fire, herbicide use, or other site disturbance termed as a vegetation treatment will be innocuous, or beneficial - or reversible. Microbiotic crusts protect sites from cheatgrass/weed invasions. Cheatgrass-dominated communities are in the earliest possible seral state, and may be permanently stuck there since rehabilitation/recovery may be impossible.

How will cheatgrass/exotics affect BLM management actions in the CRA? The public must be given a full analysis here.

240 L. The RMP focuses on upland grasses (because cows, deer and elk eat them?) , and virtually ignores shrubs and forbs, which are of vital importance to a myriad of native wildlife species. Sagebrush is the most widespread native shrub in the CRA, and BLM proposals and analyses ignore its importance to the ecosystem.

Sagebrush positively affects site hydrology (Peterson 1995) - it acts as a living snowfence, traps snow which melts off more slowly and increases the potential to improve the water table. Ground water is replenished mainly through snowmelt. It provides shade, and functions as a water pump which moves water from soil depths by "hydraulic lift" to the surface where water is then released through sagebrush roots and can be taken up by other grasses and forbs (Caldwell and Richards 1989).

Sagebrush physically protects native bunchgrasses from impacts of livestock grazing and trampling - in many sites in the CRA, the only healthy remaining native bunchgrass occurs in the protection of sagebrush plants. It holds soil and provides vertical structure which adds structural diversity to the plant community and habitat structure for many native animal species (Peterson 1995). Sagebrush provides soil stabilization, wildlife habitat, forage, and ecosystem stability (McArthur 1994).

35

BLM Response to Letter No. 31 *continued*

Attachment 14, #3 ends by saying "...indefinitely, until minimum streamflow needs are satisfied."

31-86: Your preference that RMP actions "improve water quality conditions to as near pristine levels as possible" (Alternative 5) is noted. The PRMP contains numerous management decisions which would directly or indirectly improve degraded water quality throughout the Resource Area. For example, see the PRMP decisions listed under Water Quality, Goal 1 (please note that these decisions varied little among alternatives; see DRMP, pp. 380a/b); Riparian Areas, Goal 1, #4-7; and Fisheries, Goal 1, #4.

31-87: Your opinion is noted. All road construction will be in compliance with the road standards set forth in BLM Manual Section 9113 (see PRMP, Attachment 5, General SOP #7). Additional PRMP decisions would limit or define new road construction in the Resource Area: see Riparian Areas, Goal 1, #12; Water Quality, Goal 1, #2, 3, 5, and 6; and Transportation, Goal 1, #1 and 9.

31-88: (a) The risk of failed treatments is considered negligible. Various PRMP actions would ensure rapid revegetation of the disturbed site (see Attachment 8: Design Specifications). Alternative 1 describes impact to fisheries values through increased sedimentation. As noted under Alternative 2, buffer zones and vegetative conversion acreage limitations would mitigate potential sedimentation impacts. The BLM feels that this description of impacts is adequate.

(b) The PRMP contains management to prevent the types of erosion impacts you describe. An ID team would review proposed actions to evaluate site recovery potentials and suitability as well as susceptibility to erosion (e.g., see Upland Watershed, Goal 1, #2).

31-89: The PRMP analysis has been clarified.

31-90: Once approved, the Challis RMP would implement livestock management actions to protect fragile watersheds and wildlife habitat; for example, see PRMP, Livestock Grazing, Goal 1, #3 and Wildlife Habitat Management, Goal 1, #6.

31-91: Your preference is noted.

31-92: Your preference for Wild & Scenic River designations is noted. In addition to considering the qualities of a river segment and its corridor, BLM recognized that determining a river suitable for management as part of a National Wild & Scenic River System is an issue of allocation. For example, there may be rivers that have numerous OR values present within the river corridor, but because of other issues such as current or proposed uses

Letter No. 31 *continued*

240 Vegetative production, vegetative diversity or biodiversity do not increase in the long-term as a result of sagebrush removal. Sagebrush is a climax dominant species, and its removal will result in a lower seral stage community. Species diversity is higher in older communities (Odum 1971).

Mature sagebrush communities contain a diversity of age classes interspersed with understory that is more dense on well-managed ranges. Livestock management, coupled with soil type and climate affect understory species more than stand density. Lomasson (1948) showed that sagebrush communities survive and maintain productivity for long periods of time. On properly managed rangelands, grasses and forbs can increase under sagebrush. (Peterson 1995). Total plant production decreases with the removal of sagebrush. (Peterson 1995).

There is no evidence of long-term increases in biodiversity as a result of sagebrush removal. Billings (1994), McArthur (1994) discuss the loss of sagebrush habitats to native species. Short-term bursts of weedy species immediately following disturbance cannot be termed true increases in biodiversity, but it is precisely this (hopefully transitory) increase in weediness which is used by proponents of alteration of sagebrush habitat to proclaim post-fire, post-herbicide increases in biodiversity. Increases in nutrient levels in burned grass plants are also fleeting, and long-term nutrient loss may occur - nitrogen volatilized in fire, fire kills microbiotic crusts - main nitrogen fixers, and crusts recover very slowly from fire - 10-40 years or longer.

Post-fire nutrient loss occurs in wind or water erosion of soil. (Peterson 1995, Belsky 1996).

Sagebrush community commonly exists as a complex mosaic. Diversity is inherent.

The canopy protection afforded grass plants by dense clumps of shrubs is the sole reason why any perennial grass remains on depleted ranges.

All positive effects of sagebrush and other native woody plants on native ecosystems must be fully considered and evaluated in analysis of vegetation manipulation schemes in any of the alternatives.

241 M. Fire directly damages or kills native bunchgrasses and forbs. Peterson (1995) reviews literature on effects of fire on bunchgrass: The most common effect of fire on Idaho fescue is negative. Effects on bluebunch wheatgrass are variable, but may be negative. Many positive effects may be only short-term.

242 N. The RMP completely fails to specify site conditions/criteria under which vegetation manipulation would occur.

243 O. Restoration of crested wheatgrass seedings, exotic communities to native shrub cover. We recommend that BLM fully analyze the active conversion of all seedings to native shrub (sagebrush) communities as a vegetation goal of the RMP. This is necessary because of 1) the great loss of sagebrush habitat throughout the West (see previous discussion of cheatgrass/exotics) and impacts on native wildlife species, biodiversity, ecosystem processes. 2) Crested wheatgrass seedings offer the least expensive opportunity to restore native shrubs. Plant structure/spatial dispersion in seedings resembles the ground-level structure of native bunchgrass communities, i.e. bunchgrass plants with open interspaces between plants,which are necessary sites for seeding native shrubs. Sagebrush requires bare soil interspaces for germination and establishment, and cannot successfully reestablish in sites blanketed by exotic annuals.

244 P. The RMP must specifically state all goals, analyze all actions, alternatives in relation to native plant species. We are deeply concerned that the RMP constantly discusses "forage" "cover", yet never states whether this discussion is about native vs. exotic species, and shrubs vs. grass.

245 Q. BLM wrongly applies the Forest Health "fire is good for forests" mantra to sagebrush communities. Although salt desert and sagebrush communities evolved with fire, the introduction of highly flammable exotic species (cheatgrass, medusahead, tumblemustard) and aggressive noxious weeds has disrupted plant succession in sagebrush communities throughout the West. Fire in the 1990's in the CRA has direct, immediate long-lasting and cumulative

36

Letter No. 31 *continued*

245 impacts on native ecosystems and wildlife. Billings (1994) best sums up the implications of cheatgrass/exotics to the CRA:

"There could be a genuine threat to the existence of large,integrated ecosystems which have existed since the Pleistocene... These large operational ecosystems could disappear over large areas...primarily because of one innocuous-appearing grass...the results could be conversion of these native ecosystems to unproductive and simplistic annual grasslands lacking not only native vertebrates but also those invertebrates and cryptogams that are involved in the operation of the ecosystem including energy flow, water cycling, and nutrient balance...there is always the possibility that ecosystemic destruction may be irreversible."

All impacts of proposed vegetation treatments and fire suppression policy must be completely analyzed, based on science and not myth:

Human-caused fires (recreationists, ranchers) account for a significant number of wildfires in the CRA, beyond natural lightning-caused fire. As human use of the CRA is increasing, occurrence of fire is becoming less natural, with significant cumulative impacts.

Fire on land degraded by 140+ years of livestock grazing may not behave in a predictable manner. Livestock grazing has resulted in lack of fine fuels in some sites = fires must burn hotter to carry in woody communities, abundance of continuous fine fuels (cheatgrass, weeds) in others = Fire may not have "natural" outcome. Plant communities may be pushed over thresholds from which they cannot recover. Exotic species alter community resiliency.

All fire in vegetation types, particularly sagebrush, susceptible to exotic species invasions, must be fully suppressed. BLM must control fire if fire can lead to irreversible losses of native plant species. We are appalled at BLM's recommended changes in Fire Management which would remove nearly all communities which may be negatively affected by fire from full suppression zone.

246 R. More delays! Watershed analysis, ID teams will result in further delays in making much-needed land management changes. BLM must establish a specific time frame and act, not plan to plan.

247 RMP Effects:There WILL be effects to vegetation from management concerns: Water Quality, Visual Quality, Cultural Resource. Cumulative impacts will occur.

248 1. Alts. 2,3,4,5. RMP states that "criteria for vegetation treatments ensure that they would accomplish the goals for which they were designed." This naive arrogance demonstrates lack of experience with dryland vegetation treatments in the arid West. Precipitation and other weather conditions following treatment determine the ultimate outcome of vegetation manipulation projects - there is a high degree of uncertainty. The only way this could be a valid claim is if the sole goal was to kill existing woody vegetation (as we suspect it is).

249 2. All Alts. Again here, RMP only considers impacts of livestock grazing on big game, and wildlife forage consumed, thus ignoring importance of vegetation structure, and 100's of wildlife species.

250 5. All Alts. 50% upland utilization will not improve condition (see Livestock comments). BLM must specify upland utilization criteria for all species, not just bluebunch wheatgrass. Establish sound upland utilization criteria for all desirable species under all alternatives.

251 6. All Alts. BLM must always manage for late seral to PNC communities, and not Desired Plant Community. ID team decisions, arbitrary imposition of Desired Future Condition: This concept is based on a set of human values and commodity needs rather than what may be in the best interest of the range of resources present. The concept is defined in terms of human defined values, including economic and social conditions, and not in terms of a resource condition which may reflect non-commodity needs, issues and concerns. ID teams may make arbitrary, commodity-biased decisions without adequate public involvement.

"Maximum amount of forage" is not related to PNC. For example, TNR use -indicating an abundance of forage exists, is commonly issued by BLM in Idaho in places such as the Jarbidge RA, where this overabundance of forage is based on cheatgrass and crested wheatgrass - early or unnatural seral stages.

37

BLM Response to Letter No. 31 *continued*

in or near the corridor, BLM may have chosen not to allocate that river for management as a national wild, scenic, or recreational river. Many of the important resource values which are present along the rivers in the Challis Resource Area are protected by legislation other than the Wild and Scenic Rivers Act, such as the Endangered Species Act and various cultural resource laws. The same allocation principle is true for ACEC designations. Those included in the PRMP are those the BLM feels are appropriate for meeting the resource needs of the planning area, while also allowing other uses of the public lands. The issue of recommendations for wilderness designation was addressed by the BLM in the 1980s, and is not within the scope of this PRMP (see DRMP, p. 13, Challis RMP Planning Criteria - #5).

31-93: A time frame for special status species inventories would be identified in the RMP implementation plan, if determined necessary.

31-94: Your comments are noted. The BLM believes the PRMP provides adequate restrictions on mineral development.

31-95: Your opinion is noted. The PRMP expands the analysis of cumulative impacts to fisheries resources.

31-96: A "natural abundance and diversity of aquatic habitats" does not include degraded habitats. Degraded habitats are not "natural." The goal also states: "to support fisheries resources in a healthy and productive condition.....", etc. Degraded habitats cannot support fisheries resources in a healthy and productive condition.

31-97: The PRMP decision on identifying critical habitats has been changed to delete the 7 year timeframe, because these inventories were mostly completed during preparation of the DRMP. The timeframe for inventory of anadromous fish, bull trout, and westslope cutthroat trout habitats and distribution has been deleted from the PRMP, since such efforts are on-going and will continue throughout the life of the RMP. The 7 year timeframe for developing and implementing a fisheries plan for the Big Lost River is realistic, as this is a lower priority fisheries within the Resource Area and management guidelines in the PRMP will ensure riparian habitats are maintained or restored. The 7 year timeframe is also reasonable for elimination or modification of migration barriers, since this action could require substantial effort and take years to complete.

31-98: Priorities for land tenure adjustments (PRMP, Land Tenure and Access, Goal 1, #2)) indicate that BLM would attempt to acquire lands with high resource values, and facilitate threatened/endangered species recovery. This should result in a "net gain" of critical habitats.

Letter No. 31 *continued*

252 9. All Alts. Vegetative cover alone does not ensure that watersheds, plant health, water infiltration are protected. Again, annuals and exotic weeds can smother the ground surface with ~100% vegetative cover, but do not support these values. BLM has must clearly define what is meant by "cover". All cover MUST be native plant cover.

253 10. Alts. 2,3,4,5. BLM fails to describe components of watershed analysis which would make this analysis superior to AMP. Specify these, supply time frame. Does the CRA contemplate using the AIE process to address livestock problems?

254 11. All Alts. We oppose the allocation of any increase in forage claimed by BLM as a result of burns, seedings, treatments, etc. to livestock for any reason. This is simply sacrificing resources on one site to make up for resource shortfalls elsewhere, and results in further harmful impacts. It is impossible to understand what the various RMP Alts. are saying here.

255 12. All Alts. Burning results in immediate (for example, nitrogen volatilization) and long-term nutrient and water losses, often results in losses in vigor and cover as well as outright death of bunchgrasses and forbs, and targeted woody plants. (Previous discussion).
BLM directly contradicts itself in analysis of Alt. 3 (compared to analysis here for other alternatives). BLM states that prescribed burning to enhance livestock forage would lower vigor of existing grasses and forbs. Yes! Prescribed burning in grazing-impacted communities does, and it makes no difference if the human-imposed purpose was livestock forage, or lofty claims of ecosystem health. BLM alters predictions of outcomes depending on what it wants to achieve. This is not science. This is why DFC, or ID team Desired vegetation goals which are not based on PNC, are not valid. Too often land managers warp facts, bow to political pressures, or just plain mislead the public.

256 13. All Alts. Wild horse trampling impacts vegetation, microbiotic crusts not just "forage".

257 14. 15. All Alts.Why not simply title this big game forage? - BLM misleads the public by using the inclusive term "wildlife" here.

258 15. Alts.2,3,4,5. Specify goals, methods of watershed analysis. Will watershed analysis supplant or augment AMP?

259 17.All Alts. Spurious rosy assumptions about beneficial impacts of fire, treatment are the only impacts considered. Completely detail ALL impacts.

260 18. BLM must specify "success standards". What are failure standards? If a project fails, will livestock be permanently removed from the site? Will BLM spend sufficient money to restore a prescribed burn invaded by cheatgrass to a native community? The analysis of impacts of vegetation treatment are based on an optimistic assumption that vegetation treatments would be successful. Analyze impacts of failure.

261 19. Alt. 5, all Alts. RMP states "livestock would be removed from all riparian areas, with potentially significant impacts to uplands" in WSRs. Does this mean that BLM will not adequately reduce numbers of livestock in allotments/pastures with WSRs, but simply shift zones of abuse? Won't these same impacts occur in any situation where livestock use is shifted, but numbers not reduced????

262 21. All Alts. There is no need for construction of improvements in WSAs if livestock are being managed properly in the first place.

263 22-25. All Alts. Evaluate impacts - of mineral exploration, development on vegetation. What are these impacts? BLM must establish strict mitigation criteria in the RMP to minimize mining impacts on vegetation.

264 26. We support limiting OHV use on the entire RA and additional vehicle closures to limit

38

Letter No. 31 *continued*

damage to native vegetation.

265 27. We support closure of the Herd Creek allotment.
Alts. 4,5. Even with complete removal of livestock from riparian areas, BLM cannot assume that attainment of riparian goals would occur, unless uplands are fully protected from livestock abuse.

266 28. All Alts. BLM must fully analyze all impacts of establishing riparian pastures.

267 30. All Alts.The slow rate of developing AMPs is often due to permittee resistance to management change. AMPs could be quickly developed. BLM cannot expect watershed analysis to be faster. We expect it would be far more cumbersome.

268 33. All Alts. We fully support acquisition of riparian, floodplain, and salmon, steelhead and bull trout habitat, and subsequent removal of livestock grazing from all land acquired for this purpose.

269 36. All Alts. What are these standards?

270 37. Discussion of impacts of reintroduction of native species cannot be limited to beaver.

271 39. BLM completely fails to analyze negative impacts of fire on riparian communities. By exposing livestock-degraded community to any disturbance, including fire, unpredictable and harmful results may occur.

272 40. All Alts. As discussed in Lands, we strongly oppose potential disposal of 65, 000 acres of public land, and believe this disposal would have significant impacts on native vegetation in the CRA - disposed lands could become further degraded, serve as sources for exotic species invasions, management practices leading to devegetation of these lands could impact watersheds and riparian areas on remaining BLM lands = further wildlife habitat losses. This land exchange must be fully analyzed in the RMP.

273 51- 53. A full discussion of limiting disturbance to limit spread of weeds must be included.

274 56. BLM narrowly limits discussion of cumulative effects to effects of actions on adjacent land under other ownership. For example, BLM must discuss: Cumulative effects of all related proposed actions on BLM lands. How will prescribed burns on poor condition range in watersheds with non-functioning streams affect fisheries values?

275 The RMP contains no clear vegetation goals and objectives. We are appalled that BLM does not state a Vegetation Goal which which states "All management actions will promote the perpetuation or restoration of native plant species." Instead, the only specific goal dealing with vegetation is "Veg..Treatment Projects", p. 365-366. BLM's analysis of this goal is fraught with bias toward manipulation scenarios, and full impacts of alternatives are shallowly evaluated. (See our preceding comments). Vegetation management projects, despite claims of ecosystem health, are almost always aimed at providing forage for livestock.

276 Specific management actions which will be taken to assure BLM meets goals are not listed. Instead, BLM talks around issues. The RMP states that an ID team will establish Objectives for vegetation treatment projects. Who or what will be on the ID team? Will this be Agency and technical people, will it involve, as we believe it must, "interested publics"? On what basis will it reach conclusions? We view this establishment of innumerable ID teams as an attempt to limit and sidestep open public involvement in the planning process. The RMP is the main planning document. The BLM here avoids any actual planning, and asks the public to rely on (probable) closed door discussions by an ID team in the future to determine management actions and policy. This circumvents NEPA.

Intact native plant communities are the foundation on which BLM must build any

39

BLM Response to Letter No. 31 *continued*

31-99: Your opinion is noted. The PRMP would provide for full suppression of wildfire in sage grouse habitats (i.e., sagebrush-grassland ranges) in the absence of a fire management activity plan (see Fire Management, Goal 1, #2). Development of fire management activity plans would consider resource values and the need for full suppression of wildfires in sage grouse habitats.

31-100: The BLM agrees that areas vulnerable to cheatgrass invasion (and noxious weeds) must be protected from fire. These areas are often low elevation Wyoming sagebrush communities with reduced native grass compositions, but still producing enough fine fuels to support fire. Not all Wyoming sagebrush communities are susceptible to cheatgrass invasion, however. Many areas in the Resource Area have very good native grass compositions which would respond favorably to prescribed fire or controlled wildfire. Fire suppression efforts will be determined on a site-specific basis with activity plan level direction, as described in Fire Management, Goal 1, #2.

31-101: "General" design specification #4 (see PRMP, Attachment 8) requires the use of native species in riparian areas. The PRMP emphasizes use of native species in upland areas, but does not require it (see "General" design specification #3). The BLM agrees fire rehabilitation efforts should encourage the use of native species, including shrub species where appropriate. However, there are instances where non-native species may be utilized to enhance the establishment of native species or where immediate watershed protection is necessary. An example may be including annual ryegrass (a short lived, weakly competitive species) in the seed mix to provide a rapid ground cover. An interdisciplinary team would be used to identify specific objectives (see PRMP, Upland Watershed, Goal 1, #8) and the need to consider non-native species in meeting those objectives.

31-102: Many PRMP decisions adequately direct post fire rehabilitation stipulations. Please see Rangeland Vegetation Treatment Projects, Goal 1, #4-6; Upland Watershed, Goal 1, #8; Fire Management, Goal 1, #8; and Attachment 9.

31-103: The "Note" on Map 16 explained that fires would be fully suppressed unless a fire management activity plan exists for an area. Thus, there would not be an immediate shift from "full suppression" to "conditional suppression" throughout the Resource Area. All "conditional suppression" areas would become so only after site-specific analysis during preparation of an activity plan. The PRMP analysis has been revised, where appropriate, to clarify the impacts of this management strategy.

Letter No. 31 *continued*

277 management plans, yet native plant communities are barely given lip service in the RMP. The lack of current information is shown by Table 3-21, which is the main source of upland vegetation information in the whole document. It is based on very old information, from old EISs - and has 200, 000 more acres than are currently in the CRA! It provides no detailed information.

The poor structure/organization/analysis provided in the RMP is illustrated by the shoddy discussion of vegetation. BLM must assess a set of vegetation goals which clearly support a larger and more diverse set of wildlife and vegetation biodiversity objectives. BLM must rewrite many parts of the RMP. Start with healthy native plant communities as a foundation, then discuss such things as veg treatments, noxious weeds, livestock management as a subset of this.

278 BLM must supply the public with supplemental documents which adequately characterize upland communities in the CRA.

279 The public is at a loss as to the direction BLM is taking for public land management in any alternatives. BLM must establish clearly defined goals for public land in the CRA, then evaluate all impacts of proposed management activities in relation to these goals in all alternatives. What are classified as "Goals" in volume 2 are narrow, incomplete, often impossible to understand, and often are biased in favor of livestock interests.

Goals and proposed management activities which are in different ways related to vegetation are sprawled all over what is called "Table" 2-1, the format of this table is not directly related to format or topics analyzed in Volume 1, Chapter 4 - the main analysis of alternatives. BLM's choice of "Management Concern" appears to be arbitrary. Example, why is vegetation treatment a Management Concern, and native communities not? Throughout, the format of the RMP is hopelessly unclear and muddled. Type of Effects - points used to evaluate impacts, differ from issue/management concern and Goals in Vol.2. There is no linking, cross-referencing is nearly impossible. The public is left with a user-unfriendly management document, full of confusion and serious omission. RMP must establish basic goals and evaluate all effects of actions in relation to these.

280 BLM p. 30 calls Livestock Grazing a Resource !!!! just like soil, water, air and evaluates and compares alternatives/impacts in relation to livestock grazing as a "Resource". This is an astounding new level of bureaucratic doublespeak. Livestock grazing is an extractive use of public land. Unfortunately, this type of thinking represents the deep-seated bias of the RMP toward extractive interests.

Then, in Chapter 4 which discusses impacts of implementing alternatives, "Livestock Grazing" is a Source of Effect, p. 187a. BLM's classification of Source of Effect itself is unclear, muddled and illogical. For example, p. 187a Livestock Grazing is a Source of Effect, yet p. 191a Livestock Grazing/Upland Watershed is a Source of effect. How can BLM categorize Upland watershed as a Source of Effect? p. 238 Livestock Water Availability and Quality is considered a Type of Effect. There appears to be no clear direction for any of this.

To confuse matters even further, p.. 289 calls Type of Effects "Positive" and "Negative". There is no consistency. How can the public review a document like this? Meanwhile, serious Effects/Impacts are totally unanalyzed in the RMP.

As a consequence of this obfuscation of issues, we ask that all comments on issues, points of concern, actions that we make at any point in this confusing document- be applied to the same thing - issue, concern, whatever, no matter what name or category BLM uses to describe or disguise issues.

We are fearful that the RMP may have been purposefully structured to maximize confusion, blur issues/impacts/analyses. The end result is a slippery unclear management document, which will make it very difficult in the future to hold BLM to any course of action. We are also

40

Letter No. 31 *continued*

fearful that BLM will use the lack of specificity to disregard sound science, and bend to political winds.

VISUAL QUALITY

281 A. The visual resource inventory for lands in the CRA was done ~ 20 years ago, as part of planning process for 3 separate Resource Areas, before the CRA was formed. BLM must, as part of the current RMP process, reinventory and classify visual resources of the CRA and present a thorough discussion in the RMP. Cumulative impacts of various actions in Central Idaho, management area consolidation (juxtaposition of lands in one Visual Category occurring adjacent to lands in the other, but with disparate classifications), cannot have been considered at that time. Further, the visual environment of the CRA and public demands on resources have changed. Extractive uses such as livestock grazing and mining have further altered lands. RMP p. 147, states: "the demand for high quality visual experiences in the RA is growing". Recreational use is highly dependent on high visual quality - 40-50% of all tourist visits are for sightseeing.

282 B. p. 289 mentions "visual simulations". What are visual simulations? By managing for properly functioning ecosystems and intact native plant and animal communities, the BLM will have no need to resort to mock-naturalness, and other forms of fakery. How about visual simulations of cows, and abolish the real thing?

283 C. The RMP preferred alternative proposes removing 50,000 acres of land currently in VRM Class I and placing them in VRM II. WHY? Specify the mandate under which this is being done. We oppose the removal of any lands currently in VRM I from that category without a full and detailed analysis. Apparently, the BLM has NO current information which would enable it to make ANY change in VRM designation, given that the data in Table 3-30 p. 148, stems from the ancient EISs.

Meanwhile, the 1996 Owyhee RMP preferred alternative proposes moving VRM II lands into VRM I. This is just the opposite of the Challis RMP. The Owyhee RMP proposes PLACING 70,000 acres in VRM Class I, relying on guidance in NEPA, sec 101(b), sec 102, and guidelines in BLM Manual Handbook 8410-1.

The RMP provides NO explanation of its proposed action - and this action is incomprehensible in a RA where "visual quality ... is very high" RMP p. 147. Why act to reclassify lands so that their visual qualities can be degraded?

284 D. BLM must fully discuss types of grazing impacts and their relation to VRM Class. For example, is heavy utilization compatible with VRM Class I or II? We believe not. Vale BLM, in management of the Owyhee WSR corridor, believes not. Is the artificial patchiness created on the landscape by fenceline contrasts, different use levels in different fenced areas, livestock trails converging on a limited water source compatible with VRM II? We believe that such impacts seriously detract from the visual quality of public land. Basis and guidelines for visual classification in the Challis RA must be discussed in the RMP.

285 E. The summary of Positive Effects is inaccurate. BLM fails to evaluate the negative, cumulative impacts of modifying fire suppression - and possible increases in cheatgrass/exotics/ugly landscapes as a result of not suppressing fire in habitats vulnerable to post-fire cheatgrass invasion. Cheatgrass has an unnatural appearance, and disrupts the visual appearance of native landscapes. Exclosure construction or other fences built for grazing management impair visual resources.

286 F. RMP states "current livestock grazing practices... have a negative effect on visual quality". We agree, and believe they must be drastically modified to be compatible with BLM VRM Class vs. RMP shifting class to be compatible with cows.

287 G. Prescribed vegetation treatments do not mimic the natural visual environment.

41

BLM Response to Letter No. 31 *continued*

31-104: (a) The BLM agrees that the PRMP forest management proposal is intensive, even though 60% of all CRA forest lands would not receive such management. You state that such proposals "remain largely undeveloped, untested, and unsupported by empirical evidence." The BLM believes the validity of management to maintain the sustainability of forest lands is tested through previous logging or natural disturbances. Marking prescriptions in the CRA are based on previous field observation on similar sites. Both logged and unlogged sites are monitored to determine: 1) in what conditions natural regeneration thrives; 2) the historic distribution of large (old growth) trees; and 3) the role of insects/disease/fire in the stand. These observations are then used to determine what prescriptions should be implemented to maintain the ecological integrity of a given forest stand. "No action" is often deemed appropriate management.

(b) Vegetation treatment decisions are unlikely to affect forest resources, because vegetation treatment decisions focus on rangeland vegetation. The BLM maintains that biological diversity decisions are not expected to affect forest resources.

31-105: (a) The BLM disagrees. Timber harvest may decrease susceptibility to fire, insects or diseases. For example, clearcuts can effectively remove all fuel for fires, food for insects, and substrate for disease. Any harvest level achieves the same, to a lesser effect. For example, partial cuts in lodgepole pine have been shown to reduce disease infestation levels and tree mortality (Schmidt et. al., 1988; Cole and McGregor, 1985).

(b) The BLM believes PRMP decisions do modify forest management to "fix forest conditions." Existing management (Alternative 1 - see DRMP) and the PRMP decisions are quite different. Chapter 4 - Forest Resources describes how PRMP actions are expected to change forest conditions in order to achieve the forest resources goal statement.

(c) The PRMP does not adopt the Alternative 5 decision which requires forest stand management treatments to mimic natural disturbance (see DRMP, p. 414b, #15).

(d) Your comments are noted. Observations made on local wildfires indicate intensive forest management can affect fire behavior. For example, on the Long Tom Complex Fire along the Salmon River in 1985, it was observed that in both Ponderosa and lodgepole pine types, fires usually changed from crown fires to non-lethal understory fires where harvesting had previously occurred (Joe Carvelho, personal communication).

(e) Although weather (e.g., winds, air temperature, humidity) may be the primary determinant of fire

Letter No. 31 *continued*

288 H. We support moving VRM Class III lands to VRM II, or I.

289 I. Burned shrub and forest lands are visually unappealing (ugly). How will recreational uses be impacted? Visual effects of burns can persist for several decades, even in areas which undergo normal successional processes.

290 RMP Effects: Wild Horse and Burro Management, Special Status Species will affect VRM Class.

WATER RESOURCES

291 A. We are astounded at the lack of current information on water resources contained in the RMP. Watershed erosion susceptibility data are from 1977, a current riparian inventory has only been done on 43 of 353 miles of streams in the RA, and extensive efforts to study and collect water and watershed data last occurred in the late 70's, early 80's. This is particularly distressing, since the RMP alternatives rely heavily on watershed level analysis and Water Related Resource Management (What is this?) as the basis for management action. BLM even claims that watershed level analysis process will be more rapid than the AMP process, but given the lack of basic data to start from, we believe it will take much longer - and probably never occur in most instances.

292 B. The overwhelming cause of water degradation and water quality problems on most of the streams in the CRA is livestock grazing. This is the direct observation of our members. BLM also knows this - witness the number of measures aimed specifically at livestock grazing (but not specifically mentioned as being aimed at grazing) in discussion of the issue of Water Related Resource Management (372-374).

293 C. Water quality limited streams - Again, livestock grazing is the foremost cause of the condition of most WQL segments. We believe that many additional stream segments in the CRA deserve to be designated as WQL segments, and that the initial list of designated streams overlooked many smaller, tributary drainages, or less popular recreational waters which nevertheless have important values, and water quality problems as serious as any of those on the list.

294 D. BLM should identify priority streams for acquiring minimum instream flows as part of the RMP process. Instream flows should be vigorously pursued for all 58 streams identified as eligible, suitable, or deferred for WSR status. Minimum flows necessary to support cold water biota and salmonid spawning must be pursued for all streams containing native fish. Don't keep delaying everything!

295 RMP Effects: Wildlife Habitat Management, Visual Quality, Cultural Resource will affect Water. Cumulative impacts will occur.

296 2. Alt. 2. Stringent upland utilization standards are necessary to achieve improved water storage, flood attenuation effects.
Alts. 4,5. We support immediate closure of Herd Creek, Dry Creek, Burnt Creek allotments, Road Creek drainage, Big Lost River and Big Creek corridors, Garden Creek watershed, and Corral Basin Creek drainage. In addition, we recommend that all streams in identified Priority allotments be closed to livestock grazing.

297 3. Alts. 2,3,4,5. All the new resource planning documents in the world will not make any difference, if they are not based on firm data about resource conditions in the CRA. Data on which these proposed planning documents will base decisions must be included in the current RMP, but as discussed in (A) above, BLM is sorely lacking in high quality information.

298 5. All Alts. Range improvements are a major part of the water quality problem. They support artificially high numbers of livestock which leads to more uniform degradation of watersheds and direct impacts on water resources. Range improvements such as spring developments and

42

Letter No. 31 *continued*

298 pipelines desiccate springs and wetlands and extend the zone of livestock abuse. BLM must remove developments from sites with erodible soils, located in steep terrain, or which are built in sites where the land is in poor or fair condition. Water resources are impacted by sediment, livestock waste, increased runoff from such sites. As range improvement projects break down or become non-functional, they should be eliminated.

299 10. All Alts. What is the allotment-scale grazing management demo project that is referred to here?

300 15. Alts. 2,3,4,5. WILL the Procedure for Nonpoint Source Consistency be used? The RMP uses the term "would", which does not mean that BLM will do this. BLM must clearly state that this procedure will be followed. We believe that a Nonpoint Consistency Review should have been done for all streams in the CRA, and a stream-by-stream summary of this information should have been presented in the RMP. What are site-specific management systems and component strategies which will be used correct nonpoint source pollution in the CRA?

301 16. Alts. 2,3,4. The conclusion that the risk of large fire will decrease over time as more small fires burn is erroneous in sites vulnerable to exotic species invasion. Fire risk is linked to climate: in dry conditions in drought years - any site can burn, any fire can become large.

302 18. All Alts. Logging roads, new roads. BLM must analyze the impacts of construction or upgrading of roads in the CRA. RMP must specify and provide management direction here.

303 21. All Alts.The negative impacts to water quality and other resources in the CRA which result from logging far outweigh the "limited" forest development potential. Timber in the ORA occurs on steep slopes, and all impacts from road construction in steep terrain are significant. Instead of claiming that "no adverse effects to water quality would occur from management of forest resources", RMP must analyze impacts!

304 28-31. All anadromous watersheds should be withdrawn from locatable mineral entry, and NSO stipulations attached.

305 33-35. All Alts. Cumulative impacts of proposed actions are not adequately addressed.

Our comments under Livestock Grazing, Vegetation Treatment and elsewhere also apply here:

306 Comments on Table 2:1, 1-16.
a. The measures listed in Table 2.1 will not achieve stated Goals to restore or maintain 75% in proper functioning condition in 5 years.

307 b. This section contains bureaucratic gibberish and fails to clearly state actions in alternatives-Example: The use of "knowledgeable and reasonable practices to manage livestock would be used". The reader is referred to Glossary for definition of "knowledgeable and reasonable" p. 573 - which gives a non-definition -more bureaucratese, which says nothing. RMP must clearly specify actions.

308 c. Permitting one-third measured streambank instability is too great to allow recovery of non-functioning, functioning at risk streams. Further resource damage will occur on all streams with this standard. A bank trampling standard in which trampling can not exceed 25% of the linear length of ALL streams should be used. Permitting 50% trampling on other streams in the RA is ridiculous. Resources will rapidly deteriorate under these criteria.
6 here apparently is written for maximum confusion. What is the rationale behind all this?

309 d. RMP continues to use the terms "trailing" and "supervised trailing" but does not specify what this means. Does this mean twice-a-year cattle drives to move livestock to and from ranges, does this mean daily treks to water, does this mean holistic grazing - with periodic mass inundation of riparian zone with livestock? Impacts of these vary greatly. All must be analyzed.

43

BLM Response to Letter No. 31 *continued*

behavior, fuel obviously plays a major role in determining fire severity. For example, if weather conditions are the same, a fuel load of 35 tons to the acre of dead-and-down woody material cured to 12% fuel moisture would have a higher severity rating than one-ton-to-the-acre of grass and forbs cured to 12% fuel moisture. The BLM considers tree stocking densities in the RA to be a forest health concern, partly due to fuel loading and the concurrent elevated fire severity rating.

(f) This information is noted. The PRMP focuses on minimizing the risks of insect and disease infestations within the planning area. Cumulative impacts at a landscape level are stated in the Forest Resources analysis (see PRMP, Chapter 4, Forest Resources, #24).

(g) This information is noted. PRMP forest management focuses on maintaining adequate shade to prevent drying, yet opening the canopy enough to reduce interception loss. Many studies have been presented showing increased water yields from partial cutting (Knight et. al., 1991; Troendle and Kaufmann, 1987; Meiman, 1987), due to reduced interception loss and moisture competition.

(h) Increased fire frequencies (whether natural or prescribed) are needed in the CRA to minimize fuel loading and increase vigor. The fuels created from harvest activities are often used as a tool for reintroducing fire.

(i) This information is noted. Please see Chapter 3 - Fire Management, for a discussion of the incidence and cause of unplanned ignitions in the Challis Resource Area.

(j) Although it is true that some (e.g., high-intensity) fires would destroy predators and their habitat, fire generally produces more "dead wood" than it consumes, resulting in a net gain of habitat for insects, birds, and other animals which depend on dead wood for their habitat.

(k) None of the forest diseases known to occur within the CRA are believed to be exacerbated by roads. Proposed management activities are expected to reduce the risk of disease. Root rot diseases are undocumented in the CRA, and no symptomatic evidence has been documented. The most notorious root rot disease, Armillaria spp. appears to be limited to moister, warmer habitat types associated with northern Montana and Idaho (McDonald, et. al., 1987).

(l) This information is noted. The consequences of both further disturbance and decisions to set aside some stands from forest management are analyzed in Chapter 4 Forest Resources.

Letter No. 31 *continued*

310 e. A 6" stubble height requirement must be applied to ALL perennial and intermittent streams.Many intermittent stretches of stream are intermittent because of devegetation and erosion caused by livestock. If watersheds are to function properly, an adequate stubble height requirement must be in place on all stream segments.

311 f. A 6" stubble height requirement must be applied to ALL springs and seeps. Overgrazing and trampling here results in spring desiccation due to removal of protective vegetation, hummocking and other trampling impacts. The end result is drying and desertification.

312 g. Stubble height criteria cannot be exceeded on pastures used prior to July 10.

313 h. We support complete removal of livestock if monitoring indicates stubble height has been exceeded.

314 i. As previously stated, we do not support the development of riparian pastures. If BLM goes to the trouble to fence a riparian area, all livestock use must be discontinued.

315 j. If 6" stubble height is not adequate to protect resource values, remove livestock.

316 BLM goal must be to restore ALL riparian areas to proper functioning condition, not just some.

317 GOAL 2: BLM should have identified all streams which support beneficial uses as part of the RMP process, not just plan to someday identify these.

318 GOAL 3: We advocate a "net gain" policy.

WSAS RELEASED FROM WILDERNESS REVIEW

319 A. BLM has titled this section as if hopefully anticipating the release of WSAs for exploitive activities.

320 B. BLM must consider and assess present condition of WSAs, and evaluate impairment of WSAs, as part of the RMP process. Values remaining "largely unchanged" is not good enough. BLM must identify ongoing impacts, and act to protect WSAs. This is the clear direction of BLM Interim Management Policy (IMP). FLPMA requires that WSAs be managed for the protection of wilderness values. WSA management must be consistent with the management of designated wilderness.
Are livestock grazing or other activities causing degradation of resources and wilderness values in WSAs? If so, what specific management actions will BLM take to halt and reverse degradation? The RMP must address these issues.

321 C. The description of condition of WSAs p. 155-157 virtually ignores discussion of direct impacts of livestock grazing to WSAs.

322 D. WSAs, ACECs, RNAS should be closed to/withdrawn from mineral entry and leasing, material sales,community pits, oil and gas leasing, free use permits, and exploration activities.

323 E. The RMP must consider and assess the closure of WSAs, ACECs and RNAs to motorized vehicle activity. Executive orders 11644 and 11989 establish policies and procedures to ensure that the use of ORVs on public lands will be controlled and directed to protect resources, promote user safety, minimize user conflict, and ensure that any permitted uses will not result in significant adverse environmental impacts or cause irreversible damage to existing resources.
If existing roads or trails in WSAs are causing increased ORV use/access, these must be closed.
All WSAs must be designated "primitive, non-motorized".
BLM is directed to protect and enhance wilderness values and authorize management actions

44

Letter No. 31 *continued*

which will ensure their suitability for preservation as wilderness = motorized travel should either be eliminated from WSAs or limited to existing, designated roads only.

324 F. The RMP needs to consider and assess the phaseout of livestock grazing within WSAs, ACECs, RNAs, SRNAs,and Wild and Scenic River areas.

325 G. Reaching PNC must be the goal within WSAs, and BLM must specify measures which will be used to attain this goal in the RMP.

326 H. The RMP needs to prohibit military training exercises within WSAs.

I. The RMP needs to prohibit the use of chaff, flares and supersonic flight in military training exercises over WSAs. (See Air Quality).

327 J. All portions of all WSAs must be closed to all vegetation manipulation projects - including "forest health" projects, prescribed burns, timber harvest for "salvage purposes".

328 H. All WSAs must be designated and managed as VRM Class 1. The CRA BLM proposal to remove lands from VRM Class I is hopelessly unclear about whether any of these lands are WSAs. It simply makes sense that if designated wilderness is VRM 1, then lands managed for non-impairment must also be managed as VRM 1.

329 I. The draft BLM Wilderness Inventory and Planning Procedures, dated July 19, 1996, grants BLM authority to reexamine its earlier wilderness recommendations conducted pursuant to FLPMA. The draft guidelines state: "Through the RMP process, areas identified as having wilderness character are evaluated to determine if they should be identified as WSAs and recommended for wilderness designation." The RMP process gives the CRA a timely opportunity to revisit its original wilderness designations. The important role of roadless, undeveloped lands as reservoirs of biological diversity have become much better understood since original wilderness recommendations occurred. WSAs provide critical refuge areas for declining native species and will be cornerstones in any eventual recovery effort made to expand these species to their former ranges.
BLM should conduct another wilderness review for the CRA through the RMP process which considers: not only the value of roadless lands for wilderness, but also their values to the protection of biodiversity.

330 1-9, Alt. 5. If WSAs are released from wilderness review, we support all actions proposed under Alt. 5. Plus, BLM must take additional measures to protect the resource qualities of these lands and ensure that biodiversity and naturally functioning ecosystems are preserved.

WILD HORSES AND BURROS

331 A. How will proposed utilization levels for upland plant species such as bluebunch wheatgrass be enforced/implemented in the Challis HMA?

332 B. Wild horse management is supposed to attain a "thriving ecological balance". BLM must specify conditions/attributes of a thriving ecological balance in the HMA, and discuss the impacts of livestock on maintaining this balance.

333 C. RMP must fully assess the cumulative impacts of livestock grazing/trampling and horse grazing/trampling on land in the HMA. BLM has been gathering extensive data on the HMA, so this information is clearly available for analysis and presentation to the public.

334 C. The RMP must consider and assess removal of livestock from all parts of the HMA.

335 D. The RMP must assess closure of roads in the HMA to limit disturbance to horses; the RMP must consider prohibition of all OHV use in the HMA.

45

BLM Response to Letter No. 31 *continued*

31-106: (a) The BLM agrees that one of the goals of intensive management should be to "establish once-prevalent forest types", although we disagree that old-growth communities are in need of establishment. The BLM estimates that up to 50% of commercial forest land acres in the RA have old growth characteristics (DRMP, p. 82). The majority (85%) of forest stands are dominated by larger trees, greater than 10" DBH. In the Challis Resource Area, stands with old-growth characteristics may in fact be above historical levels, as very few stands in early seral condition exist. A drive along the upper Salmon River from Thompson Creek to Stanley demonstrates the extensive presence of mid seral forest stands due to fire, but little to no early seral forests. This shows that historically, at least during the previous 100 years, extensive early seral stands existed in forests like the Challis Resource Area's. Therefore, in addition to the maintenance and retention of old growth stands, natural regeneration of early seral stands is an objective (see PRMP, Forest Resources, Goal 1, #8, 14 and 22.

(b) Your citation of the DRMP is taken out of context. If you read on, the next sentence discusses the conditions which must be provided for natural regeneration to occur. The PRMP identifies forest management which provide for these conditions.

(c) Your suggested goal statement and opinions are noted. The BLM does not believe the "human hands off" approach you suggest would "restore ecological processes."

(d) Your opinion is noted. The Forest Resources analysis discusses the role of prescribed fire in forested systems (see PRMP, Chapter 4, Forest Resources, #3, 17, 24, and 25).

31-107: Your opinion on clear cutting is noted. The proposed reduction in clearcut size for Douglas fir stands from 40 acres (DRMP, p. 413, #7, Alternative 1) to 10 acres (Alternative 2) was primarily to address concerns like the ones you raise. Additional requirements to minimize wildlife escape distance, blend into the surrounding landscape, and design for natural regeneration would adjust the shape and position of a 10-acre clearcut to adequately regenerate. On higher (and therefore moister) elevation clearcut sites in the CRA, particularly in lodgepole pine stands, sagebrush invasion is minimal and regeneration is more successful. This is particularly true in lodgepole pine stands, as best germination occurs in full sunlight, and a residual overstory following a partial cutting generally reduces germination and survival (Fowells, 1965).

31-108: Your comments are noted.

Letter No. 31 *continued*

336 E. There are 51,000 AUMs in the CRA, and ~ 220 wild horses. Any conflicts between wild horses and livestock must be resolved in favor of wild horses. The fact that conflicts do exist indicates the degree to which lands of the CRA are overstocked with cattle and sheep.

337 F. Any conflicts between wild horses and native plant communities or native animal species must be resolved in favor of native species.

338

339 RMP Effects: Fire Management, Water Quality, WSR, Cultural Resource, Air Quality, Noxious weeds will affect WSAs. Cumulative impacts will occur.

340 1. Alt. 2,3,4,5. The RMP must discuss proper livestock stocking rates for the HMA -
Alt. 4. We support minimizing livestock numbers, AUMs in the HMA.

341 3. Alt. 2. What is the proper stocking rate for the San Felipe and Warm Springs allotments? How will BLM act to achieve this rate?
Alt. 4. We support exclusion of livestock from 39,000 acres in the HMA.

342 6. Alt.. 4. We support the most restrictive upland utilization levels as well as exclusion of livestock from riparian areas, as in Alt. 5.

343 7. Alt. 7. Makes no sense. Typo?? Only PNC should be used.
12, 20, 49. All Alts. Land treatments should not be done in the HMA for any reason. BLM is supposed to be managing the land. If grazing is properly managed, there is no need for land treatments, and no need for ID teams to contemplate them.

344 15-18. BLM must analyze cumulative impacts of grazing in HMA on all wildlife, not just big game.

345 17, 56. Alt. 5. We strongly support Alt. 5 - No ADC activity in the CRA.

346 18. Although there are no officially designated water quality limited stream segments in the HMA, the waters of the HMA are very degraded - all 92 acres of riparian zone are in poor condition. Achievement of watershed objectives will impact wild horses.

347 22. Alt. 2. BLM here discusses fire rehabilitation in terms of an all-knowing ID team determining fire rehab objectives. Objectives must be delineated in the RMP process. These include - minimum period of post-burn rest (we recommend 5 years) - See Eddleman et.al.(1994). recommendations for post-burn rest of 3-4 years on degraded lands, then reduced use if criteria not met. See also BLM -Snake River Birds of Prey Management Plan (1995): 5 years rest may be necessary for establishment of dryland planting. Specific criteria for site recovery must be met before grazing can resume. These include: vigor of native perennial vegetation, recovery of microbiotic crusts.

348 23, 24. Alts. 2,3,4,5. BLM must completely analyze negative and cumulative impacts of modified/conditional fire suppression and prescribed fire on the HMA.

349 25. Alt.4. Instead of simply saying livestock grazing will be removed for three years, BLM must establish criteria which must to be met before grazing can resume again.
30. All Alts. Any WSAs, released or not, must be closed to ORV use, due to impacts of vehicle disturbance on horses.

350 38-44, 50 - 54. All Alts. See E above.
45-48. See F above.

351 46. We do not believe that native wildlife species benefit from water developments. This is particularly true in a wild horse herd area where horses attracted to water may have significant impacts on previously less-disturbed areas.

352 60. All Alts. No commercial logging or "forest health" treatments can be allowed in the HMA - including helicopter logging.

WILDLIFE

353 The RMP presents a myopic, out-dated analysis of wildlife. This is particularly disappointing for a RMP which claims to be considering biodiversity, and which will be used in future ecosystem management. A discussion of wildlife cannot be separated from a discussion of biodiversity. Throughout its analysis of impacts, the RMP fails to consider impacts on the wide array of species in the CRA, or discuss species other than charismatic, huntable herbivore

46

Letter No. 31 *continued*

megafauna -deer, elk, bighorn sheep. The main topic of discussion under wildlife impacts of proposed actions is competition for, or lack of, "forage" - meaning grass for these species to eat.

354 Wildlife habitat requirements are far more complicated than "forage". Forage is improperly used throughout to signify all food- forage according to RMP glossary - "browse and non-woody plants". Loggerhead shrikes do not eat forage.

355 The fundamental problem with the RMP is that for most non-game species, indeed everything except mule deer, elk, and bighorns, the BLM does not know 1) what species are out there; 2) where they are located; 3) why they are there; 4) the status of their populations. Lacking data on population status, population distribution, metapopulation structure, and habitat requirements for many species, it is difficult or impossible to assess potential impacts of the RMP - especially on populations of habitat specialists and sensitive, rare and locally endemic (or geographically restricted) species.

356 No evaluation of habitat condition for the vast majority of species endemic to the CRA was conducted as part of the RMP process. The RMP makes no attempt to apply coarse-filter approaches for assessing the likelihood of retaining viable, well-distributed populations of native species.

357 There is no evaluation of mechanistic relationships within the CRA. There is no evaluation of: 1) impacts of exotic species such as brown-headed cowbirds, starlings, on native species. 2) predator-prey relations. 3) sensitivity of species to human intrusions. 4) site-specific disturbance in critical or core population centers.

358 There is also a lack of data for biodiversity at higher levels of organization, such as unique assemblages, and for gradient-related diversity and variability across the landscape. The RMP thus offers no assurance that areas of particular ecological uniqueness or species richness will be conserved.

359 While a similar lack of information is a shared problem facing many resource managers, the concepts of managing for biodiversity and ecosystem management are based on the recognition that it is better to be proactive than to wait until species become threatened or endangered. The RMP must require a proactive procedure for identifying the basic habitat requirements and population status of all species of concern, not just ESA-listed species. Specific management indicators and guidelines must be identified and presented for these species, either up-front, where data exist, or through subsequent assessment where it does not.

360 Without fundamental knowledge about wildlife in the CRA, the RMP cannot adequately link impacts to proposed actions, and adequately evaluate alternatives.

361 The RMP states the following about big game populations: elk-increasing, mule deer - stable, pronghorn-optimum, bighorn sheep? Yet, it devotes 5 pages to discussion of these species (163-167), and half a page (189-170) to discussion of non-game wildlife, of which there are hundreds of species in the CRA, many with declining populations. For example, see Saab and Groves (1992) for information on significantly declining migratory songbirds in Idaho.

362 The RMP states that "little is known about presence, absence, distribution or abundance of candidate species. It is BLM's mandated responsibility to obtain data on these species and present it in the RMP.

Table 3-36 shows great gaps in knowledge about special status species. The amount of information on many wildlife species in the RMP is less than in current EAs from other Idaho BLM RAs which we have recently reviewed! A few days afield for a BLM biologist, toting tape recordings of owl calls, and mist nets for bats, would have gleaned information on occurrence of many of the species listed as "unknown" in Table 3-36.

As a consequence of lack of information and analysis regarding wildlife species presented in the Draft RMP, we believe BLM must issue a supplemental document (EIS) with current data on

47

BLM Response to Letter No. 31 *continued*

31-109: Current law, regulation, and policy, as well as prior inventories, formed the basis for proposed forest management (see PRMP, Forest Resources, rationale statement). Reconnaissance, monitoring, and incidental observation activities performed since formal inventories were completed in 1984 provide current information pertaining to insect and disease levels, reforestation needs, fire occurrence, etc.

31-110: Your opinion is noted. The use of prescribed fire to manage forest lands withdrawn from timber harvest would be addressed during the development of fire management activity plans (see PRMP, Fire Management, Goal 1, #1 and #3).

31-111: Your opinion is noted. The BLM believes that harvest can be sustained in the CRA based on the fact that most trees removed by natural causes or human intervention are being replaced by natural regeneration.

31-112: Your opinion is noted.

31-113: Your recommendation for a 10 year closure is noted. BLM would prefer to monitor sites to determine the need for livestock closure in forest regeneration areas.

31-114: Your opinion is noted. See response 31-106a

31-115: Your opinion is noted.

31-116: (a) Your comments are noted. The BLM believes that some of these areas can be managed for timber harvest without significant adverse effects on other resource values.

(b) Your opinion is noted. The BLM does not agree that timber harvest must be foregone in order to manage on an ecosystem basis.

(c) Forested areas do not exclusively exist as small islands in the Challis Resource Area (see PRMP, Map D: Forest Lands). Neither is old growth lacking (see response 31-106a). Although timber is often slow growing, this is usually a result of excessive stocking density. Commercial forest sites are relatively low productivity and have management problems, but are manageable.

31-117: (a) Your opinion is noted. Recent timber sales in the Challis Resource Area have all sold, indicating a local demand for timber and some economic importance.

(b) Your opinion is noted.

31-118: Your opinion is noted. Aspen stands in the RA which are left in a "natural state" continue to decline, with little

Letter No. 31 *continued*

362 wildlife in the CRA as part of the RMP process. The public cannot accept the shoddy analysis of wildlife in the RMP, nor can it make informed comments on proposed actions without such data. The BLM cannot analyze impacts without additional data. Where an agency has out-dated, insufficient, or no information on potential impacts, it must develop the information as part of the NEPA process. 40 C.F.R. 1502.22. Similar documents must be prepared for upland vegetation, proposed VRM and Fire Management changes in the CRA, to make up for previously discussed deficiencies in information.

Examples of management actions which may significantly affect non-game wildlife species about which the BLM has no data:
- Prescribed burns in sagebrush habitat.
- Development of livestock water in upland areas to provide alternative livestock water.
- Trailing or herding in upland and riparian habitats.
- Logging in old-growth fir in "commercial timberlands".

363a The RMP fails to analyze impacts of habitat fragmentation, and loss of connectivity which will be caused by management actions. The viewpoint that burning and other vegetation treatments improves wildlife habitat by creating mosaics or earlier seral stage communities is a fallacy for most native wildlife species, particularly for those species dependent on the structural complexity of woody vegetation for food and cover. Many shrub-steppe and forest obligate species need late seral/old growth woody vegetation. Vegetation treatments fragment habitat. Patchy or fragmented habitat results in increased nest predation on migratory songbirds in forests (Wilcove 1985). Knick and Rotenberry (1995) found higher predation rates and higher brood parasitism by brown-headed cowbirds on shrub-steppe bird species nesting adjacent to burned or disturbed habitats in southern Idaho. Not only did the burn result in a direct loss of habitat, it also impacted birds nesting in adjacent unburned areas.

363b We know of no sensitive, rare or declining species in the CRA which is dependent on early seral stage or mid-seral stage vegetation communities (except long-billed curlew). Declining or vulnerable populations of species in shrub-steppe habitat in the CRA are primarily associated with old growth sagebrush communities or forest communities. See also Forest discussion.

364 Information must be gathered now, and management actions planned on a broad basis, not on a fragmented project-by-project basis. Cursory analysis at the individual project level overlooks the broad picture, connectivity, fragmentation of habitats, populations. The CRA is woefully behind the times in acquisition of key data on wildlife species.

365 RMP Effects: Visual Quality will affect wildlife. Cumulative impacts will occur.

366 1. All Alts. BLM cannot assume that general improvement will result from its actions, given that it has insufficient information on most species in CRA.

367 2. Alts. 2,3,4,5. Riparian habitat stubble height criteria may not result in sufficient willow regeneration (if livestock are grazed at a time when they eat willows) to support suitable yellow warbler, flycatcher habitat. RMP must recognize that wildlife has needs other than forage.

368 3. Alt. 4,5. Utilization of bluebunch wheatgrass after the critical stage may not result in sufficient residual cover for sage grouse nesting requirements. (1996 IDFG Draft Sage Grouse Management Plan 7" fall stubble height). Also see Gregg et.al. (1994), DeLong et.al. (1995). Successful nesting of shrub-steppe songbirds may also depend on sufficient residual cover.

369 5. Alt. 5. Early spring use (in a rotation grazing system) will impact vegetation height necessary for sage grouse nesting, antelope fawning cover.

370 7. Just as BLM considers delaying turnout on key elk calving areas, BLM must identify key areas for migratory songbirds, and specify delays in turnout until nesting is completed. Livestock trample and destroy nests.They flush nesting birds, thus increasing vulnerability to predation and brood parasitism.

48

Letter No. 31 *continued*

371 9. Alt. 2,3,4,5. All plant communities must be managed for PNC. Climax and late-seral habitats are vital to declining native species. Disturbed early and mid-seral communities are not. BLM has not made a firm commitment to managing for PNC - only token effort of the preferred alternative.

372 11. All Alts. What is a wildlife water development? The only water development which could be construed as such is a chukar guzzler. See Livestock Grazing for discussion of impacts of water developments on native wildlife.

373 12. All Alts. BLM here admits "Range improvements generally change patterns of livestock use... may reduce wildlife cover and forage on areas that previously received little or no livestock use." This same reasoning must be applied to 15,16.

374 14. All rights-of-way for water diversions must be denied.

375 17. All Alts. Vegetation treatments decrease the availability of food for late seral or old-growth dependent wildlife species - sage thrasher.
BLM completely fails to evaluate impacts of vegetation treatments on non-forage eating creatures - Brewer's sparrow, sage thrasher, sagebrush lizard.

376 20. Reintroduction of native wildlife species should take precedence over competing land uses.

377 21. Why is "no ADC activity" not analyzed here? BLM specifically discusses this as a management action elsewhere. No ADC activity should be allowed in the CRA. Only non-lethal methods of controlling specific problem animals can be used. Predation is a part of the cost of doing business on public lands for livestock operators.

378 22. All bighorn sheep habitat should be closed to livestock use.

379 24. All Alts. Minimum upland stubble height requirements of 7" of residual herbaceous cover are necessary in all sage grouse nesting areas. IDFG Draft Idaho Sage Grouse Management Plan 1996). 50 and 60% proposed upland utilization levels will not achieve this.

380 28. If the RMP is attempting to authorize large exchanges of lands near Mackay with the State of Idaho, the RMP must fully address all impacts, and evaluate such potential exchanges in the RMP.

381 29,30. We support rejection of all current and future DLE applications. DLE lands are typically lowest elevation lands, and most such land has already been lost from public ownership. Remaining low elevation federal lands may be important habitats for low elevation wildlife and plant species. DLE lands typically will not support sustainable farming, and when farming is abandoned, become giant weed patches which serve as sources of weeds for neighboring federal lands. We support exclusion of rights-of-way from from all SMAs, and termination of all ag trespass.

382 31,32. We support all motor vehicle closures here. (Substitute the word Cow for motor vehicle use in 31...).

383 33. Alt.2, 3,4,5. Wildlife OR values along nonsuitable WSR segments must be managed to have no adverse effects.

384 35. Alt. 3. BLM's statement "the patchiness of forest security cover ... magnifies the adverse effects of disturbance" can be applied to logging impacts.

385 36. RMP refers to a biological evaluation of the preferred alternative. This must be included in the RMP, for full disclosure to the public of impacts of the alternative.

386a 37-39. RMP must specify what requirements will be - for design specifications or site-specific

49

BLM Response to Letter No. 31 *continued*

to no regeneration, and conifer encroachment/ replacement. The BLM believes special management is necessary to preserve aspen, and possibly cottonwood, stands in the RA.

31-119: (a) Treatments designed to "maximize timber productivity" (DRMP, p. 414a, #15, Alternative 1) would not eliminate timber. Your opinion regarding Alternatives 2 and 3 is noted.

(b) Many special status species of the Challis RA require late-seral or PNC habitats. However, many special status species are known to use and depend upon early-seral and mid-seral habitats in the Challis RA. For example, burrowing owls are found in relatively open, grassland and sagebrush-grassland habitats, such as those that exist as a result of wildfire or prescribed burning. Wavy-leaf thelypody is commonly found in road cutbanks and on fill slopes created as a result of road construction. The Ute ladies'-tresses orchid, a threatened plant species that may occur in the Challis RA, has been found associated with habitats heavily influenced by human activities, including irrigated pastures, irrigation ditches, and below leaky diversion dams.

(c) Your opinion is noted.

(d)Your comment is noted. The BLM believes that proposed management of forested areas would protect ecological resources.

(e) Your opinion is noted. The BLM believes that commercial timber harvest is an ecologically viable use of some forested areas in the Challis RA. Also see response 31-27.

31-120: Please see response 31-20.

31-121: Your opinions are noted.

31-122: (a) Your opinion is noted. (b) The statement you quoted was meant to convey the fact that permittees would have to do more riding, salting, and other intensive management in order to meet the stated criteria. It was there to show an impact to them. Please also see response 14-1(c).

31-123: (a) Your comments are noted.

31-124: Specific strategies for allotment management will continue to be included in activity plans such as Allotment Management Plans or Integrated Resource Activity Plans. The PRMP emphasizes watershed assessment (instead of watershed analysis or ecosystem level plans) and provides guidance for when a watershed assessment must be completed and used. The PRMP also

Letter No. 31 *continued*

inventories.

386b Alt. 5 states that adverse impacts would be fully mitigated. How? What mitigation criteria would be used? Throughout, the RMP is virtually silent on mitigation measures.

387 43. All Alts. The discussion of logging impacts to wildlife is cursory, incomplete, inadequate. What will impacts be on blue grouse, northern goshawks, flammulated owls, bats, pygmy nuthatches?

388 44-47. Discussion of cumulative impacts is inadequate.

389 46. What specific measures does the RMP take to protect strutting and nesting complexes for sage grouse? RMP Alt. 2 claims positive management would be instituted. What are the details?.

390

391 GOAL 2 will not be met with limited measures specified in RMP for non-game wildlife habitat, and the negative impacts of vegetation treatment. This discusses ongoing monitoring of "key habitats". What are these habitats? Where is the data? Why is it not presented to the public?

392 11. Almost all wildlife species whose populations are declining are dependent on PNC/late seral vegetation - artificial DFC classification for some other seral stage is incompatible with management for habitat needs of declining species.

393a 13. Why has the BLM 2000 plan not yet been implemented? What has been accomplished so far?
All Alts. Developing new wildlife water sources will not benefit native species - what is the basis for the claim of benefit to 90,000 acres? Any water developments which BLM claims to be for wildlife must provide NO livestock water. This is necessary to prevent livestock water from being developed under the ruse of wildlife water.

393b See BLM's own comments on water in # 12 Comparison of Alternatives.

393c Will commercial timber stands be closed until the 10 year inventory is complete?

394 14. All Alts.How will this be done? Be specific. BLM appears to be giving lip service to biodiversity, but doing absolutely nothing to manage for it.
How will proposed management reconnect fragmented parts of wildlife habitats?

WILD AND SCENIC RIVERS

395 IWP and CIHD propose the maintenance of all current potential wild and scenic rivers as eligible in the final CRMP for future classification as wild, scenic, or recreational segments. We oppose any delisting, as unsuitable, of any currently listed eligible stream or river segment in the Resource Area.

LAND TENURE AND ACCESS

396 1. Considerable effort was expended identifying tracts of public land for potential disposal but very little effort was given to identifying areas for potential public acquisition. Priority acquisitions should be identified by location when possible and by description otherwise, i.e. acquire those lands which: provide public access to perennial streams which offer recreational opportunities; would increase the protection or enhancement of habitat for special status species; provide improved public access to existing public lands and resources; contain resource values which would be of benefit to the public and the programs of BLM; and so on.

397 2. The analysis of potential impacts to other resources and programs as a result of Land Tenure actions mostly focused on possible negative effects caused by the loss of public lands. Very little consideration was given to potential benefits for the various programs and resources that should occur from well planned and executed land exchanges. Exchanges should be the

50

Letter No. 31 *continued*

397 preferred method of achieving not only Land Tenure Goals, but enhancing all the various resources and BLM programs. Every exchange should be planned to achieve clear public benefits, i.e. more will be gained than lost. A BLM Land Use Plan such as this should provide the guidance to steer Land Tenure Adjustments for the maximum benefits not just minimize adverse impacts.

398 3. Why limit the public lands available for exchange in the Chilly Slough Project area to only those near Chilly Slough as shown on Map A? Why can't any other public lands in the Resource Area (or elsewhere for that matter) be traded for property in Chilly Slough?

399 4. Why is only one area identified for potential BLM/state exchanges? Why are public lands identified for trade only to the state? If the identified public lands are suitable for disposal in a state exchange, why aren't they suitable for disposal in a private exchange? State exchanges should be treated no differently than private exchanges. Each exchange must offer benefits to the public and BLM (the land acquired must offer more public benefits than the public land disposed of).

400 5. Thousands of acres are identified for public sale in each of the alternatives. No lands should be identified for disposal by sale only. If public land is suitable for disposal by sale, it is just as suitable for disposal by exchange. There is no sale that is as beneficial to the public as an exchange. There is no sale that cannot be accomplished as part of an exchange, particularly with the use of an exchange facilitator. Public lands are a finite resource. Land Tenure actions should enhance or improve the public lands and resources, not diminish them.

401 6. All methods of disposal should be lumped together. Public lands that are identified for potential disposal should be listed as available for private exchange, state exchange, sale, R & PP, (DLE?), etc. This will allow the most flexibility and most public benefits.

402 7. It appears that sale of public land is a preferred method of resolving cases of unauthorized use (trespass). You can definitely end a trespass on public land by eliminating the public land. This method, however, can create more cases of trespass by offering a sure way of acquiring public land that would otherwise not be available. Sale should rarely be used in such instances. Although more difficult, the most equitable and beneficial tactic over the long term is trespass elimination and prevention.

403 8. The use of "covenant language" or agreements with the new owners are proposed to protect wildlands, riparian areas, and floodplains on lands that are transferred out of public ownership. It is assumed that this term (covenant language) means the title to the property will contain some encumbrance or restrictions on uses meant to protect certain areas. What are the consequences for violations of the "covenants" or agreements? Who will enforce these restrictions? How will compliance be monitored in the future (100 years from now)? Federal enforcement of actions on private land is very impractical and currently politically incorrect. If there are sensitive values on some public lands that may be jeopardized by transfer to private ownership, then those lands should be retained in public ownership.

404 9. Restricting the areas available for Desert Land Entry is an excellent proposal. Elimination of all public lands from such consideration would be in the highest public interest.

405 10. There is an incorrect citation in Volume One, page 91, paragraph 1, line 10. This reference was intended to be that portion of the federal regulations that provides authority for the acquisition of public access (easements). The regulations at 43 CFR 2920 are cited incorrectly. Part 2920 provides authority for the BLM to grant easements on public land rather the reverse.

Additional comments:

406 Mitigation measures must be enforceable by being described and committed to in the Record of Decision. BLM must specify mitigation measures.

51

BLM Response to Letter No. 31 *continued*

introduces Integrated Resource Activity Plans, and clarifies when these and other plans will be appropriate.

31-125: (a) Your preference is noted. (b) The PRMP provides management emphasis for a broad range of wildlife species groups and habitats (see Wildlife Habitat, Goals 1-4). These decisions, coupled with the other decisions in the PRMP, are expected to maintain and improve habitat for the species you mention. The species you mention were not discussed on pp. 236-237 of the DRMP because the analysis in this section was focusing on the impacts of BLM's wildlife management decisions on livestock grazing, not the reverse. The effects of livestock grazing on wildlife resources are discussed in the DRMP on pages 319-320, #5-9. (c) Your comments are noted.

31-126: Your comments are noted. The BLM believes prescribed burns and water developments can be described as "wildlife management actions" when the primary objective is to provide forage or water for wildlife. For example, a number of prescribed burn treatments have been conducted in the Challis RA specifically for bighorn sheep on bighorn winter ranges. Most of these burned areas are not grazed by livestock due to steepness of slope, or because they are within areas closed to livestock use. The BLM has observed that big game animals are attracted to any area treated by prescribed burning, regardless of the original purpose of the burn. A number of water developments have also been specifically developed for bighorn sheep in the Challis RA. These developments are called "guzzlers" or "catchments" because rainwater is often the primary water source. Water developments developed for livestock are also heavily used by many species of wildlife, particularly when the water is piped into areas devoid of natural water sources. The impacts of fencing were considered, and are described in the DRMP in Chapter 4 - Wildlife, pp. 321-322, #11, 12, 15, and 16.

31-127: Your preference is noted. The PRMP would provide for consultation with the IDFG, appropriate Federally recognized tribes and other interested parties to resolve resource conflicts prior to any reintroduction of native wildlife (see PRMP, Wildlife Habitat, Goal 4, #1).

31-128: Livestock grazing is not the primary cause of noxious weed spread within the Challis RA. As noted in the Affected Environment (DRMP, p. 143), road corridors are the main areas of infestation. Also note that the PRMP (Noxious Weed Infestations, Goal 3 #1) limits the control of native poisonous plants to those circumstances where an ID team determines the need.

31-129: The BLM believes the analysis tracks with the preponderance of evidence that sagebrush species,

Letter No. 31 *continued*

407 At first glance, we were impressed at the number of large maps provided in the RMP. However, as we examined them, we saw that many dealt with the same issues, and that many issues and important information which should have been provided in map form was lacking.
- Special status animal species distribution/occurrence
- Plant community seral stage - PNC
- Upland vegetation information - since the change in upland vegetation utilization in preferred alternative focuses on bluebunch wheatgrass, maps should have been provided bluebunch distribution, and parts of CRA where management will focus on bluebunch utilization.
- Upland vegetation maps identifying plant community type. Map 1 is visually pretty, but does not identify communities at the level of resolution which is necessary for the public to understand
RMP proposals which focus solely on grasses.
- Current range improvements.
- Proposed range improvements.
- Areas of proposed vegetation treatment.

408 The RMP does not adequately locate/identify sites of proposed action. The RMP does not adequately predict and quantify outcomes or impacts of proposed actions. If the preferred alternative is adopted and followed, -What % of RA will be impacted? What % improvement
409 can be expected? How many acres will be affected? The RMP does not provide scientific evidence and site-specific evidence necessary to support many proposed actions.

410 The preferred Alternative does not take the clear, decisive measures necessary to protect resources of the CRA from further degradation or destruction.

LITERATURE CITED

Anderson, L.D.1991. Bluebunch wheatgrass defoliation effects and vigor recovery: a review. BLM Technical Bulletin 91-2. BLM, Idaho State Office. Boise, Idaho.

Belnap, J. 1995. Surface disturbances: their role in accelerating desertification.'Environmental monitoring and assessment 37: 39-57.

Belsky, A.J. and D.M. Blumenthal 1995. Effects of Livestock Grazing on Stand Dynamics and Soils in Upland Forests of the Interior West.

Belsky, A.J. 1996. Viewpoint on western juniper: is it a threat to arid western systems? J. Range Management. 49: 53-59.

Bessie, W.C. and E.A. Johnson. 1995.The relative importance of fuels and weather on fire behavior in subalpine forests. Ecology 76(3): 747-762.

Billings, W. D. 1994. Ecological impacts of cheatgrass and resultant fire on ecosystems in the western Great Basin. p. 22-30 in S.B.Monsen and S.G.Kitchen, eds. Proceedings - ecology and management of annual rangelands. Intermountain Research Station, Ogden, Utah.

Bureau of Land Management. 1993. Ecosystem management in the BLM: from concept to commitment. Policy document. USDI, BLM. Washington, D.C.

52

Letter No. 31 *continued*

Bureau of Land Management. 1995. Snake RiverBirds of Prey Management Plan. Boise District BLM.

Bureau of Land Management. 1996. Draft Owyhee Resource Management Plan and Draft EIS. USDI, BLM. Boise District Field Office.

Bull, E.L. 1994. Conserving wildlife habitat. p. 37-38 in R.L. Everett, ed. Volume IV: Restoration of stressed sites and processes. General Technical Report. PNW-GTR-330, U.S. Forest Service, Pacific Northwest Research Station.

Castello, J.D., D.J. Leopold, and P.J. Smallidge. 1995. Pathogens, patterns, and processes in forest ecosystems. Bioscience 45(1): 16-24.

Connelly, J.W., R.A. Fisher, K.P. Reese, and W.L.Wakkinen. 1994. The effects of fire on sage grouse populations in southeastern Idaho. Proceedings - western states 19th sage and Columbian sharp-tail grouse workshop. Reno, Nevada.

Della Sala, D.A., D.M. Olson, S.E. Barth, S.L. Crane, and S.A.Primm. 1995a. Forest health: moving beyond the rhetoric to restore healthy landscapes in the inland northwest. Wildl. Soc. Bull. 23(3): 1-11.

Della Sala, D.A., D.M. Olson, and S.L. Crane. 1995b. Ecosystem management and biodiversity conservation: applications to inland Pacific northwest forests. In D.M. Baumgartner and R.L. Everett, eds. Proceedings of a workshop on ecosystem management in western interior forests. Washington State Univ. Coop. Extension Unit, Pullman, Washington.

DeLong, A.K., J.A. Crawford, D.C. DeLong. 1995. Relationships between vegetational structure and predation of artificial sage grouse nests. J. Wildl. Management. 59(1): 88-92.

Duff, D.A. 1979. Riparian habitat recovery on Big Creek, Rich County., Utah. p. 91-92 in Forum - grazing and riparian stream. Trout Unlimited. Denver, Colorado.

Eddleman, L.L., P.M. Miller, R.F.Miller, and P.L. Dysert. 1994. Scientific assessment of western juniper woodlands (of the Pacific northwest). Eastside Ecosystem Management Project. EIS.

Eldridge, D.J. and and R.S. B. Greene. 1994. assessment of sediment yield by splash erosion on a semi-arid soil with varying cryptogam cover. J. Arid Environments 26:221-232.

Fleischner, T.L. 1994. Ecological costs of livestock grazing in western North America. Conservation Biology 8: 629-644.

Feller, J.M. 1994. What is wrong with the BLM's management of livestock grazing on western public lands? Idaho Law Review 30: 555-602.

Gregg, M.A., J.A. Crawford, M.S. Drut, and A.K. DeLong. 1994. Vegetational cover and predation of sage grouse nests in Oregon. J. Wildlife Management 58(1): 162-166.

Harniss, R.O. and J.T. Murray. 1973. Thirty years of vegetal change following burning of sagebrush-grass range. J. Range Management. 26: 322-325.

Harvey, A.E., J.M. Geist, G.I. McDonald, M.F. Jurgensen, P.H. Cockran, D. Zabowski and R.T. Mevrisse. 1994. Biotic and abiotic processes in Eastside ecosystems: the effects of management on soil properties, processes and productivity. General Technical Report PNW-GTR-323, U.S. Forest Service, Pacific Northwest Research Station.

Heather, W.A. 1976. Disease as a consideration in thinning of coniferous forests. New Zealand Journal of Forest Science 6: 182-186.

53

BLM Response to Letter No. 31 *continued*

although a natural feature of intermountain rangelands, is a very effective competitor for light, water, and nutrients and can become a monoculture if subordinate species are adversely impacted or removed from the site. Through improved grazing and fire management practices, sagebrush can continue to dominate the landscape, while occurring with a wide diversity of other plant species. This diverse mix of flora provides for resilient, healthy rangelands.

31-130: The paragraphs you comment on in Chapter 4 discuss impacts TO the livestock grazing program, FROM actions related to riparian and aquatic habitat management. Your opinions and preference for alternative 5 are noted. Specific closures, and/or exclosures would be discussed in detail at the activity plan level.

31-131: Your opinions and comments are noted.

31-132: Your concerns about compliance with the Clean Water Act are noted. The PRMP decision under Water Quality, Goal 1, #2 ensures that grazing activities will be designed and conducted to support State and BLM identified beneficial uses.

31-133: Your preference for Alternatives 4 and 5 is noted. Please see response 16-7.

31-134: Your opinion is noted. The BLM believes rangeland health and functioning ecosystems will be realized through proposed changes in grazing management. Area closures can be entertained on a case-by-case basis if management actions are ineffective in reaching the desired goals.

31-135: (a) Bluebunch wheatgrass is a key species on many sites throughout the Resource Area because of its growth characteristics, its palatability to grazing animals, and its wide-spread distribution. These criteria make it a true "indicator" species for the overall condition of the plant community, being the first to respond both positively and negatively to management.

(b) The DRMP, p. 130 and Table 3-21 provide some general information on the distribution of bluebunch wheatgrass. Of the sites listed, only the low elevation windswept sites, Saltbrush sites, Chicken Sage sites, riparian areas, high mountain sagebrush sites and north slope timber sites lack noticeable amounts of bluebunch wheatgrass. Given this distribution (roughly estimated at 60-70% of the Resource Area) it is virtually impossible, and not the intent, to shift livestock use to non-bluebunch sites in order to meet the utilization criteria. In addition, those areas not supporting bluebunch wheatgrass have other key species subject to the 50% utilization standard

Letter No. 31 *continued*

Saab, V. and C. Groves. 1992. Idaho's migratory landbirds - descriptions, habitats and conservation. Idaho Department of Fish and Game. Leaflet #10.

Sheley, R.L. 1994. The identification, distribution, impacts, biology and management of noxious rangeland weeds. Eastside Ecosystem Management Project. EIS.

Sheridan, D. 1981. Desertification in the United States. CEQ Report. U.S. Government Printing Office. Washington, D. C.

Society for Conservation Biology. 1994. Position Statement.

Taylor, D.M. 1994. Effects of cattle grazing on passerine birds nesting in riparian habitat. J. Range Management 39(3): 254-258.

Thurow, T.L. 1991. Hydrology and erosion. In Grazing Management, an Ecological Perspective. R.K. Heitschmidt and J.W. Smith, eds.

Turner, M.G. Hargrove, W.W., Gardner, R.H. and W.H.Romme. 1994. Effects of fire on landscape heterogeneity in Yellowstone National Park, Wyoming. Journal of Vegetation Science 5: 731-742.

United States Air Force. 1993. Idaho Training Range DEIS. USAF Air Combat Command.

Vale, T.R. 1975. Presettlement vegetation in the sage-bunchgrass area of the intermountain west. J. Range Management 28: 32-36.

Weltz, M. M.K. Wood, and E.E. Parker. 1989. Flash grazing and trampling: effects on infiltration rates and sediment yield on a selected New Mexico range site. J. Arid Environments. 16: 95-100.

Whisenant, S.G. 1990. Changing fire frequencies on Idaho's Snake River Plains: ecological and management implications. p. 4-10 in E.D.McArthur, E.M. Romney, S.D. Smith, and P.T. Tueller, eds. Proceedings of a symposium on cheatgrass invasion, shrub die-off, and other aspects of shrub biology and management. Intermountain Research Station, Ogden, Utah.

Wilcove, D.S. 1985. Nest predation in forest tracts and the decline of migratory songbirds. Ecology 66: 1211-1214.

Wilcox, B.P. 1994. Runoff in intercanopy zones of western juniper woodlands. J. Range Management. 34: 501-506.

Williams, J.D., Dobrowolski, J.P. West, N.E. 1995a. Microphytic crust influence on interrill erosion and infiltration capacity. Transactions American Soc. of Agricultural Engineers. Volume 38(1): 139-146.

Williams, J.D. Dobrowolski, J.P., N.E. West. 1995b. Microphytic crust influence on wind erosion. Transactions American Soc. of Agricultural engineers. 38(1): 131-136.

Wright, J. 1996. Manufacturing crisis: the great forest health fabrication. The Wilderness Society. Washington, D.C.

55

Letter No. 31 *continued*

Henjum, M.G., J.R. Karr, D.L. Bottom, D.A. Perry, J.C.Bednarz, S.G.Wright, S.A. Beckwitt, and E. Beckwitt. 1994. Interim protection for late-successional forest, fisheries, and watersheds: national forests east of the Cascade crest, Oregon and Washington. The Wildlife Society, Bethesda, Maryland. 235 pp.

Holechеck, J.L. 1988. An approach for setting the stocking rate. Rangelands 10(1): 10-14.

Jacobs, L. 1991. Waste of the West: Public Lands Ranching. Arizona Lithographers. Tucson, Arizona.

James, L.F., R.F. Keeler, A.E. Johnson, M.C. Williams, E.H. Cronin, and J.D. Olsen. Plants poisonous to livestock in the western states. USDA Bulletin 415, 90pp.

Kaltenecker, J. and M. Wicklow-Howard. 1994. Microbiotic soil crusts in sagebrush habitats of southern Idaho. Eastside Ecosystem Management Project. EIS.

Knick, S.T. and J.T. Rotenberry. 1995. Landscape characteristics of fragmented shrub-steppe habitats and passerine breeding birds. Conservation Biology 9: 1-13.

Lehmkul, J.F., P.F. Hessburg, R.L. Everett, M.H. Huff, and R.D. Ottmar. 1994. Historical and current forest landscapes of eastern Oregon and Washington. Part 1: Vegetation pattern and insect disease hazards. General Technical Report PNW-GTR-328, U.S. Forest Service, Pacific Northwest Research Station.

Lomasson, T. 1948. Succession in sagebrush. J. Range Management 1(1): 19-21.

Mack, R.N. and J.N. Thompson. 1982. Evolution in steppe with few large, hooved mammals. American Naturalist 119: 757-773.

Mason, R.R. and B.E. Wickman. 1994. Procedures to reduce landscape hazard from insect outbreaks. p. 20-21 in R.L. Everett, ed. Volume IV: Restoration of stressed sites and processes. General Technical report PNW-GTR-330. U.S. Forest Service Pacific Northwest Research Station.

McArthur, E.D. 1994. Ecology, distribution and values of sagebrush within the intermountain region. Proceedings - ecology and management of annual rangelands, in S.B. Monsen and S.G. Kitchen, eds. Intermountain Research station, Ogden, Utah.

Monsen, S.B. 1994. The competitive influence of cheatgrass (Bromus tectorum) on site restoration. p. 43-50 in S.B. Monsen and S.G. Kitchen, eds. Proceedings - ecology and management of annual rangelands. Intermountain Research Station. Ogden, Utah.

Ohmart, R.D. 1996. Historical and present impacts of livestock grazing in western riparian areas. p. 246-279. In P.R.Krausman, ed. Rangeland Wildlife. Soc. for Range Management. Denver, Colorado.

Odum, E.P. 1971. Fundamentals of ecology. W.B. Saunders Co. 3rd edition. Philadelphia and London.

Peterson, J.G. 1995. Ecological implications of sagebrush manipulation. Montana Department of Fish, Wildlife and Parks. Helena, Montana. 57 p.

Pieper, R.D. and R.K. Heitschmidt, R.K. 1988. Is short duration grazing the answer? J. Soil and Water Conservation. Jan-Feb 92:117-119.

Pieper, R.D. and Holechеck, J.L. 1992. Estimation of stocking rate on New Mexico rangelands. J. Soil and Water Conservation. Mar-Apr 88: 133-137.

54

BLM Response to Letter No. 31 *continued*

for plant maintenance and watershed protection.

(c) We are aware of the growth characteristics of bluebunch wheatgrass which is why we imposed very specific utilization criteria on this species. As Anderson (1991) pointed out there are many variables that may determine the effects to individual bluebunch plants; vigor, drought, competition, plant spacing, season of use, use levels, repeat utilization, timing, duration and amount of precipitation events, temperature, soil and site limitations, to name a few. The fact that the plant is still as wide-spread as it is after 100 years of grazing indicates it is resistant, to some degree, to grazing pressure. The BLM believes that by modifying grazing systems and applying use standards, bluebunch wheatgrass and other desirable species will be adequately protected and encouraged to expand to the extent of the site's potential.

31-136: (a) Your opinion is noted. It is not the BLM's intent to allow grazing in existing riparian exclosures that were developed for the purpose of establishing reference areas.

(b) As noted in the decision this analysis is based upon, a six-inch stubble requirement would be implemented until the streams are in proper functioning condition (see DRMP, p. 374, #7).

(c) Your opinion is noted.

31-137: (a) Sections 203 and 206 of FLPMA authorize disposal of public lands when certain conditions exist. Decisions concerning disposal are considered on a case-by-case basis and are pursued with the public benefit in mind. Your opinion on this issue is noted. (b) Some land tenure adjustments are intended to resolve unauthorized use situations, often associated with long-standing agricultural use of the public lands. These adjustments benefit the permittee/private landowner by allowing them to acquire public lands.

31-138: Your opinion on WSR designations is noted. When the wild and scenic river eligibility evaluation was completed, the BLM noted current uses, while determining if outstandingly remarkable (OR) values existed within each free- flowing river corridor. The OR values identified existed under current levels of use; those uses may continue on the segments found suitable or eligible for coordinated study, as long as those uses are managed to maintain the level of development that resulted in the segments' tentative classifications, to ensure non-degradation of OR values, and to protect free-flowing characteristics (see PRMP, Wild and Scenic Rivers).

31-139: Your opinion is noted.

31-140: (a) Your opinion is noted.

(b) Your opinions are noted. The impacts of livestock grazing on recreational opportunities are described in the DRMP, pp. 257a-258b, #3 and 4.

31-141: Your preference is noted. Temporary exemptions for permittees to use motorized vehicles to access some areas would be reviewed and permitted on a case-by-case basis. Exemptions, if granted, are not expected to have adverse effects on resource values because off-road use would be infrequent.

31-142: An analysis of biodiversity and a site-specific field assessment of special status species would be part of all project planning activities (see PRMP, Biological Diversity, Goal 1, #1 and Special Status Species, Goal 2, #1).

31-143: Your opinions are noted. Please see response 14-4.

31-144: The process of assessing suitability referred to on page 104 of the DRMP differs from the suitability determinations as currently defined by BLM (see PRMP, Glossary: Suitable ranges). Those earlier procedures were wrought with problems of expense, interpretation and application. Under PRMP management direction, suitability (and capability) would be determined through utilization pattern mapping (UPM) and other resource monitoring procedures, with the appropriate interpretation and application at the activity plan level (see PRMP, Livestock Grazing, Goal 1, #2). The specified monitoring methods are approved methods outlined in BLM's Technical References TR 1734-3, TR 1734-4, and Idaho's Minimum Monitoring Standards. These monitoring activities would determine where livestock are grazing, the intensity of use, and if adverse impacts to resources are occurring.

Using monitoring to determine suitability is preferred for a variety of reasons: it is obtained from actual on-the-ground observations; it reflects and is responsive to site-specific and allotment-specific management strategies; and it is much more efficient, since it is an ongoing activity throughout the Resource Area. Furthermore, PRMP decisions (see Livestock Grazing Goal 1, #2 and 6) specify that levels of livestock use will be determined for various allotments based upon monitoring.

31-145: The stated ecological condition goals are based on current BLM policy direction (see Livestock Grazing, Goal 1, rationale statement). The goals reflect the fact that some areas will not respond quickly to improved management, and, over the life of the RMP, may not achieve the desired condition. Increasing all lands in earlier seral stages to late seral may not be consistent with biological diversity or special status species management objectives, as some plant or animal species require habitats in early or mid seral stage (see response 31-119(b)).

31-146: The PRMP contains numerous decisions which are effectively resource allocation decisions for wildlife habitat and watershed protection (e.g., see Livestock Grazing, Goal 1, #7; Riparian Areas, Goal 1, #5; Wildlife Habitat, Goal 2, #7 and 9; and ACECs, Goal 1, Cronk's Canyon, Donkey Hills, and Thousand Springs ACECs). The upland utilization criteria provide for residual herbaceous cover for sage grouse, as an example, and the riparian stubble-height criteria provide for residual cover and regrowth of herbaceous vegetation for riparian-dependent wildlife species. Virtually all decisions that allocate vegetative resources or habitat to big game directly benefit upland game birds and nongame wildlife.

31-147: A definition of "supervised trailing" has been added to the Glossary in the PRMP.

31-148: Your opinions are noted. BLM Manual Handbook H-4400-1, Rangeland Monitoring and Evaluation, provides the framework for past, present, and future monitoring procedures in the Challis Resource Area.

31-149: (a) Your recommendation is noted.

(b) The BLM disagrees with your statement that 50% utilization on key forage plants has "resulted in degraded watersheds, depleted native plant communities and unhealthy ecosystems". Where this standard has been met, healthy ecosystems and watershed stability have occurred.

(c) Early moderate grazing of current production, and grazing after seeds are ripe, has little impact on bluebunch wheatgrass vigor, production, reproduction or root reserves (Anderson, 1991).

(d) Dormant season utilization of 60% describes the upper limit allowed. Where other issues are a concern (e.g., sage grouse) the levels can be modified. Watershed protection considers total biomass, not just forage production/removal. The degree of forage defoliation affecting plant maintenance is dependent upon time of removal, regrowth, and subsequent periods of recovery or non-use, all of which are incorporated into proper grazing management decisions.

(e) Your comments are noted.

(f) Woody use standards would be considered, as necessary, at the activity plan level (see PRMP, Attachment 3).

31-150: Under Alternative 1, livestock grazing systems to improve riparian habitat were designed and implemented on a case-by-case basis, where practical. Under Alternative 2 - Preferred Alternative, specific criteria for stubble height and bank shearing would be implemented to ensure attainment of desired aquatic and riparian habitat conditions.

31-151: (a) Your comments are noted.

(b) Special emphasis on specific species' habitat requirements will be determined at the activity plan level through the ID team process. Managing for late seral to PNC uplands in good condition and properly functioning condition riparian habitats provides adequate habitat for the majority of species.

31-152: Your comments are noted. As stated in the PRMP, Livestock Grazing Goal 1, #10, the BLM would manage for late to PNC upland habitat, unless an ID team determines that some other desired plant community would better achieve multiple use objectives. In all cases, management would focus on achieving or maintaining the Idaho Standards for Rangeland Health.

31-153: Your suggestion is noted.

31-154: Your preference for Alternatives 4 and 5 is noted.

31-155: Your preference for Alternatives 4 and 5 is noted.

31-156: (a) The specific figure of 70% vegetative cover (for live vegetation and vegetative litter) referenced in the DRMP, Livestock Grazing, Goal 1 #15, page 353 was obtained from cover measurements and observations made primarily on higher elevation upland monitoring sites in the Resource Area. Lower elevation sites typically have much less vegetative cover. Rather than describing a wide range of site-specific cover objectives, it was decided to use the Ecological Site Guides published by the Natural Resources Conservation Service (NRCS) as a reference. Since these sites are site-specific for soil type, vegetation, climate and landform, BLM determined that maintaining 90% of site potential would be adequate to stabilize upland watersheds, promote water infiltration, and provide for the ecological processes necessary to meet the fundamentals of rangeland health and standards.

(b) Vegetative cover objectives would be implemented simultaneously with management to achieve the ecological condition goals stated in Livestock Grazing, Goal 1 (also see PRMP, Livestock Grazing, Goal 1, #10).

(c) The BLM believes microbiotic crusts will be adequately protected by the application of numerous decisions pertaining to livestock grazing and upland watershed health (e.g., Upland Watershed, Goal 1, #1).

31-157: Your comments are noted. The specific terms and conditions of individual grazing permits will continue to be established at the discretion of the authorized officer, in accordance with 43 CFR 4130.3. Any terms or conditions deemed necessary to add to grazing permits will also be consistent with, and/or implement the decisions in the approved Challis RMP. Please also see response 31-144 regarding suitability.

31-158: Your preference for Alternatives 4 and 5 is noted.

31-159: The PRMP incorporates the management you prefer regarding known burial sites. Please also see response 31-61.

31-160: Your opinion is noted.

31-161: Your opinion is noted. The BLM, however, disagrees that prescribed fire or vegetation manipulations are ineffective in restoring native plant communities or rangeland health (see response 31-129).

31-162: Situations which require a watershed assessment are described in the PRMP (see Attachment 5, "General" SOP #1).

31-163: Your opinion is noted. Please see response 31-129.

31-164: The categorization process is used to prioritize BLM's limited funding and staff resources. Finite budgets do not allow the BLM to work on every area simultaneously.

31-165: The PRMP has been revised in response to your comments (see Attachment 8: Design Specifications, "General" #3).

31-166: Your preference is noted.

31-167: Holistic grazing could be evaluated by an ID team as a potential knowledgeable and reasonable practice; however, any proposed knowledgeable and reasonable practice would be subject to completion of a site-specific environmental assessment and must meet other stated criteria (see Livestock Grazing, Goal 1, #7).

BLM Response to Letter No. 31 *continued*

31-168: Your opinion is noted.

31-169: Please see response 31-28.

31-170: Your opinion is noted.

31-171: Your opinion is noted. Please see response 6-2.

31-172: Your opinion is noted. The PRMP includes decisions to conduct vegetative monitoring to determine long term stocking levels (Livestock Grazing, Goal 1, #2) and provides for reduced levels of livestock use, if necessary to achieve riparian resource objectives (e.g., see Riparian Areas, Goal 1, #7). The PRMP also emphasizes watershed assessment and integrated resource activity planning, which would ensure that other resources and land uses are considered when plans to manage livestock grazing are developed.

31-173: Your opinion is noted. The BLM is unaware of any literature or other references or studies that would suggest a 10 percent limit on woody vegetation. The riparian stubble-height and bank shearing criteria (Riparian Areas, Goal 1, #5 and 6) are expected to limit utilization of woody riparian vegetation and promote the productivity and health of shrubby riparian communities without the necessity for woody utilization limits. The BLM would prefer to establish species-specific limits on woody use at the activity planning level, if an ID team determines that use limits are necessary.

31-174: Your opinion is noted. The PRMP contains livestock grazing management decisions to maintain and improve riparian habitat condition throughout the Resource Area; this management would apply to all livestock grazing, upon signing of the Record of Decision for the approved RMP.

31-175: Your preference is noted. The BLM believes that the stubble-height standards outlined in the PRMP would result in satisfactory progress toward meeting riparian objectives (see Riparian Areas, Goal 1, #5). The BLM believes that a 6 inch stubble height standard would not be necessary to maintain streams that are already in proper functioning condition.

31-176: Your preference is noted. The BLM believes that grazing of riparian areas after the growing season would be an acceptable practice on many sites, as long as riparian stubble-height standards are met.

31-177: Your preference is noted.

31-178: Your preference is noted.

31-179: Your opinion is noted. Activity level planning will determine individual allotment monitoring and evaluation schedules.

31-180: Your opinion is noted. Please see response 6-2.

31-181: Several PRMP actions address your stated concerns; please see Livestock Grazing, Goal 1, #1 and Riparian Areas, Goal 1, #5 and 7.

31-182: Please see response 31-7a.

31-183: Please see response 31-157.

31-184: Your opinion is noted. However, this topic is beyond the scope of the RMP, since ownership of future range improvements on public land is an issue of national BLM policy (grazing regulations) which is currently unresolved. The BLM is currently operating under Interim Guidance for Implementation of the Wyoming District Court Ruling on Grazing Regulations (W.O. IM-96-138). All questions relative to range improvement ownership and other issues addressed in the ruling are to be directed to the Washington Office.

31-185: Your opinion is noted.

31-186: Timeframes for completing activity plans and watershed assessments have not been included in the PRMP to allow BLM managers flexibility in planning workloads to address highest priority resource needs. Those timeframes will be determined as part of the Implementation Plan which is developed immediately following approval of the RMP and signature of the Record of Decision. The Implementation Plan addresses at least the first five years following approval, and is modified and adjusted in response to such things as actions completed, effectiveness of actions in achieving RMP objectives, and changes in staffing and budget priorities.

31-187: Your opinion is noted. Please see response 6-2.

31-188: The BLM could not determine how the IWP wants the "Cultural Resources" comments to apply to paleontological resources. Some cultural resources comments *(e.g.,* preference for maximum acres of inventory) have no comparable proposed management for paleontological resources.

31-189: (a) The BLM does not agree there are substantial risks to the health and safety of the recreating public due to livestock grazing. The PRMP/FEIS describes how PRMP actions are expected to reduce the types of impacts mentioned in your comment (see ***Chapter 4*** - Recreation Opportunities, Visitor Use, and OHV Use). Developed recreation sites are monitored by

recreation, safety and maintenance personnel for health and safety hazards on a continuous basis. The BLM also recognizes that there are inherent risks to any recreation use or activity, which if removed, would destroy the very recreational values visitors are pursuing.

(b) Aesthetic impacts of livestock grazing and range improvements were described in the DRMP on pp. 257-258, #3 and 4.

31-190: The BLM monitors all developed recreation sites through maintenance, management, and law enforcement site visits, through public input during those visits, or through correspondence with individuals and organizations. The BLM also monitors use in SRMAs and in the Extensive Recreation Management Area in much the same way, although not as often.

31-191: The following PRMP decisions would prevent proliferation of new roads to access range improvement projects: Attachment 8 - Design Specifications, Rangeland Improvement #1 and OHV Use, Goal 1, #1.

31-192: When compared with existing management, the PRMP only closes one additional area to livestock grazing (south half of the Highway Allotment); this area has no range improvements. Range improvements have been removed from areas already closed to grazing.

31-193: The PRMP limits motorized vehicle use to existing roads, vehicle ways, and trails throughout the Resource Area (see Off-highway Vehicle Use, Goal 1, #1), unless additional limitations or closures also apply. Once the Record of Decision for the approved RMP is signed, an OHV implementation plan will be developed to manage OHV use. Maps and narratives describing permissible OHV activities will be made available to the public, and signs which indicate permissible uses will be placed along travel routes.

31-194: Conflicts between livestock and recreation use in designated recreation sites would be resolved as specified in the PRMP under Livestock Grazing, Goal 1, #17. All other conflicts would be resolved on a case-by-case basis.

31-195: The PRMP contains this management - see Water Quality, Goal 1, #2.

31-196: Your opinion is noted.

31-197: Your opinion is noted.

31-198: The PRMP analysis has been revised to reflect the impacts on recreation opportunities which are expected to occur from Air Quality, Rangeland Vegetation Treatment, and Biological Diversity management decisions.

31-199: Your comment is noted.

31-200: Recreation use at developed sites is increasing much faster than primitive based recreation use. This assessment is based on visitor counts within developed sites, an increased need for site maintenance, and the general increase in RV-based recreation within the area. Primitive based recreation is growing, but not at the rate of developed recreation. This conforms with National trends, and is confirmed by observations of BLM recreation personnel. Although an increase in primitive based recreation use is expected as the population increases, this increase is likely to be insignificant.

31-201: Man is a part of the natural environment, and human-induced impacts are not necessarily negative. Projects can be designed to blend in with the natural terrain.

31-202: The PRMP limits motorized vehicle use in the RA to existing roads, vehicle ways, and trails yearlong, unless additional limitations or closures also apply (see Off-highway Vehicle Use, Goal 1, #1).

31-203: The "actions" referred to include all decisions listed in the DRMP under Management Concern: Water Quality. Beneficial uses are an aspect of water quality, and are therefore considered in the DRMP analysis on p. 260, #12.

31-204: Your opinions are noted. Please see response 31-395.

31-205: Your opinions are noted. The BLM feels proposed OHV management (see PRMP, OHV Use, Goal 1) is sufficient to protect resource values in existing WSAs and those WSAs if released from wilderness review. Proposed management is consistent with the Interim Management Policy and Guidelines for Lands Under Wilderness Review, p. 47, #11 (July 5, 1995).

31-206: Your opinion is noted. The "disturbance and treatments" mentioned under the Alternative 5 analysis do not necessarily refer to timber harvest; treatments to mimic natural events could include prescribed natural fire. Please note that the PRMP sets aside old growth timber stands for wildlife and associated (*e.g.*, bird-watching) purposes. Please also see response 31-51.

31-207: Location of a hiking, biking and/or OHV trail would be identified at the activity plan level, based on

resource and allocation needs. Impacts of the proposed action would be analyzed during the NEPA process.

31-208: Your preference for Alternative 5 is noted. Please see response 31-202.

31-209: Your opinion is noted.

31-210: Your opinion is noted.

31-211: The BLM agrees microbiotic crusts are an important element in the health and function of the soil resource; the PRMP adds mention of microbiotic crusts as a crucial element to consider when evaluating new soil disturbing actions (see Upland Watershed, Goal 1, #1). Additional PRMP decisions support resource conditions which are indicators of and encourage stable, thriving microbiotic crust populations. PRMP goals and management decisions are directed at stabilizing soil erosion (Livestock Grazing, Goal 1, #10 and 14; Upland Watershed, Goal 1 and decisions #1, 2, 4, 5, 6,1 0, and 11), obtaining high seral stage upland plant communities (Livestock Grazing, Goal 1 and decision #10), and obtaining healthy, functional upland watersheds (Livestock Grazing, Goal 1, #10 and Upland Watershed, Goal 1). An analysis of impacts on microbiotic crusts has also been added to the PRMP (see Chapter 4 - Soils).

31-212: Microbiotic crusts contribute to the process of nutrient cycling in concert with the distribution of vascular plant species, plant and other organic residues (*e.g.*, dung), soil invertebrates and bacteria, atmosphere, and climate. The effects of management actions on nutrient cycling were not specifically analyzed in the DRMP; however, effects on upland health and function, which includes nutrient cycling as a component, were adequately analyzed in Chapter 4 (see DRMP, Soils, #6, pp. 268-269; Vegetation #2, 5, and 9, pp. 278-279; and Water Resources, #5 and 6 pp. 292-293).

31-213: Please see response 31-82.

31-214: The DRMP also focused on upland soils resources - see Management Concern: Upland Watershed, Goal 1, #2, 4-7, 10 and 11 (pp. 267-268) and Management Concern: Livestock Grazing, Goal 1, #6, 10 and 15 (pp. 352-353). Impacts of DRMP decisions on uplands were analyzed in Chapter 4: see Soils, #1, 4-6, 21, pp. 267-269, 272 ; Vegetation, #1, 2, 4-6, 8 and 9, pp. 278-279; and Water Resources, #1, p. 291. This emphasis has been carried forward in the PRMP/FEIS.

31-215: Your opinion is noted. The PRMP has been revised to place greater emphasis on watershed assessment (see PRMP, Attachment 5: SOPs, General SOP #1). The DRMP soils information is primarily from data collected on a watershed basis; see Chapter 3, pp. 110-121 and p. 149, Table 3-31.

31-216: The DRMP does not contain or analyze any quantitative soil erosion data. This is largely due to a lack of useable soil erosion models that can be applied to rangeland environments. The qualitative analysis of the soils resource beginning on page 267 is accurate in summarizing an overall reduction in soil erosion, given the surface protection measures proposed in the preferred alternative.

31-217: Your opinion is noted. The BLM does not feel desertification is an issue in the Challis Resource Area. The characteristics described in the referenced *Desertification of the United States*, Council on Environmental Quality, 1981 by David Sheridan are largely non-existent in the Resource Area. PRMP actions (see Livestock Grazing, Upland Watersheds, Fisheries, and Water Resources) are adequate to nullify any threats of desertification.

31-218: Management of the soils resource is an integral part of the DRMP *(e.g.*, see Management Concerns: Livestock Grazing, Upland Watershed, Riparian Areas, Fisheries). Impacts to the soil resource were analyzed in Chapter 4 (DRMP, pp 267a-276a). The Soils, Vegetation, and Water Resources analyses adequately describe the effects of the management decisions in attaining the fundamentals of rangeland health and meeting Idaho's Standards.

31-219: Rangeland monitoring (both quantitative and qualitative) includes numerous procedures designed to monitor the health of the vegetation (nested frequency, cover, vigor plots) and soils resources (apparent trend, soil surface factor ratings). The intensity and priority of monitoring will be included in the implementation plan developed upon the signing of the Record of Decision for the approved RMP.

31-220: Your opinion is noted. The BLM believes no reasonably foreseeable effects would occur from decisions listed under Wildlife Habitat Management, Water Quality, WSR, Visual Quality, and Cultural Resources Management.

31-221: The BLM believes current soil loss would not increase and would, in fact, be reduced through the application of management described under the preferred alternative.

31-222: (a) The BLM disagrees that livestock grazing and range improvements are irreversible and irretrievable

commitments of the soil resource. The BLM believes the DRMP analysis of Alternative 2 stated in Chapter 4 - Soils, #1b (p. 267a) is correct, because the proper management of forage use, vegetation and ground cover provided for by RMP decisions will adequately protect the soil. Range improvements require interdisciplinary team involvement and NEPA compliance designed to avoid resource impacts. In addition, Livestock Grazing, Goal 2, #8 page 355, Upland Watershed, Goal 1, #2, and Attachment 8: Design Specifications by Alternative, "General" #2 (p. 465) and "Rangeland Improvement" (pp. 468-469) outline specific protective measures to mitigate ground disturbing activities.

(b) Please see response 31-216.

31-223: Your opinions are noted. The PRMP/FEIS expands the analysis of impacts from livestock grazing and range improvement decisions. The BLM believes the PRMP's livestock grazing management for upland and riparian areas would prevent the types of impacts you describe.

31-224: Your opinion is noted. Research, specifically Clary and Webster (1989) and Myers (1989), has indicated that improvement in floodplain development and desirable vegetation is likely with 6" stubble heights and the accompanying "low impact" grazing conditions. Monitoring results obtained within the Resource Area also support this concept (see response 20-11).

31-225: Your opinions are noted. However, the BLM feels the impact analysis is adequate. The PRMP's livestock grazing management for upland and riparian areas would prevent the types of impacts you describe.

31-226: Fire does impact microbiotic crusts, as well as all micro-organisms living in the surface soils. The manner and extent of those impacts would vary site specifically and would be assessed in an Environmental Assessment at the activity planning or project implementation phase.

31-227: The analysis of impacts assumes successful implementation of the decisions as stated (see DRMP, p. 177, "Assumptions"); *i.e.,* that the decisions will support the stated goals. Management Concern: Vegetation Treatment Projects, Goal 1, #5 (DRMP, p. 365) requires that standards for vegetation treatment success be established during project planning. These standards must be met before grazing is allowed in the treated area. Soil stability would be evaluated as described in response #31-219 above.

31-228: (a) Timber harvesting activities may have an adverse effect on the soil resource; however, adverse effects on soils are expected to be minimal (see PRMP, Chapter 4 - Soils, #21). (b) No reasonably foreseeable impacts to soils from land tenure actions are expected. Please also see response 31-220. (c) Cumulative impacts to soils resources were described in the DRMP - see pp. 275-276.

31-229: The footnote to Table 3-21 explains that the Big Lost-Mackay vegetative inventory also included the Big Lost area of the Idaho Falls District - BLM.

31-230: Water related issues were identified by the public as a major issue to be dealt with in the RMP. For this reason, the RMP places substantial emphasis on the management of riparian areas. Data on uplands are included in various sections of the Affected Environment; for example, see the PRMP, Chapter 3 - Fire Management; Forest Resources; Livestock Grazing, "Rangeland Inventory" and "Rangeland Monitoring and Evaluation"; Soils; and Vegetation. Please also see response 31-214.

31-231: Isolated upland springs and seeps would be managed in accordance with decisions directed toward upland vegetation and watershed management. Springs and seeps within stream riparian areas would be managed as part of the riverine system.

31-232: Your opinions and comments are noted. Table 3-23 mentions the importance of the listed woody vegetation species to non-big game wildlife such as "beaver" and "small mammals and songbirds."

31-233: Your comments are noted.

31-234: The need for these inventories is noted in the PRMP. See Special Status Species Goal 1 and Goal 2 for decisions relating to inventories and actions to protect these species.

31-235: The PRMP proposes actions to (a) prevent weed infestations by limiting surface disturbance and revegetating disturbed areas when they occur, and (b) apply integrated pest management to control noxious weed infestations (see Glossary).

31-236: The BLM agrees that healthy microbiotic soil crusts will help limit the spread of noxious weeds. The PRMP decision stated in Upland Watershed, Goal 1, #1 emphasizes consideration of impacts to microbiotic crusts.

31-237: The PRMP/FEIS adds an analysis of impacts to microbiotic crusts, where appropriate *(e.g.,* see Chapter 4 - Soils). An analysis of impacts to microbiotic soil crusts would also be completed

during project planning, as individual activities are designed.

31-238: The PRMP has been revised, where appropriate, to clarify the intended emphasis on native vegetation (*e.g.*, see Attachment 8: Design Specifications, "General" #3). Livestock Grazing, Goal 1 (goal statement) and Goal 1, #10 describe the RMP's goals for ecological condition.

31-239: Please see response 31-100. The BLM agrees that the Challis RA has many sites that have the potential to experience invasion by cheatgrass. However, as noted in Chapter 3 - Fire Management (DRMP, p. 72), fire activity in the Challis RA due to unplanned ignitions is low. The potential for cheatgrass invasion through wildfire is therefore not considered to be significant. PRMP decisions have been revised to increase consideration of the potential for cheatgrass invasion (*e.g.*, see Fire Management, Goal 1, #7; Rangeland Vegetation Treatment Projects, Goal 1, #2; and Attachment 8: Design Specifications, "General" #2). The discussion of environmental consequences has also been revised, where appropriate, to describe how PRMP actions are expected to mitigate the potential for cheatgrass invasion (see PRMP, Chapter 4 - Soils, #16; Vegetation, #17; and Water Resources, #16).

31-240: The PRMP recognizes the importance of sagebrush as a component of the Potential Natural Community. For this reason, the decision under Livestock Grazing, Goal 1 #10 to manage for Potential Natural Community was chosen, restrictions were placed on sagebrush treatment in antelope or sage grouse winter ranges and sage grouse strutting grounds (see Attachment 8: Design Specifications, "Rangeland Improvement" #2), and the PRMP emphasizes native species, including shrubs, if appropriate, in seed mixes (see Attachment 8: Design Specifications, "General" #3).

31-241: The BLM agrees that fire may have positive or negative impacts to bunchgrass ranges.

31-242: The circumstances under which vegetation manipulations would occur are expected to vary among sites. Objectives for each site would be identified during activity planning.

31-243: Your recommendation is noted. Any proposed vegetative treatment would be analyzed by an interdisciplinary team (see PRMP, Rangeland Vegetation Treatment Projects, Goal 1).

31-244: Vegetation goals are stated in the PRMP under Livestock Grazing, Goal 1 (see also decision #10 under that goal).

31-245: The PRMP proposes full suppression of all wildfires in the Resource Area, unless a fire management activity plan has been completed for a conditional suppression area (see Fire Management, Goal 1, #1-4). This activity plan would address specific concerns relating to invasion of cheatgrass, etc.

31-246: Watershed assessment (see PRMP, Glossary) is not expected to delay necessary management action.

31-247: Your opinion is noted. The BLM asserts no reasonably foreseeable impacts to vegetation resources would be expected from Water Quality, Visual Quality, and Cultural Resources decisions contained in the PRMP.

31-248: These criteria include specific establishment success standards and post-treatment management designed to help ensure treatment success. The BLM recognizes that not every treatment can be successful, but the criteria are designed to maximize the chance for success.

31-249: The effects of livestock grazing on vegetation structure and associated wildlife are described in the PRMP in Chapter 4 - Biological Diversity, #19 and Chapter 4 - Wildlife Habitat, #19-22.

31-250: Please see responses 31-1 and 31-76(d).

31-251: Your opinion is noted.

31-252: Your opinion is noted. This decision was written to ensure watershed cover (*e.g.*, perennial plants, annual plants, rock, litter) exists to protect the ground surface from the direct impact of water droplets. Other RMP decisions address other aspects of rangeland health and vigor, such as ecological condition goals.

31-253: (a) The PRMP emphasizes watershed assessment and integrated resource activity planning, rather than watershed analysis, ecosystem level planning, or AMPs (see PRMP/FEIS: Glossary - watershed assessment; Attachment 2: Procedures Used When Developing or Revising Activity Plans; and Attachment 5: SOPS, "General" SOP #1). Although AMPs consider resource and use needs other than livestock grazing, they are restricted to the area within grazing allotment boundaries. Integrated resource activity planning would provide the opportunity to define the planning boundary in whatever way is most appropriate for the issues to be addressed. Watershed assessments would be completed under the circumstances described in "General" Standard Operating Procedure #1 (see PRMP: Attachment 5).

(b) The PRMP revises all references to the AIE process to say "allotment analysis."

31-254: Your opinion is noted. This statement (DRMP, Chapter 4 - Vegetation, #11, p. 280) analyzes the DRMP decision under Livestock Grazing, Goal 2, #4. Please note that additional AUMs from these sources could be allocated for livestock grazing use only after resource management objectives for the allotment have been met.

31-255: Please refer to the decisions upon which this analysis is based (see DRMP, Management Concern: Livestock Grazing, Goal 2, #2, p. 354). The prescribed burns would be done to achieve different objectives under the different alternatives; therefore, the actions would result in different outcomes.

31-256: BLM agrees that wild horses can trample microbiotic soil crusts as well as vegetation. See PRMP, Chapter 4 - Soils, #8 and Vegetation, #13.

31-257: The headings in the left column refer to Management Concerns listed in Volume 2, Table 2-1: Management Decisions by Alternative.

31-258: See response 31-253 above. Integrated resource activity plans may still be completed for planning areas which are defined by allotment boundaries; however, the required watershed assessment and activity plan would focus on multiple resource concerns, rather than just livestock grazing.

31-259: Your opinions are noted.

31-260: Projected impacts of a proposed vegetation treatment project would be completed on a site-specific basis during the planning phase for the project. Establishment success standards for a project must be met before grazing is allowed in the treated area (PRMP, Rangeland Vegetation Treatment Projects, Goal 1, #4).

31-261: This portion of the environmental consequences refers to the decision under Management Concern: Riparian Areas, Goal 1, #5 that states that livestock use in all streams with riparian vegetation would be limited to supervised trailing. This analysis was meant to describe that if such a limitation were in effect, the use of entire pastures or allotments could be affected, since some pastures or allotments could not be grazed at all if such a limitation were imposed. Therefore, the impact to upland vegetation would be significant, but positive. Under the PRMP, the BLM would manage livestock use on upland sites through implementation of utilization criteria. Livestock would be removed when prescribed utilization levels have been met. Thus, no significant adverse effects on upland vegetation would be expected. No change was made to clarify the analysis, since Alternative 5 was not selected in the PRMP.

31-262: The analysis has been revised in the PRMP to describe the environmental consequences of constructing range improvement projects when and if WSAs are released from wilderness review. The BLM recognizes range improvement projects as an accepted and appropriate method of managing livestock use and distribution on the public lands.

31-263: Numerous criteria in the PRMP would protect vegetation from the adverse impacts of mineral development (see PRMP decisions - Minerals; Attachment 5: SOPs, "Minerals"; Attachment 8: Design Specifications, "Minerals"; and Attachment 10: Minerals Stipulations). The PRMP has been revised to describe the nature of vegetation impacts which would result from mineral material sales or locatable mineral development activity, if those development activities were to occur.

31-264: Please see response 31-202.

31-265: Your preference for closure of the Herd Creek Allotment is noted. The BLM would manage livestock use on upland sites through implementation of utilization criteria. Livestock would be removed when prescribed utilization levels have been met (see PRMP, Livestock Grazing, Goal 1 #7). Thus, no significant adverse effects on upland vegetation would be expected.

31-266: Your opinion is noted. This analysis has been revised slightly in the PRMP.

31-267: Your comments are noted.

31-268: Your opinions are noted. Habitat acquired for riparian or floodplain protection, salmon, steelhead, or bull trout fisheries, or other special values would be managed for the purposes for which it was acquired (see PRMP, Land Tenure and Access, Goal 1, #4). Livestock grazing would be permitted if found to be compatible with these purposes.

31-269: The standards referred to on page 284, #36 are found in Attachment 15, page 496.

31-270: This analysis occurs in the riparian vegetation section of the vegetation analysis, so limiting the discussion to beaver is appropriate. The potential effects of any reintroductions would also be addressed in a site-specific environmental assessment, as required by BLM Manual direction.

31-271: As noted in the decision that this analysis is based on (see DRMP, *Management Concern: Fire Management*, Goal 1, #7, p. 370), the purpose of these prescribed fires would be to enhance ecosystem health and function and biodiversity. Fires that would damage riparian communities would not be done under these criteria.

31-272: Your opinion is noted. As stated in the DRMP analysis, the actual amount of land that would be transferred out of public ownership would be anticipated to be much lower than 63,075 acres. The impacts of transfer of any land would be addressed in a separate environmental analysis.

31-273: Your opinion is noted. PRMP decisions (see *Attachment 8: Design Specifications,* "General" #2) require all ground disturbing activities undertaken by the BLM to meet certain design specifications to limit the spread of noxious weeds.

31-274: The cumulative effects discussion considers known or reasonably foreseeable activities on adjacent lands, **together with** management proposed in the PRMP for BLM-administered lands, to determine the overall effect of all those actions. The BLM is unaware of any proposal in the PRMP to conduct a prescribed burn on poor condition range in watersheds with non-functioning streams.

31-275: Vegetation goals are stated in Livestock Grazing, Goal 1. The PRMP contains a decision to manage for late seral or Potential Natural Community to meet those vegetation goals (see Livestock Grazing, Goal 1, #10).

31-276: The Glossary definition of the interdisciplinary (ID) team planning process (DRMP, p. 572) clearly states that members of the general public or specialists from outside groups or agencies may be asked to participate with ID teams.

31-277: Your opinions are noted. See responses 31-229 and 31-275.

31-278: It is unclear what type of documents you are seeking. The discussion of upland communities in Chapter 3 (DRMP, pages 130-132) provide an overview of upland vegetation suitable for an analysis of impacts at an RMP level. Anyone interested in a greater level of detail can contact the BLM for more information.

31-279: Your opinions are noted.

31-280: Your comments are noted.

31-281: The proposed Visual Resource Management (VRM) Class changes described in the DRMP, Alternatives 2 through 5, are based on an evaluation of the current visual values and characteristics of the Resource Area **and** the land use allocations, resource condition objectives, and management actions proposed under a given alternative. The BLM recognizes the importance of protecting the high visual values on public lands and has responded by dramatically increasing the acreage in the VRM Class II category (see PRMP: Visual Resources, Goal 1, #1). Conversely, VRM Class III acreage has been reduced significantly and Class IV acreage has been eliminated altogether.

31-282: A visual simulation is a "realistic visual portrayal which demonstrates the perceivable changes in landscape features caused by a proposed management activity. This is done through the use of photography, artwork, computer graphics and other such techniques." (BLM Manual 8400, April 5, 1984, Glossary, p. 5)

31-283: See response 31-23.

31-284: A definition of VRM classes, including the objectives of each and permissible levels of change, is included in the Glossary (see Visual Management Classes). Each of the activities you describe, if proposed, would be considered in accordance with the VRM classification which applies in the proposed project area.

31-285: The analysis is considering the positive effects of "modifying fire suppression practices" in order to better protect the visual landscape. This is done through "light on the land" techniques --more sensitive placement of fire suppression staging areas, fire camps, fireline placement and use of different types of equipment (*e.g.,* using a handline instead of bulldozer lines). Also see response 31-289 below.

31-286: Your opinion is noted.

31-287: Your opinion is noted.

31-288: Your comment is noted. The PRMP substantially increases the acreage which would be designated as VRM Class II and decreases the acreage designated as VRM Class III.

31-289: A natural appearing landscape sometimes has evidence of fire mixed in the total viewshed, just as a natural appearing landscape does not have to be aesthetically pleasing. To expect a landscape to be burn scar free is unrealistic and actually evidence of man's interference with natural processes.

BLM Response to Letter No. 31 *continued*

31-290: VRM Classes would not be affected or changed by activities, since the Class merely describes management objectives and constraints within a specified area.

31-291: Updated information on riparian condition and water quality trends has been included in the PRMP (see Chapter 3 - Water Resources). The 1997 water erosion susceptibility ratings were derived from soil survey data and physical features such as topography and geology, and are not likely to change over time. A standard operating procedure (SOP) describing when a watershed assessment would be required as been added to the PRMP (see Attachment 5, "General" SOP #1).

31-292: Your opinion is noted.

31-293: Water Quality Limited segments are not determined by the BLM; they are designated by the Idaho Department of Environmental Quality.

31-294: Priority for minimum streamflow acquisition in order to improve or maintain fish and riparian habitats would be determined as described in the PRMP, Attachment 14: Procedures for Minimum Streamflow Application, #2.

31-295: Your opinions are noted. The BLM believes no reasonably foreseeable impacts to water resources would occur from the PRMP's Cultural Resources, Visual Resources, or Wildlife Habitat decisions.

31-296: The BLM believes the proposed upland utilization and riparian stubble height standards would improve water storage and flood attenuation attributes. Your preference for Alternatives 4 and 5 is noted.

31-297: Please see response 31-291.

31-298: Your opinions are noted. Range improvements are a tool in livestock management. Rather than supporting artificially high numbers of livestock, they help ensure proper, uniform use of the range resource.

31-299: See response 31-83.

31-300: Once the Record of Decision for the Challis RMP is signed, the Procedure for Nonpoint Source Consistency Review will be applied in the Challis Resource Area as described in the PRMP under Water Quality, Goal 1, #3 and Attachment 12. This management decision is not current management (Alternative 1), so it would not be appropriate to apply this process in order to develop the stream-by-stream summary of information you request. Site-specific management to address non-point source pollution is developed through the interdisciplinary team or activity planning process, rather than described in a general planning document such as an RMP.

31-301: The BLM agrees that climate is a primary factor in fire occurrence and behavior. However, the BLM believes the analysis on page 295, DRMP, is still appropriate; by managing and distributing fuels and promoting small, controlled fires the potential for large fires is reduced. Also see response 31-100.

31-302: A site-specific analysis would be done when/if new roads or upgrades are proposed. A general Resource Area-wide analysis of road construction impacts is described in Chapter 4 - Water Resources, #17 (DRMP, pp. 296a/b). The PRMP provides management direction for new road construction and improvement of existing roads (*e.g.*, see Transportation, Goal 1, #6, 7, 8 and 9).

31-303: The BLM analyzed the impacts of proposed forest resource management on a Resource Area-wide basis and determined no significant impacts to water resources would occur. The PRMP analysis has been clarified (see Chapter 4 - Water Resources, #21).

31-304: Your opinion is noted.

31-305: Your opinion is noted.

31-306: Your opinion is noted. See response 20-11.

31-307: Your opinion is noted.

31-308: Management Concern: Riparian Areas, Goal 1, #6 has been re-written in the PRMP.

31-309: A definition of "supervised trailing" has been added to the glossary for the PRMP.

31-310: See response 31-175.

31-311: Your opinion is noted. The PRMP provides for the use of fencing to protect and improve the condition of springs and seeps (see Attachment 5: SOPs, Rangeland Improvements, #4 and 8). The PRMP would not preclude the interdisciplinary planning team from implementing other knowledgeable and reasonable practices (*e.g.*, rest-rotation and deferred-rotation grazing) to maintain and improve vegetation around springs and seeps.

31-312: Your preference is noted.

31-313: Your comment is noted.

31-314: Your opinion is noted.

31-315: Your comment is noted.

31-316: Your opinion is noted. Riparian Areas, Goal 1 does not preclude greater achievement or more improvement ("75% *or more* ..." [emphasis added]). Rather, it sets a reasonable target for a five year timeframe.

31-317: Your opinion about Riparian Areas, Goal 2, [#1?] is noted. The information available to the BLM at the time the Draft RMP was published is shown in Appendix J, Item 1 (DRMP, pp. 557-561). Designated beneficial uses and a stream's support of them are determined by the State of Idaho, not the BLM. However, for the purposes of management, the Challis Resource Area has completed a tentative identification of beneficial uses on many stream segments within the Resource Area which have not yet received State determination of beneficial uses (see Appendix J, Item 1). Riparian Areas, Goal 2, #1 has been clarified in the PRMP to reflect that the BLM still desires to determine beneficial use support status on BLM-identified segments.

31-318: Your opinion is noted.

31-319: Your interpretation is incorrect. This section of the PRMP is intended to provide guidance on the management of WSAs **if** Congress releases them from wilderness review. The BLM cannot release the WSAs; only Congress has that prerogative. The BLM's wilderness recommendations were previously submitted to Congress by the President in 1991.

31-320: The present condition of each WSA was described in Chapter 3 of the DRMP (see pp. 153-157). The BLM believes that the wilderness values within WSAs have not been impaired since the WSAs were designated by the BLM State Director in 1980. The management proposed in the Challis PRMP is consistent with BLM policy to manage existing WSAs under BLM's Interim Management Policy and Guidelines for Lands under Wilderness Review (as revised, July 5, 1995) until Congress releases them from wilderness review (see PRMP, WSAs - Management if Released from Wilderness Review, Goal 1, #1).

31-321: Livestock grazing was mentioned as one of several *authorized* uses within the WSAs (DRMP, p. 154), and the description of each WSA describes livestock management-related intrusions (DRMP, pp. 155-157). Livestock grazing use in existing WSAs has remained essentially the same since designation. The Interim Management Policy and Guidelines for Lands under Wilderness Review (BLM, 1995) states that grazing is a "grandfathered" use and may therefore continue in the "manner and degree" of the date of approval of FLPMA "even if this impairs wilderness suitability." The PRMP proposes livestock management decisions which would continue authorized livestock use in WSAs, but manage grazing activities so as to improve resource conditions where appropriate.

31-322: Your opinions are noted. The PRMP provides for restrictions on minerals activities within ACECs/RNAs and WSAs (see Minerals, Goal 1, #4 and 5; Goal 2, #4 and 5; and Goal 3, #3 and 4).

31-323: Please see responses 31-202 and 31-205.

31-324: The DRMP considered and assessed the closure of some special management areas to livestock grazing. The PRMP closes six ACECs to livestock grazing (Cronk's Canyon, East Fork Salmon River Bench, Malm Gulch/Germer Basin, Summit Creek, Sand Hollow), has special restrictions on livestock grazing in three additional ACECs (Thousand Springs, Donkey Hills, Birch Creek), and closes all designated recreation sites to livestock grazing (some recreation sites are in SRMAs). The remaining special management areas or portions of special management areas would remain open to livestock grazing, because the BLM has determined that livestock grazing in those areas in accordance with PRMP decisions would not impair special management area values.

31-325: Your opinion is noted. PNC is the management goal for rangeland sites on the entire Resource Area, including WSAs, unless an ID team determines another desired plant community would be better (see PRMP, Livestock Grazing, Goal 1, #10).

31-326: Please see response 31-40(b).

31-327: The PRMP's proposed management of vegetation manipulation in WSAs is consistent with current BLM policy for management of WSAs (Interim Management Policy and Guidelines for Lands under Wilderness Review, July 5, 1995, p. 39) - see PRMP: WSAs - Management if Released From Wilderness Review, Goal 1, #1.

31-328: All WSAs would continue to be designated as VRM Class I, in accordance with BLM policy (see DRMP, Maps 43 - 46).

31-329: The BLM provided the Secretary of Interior with the BLM's recommendations for wilderness designation in the Challis Resource Area just prior to the start of the RMP planning process. Approved planning criteria for the RMP state that no additional WSAs will be proposed for designation in the RMP, and no additional acreage will be recommended to Congress as suitable for Wilderness inclusion (DRMP, p. 13).

BLM Response to Letter No. 31 *continued*

31-330: Your preference for Alternative 5 is noted.

31-331: Upland utilization and riparian stubble height standards for livestock grazing would apply throughout the Resource Area, including the HMA. If unacceptable levels of resource degradation are occurring due to wild horse use, wild horse numbers would be adjusted to a lower appropriate management level by gathering (see PRMP: Wild Horses and Burros, Goal 1, #1).

31-332: The Wild Free-Roaming Horse and Burro Act of 1971 (16 U.S.C. 1331-1340) did not define a "thriving natural ecological balance." The Challis Resource Area interprets this phrase to include all of the vegetation attributes and ecological processes that define a healthy rangeland. The impacts of livestock grazing on wild horses and the Herd Management Area are discussed on pages 306-308 and 313-315 of the DRMP.

31-333: Please see response 31-82.

31-334: The BLM considered closing the HMA to livestock grazing; however, livestock grazing was found to be compatible with wild horse management within the Herd Management Area. The RMP closes portions of the HMA to livestock grazing for the protection of the indicated values: Sand Hollow area (watershed), Malm Gulch area (watershed), East Fork Salmon River Bench (ACEC), and all areas of known human burial concentrations (cultural resources).

31-335: The DRMP assessed the disturbance and habitat impacts to wild horses of closing portions of the HMA to OHV use and limiting OHV use on the remainder of the HMA to existing roads, vehicle ways, and trails (DRMP, p. 312, #37, Alternative 5 and p. 317, #65, Alternative 5). The BLM considered closing the HMA to OHV use, but determined that wild horse habitat and populations would be adequately protected from disturbance impacts by proposed OHV management (see PRMP: OHV Use, Goal 1 and Chapter 4 - Wild Horses and Burros, #1, 32 and 59).

31-336: Your opinion is noted. PRMP decisions would decrease wild horse - livestock competition by changing livestock grazing management in the wild horse HMA (see Chapter 4 - Wild Horses and Burros).

31-337: Your opinion is noted. The PRMP allocates forage for wild horses and also recognizes them as part of the environment of the area. If unacceptable levels of resource degradation occur due to wild horse use, wild horse numbers could be adjusted as stated in the PRMP (see Wild Horses and Burros, Goal 1, #1).

31-338: We assume you mean "the HMA" instead of "WSAs." The DRMP describes impacts to wild horses and the HMA from Fire Management and Noxious Weeds Infestation decisions, and also describes cumulative impacts. The BLM believes no reasonably foreseeable impacts to wild horses or wild horse habitat would occur from Air Quality, Cultural Resources, Water Quality, or WSR decisions.

31-339: Your preference for Alternative 4 is noted. Stocking rates for allotments within the HMA would be established as stated in the PRMP under Livestock Grazing, Goal 1, #2 .

31-340: See response 31-339 above.

31-341: Your preferences are noted.

31-342: Your preference for Potential Natural Community rather than some other Desired Plant Community is noted. There is no typographical error in this section.

31-343: The BLM disagrees. Land treatments can be used to improve habitats within the Herd Management Area as well as other areas within the Resource Area.

31-344: This section analyzes impacts *to* wild horses and wild horse habitat *from* the decisions listed under Management Concern: Wildlife Habitat Management.

31-345: Your preference for Alternative 5 is noted. Please see response 14-4.

31-346: Your comments are noted. Wild horses could be removed to protect fragile watersheds, and wild horse management could be adjusted if impacts are inconsistent with attaining desired riparian and aquatic habitat conditions or otherwise causing unacceptable resource degradation (see PRMP, Wild Horses and Burros, Goal 1, #1, 3 and 7).

31-347: Your comments are noted. The BLM believes rehabilitation objectives for areas affected by fires and fire suppression activities can best be established on a site-specific and incident-specific basis.

31-348: These analyses would be done when and if an activity plan for conditional fire suppression within the HMA is developed (see PRMP: Fire Management, Goal 1, #2) or during the project planning phase for a prescribed burn proposal.

31-349: Your opinion is noted.

31-350: (a) Please see responses 31-205 and 31-335. (b) Please see response 31-336. (c) Please see response 31-337.

31-351: Your opinion about the effects of livestock water developments on wildlife is noted. BLM believes that livestock water developments affect many wildlife species in much the same way they affect livestock. Developing a water source (such as a trough at the end of a long pipeline) in an otherwise dry area of rangeland will often attract and hold wildlife in an area they would not otherwise frequent. Big game and small birds are some of the more common species observed using livestock troughs.

31-352: Your opinion is noted.

31-353: Your statements about wildlife and huntable big game species are noted. The Proposed RMP/Final EIS addresses wildlife other than big game in numerous places. For example, please see PRMP decisions: Biological Diversity, Goal 1, Special Status Species, Goals 1 and 2, and Wildlife Habitat, Goals 2 and 3; Chapter 3 - Biological Diversity and Wildlife Habitat; and Chapter 4 (all resource analyses). The term wildlife (see Glossary) is used throughout the PRMP/FEIS, and particularly in the analysis of Environmental Consequences. Generically, the term refers to the majority of wildlife species collectively, except where other species or species groups are specifically identified.

31-354: The BLM agrees that wildlife habitat requirements are more complicated than forage. The BLM disagrees that the terms "forage" and "competition" are used improperly in the analysis. Please refer to the Glossary definition of "competition."

31-355: Please see response 31-3.

31-356: Your opinions are noted. The BLM disagrees that "coarse-filter approaches....." are essential to the implementation of the RMP. The BLM also disagrees that no evaluation of habitat condition was conducted as part of the RMP process. Existing rangeland monitoring studies and rangeland ecological site inventories (ESI) provide invaluable information that was used to infer habitat conditions for wildlife. Appendix L: Summary of Studies - Challis Resource Area (see PRMP Appendices) lists other inventories and studies that were used by BLM resource specialists to evaluate habitat conditions for wildlife.

31-357: Your opinions are noted. The BLM does not believe that an *"evaluation of mechanistic relationships"* is an essential analysis at the RMP level of planning. If deemed appropriate, some of the evaluations you mention may be considered during project or activity planning. The PRMP identifies site-specific limitations on human disturbance in specific habitat areas for a number of wildlife species and species groups (*e.g.*, see Wildlife Habitat, Goal 1, #6 and Goal 2, #6, 8, 9, and 11) and standard operating procedures to protect habitat for and populations of special status species (see Attachment 5, "General" SOPs #3 through 5).

31-358: Your opinion is noted. The BLM agrees that data on biodiversity are limited. The PRMP provides direction to increase knowledge of biodiversity at all levels (see Biological Diversity, Goal 1). The PRMP also designates several areas "of particular ecological uniqueness or species richness" as ACECs or ACEC/RNAs.

31-359: The PRMP provides direction for increasing knowledge of biodiversity (see Biological Diversity, Goal 1) and managing habitat for sensitive species so they will not become listed as threatened or endangered (see Special Status Species, Goals 1 and 2 and Attachment 5, "General" SOPs #3-5).

31-360: Your opinion is noted. The BLM had sufficient knowledge about wildlife to complete an analysis of impacts from the proposed management decisions by alternative (see DRMP, pp. 318-331).

31-361: The number of pages devoted to discussion of big game, nongame, and special status wildlife in the Affected Environment does not reflect the amount of emphasis the PRMP would place on management of these species; it merely reflects that more data and information are available on big game species. The PRMP provides direction to improve the BLM's knowledge of nongame wildlife in the Challis RA (*e.g.*, see Wildlife Habitat, Goal 2, #1 and 9(b), and Goal 3, #2; and Special Status Species, Goal 1, #1-5 and Goal 2, #1) (also see response 31-3).

31-362: Your opinions are noted. PRMP decisions would improve the BLM's knowledge of special status wildlife in the Challis RA (see Special Status Species, Goal 1, #1-5 and Goal 2, #1). Also see response 31-3.

31-363: (a) Please see responses 31-52 and 31-53. (b) Many special status species are ***known*** to use and depend upon early-seral and mid-seral habitats in the Challis RA. For example, burrowing owls are found in relatively open, grassland and sagebrush-grassland habitats, such as those that exist as a result of wildfire or prescribed burning. Wavy-leaf thelypody is commonly found in road cutbanks and on fill slopes created as a result of road construction. The Ute ladies'-tresses orchid, a threatened plant species that may occur in the Challis RA, has been found associated with irrigated pastures, irrigation ditches, and leaky diversion dams. The best habitats for many

special status species are those in late-seral status or PNC; however, many species can meet their life cycle requirements in early and mid-seral habitats as well.

31-364: The PRMP's emphasis on watershed assessment (see PRMP: Glossary and Attachment 5, "General" SOP #1) would ensure a broad-based look at the needs of wildlife and other resources prior to any major action.

31-365: Visual resource management actions may have some limited potential to maintain undisturbed wildlife habitat, if a land use permit (LUP) or some other land use application involving surface disturbance is denied in order to be consistent with an area's VRM classification. However, it is unlikely that these situations would have any reasonably foreseeable effects on wildlife habitats or populations.

31-366: Please review the Assumptions of Analysis (Wildlife) (DRMP, p. 318). The BLM believes that maintenance or improvement of habitat would occur as a result of PRMP decisions, and that maintenance or improvement of habitat would likely contribute to the maintenance of wildlife populations.

31-367: The BLM believes the knowledgeable and reasonable practices contained in the PRMP (see Riparian Areas, Goal 1, #4-7) would maintain and improve habitat to support viable populations of these bird species.

31-368: The need for residual grass stubble-height requirements for nesting sage grouse or other wildlife species would be identified and assessed during development of site-specific resource activity plans.

31-369: The effects on wildlife of implementing early spring grazing utilization criteria were analyzed in the DRMP on p. 319, #5, Alternative 4; the impacts under Alternative 5 would be the same as stated for Alternative 4.

31-370: Your opinion is noted. Nesting habitat for songbirds is present throughout virtually the entire Challis RA. Key areas for nesting would vary substantially by species and their habitat requirements. Extensive areas that are free of cattle use (*e.g.*, rested pastures, late use pastures, areas closed to grazing) would remain available for songbird nesting.

31-371: The PRMP directs the BLM to manage rangeland sites for late seral or PNC to achieve the vegetation goals stated in Livestock Grazing, Goal 1, unless some other desired plant community would better achieve multiple use and meet the goals of rangeland health (see Livestock Grazing, Goal 1, #10). The BLM disagrees that **only** late seral and PNC communities are "*vital to.....native species*" (see response 31-363(b)).

31-372: Wildlife water developments vary considerably by design and purpose. Many wildlife water developments have been constructed in the western U.S. with the primary purpose of providing water for bighorn sheep, elk and other large ungulates, in addition to game birds. Headboxes and pipelines have also been used to tap into springs and seeps in order to provide water for wildlife in otherwise dry habitats that are a long distance from the spring source. Nongame wildlife species benefit substantially from these water sources.

31-373: Range improvements, as defined in the DRMP and PRMP, include fences. The discussion of effects in the DRMP on p. 321, #11 would also apply to #15 and 16, p. 322. Repeating this same discussion in #15 and 16 would be redundant.

31-374: Your opinion is noted. Management decisions related to rights-of-way and water development have been revised in the PRMP (see Floodplain/Wetland Areas, Goal 2, #3 and 4).

31-375: The analysis has been revised (see PRMP/FEIS, Chapter 4 - Wildlife Habitat, #32). The statement "Loss of shrubs or forbs would reduce the abundance of some wildlife species in the area of treatment or displace wildlife into adjacent habitats ..." would apply to species such as sage thrashers. In addition, see response 31-52.

31-376: Your opinion is noted.

31-377: Your preference is noted. See response 14-4.

31-378: Your preference is noted. The PRMP would provide for limitations on human activities and use within key bighorn sheep habitat areas (*e.g.*, see Wildlife Habitat, Goal 1, #6 and Goal 2, #8; and ACECs - Cronk's Canyon ACEC, #2 and Birch Creek ACEC, #2).

31-379: Please see response 31-368.

31-380: The PRMP only makes these lands *available* for potential disposal through exchange; any future exchange proposal would require a site-specific analysis which would "fully address all impacts," as you request.

31-381: (a) Your preference for the Alternative 4 DLE management decision is noted. However, the BLM has determined that the Alternative 4 decision was not in conformance with existing law. The PRMP proposes to process DLE applications in conformance with existing law, with the limitation that lands proposed for DLE must fall within Adjustment Areas

(see Land Tenure and Access, Goal 2, #4).

(b) Your preference is noted.

(c) Your preference is noted.

31-382: The BLM is not sure what closures you support, since your comment did not specify the alternative you support. Please note that OHV management has been revised in the PRMP (see Off-highway Vehicle Use, Goal 1).

31-383: Your preference is noted.

31-384: The BLM agrees with your statement. If logging were authorized in the Jerry Peak area above Herd Lake, the effects of logging on elk and other big game would be magnified by the patchiness of the forested areas, at least on a short-term basis.

31-385: The Biological Assessment of the Draft RMP - Alternative 2 is available for review by the public at the Salmon Field Office. There is no regulatory requirement to print the BA as part of the RMP/EIS.

31-386: (a) The term "design specifications" was used as a reference to management direction outlined in the following DRMP decisions affecting special status species: Special Status Species Management, Goal 2, #2; Attachment 5: Standard Operating Procedures, General, #3; and Management Concern: Wildlife Habitat Management, Goal 2, #13. These decisions would require that projects and other land use proposals be designed to reduce or eliminate adverse effects on special status species and certain other wildlife species. Because a wide range of possible land use activities might be proposed during the life of the RMP, the PRMP does not identify site-specific design requirements, mitigation measures or inventories for special status species.

(b) The analysis under Alternative 5: "adverse effects would be fully mitigated" relates to the management direction stated in the DRMP, Management Concern: Special Status Species Management, Goal 2, #2; Alternative 5. No specific decisions identified as mitigation measures are proposed in the DRMP or PRMP. Instead, necessary mitigation measures are incorporated into RMP management decisions (*e.g.*, see PRMP, Attachment 5: "General" SOP #3-5).

31-387: The BLM believes the analysis of logging impacts on wildlife is adequate. Blue grouse, northern goshawks, flammulated owls, bats, and pygmy nuthatches are not specifically named in the analysis, but are included in the terms *"wildlife"* and *"species"* where these terms are used in the analysis.

31-388: The BLM believes the analysis of cumulative impacts is adequate.

31-389: Please see responses 32-10 and 32-17.

31-390: The BLM disagrees. The PRMP incorporates many management decisions that would directly or indirectly contribute to the maintenance and improvement of habitat for nongame wildlife, and the achievement of Wildlife Habitat, Goal 2 (*e.g.*, see PRMP: Livestock Grazing, Goal 1, #1 and 7-10; and Wildlife Habitat, Goal 2, #2, 8, and 11, and Goal 3, #3).

31-391: "Key habitats" for wildlife are species-specific and vary substantially. Riparian habitat would be key habitat for riparian-dependent nongame birds. Sagebrush habitats would be key habitats for sagebrush lizards and other species dependent on sagebrush. Winter ranges and birthing areas are key habitats for big game animals. Key habitats cannot be specifically listed in the PRMP for every species because the list would be extensive, as would any presentation of data or known information about key habitats. Inventories of key wildlife habitats are limited in the Challis RA; for many species, information about key habitats is available only in the scientific literature. The PRMP presents key habitats for big game animals and sage grouse on Maps 3, 17, 21, 32, and 36.

31-392: Please see response 31-363(b).

31-393: (a) The BLM's Fish and Wildlife 2000 Plan has been partially implemented. Accomplishments include acquisition and management of wetland habitats in Chilly Slough, coordinated efforts to improve riparian and aquatic habitats on important fisheries streams on many grazing allotments in the Challis RA, and completion of certain wildlife inventories and surveys.

(b) Regarding wildlife water - please see responses 31-126, 31-351, and 31-372. The figure of 90,000 acres is BLM's estimate of habitat acres that could be improved to benefit big game and upland game animals in the Challis RA by developing new wildlife water sources, modifying livestock fences, and using prescribed fire or other types of vegetation treatments (see PRMP, Wildlife Habitat, Goal 2, #9(a)). The BLM disagrees that no water should be provided for livestock when wildlife water is developed. For example, the IDFG and BLM have cooperatively developed and funded a number of wildlife projects (water developments) in the Challis RA. These projects involved fencing of springs to protect the riparian habitat and the water source for wildlife. In

these situations, livestock water is piped off-site to a trough for livestock.

(c) The 10 year time-frame was established as a goal for completion of wildlife inventories on all commercial timber stands in the RA. Commercial timber stands would be inventoried for wildlife conflicts at the time a timber sale is proposed, if inventories have not been previously completed.

31-394: The PRMP outlines biodiversity management decisions under Biological Diversity, Goal 1. Currently, no available data or other information indicate that fragmentation of terrestrial wildlife habitat is a serious concern in the Challis RA. Some terrestrial habitats (*e.g.,* forested areas) are "naturally" fragmented because of their patchy distribution on the landscape. If fragmented habitats exist in the RA, they would be identified when a formal biodiversity assessment is completed, as directed in the PRMP under Biological Diversity, Goal 1, #3. Actions could then be developed and implemented to address these fragmented habitats.

31-395: BLM policy requires that a river suitability study be completed as part of the land use planning process, which means that rivers identified as eligible do not remain eligible indefinitely. Once the suitability study is completed, eligible rivers that are found unsuitable are released from wild and scenic river consideration and any special management that might have been associated with eligible rivers.

31-396: The PRMP does identify land acquisition as a priority. Land Tenure and Access, Goal 1 presents the goal as follows: "Seek to acquire additional lands having high public values...." Several decisions under Goal 1 describe specific priorities for acquisition; see, for example, Goal 1, #2, 3, 7, 13, and 14. Decisions under Goal 5 describe the BLM's priorities for increasing public access.

31-397: The BLM disagrees that the DRMP does not present a balanced discussion of impacts from land tenure actions. In virtually every case where some adverse impacts of disposals are described, the off-setting beneficial impacts of lands actions are also identified. For example, see the description of environmental consequences of Alternative 2 on p. 196a, #25 (Biological Diversity) and p. 261, #15 (Recreation). In addition, the discussion of land tenure impacts on fisheries is entirely positive (see p. 220, #25-26). In only a few impact discussions were the positive impacts of land tenure actions omitted (see Cultural Resources, p. 200a, #8, 9; Livestock Grazing, p. 239, #23). Until site-specific proposals for land acquisitions and land exchanges are identified, impacts would be difficult or impossible to adequately assess. Therefore, the positive effects of land acquisitions and land exchanges on cultural resources and livestock grazing are unknown.

31-398: The PRMP does not limit Chilly Slough land exchanges to only those areas identified in Land Tenure, Goal 1, #6. Any lands located within the Adjustment Area boundaries on Map A could potentially be exchanged for private land in Chilly Slough. However, the lands identified in #6 would only be available for disposal in exchange for lands in Chilly Slough.

31-399: This decision is in response to a request by the State of Idaho during the public scoping phase of RMP development.

31-400: Your preference is noted. The Federal Land Policy and Management Act (FLPMA) requires BLM land use plans to identify potential disposal parcels that meet FLPMA criteria for sale. Public lands which are listed in the PRMP on Attachment 17 would be *available* for potential disposal through sale, because they meet certain FLPMA criteria; however, other authorities for disposal could be implemented, including the option of exchange for other lands.

31-401: Your preference is noted. As stated in response 31-400 above, all sale tracts identified in the PRMP would also be available for disposal by exchange or other disposal methods. All areas available for disposal cannot be "lumped together" under one category, because disposal criteria for a sale differ from criteria for a DLE, which differ from criteria for an R&PP patent, etc.

31-402: As noted in Land Tenure and Access, Goal 4, #1, only long term trespass situations may be resolved through sale, exchange, or lease. New trespass cases would be terminated and rehabilitated.

31-403: The use of covenant language in patents for lands containing riparian areas, floodplains, and wetlands transferred out of public ownership would be for the purpose of protecting important resource values from degradation. It is the policy of the BLM to retain these lands in Federal ownership if their disposal would violate the intent of Executive Orders 11988 (Floodplain Management) or 11990 (Protection of Wetlands). The PRMP also provides for "no net loss" of important resource values (see Land Tenure and Access, Goal 1, #3). Should the lands meet FLPMA criteria for disposal and be transferred out of Federal ownership, then the patents would include restrictive language to protect the areas. The patent would specifically describe the land and the restrictions set

forth for the land, whether it be no subdivision or other types of protection measures. The BLM would make every reasonable effort to ensure compliance with the covenants.

31-404: Your opinions are noted.

31-405: Thank you for pointing out the error. The citation for the Code of Federal Regulations should read "43 CFR 2130." This regulation is titled 2130 - Acquisition of Lands or Interests in Lands by Purchase or Condemnation. This citation has been corrected in the PRMP.

31-406: Mitigation measures are not displayed separately in a Resource Management Plan (RMP), but rather incorporated as decisions within the Plan itself. When the Record of Decision is signed it will specify which individual decisions are included.

31-407: The BLM shares your desire to have as much information as possible displayed on maps. Changes have been made to maps in the PRMP to improve their usefulness. The BLM has presented only those maps that were deemed necessary for an adequate understanding of the management decisions proposed in the PRMP.

31-408: Where specific sites of proposed actions are *known*, the BLM has included the locations in the PRMP (*e.g.*, ACEC boundaries, Wild & Scenic River corridors, Special Recreation Management Areas, full fire suppression areas, lands available for sale or exchange, areas closed or limited to OHV use, areas closed to livestock grazing). The PRMP also analyzes the impacts of these actions. However, the sites of many actions would only be identified in the future as projects are proposed by outside proponents (*e.g.*, rights-of-way) or project proposals are developed during project or activity planning (*e.g.*, vegetation treatment projects, noxious weed treatment sites, riparian study sites). The site-specific impacts of these types of future proposals would be analyzed during activity or project planning.

31-409: The entire Resource Area would be affected by the PRMP, because PRMP decisions address all aspects of management of public lands within the Challis Resource Area. The summary of environmental consequences (see Chapter 2) indicates a net improvement in resource conditions would occur in the Resource Area as a result of PRMP management.

31-410: Your opinion is noted.

Letter No. 32

IDAHO FISH & GAME
SALMON REGION
P.O. Box 1336
Salmon, Idaho 83467
(208) 756-2271

Philip E. Batt / Governor
Jerry Mallet / Acting Director

January 6, 1997

JAN 17 1997
RECEIVED

Mr. Mark Johnson
Area Manager
Challis Resource Area

Attention: Kathe Rhodes
RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon ID 83467

Subject: Challis Resource Area draft RMP and EIS

Dear Mark:

Idaho Department of Fish and Game personnel have reviewed the referenced documents. They are well-written, organized, and understandable. Specific comments below pertain to your preferred alternative (number 2), unless otherwise noted.

Fisheries

1 Page 6 Vol 1 & Summary page 6, incorrectly state that westslope cutthroat trout is a candidate for Federal listing as threatened or endangered. Wild/natural steelhead should be included as a proposed candidate for Federal listing.

2 Page 75 Vol 1, last paragraph states: "Since 1982, returns of hatchery-produced steelhead have been adequate in most years to support a harvest of 2 to 6 fish per season." During the last several years the season limit on steelhead has been increased to 10 per year.

1

Letter No. 32 *continued*

3 Page 78 Vol 1, paragraph 1 states: "Most fishing resources in the RA are managed as wild trout fisheries under State of Idaho general sport fishing regulations." Current 1996-97 regulations read "Wild rainbow (with adipose fin) greater than 14 inches may be harvested in the Salmon River upstream of North Fork and in the Pahsimeroi River." Cutthroat trout may not be harvested in the Salmon River, East Fork Salmon River, or Pahsimeroi River. All cutthroat caught in these waters must be released. See page 55 of IDFG 1996-97 General Fishing Seasons and Rules for complete and current regulations.

All discussion of Pahsimeroi chinook should refer to them as summer chinook and as natural, not wild.

The word wild steelhead should be replaced with natural when discussing steelhead above North Fork.

Vol 3 page 523, paragraph 2: The Pahsimeroi River drainage description should include the fact that the upper river and the upper 1/3 of private property dewaters in early summer.

Vol 3 page 523, paragraph 5: The discussion on resident salmonids describes Pahsimeroi as an excellent resident rainbow trout fishery. We suggest excellent be replaced with good.

Appendix C, Fisheries page 530, paragraph 2: The last paragraph describes summer chinook spawning areas as "mainstem Salmon River and the East Fork Salmon River." Add Pahsimeroi River here.

Vol 1 page 75, paragraph 4 states: "... 33% are allowed to move upstream and spawn naturally." This was correct prior to 1994, but now all natural (non clipped) summer chinook and all left ventral fin clipped are released above the weir for natural production. (Left ventral fin clipped fish are part of the Idaho Supplementation Program.) All adipose clipped adult summer chinook are retained for hatchery production.

Off Highway Vehicle Use

4 With the abundance of roads and trails within the Resource Area, off highway use should be limited to existing roads and trails outside of the areas of environmental concern. Designating the entire Resource Area as "Limited" would protect resources and limit conflict between motorized and nonmotorized recreationists. Alternative 5, page 433b, reasonably handles OHV use and should be incorporated into the preferred alternative, with the exception that new (i.e. established in the

2

BLM Response to Letter No. 32

32-1: Thank you for providing updated information. As of the date the Draft RMP/EIS was sent to the printer (April 1996), the westslope cutthroat trout was a category 2 candidate species and wild/natural steelhead rainbow trout were not yet proposed for Federal listing as threatened. The Proposed RMP/Final EIS has been revised to reflect all changes in special status species listings which have occurred from May 1996 to the date of printing of the PRMP/FEIS.

32-2: The PRMP/FEIS has been corrected in response to your comment.

32-3: The PRMP has been revised to incorporate your suggested changes.

32-4: Your preference for Alternative 5 is noted. The majority of your suggestions for OHV management have been incorporated into the Proposed RMP. Except for some areas with additional restrictions or closures, OHV use on the entire Resource Area would be limited to existing roads, vehicle ways, and trails yearlong (see PRMP, OHV Use). However, some aspects of Alternative 5 OHV management were not included in the PRMP because the BLM determined the restrictions or closures were not necessary to protect resource values. Please also see response 32-18.

32-5: Your comments are noted. The PRMP (Wildlife Habitat, Goal 2, #8) has been revised to provide for restrictions on permitted activities in sage grouse nesting areas from 4/15-6/30. Casual or incidental OHV use would not be addressed by this decision. However, the PRMP limits motorized vehicle use to existing roads, vehicle ways, and trails yearlong (see response 32-4 above), which should provide adequate protection for nesting sage grouse.

32-6: (a) Your opinion on the validity of commercial timber harvest is noted. Please see response 31-27. The PRMP specifically states that timber harvest per decade would not exceed the sustained yield average of 6.6 million board feet per decade (see Forested Areas, Goal 1, #1). Actual cut would be based on the availability and demand for timber. There is no requirement in the PRMP to meet the 6.6 million board foot figure.

(b) The PRMP would remove 41 isolated timber stands from the commercial timber base (see Forest Resources, Goal 1, #22); most timber stands less than 40 acres in size would be removed from the commercial timber base under this decision.

32-7: Your comments regarding the Donkey Hills ACEC are noted. BLM agrees that forage (including browse) on southerly aspects and windswept ridges is a critical

Letter No. 32 *continued*

4 future) "vehicle ways" should not be allowed to be incorporated into the system of open motorized routes. See our comments under Management of WSA's below.

5 Dates of closure for the Donkey Hills and Birch Creek ACECs will work well for big game. Closures for sage grouse nesting should extend through June.

Forested Areas

6a Goal 1, No. 1: With the extremely small acreage of forested cover within the Resource Area, and the importance of these habitats to wildlife species, the validity of commercial timber harvest is questionable. The 6.6 million board feet average yield per decade should be labeled as an absolute maximum with no requirement to meet this quota.

6b Small isolated (surrounded by sagebrush) timber patches < 40 acres should be removed from the timber base; most of them already have been indicated as such on Map D. These are important wildlife habitat features that should be preserved in their current state.

Areas of Critical Environmental Concern

7 Donkey Hills, page 407: Nothing in the proposal specifically addresses elk winter forage. The most important elk winter range includes the open, wind-swept ridges on southerly exposures of the Donkey Hills. Primary elk use occurs on these ridges at mid to upper elevations in the Idaho fescue types. Changes need to be made in the Pines / Elkhorn allotment management plan to limit grazing on these areas to early season to allow regrowth of grasses and leave residual winter forage. Additional water developments at lower elevations and elimination of developments at mid to upper elevations may reduce livestock use of these critical sites. The lack of winter forage will have a more serious effect on the population than delaying livestock turnout until after calving. Although delaying turnout would be helpful to the 10% of the elk that remain to calve on the Donkey Hills, it is not nearly as important as leaving adequate winter forage.

Wildlife Habitat Management

8 Goal 1, Numbers 2 & 3: Elk, antelope, and bighorn sheep may have some dietary overlap with cattle at certain times of the year. If there was complete dietary overlap of these species with cattle (which there is not), the total big game consumption would be 4018 AUMs during the 5/1 to 11/30 period. Given that

3

Letter No. 32 *continued*

8 cattle actual use is 43,769 AUMs annually, big game would currently use at most 8% of the annual offtake and livestock the other 92%. If big game / livestock conflicts do exist, which we doubt, it is highly unlikely they could be resolved by reducing the small fraction taken by wildlife. In the spirit of multiple use, if conflicts are identified they should be resolved to maintain existing big game populations.

9 Elk winter ranges not identified as ACECs should be grazed lightly in the spring prior to June 1 to allow regrowth and leave residual winter forage.

10 We recommend BLM implement guidelines contained in draft Idaho Sage Grouse Management Plan (1997).

11 Goal 2, No. 12, page 359a: We recommend the restricted period for big game winter range extend at least through April 30; and the restricted period for sage grouse nesting habitat begin on April 15.

12 Goal 2, No. 18, page 361a: Forty-one forest stands totaling 980 acres would average only 24 acres in size, and they would be separated by potentially large distances. This is inadequate to sustain old-growth-dependent species.

Range Management

13 On page 163, the elk numbers are reversed with the season of use. The larger number use BLM land during the winter.

14 The only reference to stubble height or utilization standards appears to be associated with riparian issues and water quality. Standards for grass stubble height and litter should be established for uplands, to ensure proper functioning condition for the upland portion of watersheds (Goal 1, page 367a).

15 Goal 2, No. 2, page 354a: We recommend no prescribed burning or mechanical vegetation treatments be conducted unless adequate supplies of native grass, forb, and shrub seeds are available, and the native mix is used to reseed treated areas.

Vegetation Treatment Projects

See above comments in Range Management.

4

BLM Response to Letter No. 32 *continued*

habitat component on the Donkey Hills elk winter range. The PRMP includes management to ensure that elk habitat values in this area are maintained (see Wildlife Habitat, Goal 2, #6 and ACECs, Donkey Hills ACEC, #1-12). Revision of the Pines/Elkhorn Allotment Management Plan or development of a new resource activity plan (see PRMP: Livestock Grazing, Goal 1, #4; and ACECs, Goal 1, "Management Common to All ACECs," #4) would be the BLM's preferred approach to address forage use, water developments and livestock grazing.

32-8: Your preference for Wildlife Habitat Management, Goal 1, #3, Alternative 4 (DRMP, p. 357b) is noted. Your comments about dietary overlap between big game and livestock are also noted. BLM would prefer to address any perceived conflicts between livestock and big game on a case-by-case basis (see PRMP, Wildlife Habitat, Goal 1, #3). The BLM expects that these conflict resolutions would involve the IDFG, BLM, and interested publics in the collection and analysis of monitoring data and a thorough review of related scientific studies that would provide a better understanding of the issue by all involved parties.

32-9: Your comments on light spring livestock use on elk winter ranges are noted. The BLM believes that implementation of utilization criteria on key upland sites, as provided for by the PRMP (see Livestock Grazing, Goal 1, #7) would ensure that sufficient winter forage would remain available for elk. Utilization criteria would generally result in a mosaic of areas with light livestock use, areas of moderate livestock use, and areas that receive little or no livestock use (such as windswept ridgetops and steeper slopes).

32-10: The IDFG Draft Sage Grouse Management Plan (1997) contains land management guidelines that focus on management of sagebrush-grassland and other habitat types to maintain and improve these areas for sage grouse. The PRMP incorporates a number of management decisions that meet the general intent of the many guidelines proposed in the Draft Sage Grouse Management Plan: Livestock Grazing, Goal 1, #1, 4, 7 and 8; Wildlife Habitat, Goal 2, #8; Floodplain/Wetland Areas, Goal 2, #2; Riparian Areas, Goal 1, #1-7; and *Attachment 8: Design Specifications,* Rangeland Improvement, #2, 4, 7, and 8.

32-11: The PRMP has been revised to incorporate your suggested changes (see Wildlife Habitat, Goal 2, #8). The wording of the decision has also been changed to provide for permitted activities within the restricted period, if it is determined on a case-by-case basis, through consultation with IDFG, that the restriction can be lifted for a permitted activity.

Letter No. 32 *continued*

16 Goal 1, No. 6, page 365a: In addition to the proportionate decrease of livestock use on the entire allotment, this section should contain requirements to control livestock use in newly planted/seeded areas until revegetation is successful.

Fire Management

17 Page 389a: Sage grouse populations have suffered dramatic declines throughout their range over the past few years. Research indicates that other sagebrush-dependent species populations are also declining. Although the exact causes of the declines are unknown, it is clear that habitat for sage grouse and other sagebrush-dependent species needs to be protected. Maintenance of current sage grouse habitat should be given a high priority in this Plan. This would include provisions for 1) avoiding the negative impacts potentially associated with prescribed fires, reseeding mixtures (e.g. crested wheatgrass, and seed mixtures without sagebrush), and other vegetation treatments; and 2) placing a high priority on wildfire suppression in sage grouse nesting and wintering areas. Habitat management should be implemented as proposed in Idaho's 1997 Sage Grouse Management Plan (in draft form at this time). These comments also apply to multiple Issues and Management Concerns in the draft RMP.

Management of WSA's

18 Goal 1, No.3, page 411a: We oppose including "vehicle ways" in the provision for motorized vehicle use. It appears the glossary definition would incorporate newly pioneered roads and trails into the permitted road and trail system. This is virtually unenforceable. Automatically incorporating any new vehicle way into the motorized system does not complement many goals stated in the draft RMP, including on page 411a: "To limit the proliferation of roads and trails" and "... maintenance of existing primitive values and landscape biodiversity".

This same comment applies to the entire Off-highway Vehicle Use Plan in the draft RMP.

Forested Areas

19 Goal 1, No. 10, page 414a: We recommend changing "seedings" to seedlings. We assume this is just a typographical error.

5

Letter No. 32 *continued*

Oil, Gas, Geothermal, Locatable, and Saleable Minerals

20 We recommend no leasing be permitted in existing and proposed Areas of Critical Environmental Concern; Research Natural Areas; suitable wilderness areas; all riparian areas (not just in salmon, steelhead, and bull trout habitat); and eligible wild, scenic, and recreational rivers. These are the areas where outstanding resource values should be protected from mining and associated physical and human disturbance.

21 We recommend at least the No Surface Occupancy protection for currently delineated Wilderness Study Areas and bald eagle and peregrine falcon nesting home ranges. This would complement the draft RMP biodiversity goals for rare species sensitive to human disturbance.

22 We recommend at least the No Surface Occupancy protection for delineated "crucial" big game winter ranges. Within the rest of big game winter ranges, we recommend a timing limitation of at least December 1 through April 30 for surface occupancy and mining disturbance.

Winter range is recognized as being the habitat essential to the long-term survival and viability of elk populations. Within delineated "crucial" winter range, vegetation is critical for herd health. Therefore, we recommend at least the No Surface Occupancy protection be granted these crucial areas. It is also important to protect these areas from the human disturbance associated with leasing activity during the period of December 1 (at the latest) through April 30.

Within the rest of delineated winter range, we recommend stipulating a timing limitation for surface occupancy and mining activities at least for the period of December 1 through April 30. Oil and gas leasing and other mining activities at fixed locations can disrupt normal big game migration patterns. Especially when this type of disturbance occurs during the migration period (November through at least December), potential consequences include undesirable movements to lower-quality winter range, long-term disruption of traditional movement patterns, and increased depredation damage on private land. Additional assurance of maintaining migration timing and patterns would be provided by including November in the timing limitation period.

23 For the delineated Donkey Hills elk calving area (which is also delineated winter range), we recommend a timing limitation extend through at least June 30.

24 Fisheries Goal 1, No. 13, page 384 includes a reference to Oil, Gas ... Goal 2, No. 9, which is missing from page 424a.

6

BLM Response to Letter No. 32 *continued*

32-12: Your comments are noted. The intent of this decision was to maintain these isolated stands of timber cover for wildlife species that make heavy use of transition zones between sagebrush-grassland and forested area habitats. However, most of these stands do meet the definition of old-growth forest, based on the stand structure and other vegetation characteristics.

32-13: Thank you for bringing this error to our attention. The PRMP/FEIS has been corrected.

32-14: The PRMP establishes utilization criteria for key forage species on upland sites (Livestock Grazing, Goal 1, #7). These utilization criteria are expected to provide for a residual stubble height that would maintain upland sites in a properly functioning condition. In addition, the PRMP proposes decisions to manage rangeland vegetation to achieve a late seral stage or potential natural community (Livestock Grazing, Goal 1, #10; and Wildlife Habitat, Goal 2, #7) and to manage watersheds to maintain minimum amounts of vegetative cover (Upland Watershed, Goal 1, #3). The BLM believes that these decisions would help to ensure that litter and residual herbaceous cover are maintained on upland sites.

32-15: Your recommendations are noted. The BLM believes the scoping process for vegetation treatment projects, as provided for by the PRMP (Rangeland Vegetation Treatment Projects, Goal 1, #2 and 3) would help to ensure that native species are emphasized. The PRMP has been revised to clarify that non-native species would be included in the seed mix only when resource conditions or project objectives warrant their use (see Attachment 8: Design Specifications, General, #2, 3, 4, and 5).

32-16: The Draft RMP contained management to control livestock use in newly seeded areas (see p. 365a, Goal 1, #5, Alternative 2). This management is carried forward to the PRMP.

32-17: The BLM recognizes that maintenance of current sage grouse habitat should be a priority. Please see response 32-10 above. The PRMP would require the full suppression of any wildfires on sage grouse nesting and wintering areas where a fire suppression activity plan has not yet been prepared (Fire Management, Goal 1, #2) Site-specific wildfire suppression activity plans would consider the need for full suppression of wildfires in sage grouse habitats, since the IDFG would be consulted for input and comment, during the development of fire suppression activity plans.

32-18: The PRMP defines "existing roads, vehicle ways, and trails" in order to address your concern and clarify this issue (see PRMP, Glossary).

Letter No. 32 *continued*

Attachment 8

25 General, No. 3, page 465a: Native shrub species should be included in seeding plans, unless there is a commitment to revegetate the shrub community by planting seedlings.

26 Forest Roads, No. 3, page 467a: This should include a provision that permits recontouring, seeding, and putting haul roads "to bed."

27 Minerals, No. 1, page 467a: We recommend this apply to all riparian areas to protect water quality, desirable fish species, and riparian habitat.

28 Rangeland Improvement, No. 2, last section, page 468a: This should apply to all riparian areas. This would complement BLM goals for riparian health, water quality, and biodiversity.

Attachment 15

29 c, page 496: The lower bank angle of 90 "%" should be 90 degrees.

Maps

30 Map 3: Antelope winter range also occurs in the area of R24E and R25E, T7N.

Map 12: The Donkey Hills elk winter area should be extended to the Forest boundary.

Map 28: The mapped mule deer winter range does not include all of the current mule deer winter distribution.

31 Map A and Map 33: We are not in favor of trading BLM land to private entities that could convert rangeland to agricultural uses in the Barton Flats area. The area provides essential antelope winter range and year-round sage grouse habitat. Conversion of habitat to agricultural cropland would adversely affect the already dwindling sage grouse population. It would also add to the serious elk and antelope depredation problems that occur on croplands and haystacks in the area as early as August. No land trades should be permitted to worsen the problem.

Letter No. 32 *continued*

Thank you for the opportunity to provide comments.

Sincerely,

Gary Power
Regional Supervisor

GP:DW:ML:MH:RM

c: USFWS, Pocatello
Natural Resources Policy Bureau

BLM Response to Letter No. 32 *continued*

32-19: Thank you for bringing this error to our attention. The PRMP/FEIS has been corrected.

32-20: Your recommendations are noted. There are no known deposits of non-energy leasable minerals in the Challis RA, and the potential for leasable mineral development is nearly nonexistent in the RA (see DRMP, Chapter 4 - Minerals, #2 and 8, pp. 244-245). Therefore, the BLM does not believe that mandatory NSO stipulations on or closure of all the areas you list would be needed to protect resource values. If energy or non-energy leasing development is proposed on public lands which are open to leasing, an interdisciplinary team would review the proposal and recommend appropriate stipulations for the protection of resource values.

32-21: Your recommendations are noted. Existing WSAs are closed to energy and non-energy leasing and leasable mineral development. PRMP decisions (e.g., Attachment 5: SOPs, "General", #3-5; and Attachment 10: Leasable Minerals Stipulations, Stipulation Number 1) would protect Federally listed species such as the bald eagle and peregrine falcon from adverse effects of leasable minerals activities.

32-22: Your recommendations are noted. Standard stipulations (Attachment 10) may be applied to any mineral lease on big game winter ranges, at the discretion of the BLM authorized officer (Stipulations 1 and 2 specifically address crucial wildlife habitats - also see PRMP, Wildlife Habitat, Goal 1, #9(e)). The PRMP also provides for restrictions on permitted activities from 11/15 to 4/15 on big game winter ranges (see Wildlife Management, Goal 2, #8), which would apply to leasable mineral development and sale of mineral materials. Locatable mineral development activities would be managed under regulations found in 43 CFR 3800.

32-23: Your recommendation for a timing limitation on the Donkey Hills calving area is noted. The PRMP would provide for a limitation on permitted activities on the calving area (see Wildlife Habitat, Goal 2, #8). Other stipulations and limitations (as noted above in response 32-22) may also apply.

32-24: Thank you for bringing this error to our attention. The decision should have referred to "Oil, Gas ... Goal 2, #8." The PRMP/FEIS has been corrected.

32-25: Your opinion is noted. The PRMP revises this design specification to specify that shrubs may be included in the seeding, if appropriate to meet project objectives.

32-26: Although recontouring and putting "to bed" new or existing roads would seem to be an appropriate management practice, the BLM believes that such a

decision would actually result in greater potential for surface disturbance, sedimentation, and erosion than leaving the existing road bed in place. The potential use of the haul road for future timber harvest or other purposes such as horseback riding, hiking, or cross-country skiing would also be permanently lost. Several PRMP decisions address the issues of road construction, maintenance, closure, and rehabilitation (see Water Quality, Goal 1, #5 and 6; and Attachment 8: Design Specifications, "General", #1 and 2, and "Forest Management - Road Construction and Rehabilitation", #2 and 3).

32-27: The potential for leasable mineral development is extremely low to nonexistent in the RA (see DRMP, p. 244a, #2, Alternative 1; and p. 245a, #8). This low potential for development would also result in a low potential to affect riparian habitats. Standard stipulations for the protection of resource values could be applied to any energy mineral lease at the discretion of the BLM authorized officer.

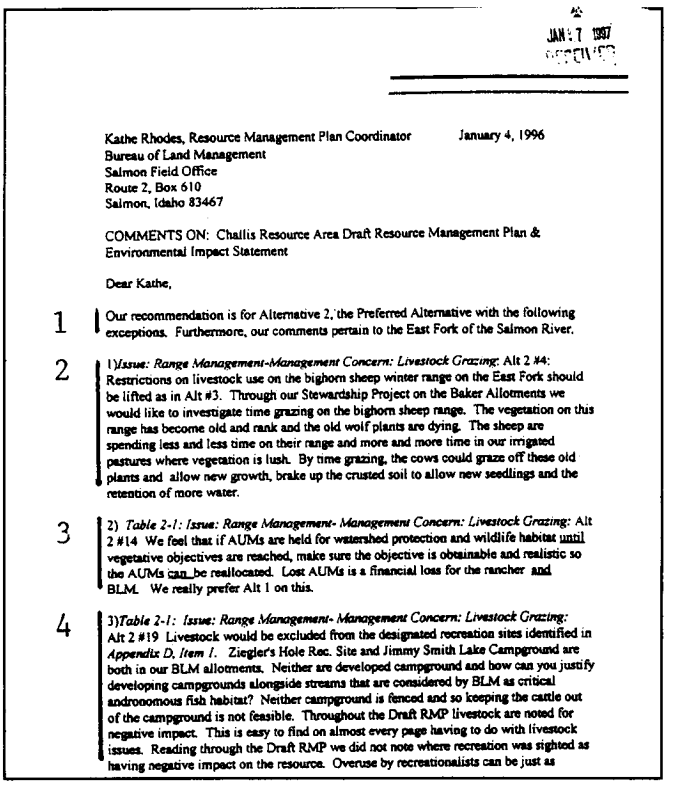
32-28: The wording of the design specification in Attachment 8 has been changed in response to your comment.

32-29: Thank you for bringing this error to our attention. The PRMP has been corrected.

32-30: Changes to the maps have been made in the PRMP.

32-31: Any proposed land exchange within the adjustment area on Barton Flat would only be implemented if agreed upon by the Chilly Slough Working Group. The IDFG is a key partner in the Chilly Slough Working Group and thus could reject any land exchange that might be proposed in the Barton Flat area.

Letter No. 33



JAN 17 1997

Kathe Rhodes, Resource Management Plan Coordinator January 4, 1996
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

COMMENTS ON: Challis Resource Area Draft Resource Management Plan & Environmental Impact Statement

Dear Kathe,

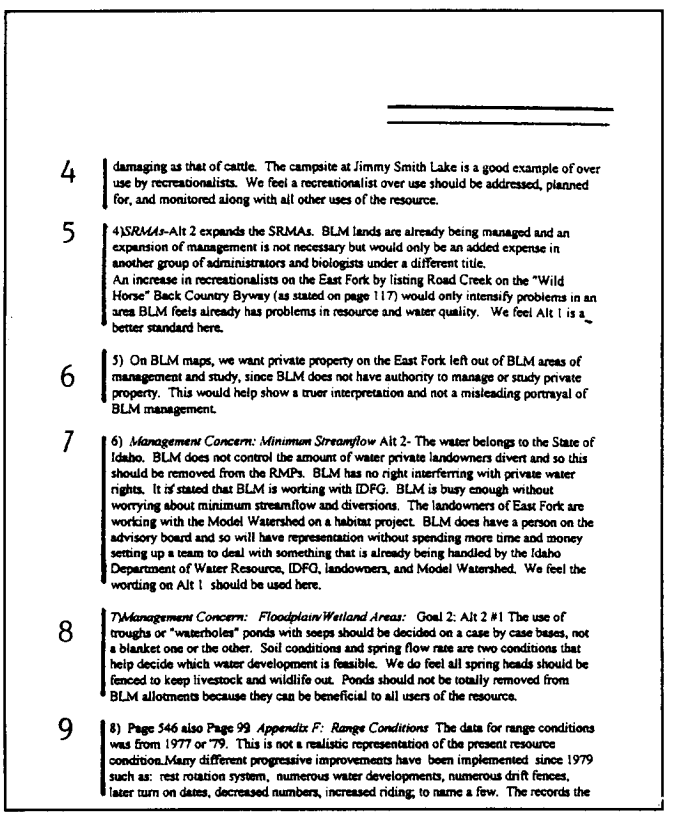
1 Our recommendation is for Alternative 2, the Preferred Alternative with the following exceptions. Furthermore, our comments pertain to the East Fork of the Salmon River.

2 1)*Issue: Range Management-Management Concern: Livestock Grazing:* Alt 2 #4: Restrictions on livestock use on the bighorn sheep winter range on the East Fork should be lifted as in Alt #3. Through our Stewardship Project on the Baker Allotments we would like to investigate time grazing on the bighorn sheep range. The vegetation on this range has become old and rank and the old wolf plants are dying. The sheep are spending less and less time on their range and more and more time in our irrigated pastures where vegetation is lush. By time grazing, the cows could graze off these old plants and allow new growth, brake up the crusted soil to allow new seedlings and the retention of more water.

3 2) *Table 2-1: Issue: Range Management- Management Concern: Livestock Grazing:* Alt 2 #14 We feel that if AUMs are held for watershed protection and wildlife habitat until vegetative objectives are reached, make sure the objective is obtainable and realistic so the AUMs can be reallocated. Lost AUMs is a financial loss for the rancher and BLM. We really prefer Alt 1 on this.

4 3)*Table 2-1: Issue: Range Management- Management Concern: Livestock Grazing:* Alt 2 #19 Livestock would be excluded from the designated recreation sites identified in *Appendix D, Item 1.* Ziegler's Hole Rec. Site and Jimmy Smith Lake Campground are both in our BLM allotments. Neither are developed campground and how can you justify developing campgrounds alongside streams that are considered by BLM as critical anadroomous fish habitat? Neither campground is fenced and so keeping the cattle out of the campground is not feasible. Throughout the Draft RMP livestock are noted for negative impact. This is easy to find on almost every page having to do with livestock issues. Reading through the Draft RMP we did not note where recreation was sighted as having negative impact on the resource. Overuse by recreationalists can be just as

Letter No. 33 *continued*



4 damaging as that of cattle. The campsite at Jimmy Smith Lake is a good example of over use by recreationalists. We feel a recreationalist over use should be addressed, planned for, and monitored along with all other uses of the resource.

5 4)*SRMAs*-Alt 2 expands the SRMAs. BLM lands are already being managed and an expansion of management is not necessary but would only be an added expense in another group of administrators and biologists under a different title.
An increase in recreationalists on the East Fork by listing Road Creek on the "Wild Horse" Back Country Byway (as stated on page 117) would only intensify problems in an area BLM feels already has problems in resource and water quality. We feel Alt 1 is a better standard here.

6 5) On BLM maps, we want private property on the East Fork left out of BLM areas of management and study, since BLM does not have authority to manage or study private property. This would help show a truer interpretation and not a misleading portrayal of BLM management.

7 6) *Management Concern: Minimum Streamflow* Alt 2- The water belongs to the State of Idaho. BLM does not control the amount of water private landowners divert and so this should be removed from the RMPs. BLM has no right interferring with private water rights. It is stated that BLM is working with IDFG. BLM is busy enough without worrying about minimum streamflow and diversions. The landowners of East Fork are working with the Model Watershed on a habitat project. BLM does have a person on the advisory board and so will have representation without spending more time and money setting up a team to deal with something that is already being handled by the Idaho Department of Water Resource, IDFG, landowners, and Model Watershed. We feel the wording on Alt 1 should be used here.

8 7)*Management Concern: Floodplain/Wetland Areas:* Goal 2: Alt 2 #1 The use of troughs or "waterholes" ponds with seeps should be decided on a case by case bases, not a blanket one or the other. Soil conditions and spring flow rate are two conditions that help decide which water development is feasible. We do feel all spring heads should be fenced to keep livestock and wildlife out. Ponds should not be totally removed from BLM allotments because they can be beneficial to all users of the resource.

9 8) Page 546 also Page 99 *Appendix F: Range Conditions* The data for range conditions was from 1977 or '79. This is not a realistic representation of the present resource condition.Many different progressive improvements have been implemented since 1979 such as: rest rotation system, numerous water developments, numerous drift fences, later turn on dates, decreased numbers, increased riding; to name a few. The records the

BLM Response to Letter No. 33

33-1: Your preference for Alternative 2, with exceptions, is noted. The BLM's responses to the exceptions you recommend are stated in responses 33-2 through 33-13 below.

33-2: Please see response 25-2.

33-3: Please see response 25-4.

33-4: Please see response 25-5.

33-5: Please see response 25-3.

33-6: Please see response 25-6.

33-7: Your preference for Alternative 1 is noted. Please see response 16-7.

33-8: Your opinions are noted.

33-9: Please see response 25-9.

33-10: Please see response 25-10.

33-11: Please see response 25-11.

33-12: Approximately 10 acres in each of the two land areas you requested (T11N, R18E, Section 35, SWNESE and T9N, R18E, Section 5, NWNENW) have been included in the Proposed RMP as adjustment areas for exchange only (see PRMP, Map A: Adjustment/Management Areas). These parcels have not been added to the PRMP for potential sale because they contain important riparian, river frontage, or other resource values which would only be exchanged for lands with equal or greater resource value (see PRMP, Management Concern: Land Tenure, Goal 1, #3). In addition, a portion of the parcel you requested in T9N, R18E, Section 5, NWNENW is located in a Wilderness Study Area and is not available for disposal unless it is released by Congress from wilderness review (see PRMP, WSAs- Management if Released from Wilderness Review, Goal 1, #8).

33-13: Please see response 25-12.

9 BLM Range Con has collected from '79 to '96 should be on file and should have been used for current, accurate data of the present range condition. Once again you contradict your statements. In response to page 100, drought in the late 1980's has not offset the improvements that have been made. We understood that part of BLM's management duties was to monitor the range for changing conditions. You cannot plan the future of a resource using outdated data and untrue information. How can anyone choose the best alternative for managing the resource when the data used is 20 years old?

10 9) Page 101 - 104 on *Range Monitoring and Factors* affecting livestock management. You have just contradicted your previous statement. On page 103- Table 3-11 is a Summary of Existing Range Improvements. Every allotment is different and should be managed differently. It is unrealistic to use the same criteria for every allotment. You admit that the big game population has increased during the past 15 years and state that SOME persons attribute poor range condition to increased use by wildlife. This is true. You should consider that the wildlife population remains there year round. Not only do decreased grazing numbers cause a financial hardship so does the increased loss of pasture on our private property also being utilized by the big game population. You paint a bleak picture of range conditions - yet you have the authority to control this. There are several other factors contributing to this picture other than cattle grazing. It is due to increased number of recreationists, greatly increased numbers of big game herds, and weather conditions to name a few.

11 10) Vol 3 Pages 524 and 525 *Appendix C: Summary of Fisheries Habitat Condition* in Drainages of the Challis RA - East Fork Salmon River Drainage = BLM has stated that habitat has significantly degraded over the past 30 years, bank stability is rated fair to poor on most private ground, and the private sections have unstable banks and channels as a result of poor grazing management in the riparian zones. This is untrue.

In the *Model Watershed Plan* prepared by: Idaho Soil Conservation Commission in cooperation with: Bonneville Power Administration BLM, IDFG, NRCS, Northwest Power Planning Council, Shoshone-Bannock Tribe, and U.S. Forest Service it states under Chapter 6-2: East Fork of the Salmon River Watershed: Fish Habitat Conditions: "Overall, the quality and quantity of salmon habitat in the East Fork watershed is good and conditions have changed very little in the past 50 years. The major problem is simply a lack of returning adult fish." The landowners on the East Fork are working in cooperation with the Model Watershed on a habitat project. This involves approximately 10 miles of river corridor through private property on the East Fork.

12 11) Under *Attachment 17: Tracts Considered for Sale, by Alternative:* There are two tracts we would like to see added to this list of proposed tracts for consideration as sale tracts under *Management Concern: Land Tenure*, Goal 2, #3

12 #1) 11N 18E Sec 35 SW of NE of the SE
#2) 9N 18E Sec 5 NW of NE of the NW

13 SUMMATION: This report has been a frustrating draft to read. Under every alternative that supported cattle was a comment only showing negative consequences. We do not feel this was a true picture or a fair interpretation to present to the public. It set grazing up for sure failure regardless of your alternative.

We feel the management by BLM using utilization standards and stubble height further set the rancher up for failure. We do feel BLM management standards and ranching practices can not only sustain the resource but improve the resource if properly implemented.

We feel all involved parties must allow for flexibility in managing the resource to reach its full potential. There are opportunities for innovation if we work together towards the common goal of protecting and enhancing the environment.

We are currently working through the Experimental Stewardship Program to find a feasible solution that will be a win-win system for all. Through Holistic Resource Management, we will address all interested parties' concerns and goals for the resource through a thorough plan including a biological assessment, time grazing and intensive herding. We feel the community can benefit economically and still improve the resource for cattle, wildlife, recreation and future generations.

We reserve the right to amend our above comments and protest.

Sincerely,

[redacted]

Letter No. 34

IDAHO CONSERVATION LEAGUE

January 2, 1997

JAN 7 1997

Kathe Rhodes
RMP Coordinator
BLM Salmon Field Office
Rt. 2, Box 610
Salmon, ID 83647

Dear Kathe:

Thank you for this opportunity to comment on the Challis Resource Area Draft Resource Management Plan and Environmental Impact Statement. I am submitting these comments on behalf of the Idaho Conservation League and The Wilderness Society, two groups working to protect Idaho's clean water and public lands for our use and the use of future generations. Our members have requested our participation in resource planning documents because they recreate in and value the resources of the Challis Resource Area (CRA) and other public lands.

We want to commend you for proposing to take actions which, if implemented, will greatly improve the condition of the CRA. I have worked extensively with some members of the CRA staff and have come to respect them and their growing knowledge of the resources under their stewardship. Particularly on the San Felipe allotment, I have seen a real commitment to gathering information necessary to make responsible management decisions about this important piece of our heritage.

We also have concerns about the document as written and sincerely hope that you will make some changes based on our comments. These comments are not meant as a criticism of your efforts, but as a way to fill in the blanks that exist in the plan.

GENERAL COMMENTS

Goals

1 Many of the goals identified in the plan are generally vague, with no way of measuring whether or not they are achieved. If the current staff of the CRA were to remain in place for the next 20 years, we would feel much more comfortable that the direction described in the draft plan would be followed. But, that's not the case. How will you assure that the goals you envision in the plan will be met?

2 More of the progress envisioned in the plan will be accomplished if the goals are presented like Riparian Areas Goal 1: Restore and maintain riparian and wetland areas so that more are in proper functioning condition within 5 years.... It would be helpful to identify measurable benchmarks along the way as well to show that the BLM is on the right track to improving the condition of the resource.

Letter No. 34 *continued*

3 Some of the goals need to be written to incorporate changes in BLM policy which are identified in the Range Reform regulations (see the section on Standards below).

Arrangement of the DRMP

4 Upon careful reading and examination of the entire document, I was able to understand the RMP. It would be helpful to people who don't want to read the entire document, yet wish to learn about something specific if you would make some changes to make it more user friendly.

When other parts of the RMP are referenced, it would be very helpful to include page numbers. Example: "...special status fish species concerns as shown in Management concern: Fisheries, Goal 1." It is very difficult to find various management concerns when the issue is not identified and because the management concerns are not in alphabetical order. I spent a tremendous amount of time thumbing through the document trying to locate references.

5 It is also difficult to determine how the management concerns match up to the alternatives. Some beginning explanation for the way the RMP is set up and how these two things are related to one another would be veryhelpful.

6 It is confusing to have livestock grazing identified both as a resource and as a source of effect. Livestock *forage* might be a better word for the resource you are discussing in Chapter 4 and elsewhere; livestock grazing is an effect. In the same way, forested areas, although described as a source of effect, are a resource. Timber management is the source of effect.

Description of Alternatives

7 Alt. 3 emphasizes "traditional" commodity uses. Alt. 4's description should be changed to say that it emphasizes *traditional* non-commodity multiple uses like fishing, hunting, and other forms of recreation. Using the word traditional only in reference to commodity extraction will cause some readers to overlook traditional uses that are extremely important to many Idahoans who make their living from these uses as well as the thousands who rely on these activities as an important part of their heritage and quality of life.

Standards and Guidelines

8 The DRMP makes no mention of the 4 fundamentals of rangeland health or the fall back standards and guidelines identified in the Range Reform regulations. The fundamentals have been in effect since August, 1995 and the fall back standards will be in effect in February, 1997. The RMP must incorporate the fundamentals and standards as goals along with management actions to achieve them. The actions proposed in the plan will probably achieve the 4 fundamentals if implemented; but the plan must describe how.

In addition, specific standards have been developed by Idaho's 3 Resource Advisory Councils (RAC's), with the expert help of the BLM, and these will be amended into RMP's at some future date. The RAC's are working to see that happens as soon as

BLM Response to Letter No. 34

34-1: The PRMP describes the resource condition objectives, land use allocations, and specific management actions and direction needed to direct the BLM's management of public lands in the Challis Resource Area during the life of the RMP. Implementing these actions as stated will ensure goals are met.

34-2: As noted in the Glossary (see DRMP, pp. 571 and 575), the BLM recognizes goals and objectives separately. Where appropriate, the BLM has included measurable criteria in the individual decisions in the PRMP.

34-3: Goals, objectives and management decisions of the RMP are compatible with 43 CFR 4180, Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration. A new decision in the PRMP (Livestock Grazing, Goal 1, #1) addresses compliance with current standards for rangeland health and guidelines for grazing administration.

34-4: Your suggestion is noted and incorporated into the PRMP.

34-5: The organization of the PRMP/FEIS has been simplified by listing the PRMP decisions in the same (alphabetical) order as the discussion of resources and land uses in the Affected Environment (Chapter 3) and Environmental Consequences (Chapter 4). The Draft RMP and PRMP contain "guides" (a content/organization overview at the beginning of Volume 1; a table of contents for each volume) which are intended to help the reader use and understand the documents.

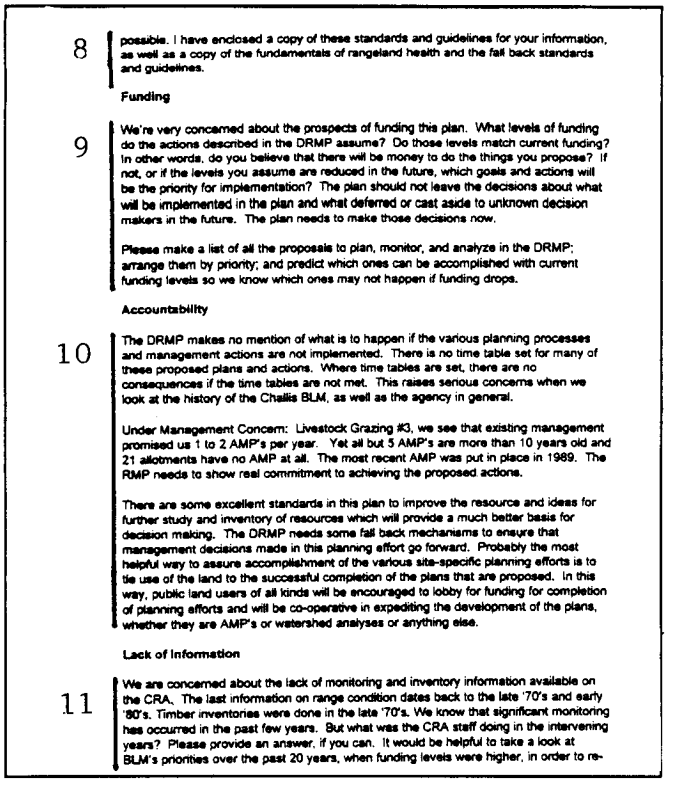
34-6: The "source of effect" is the collection of decisions found under a particular section of the Draft RMP, such as "Management Concern: Livestock Grazing" or "Management Concern: Forested Areas." The PRMP refers to livestock grazing as a land use rather than a resource and eliminates the "source of effect" column heading in the discussion of environmental consequences (Chapter 4).

34-7: Your comments are noted. No changes were made to the PRMP, since these sections were not restated in the PRMP.

34-8: Please see response 34-3. The PRMP contains management actions to achieve rangeland health; for example, see these PRMP sections: Livestock Grazing; Upland Watershed; Rangeland Vegetation Treatment Projects; Noxious Weed Infestations; and Wildlife Habitat.

34-9: The analysis of environmental consequences assumed "Funding and personnel would be sufficient to implement any alternative as described" (DRMP, p. 177). The

Letter No. 34 *continued*



8 possible. I have enclosed a copy of these standards and guidelines for your information, as well as a copy of the fundamentals of rangeland health and the fall back standards and guidelines.

Funding

9 We're very concerned about the prospects of funding this plan. What levels of funding do the actions described in the DRMP assume? Do those levels match current funding? In other words, do you believe that there will be money to do the things you propose? If not, or if the levels you assume are reduced in the future, which goals and actions will be the priority for implementation? The plan should not leave the decisions about what will be implemented in the plan and what deferred or cast aside to unknown decision makers in the future. The plan needs to make those decisions now.

Please make a list of all the proposals to plan, monitor, and analyze in the DRMP; arrange them by priority; and predict which ones can be accomplished with current funding levels so we know which ones may not happen if funding drops.

Accountability

10 The DRMP makes no mention of what is to happen if the various planning processes and management actions are not implemented. There is no time table set for many of these proposed plans and actions. Where time tables are set, there are no consequences if the time tables are not met. This raises serious concerns when we look at the history of the Challis BLM, as well as the agency in general.

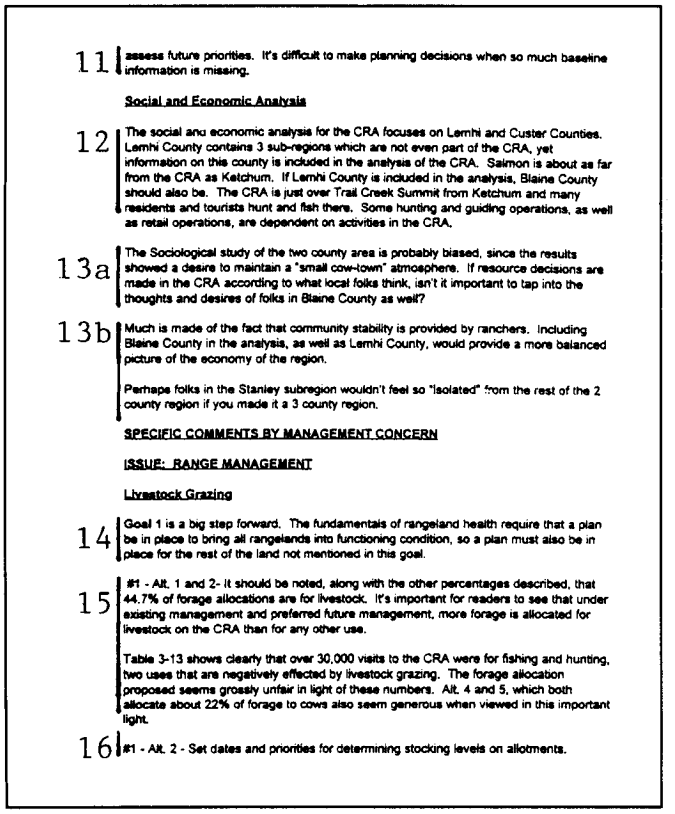
Under Management Concern: Livestock Grazing #3, we see that existing management promised us 1 to 2 AMP's per year. Yet all but 5 AMP's are more than 10 years old and 21 allotments have no AMP at all. The most recent AMP was put in place in 1989. The RMP needs to show real commitment to achieving the proposed actions.

There are some excellent standards in this plan to improve the resource and ideas for further study and inventory of resources which will provide a much better basis for decision making. The DRMP needs some fall back mechanisms to ensure that management decisions made in this planning effort go forward. Probably the most helpful way to assure accomplishment of the various site-specific planning efforts is to tie use of the land to the successful completion of the plans that are proposed. In this way, public land users of all kinds will be encouraged to lobby for funding for completion of planning efforts and will be co-operative in expediting the development of the plans, whether they are AMP's or watershed analyses or anything else.

Lack of Information

11 We are concerned about the lack of monitoring and inventory information available on the CRA. The last information on range condition dates back to the late '70's and early '80's. Timber inventories were done in the late '70's. We know that significant monitoring has occurred in the past few years. But what was the CRA staff doing in the intervening years? Please provide an answer, if you can. It would be helpful to take a look at BLM's priorities over the past 20 years, when funding levels were higher, in order to re-

Letter No. 34 *continued*



11 assess future priorities. It's difficult to make planning decisions when so much baseline information is missing.

Social and Economic Analysis

12 The social and economic analysis for the CRA focuses on Lemhi and Custer Counties. Lemhi County contains 3 sub-regions which are not even part of the CRA, yet information on this county is included in the analysis of the CRA. Salmon is about as far from the CRA as Ketchum. If Lemhi County is included in the analysis, Blaine County should also be. The CRA is just over Trail Creek Summit from Ketchum and many residents and tourists hunt and fish there. Some hunting and guiding operations, as well as retail operations, are dependent on activities in the CRA.

13a The Sociological study of the two county area is probably biased, since the results showed a desire to maintain a "small cow-town" atmosphere. If resource decisions are made in the CRA according to what local folks think, isn't it important to tap into the thoughts and desires of folks in Blaine County as well?

13b Much is made of the fact that community stability is provided by ranchers. Including Blaine County in the analysis, as well as Lemhi County, would provide a more balanced picture of the economy of the region.

Perhaps folks in the Stanley subregion wouldn't feel so "isolated" from the rest of the 2 county region if you made it a 3 county region.

SPECIFIC COMMENTS BY MANAGEMENT CONCERN

ISSUE: RANGE MANAGEMENT

Livestock Grazing

14 Goal 1 is a big step forward. The fundamentals of rangeland health require that a plan be in place to bring all rangelands into functioning condition, so a plan must also be in place for the rest of the land not mentioned in this goal.

15 #1 - Alt. 1 and 2- It should be noted, along with the other percentages described, that 44.7% of forage allocations are for livestock. It's important for readers to see that under existing management and preferred future management, more forage is allocated for livestock on the CRA than for any other use.

Table 3-13 shows clearly that over 30,000 visits to the CRA were for fishing and hunting, two uses that are negatively effected by livestock grazing. The forage allocation proposed seems grossly unfair in light of these numbers. Alt. 4 and 5, which both allocate about 22% of forage to cows also seem generous when viewed in this important light.

16 #1 - Alt. 2 - Set dates and priorities for determining stocking levels on allotments.

BLM Response to Letter No. 34 *continued*

schedule for implementing the decisions contained in the RMP is dynamic and would not be appropriate to include in the Proposed RMP/Final EIS. This schedule will be in the Implementation Plan prepared following signature of the Record of Decision for the approved RMP. The Implementation Plan will address at least the first five years following approval of the Plan, and will be modified and adjusted in response to such things as actions completed, effectiveness of actions in achieving RMP objectives, or changes in staffing and budget priorities. Many decisions will be implemented as part of site-specific activity planning and will require NEPA documentation in addition to that provided in the EIS.

34-10: Your comments and suggestions have been considered. Please see response 34-9. Where appropriate, the PRMP provides general management direction for circumstances when goals are not being achieved (for example, see Riparian Areas, Goal 1, #5 and 7).

34-11: Please see responses 15-2, 15-3, and 15-7. A summary of studies, inventories, surveys, and other research activities pertinent to the Challis Resource Area is listed in Appendix L, Item 1 of the PRMP.

34-12: Although residents of Blaine, Custer, and Lemhi counties all utilize resources within the Challis Resource Area and some Blaine County businesses are dependent on activities in the CRA, Sun Valley and Ketchum are generally not trading areas for residents of Custer and Lemhi counties. Residents of those counties primarily trade in Salmon, Challis, Idaho Falls, and Missoula. Lemhi and Custer counties have more economic similarities with each other than with Blaine County. The Tendoy-Leadore, Salmon and North Fork subregions were included in the study even though they lie outside the RA boundary because (a) they trade in the Salmon area (Lemhi County) and are thus economically interconnected with subregions that lie within the RA boundary, and (b) they are within the boundary of Lemhi County, a geographic area which was considered as a whole to facilitate discussion of topics such as payments in lieu of taxes.

34-13: (a) Your opinion is noted. BLM believes the social and economic information presented in the PRMP is accurate and appropriate. The Draft RMP was developed following an extensive scoping process, and revised (in the PRMP) after consideration of public comments from local and non-local commentors. Residents of Blaine County were among those who commented during the initial scoping period and submitted letters of comment on the Draft RMP/EIS.

(b) The BLM agrees that the economy and society of Stanley are probably more similar to Blaine County than

Letter No. 34 *continued*

17 #2 - Alt 3 and 4 - There is a definite need to provide areas where no grazing is allowed for wildlife and fish habitat needs, as well as for the multiple recreation uses, on the CRA. Keeping over 97% of the CRA open to grazing is excessive. Since we don't believe that the BLM will close 77,000 acres of land to grazing, the plan should include an alternative that realistically identifies areas that can be closed to grazing.

18 #3 - Alt 2 - What are the watersheds with special status fish species concerns? What are the ecosystem level plans described here? Would they be watershed level plans? What will be the watershed boundaries? They should be identified in the RMP, as well as a prioritization for the analysis of these watersheds or ecosystems.

19 #5 - Alt 2 - RMP needs a date for "development of vegetative monitoring". Which are the "perennial riparian systems with high potential for improvement" which will be emphasized and what does "emphasized" mean?

20 #6 - Alt 2 - Will BLM have time to monitor utilization to determine proper time to move? What if livestock are not moved in time? Move dates must be clearly spelled out in permit terms and conditions and permit actions taken when terms are not met. If BLM personnel are responsible for determining dates for moving livestock, then they should be held accountable in job performance evaluations.

21 What are "knowledgeable and reasonable practices"? Please give some examples in the final RMP. The glossary definition was not helpful.

22 The protocol for developing other utilization criteria sounds good, and "interested public" should be added to the list.

23a The discussion on Vegetation in Chapter 3 - Affected Environment gives no information on the condition or trend of various plant communities on the CRA. We know that agsp vigor on the San Felipe is low; this is probably true for other locations as well. If utilization levels on agsp are exceeded, that pasture should be rested the next year to allow recovery. We want to make very sure that blue bunch wheatgrass is

23b protected, given it's large scale eradication across most of Idaho since the beginning of livestock grazing.

24 The RMP should identify a goal to protect and increase native vegetation. RAC standard #4 states that "Healthy productive, and diverse populations of native plants are maintained or promoted as appropriate to soil type, climate and landform", including a indicator, "Plant vigor (production, seed and seedstalk production, cover, etc.) is adequate to enable reproduction and recruitment of plants when favorable climatic events occur." This is important because, in all the continuing analysis the plan

25 proposed, the BLM will probably discover that native vegetation goals are not being met, and there should be a mechanism and plan to revisit these utilization levels.

26 #8 - Alt 2 - Identify riparian study exclosure possibilities in the RMP and prioritize them. The CRA staff must have a good idea of where these should be, with your extensive experience.

27 #10 - Alt 2 - We like the direction to manage for late seral or Potential Natural Community. Desired Plant Community (DPC) is a concept which concerns us. We believe it is in the best interests of the ecosystem to manage for native plants. Crested wheat grass seedings could serve as indicators of rangeland health as described in the RMP. Range Reform regulations require that state or regional standards (developed by

Letter No. 34 *continued*

the RAC's) address the habitat quality for native plant and animal populations and communities. We don't want to see DPC used to avoid restoring native plant communities.

28 #11 - Alt 2 & 4 - Needs dates and timelines. Alt 2 will still have sacrifice streams - those outside salmon, steelhead trout, and bull trout drainages. This will not meet the standards, either the fall backs or the RAC's. Alt. 4 is the choice required by the new regulations.

29 #13 - Alt 2 - Within 2 years of what date will current management be assessed?

30 #14 - Alt 4 - Vacant allotments should remain unallocated or be retired for the reasons stated in the RMP.

31 #15 - Alt 2 - Does 70% cover meet the fundamental for rangeland health and the standard?

32 #17 - Alt 2 - When will watershed analysis be completed to determine livestock carrying capacity and season of use? Time lines are needed.

33 Goal 2 should list measurable resource management objectives and measurable range conditions so we can all see if the proposed actions are achieving the goal.

34 #1 - Alt 2 - It's a good idea not to allow grazing until range improvements (livestock facilities) are functional. Who will check on this? Will BLM have time and personnel? What if you don't? Use of a pasture should be delayed until you're sure that livestock facilities are functional.

35 #2 - Alt 2 & 5 - No burns should be done in sage brush to create forage for livestock. Alt 5 is by far the better idea. Ecosystem health and diversity can best be promoted by using alt.5. If you have seen studies describing the necessity and desirability of burning sage brush for other than livestock forage increases, please site them for us. Even if sage brush burns increase forage for livestock and big game, what about wildlife species dependent on sage?

36 #3 - Alt 2 - If resource concerns exist in a watershed because of current grazing management, then cost/benefit analyses should accompany any proposal for new livestock facilities. And this analysis should be compared to the benefits of removing grazing from the problem area.

37 #4 - Alt 2 - We oppose new seedings of anything other than native grasses, unless some other kinds of seeds included could help facilitate establishment of native plants.

38 #5 - Alt 1 - We are disturbed by the M category for allotments that have so many acres in fair or poor condition. What is the rationale for this category?

39 #6 - Alt 2 - Suitable seed mix must be a native mix. No more introduction of exotics - even if they benefit cows.

BLM Response to Letter No. 34 *continued*

to Lemhi or Custer Counties. However, as stated in response 34-12 above, the BLM believes the economic analysis should not be expanded to Blaine County because economic activities of that county center on communities other than Challis or Salmon. Just as the North Fork, Salmon and Tendoy-Leadore subregions were included in the study even though they are outside the RA boundary, the Stanley subregion was included in the study because Stanley lies within Custer County and the study needed to consider counties as whole geographic units. Part of Lemhi County is in the Challis Resource Area land base. The economic focus of the area is also toward Lemhi County (Salmon), especially for those in the Pahsimeroi Valley and even Challis.

34-14: Please see response 34-3.

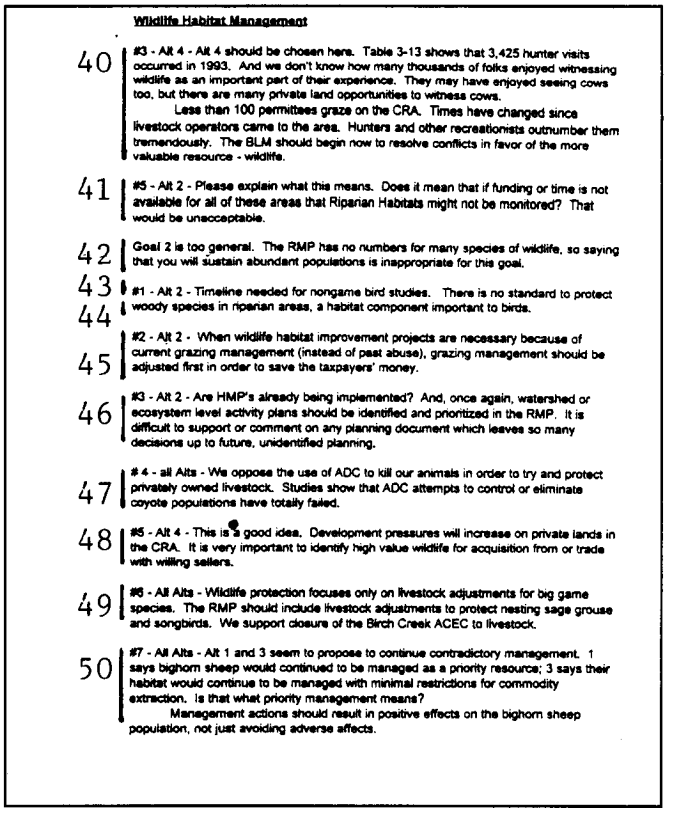
34-15: The PRMP does not set fixed forage allocations. Rather, it describes management to ensure that sufficient vegetative cover is maintained for watershed improvement, plant maintenance, wildlife habitat needs, and wild horse habitat needs. Short term livestock grazing allocations are specified (in AUMs); however, the PRMP decisions and analysis of impacts indicate these allocations would be adjusted as needed to ensure resource conditions are maintained or improved to meet RMP goals.

34-16: Livestock Grazing, Goal 1, #2 in the PRMP sets initial priorities. The Implementation Plan for the RMP will direct how, where, and when future allotment evaluations are scheduled (see response 34-9).

34-17: The BLM believes this was done in the preferred alternative (see DRMP, Management Concern: Livestock Grazing, Goal 1, #2, 19, and 20, pp. 350a and 354a) Similar management was carried forward in the PRMP (see Livestock Grazing, Goal 1, #3, 17, and 18). On the remainder of the Resource Area, the BLM believes that livestock grazing in accordance with PRMP decisions is compatible with other uses.

34-18: Watersheds with special status fish species concerns include those with Federally listed species (chinook and sockeye salmon, steelhead trout, bull trout) or the sensitive species westslope cutthroat trout. This decision has been rewritten in the PRMP (see Livestock Grazing, Goal 1, #4) to clarify that AMPs would be developed or revised following completion of a watershed assessment (see PRMP/FEIS: Glossary and Attachment 5: SOPs, "General" #1). Watershed boundaries would be defined during the assessment process and could vary depending on the needs for analysis; therefore, it would be premature to attempt to identify watershed boundaries at the RMP level.

Letter No. 34 *continued*



Wildlife Habitat Management

40 #3 - Alt 4 - Alt 4 should be chosen here. Table 3-13 shows that 3,425 hunter visits occurred in 1993. And we don't know how many thousands of folks enjoyed witnessing wildlife as an important part of their experience. They may have enjoyed seeing cows too, but there are many private land opportunities to witness cows.

Less than 100 permittees graze on the CRA. Times have changed since livestock operators came to the area. Hunters and other recreationists outnumber them tremendously. The BLM should begin now to resolve conflicts in favor of the more valuable resource - wildlife.

41 #5 - Alt 2 - Please explain what this means. Does it mean that if funding or time is not available for all of these areas that Riparian Habitats might not be monitored? That would be unacceptable.

42 Goal 2 is too general. The RMP has no numbers for many species of wildlife, so saying that you will sustain abundant populations is inappropriate for this goal.

43 #1 - Alt 2 - Timeline needed for nongame bird studies. There is no standard to protect
44 woody species in riparian areas, a habitat component important to birds.

45 #2 - Alt 2 - When wildlife habitat improvement projects are necessary because of current grazing management (instead of past abuse), grazing management should be adjusted first in order to save the taxpayers' money.

46 #3 - Alt 2 - Are HMP's already being implemented? And, once again, watershed or ecosystem level activity plans should be identified and prioritized in the RMP. It is difficult to support or comment on any planning document which leaves so many decisions up to future, unidentified planning.

47 # 4 - all Alts - We oppose the use of ADC to kill our animals in order to try and protect privately owned livestock. Studies show that ADC attempts to control or eliminate coyote populations have totally failed.

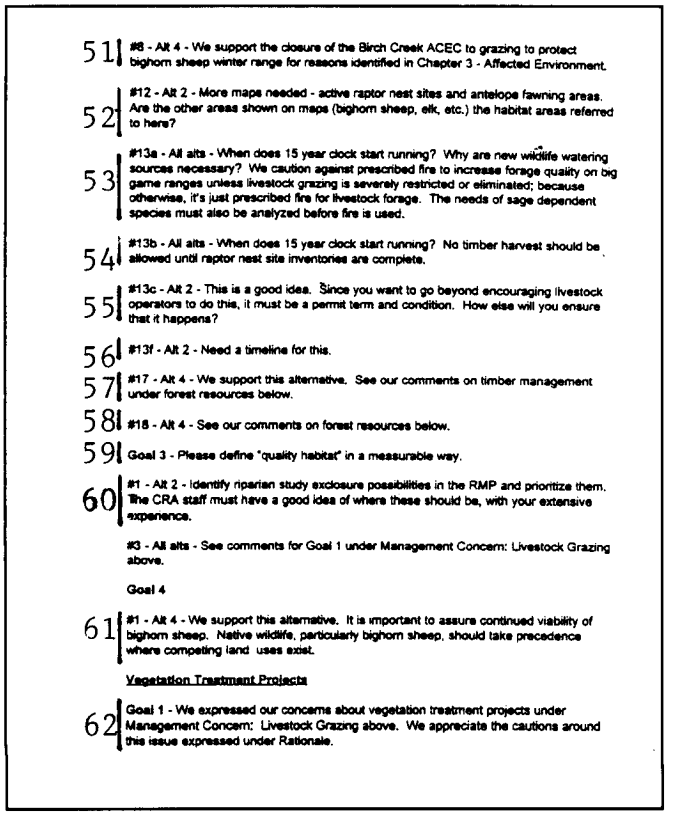
48 #5 - Alt 4 - This is a good idea. Development pressures will increase on private lands in the CRA. It is very important to identify high value wildlife for acquisition from or trade with willing sellers.

49 #6 - All Alts - Wildlife protection focuses only on livestock adjustments for big game species. The RMP should include livestock adjustments to protect nesting sage grouse and songbirds. We support closure of the Birch Creek ACEC to livestock.

50 #7 - All Alts - Alt 1 and 3 seem to propose to continue contradictory management. 1 says bighorn sheep would continued to be managed as a priority resource; 3 says their habitat would continue to be managed with minimal restrictions for commodity extraction. Is that what priority management means?

Management actions should result in positive effects on the bighorn sheep population, not just avoiding adverse affects.

Letter No. 34 *continued*



51 #8 - Alt 4 - We support the closure of the Birch Creek ACEC to grazing to protect bighorn sheep winter range for reasons identified in Chapter 3 - Affected Environment.

52 #12 - Alt 2 - More maps needed - active raptor nest sites and antelope fawning areas. Are the other areas shown on maps (bighorn sheep, elk, etc.) the habitat areas referred to here?

53 #13a - All alts - When does 15 year clock start running? Why are new wildlife watering sources necessary? We caution against prescribed fire to increase forage quality on big game ranges unless livestock grazing is severely restricted or eliminated; because otherwise, it's just prescribed fire for livestock forage. The needs of sage dependent species must also be analyzed before fire is used.

54 #13b - All alts - When does 15 year clock start running? No timber harvest should be allowed until raptor nest site inventories are complete.

55 #13c - Alt 2 - This is a good idea. Since you want to go beyond encouraging livestock operators to do this, it must be a permit term and condition. How else will you ensure that it happens?

56 #13f - Alt 2 - Need a timeline for this.

57 #17 - Alt 4 - We support this alternative. See our comments on timber management under forest resources below.

58 #18 - Alt 4 - See our comments on forest resources below.

59 Goal 3 - Please define "quality habitat" in a measurable way.

60 #1 - Alt 2 - Identify riparian study exclosure possibilities in the RMP and prioritize them. The CRA staff must have a good idea of where these should be, with your extensive experience.

#3 - All alts - See comments for Goal 1 under Management Concern: Livestock Grazing above.

Goal 4

61 #1 - Alt 4 - We support this alternative. It is important to assure continued viability of bighorn sheep. Native wildlife, particularly bighorn sheep, should take precedence where competing land uses exist.

Vegetation Treatment Projects

62 Goal 1 - We expressed our concerns about vegetation treatment projects under Management Concern: Livestock Grazing above. We appreciate the cautions around this issue expressed under Rationale.

BLM Response to Letter No. 34 *continued*

34-19: Vegetative monitoring is an ongoing process that is performed to assess progress towards objectives at the activity plan level. "Perennial riparian systems with high potential for improvement" are those which can respond to management changes to make significant progress towards achieving riparian health. Table 4-7 in Chapter 4, page 226a of the DRMP listed priority streams by allotment. "Emphasis" simply means that those values will raise the level of priority for management planning on those allotments containing perennial riparian systems.

34-20: Pasture movement sequences would be identified in allotment management plans or other resource activity plans that would be developed for allotments. Actual move dates would be determined in response to the condition of the resource and individual permit terms and conditions. BLM grazing regulations provide administrative remedies for failure to meet the terms and conditions of grazing permits. Also see letter 40, responses 40-2, 40-3, 40-4, and 40-5.

34-21: Knowledgeable and reasonable practices would include management practices which meet the objectives and satisfy the evaluation criteria stated in the Glossary definition (see PRMP, Glossary, p. 175). The PRMP contains knowledgeable and reasonable practices for grazing management (see Livestock Grazing, Goal 1, #7 and Riparian Areas, Goal 1, #5 and 6), and provides for alternative knowledgeable and reasonable practices to be suggested, evaluated, and, if appropriate, implemented (see Livestock Grazing, Goal 1, #7, paragraph 2 and Riparian Areas, Goal 1, #4).

34-22: The knowledgeable and reasonable practice evaluation procedures provide for the involvement of interested publics. Interested publics may be included on ID teams (see Glossary), and interested publics would be involved in the process of developing site-specific environmental assessments.

34-23: (a) In the PRMP, the BLM's data on the condition of plant communities are summarized by allotment (see Appendix F, Item 2) and also described in Chapter 3 - Livestock Grazing, "Rangeland Inventory" and "Rangeland Monitoring and Evaluation." Vegetation classifications are summarized in Table 3-21: Vegetation Summary for the Challis Resource Area. Appendix L, Item 1: Summary of Studies of the Challis Resource Area was added to the PRMP to list the various inventories and other studies which are ongoing or have been completed.

(b) The BLM believes upland utilization criteria (see PRMP, Livestock Grazing, Goal 1, #7) will be adequate to maintain the vigor of bluebunch wheatgrass on most sites. Additional management actions to protect and

Letter No. 34 *continued*

63 #1 - Alt 2 - Once again, time lines and priorities for watershed analyses, as well as descriptions of what those watersheds are needed in the plan. There is no mention of the NEPA process in references to watershed analyses in the plan. To the extent that these analyses propose actions, NEPA compliance (i.e. public involvement) will be necessary. Interested public input will be important in these analyses and in proposed vegetation treatment projects. RAC standards will be important in these proposals.

Upland Watershed

64 Goal 1 should be rewritten to reflect the 4 fundamentals and fall back standards, as well as some way to measure progress.

65 #11 - Alt 4 - We support the protection of native plants over any exotic species. No more exotic seedings - particularly not in new locations.

ISSUE: WATER RELATED RESOURCE AREAS

Riparian Areas

66 Goal 1 - This is an excellent and measurable goal! Fundamental of rangeland health and fall back standard should be included here as a goal. While it's appropriate to set time lines for achievement of certain goals for a percentage of the land (i.e. 75% of riparian areas in proper functioning condition in 5 years), *all* riparian areas must be functioning in a reasonable amount of time.

The RMP makes no provision for what will happen if this goal is not reached. How will you ensure that it is?

67 #1 - Alt 2 - Should be rewritten to include the fall back standard.

68 #3 - Alt 2 - A good idea. RMP should include time line for selecting riparian monitoring sites.

69 #4 - Alt 2 - What are "knowledgeable and reasonable practices" that may be implemented in lieu of standards? Please give some examples in the final RMP. The glossary definition was not helpful. We don't believe that you can meet the fall back standard for riparian/wetland function and stream channel function or the RAC standards for dissipating energy for high water flows and sediment filtration without adequate stubble height.

70 #5 - Alt 2 - We support and are happy to see stubble height standards in the plan. If stubble height is too low on pastures used before July 10, riparian areas will not be able to provide the 2 functions named in #4 above. Stubble height standards should be applied at the end of grazing use in a specific pasture. Will these standards be amended into the terms and conditions of grazing permits to help assure compliance? We recommend that a woody species utilization standard be added.

71 #6 - Alt 2 - This is confusing. On how much of each stream would bank shearing by livestock be allowed? It sounds as if, where bank instability exceeds 10%, 1/3 or 1/2 of that can be caused by livestock bank shearing. So, the worse the streambank

Letter No. 34 *continued*

71 instability, the more bank shearing allowed by livestock? We would oppose this, of course.

#6b & c - Alt 2 - This allowance seems excessive. How will riparian vegetation re-establish itself if banks are being sheared by livestock?

72 #10 - Alt 2 - Please give more details about this allotment scale grazing management demonstration. What does this mean?

73 #11 - Alt 2 - We appreciate the move away from structures to repair bank erosion.

74 Goal 2 - By what date?

75 #1 - Alt 2 - Needs a timeline and determination of priority streams.

76a #2 - Alt 2 - What are the major ecosystem management units on the CRA and how many riparian site types are in each one?

76b Goal 3 - We support this goal.

Goal 4

77 #3 - Alt 4 - We support this alternative. It is important to protect the wetland values of this special place.

Floodplain/Wetland Areas

78 Goal 2 - Springs and seeps are considered riparian areas and must be protected under the fundamentals for rangeland health. The fall back standard should be included in the goal.

79 #1 and 2 - Alt 2 - One problem with having livestock grazing on 97.5% of the CRA is that there are probably not any springs and seeps that aren't being impacted by livestock grazing. The damage we have seen at upland spring sites is very disturbing. How much longer can springs survive the trampling and overgrazing that they seem to face. On the other hand, development of those springs is costly and benefits only permittees. No other uses benefit.

Alt 2 is an improvement over existing management direction. It would be beneficial to wildlife, visual resources, water quality, and recreation to eliminate livestock from at least some springs. At the very least, please incorporate one of the RAC guidelines into the plan: "The development of springs, seeps or other projects affecting water and associated resources shall be designed to protect the ecological functions, wildlife habitat, and significant cultural and historic/archaeological values associated with the water source."

80a Water Quality
Goal 1 - Essential to the achievement of goal 1 is the discovery of which beneficial uses

BLM Response to Letter No. 34 *continued*

improve the vigor of bluebunch wheatgrass would be identified for individual sites when Allotment Management Plans or other activity plans are developed or revised.

34-24: The PRMP provides for management for late seral or PNC vegetation (which would include native species) to achieve the goals stated in Livestock Grazing, Goal 1 (see Livestock Grazing, Goal 1, #10). Various design specifications stress maintenance and restoration of native vegetation (see PRMP, Attachment 8: Design Specifications, "General" #3-5). Also see response 34-3.

34-25: The BLM believes the second paragraph of Livestock Grazing, Goal 1, #7 (see PRMP) provides an adequate mechanism for revising the proposed utilization criteria.

34-26: An RMP provides general management direction and is not intended to identify site-specific project locations. An interdisciplinary team would determine the location and priority of riparian study projects during development of activity plans for specific allotments or watersheds. Riparian study sites would be selected according to guidelines stated in the PRMP under Riparian Areas, Goal 2, #3.

34-27: Livestock Grazing, Goal 1, #10 states that the BLM would manage for a Desired Plant Community only if it would better meet the goals of rangeland health. On certain sites and in the short term, DPC objectives may be more practical than PNC objectives for achieving the fundamentals of rangeland health. Also see response 34-3.

34-28: This decision has been revised in the PRMP to apply the action to all fish-bearing streams (see PRMP, Livestock Grazing, Goal 1, #11). The timeframe for completing these actions would be identified in the Implementation Plan for the approved RMP (see response 34-9).

34-29: This action has been deleted from the PRMP, since the assessment and adjustments in grazing practices have already been completed.

34-30: Your preference for Alternative 4 is noted. Management under Alternative 2 which allows vacant allotments to be unallocated and scheduled for intermittent or temporary use, would allow the BLM flexibility to improve rangeland conditions elsewhere in the Resource Area.

34-31: Please see response 31-156(a).

34-32: This decision and all other references to watershed analysis have been deleted in the PRMP. Livestock carrying capacity would be determined according to Livestock Grazing, Goal 1, #2. Season of use would be

Letter No. 34 *continued*

80a are being supported in which streams. As we asked above, what is the timeline for the development of this information?

80b #5 - Alt 2 - What is the timeline?

Minimum Streamflow

81 #2 - Alt 4 - We support the denial for request for diversion of water from BLM lands. Water is too scarce to allow them.

Fisheries

82 Goal 1 - Need to include timeline for this goal. Also some measurable achievements.

83 #3 - Alt 2 - Why will it take 7 years to identify crucial habitats? With the current staff's knowledge, you must know where these are. When does the 7 year count down begin?

84 #7 & #14 - Alt 4 - We support the pursual of acquisitions of fish habitat from willing sellers. Much of the habitat is on private land and is often badly degraded.

85 #15 - Alt 2 - What is the consequence if this inventory is not completed? What is it's priority for funding?

86 #17 - Alt 4 - We support this action. Table 3-12 shows that there were nearly 27,000 fishing visits to the CRA in 1993. Many of those were to the Big Lost River. Closing a mere 5.7 miles of river to grazing would greatly benefit those thousands of users, while impacting very few permittees. Waiting 7 years to implement management changes on that stretch is unacceptable.

ISSUE: LAND TENURE AND ACCESS

87a Goal 1 - We support this goal.

Goal 2

87b #3 - Alt 4 - Public lands should not be disposed of to accommodate economic development or community expansion. Instead the goal should be to sell public lands adjacent to towns to provide public infrastructure when necessary. Open space will be valuable for everyone's sanity in the crowded world of the future. It is our responsibility to protect our public lands for the future.

Wild and Scenic Rivers

88 ICL and TWS agree with the comments submitted by Idaho Rivers United. To save paper, we ask that you read their comments. We would just say that given the condition of some of the segments which have been enjoying the "protection" accorded to rivers that were found eligible for Wild and Scenic designation, it's hard to support any alternative which would grant less protection for these creeks and rivers.

Letter No. 34 *continued*

ACEC's

89 We support the designation of all the ACEC's in Alt 4. The Road Creek watershed is deserving of the extra protection, in part because of it's anadromous habitat; but also for the reasons stated in the RMP under relevance and importance - and thank you for pointing these out.

90 The attainment of PNC's should be identified as a goal for ACEC's.

91 We support the closures to motorized use as identified in alt. 2, as well as restricting motorized vehicles to existing roads where the RMP suggests. In addition, if OHV users ride off the road where it is prohibited, the area should be closed to motorized use entirely. Signs explaining this natural consequence to failure to protect critical values should be placed at the entrance to the ACEC's for information.

92 Timber harvest should not be allowed in the Donkey Hills. Elk habitat can be better protected by leaving the trees. There is no shortage of openings in the CRA; there is a shortage of trees.

93 We support the closure of the Birch Creek ACEC to grazing to protect bighorn sheep.

WSA's If Released From Wilderness Review

94a WSA's should be managed for primitive, non-motorized recreation, even if released from Wilderness review. Although there isn't much motorized use in the CRA, there is a lot of motorized use on many other BLM lands and National Forests in Central Idaho. The CRA is adjacent to the SNRA where motorized use is becoming a serious issue. Noise pollution is recognized as a problem in many cities and noise abatement procedures are in place. It is important to provide quiet areas on the public land too, for wildlife and for recreation. WSA's are a perfect place to continue to provide this opportunity.

94b VRM Class I should be maintained in all WSA's, even if released from Wilderness review. The fact that they were designated as WSA's indicates the unique and special scenic values of these areas.

94c WSA's should be managed for PNC's in order to protect biodiversity.

ADDITIONAL MANAGEMENT CONCERNS

Forested Areas

- **Goal 1**

95 It's difficult to understand why you are proposing any timber harvest at all when we look at Table 3-4 in Chapter 3. All of the commercial forest land is identified as being on fragile sites, problem reforestation sites, or adverse locations. When we combine this information with the map showing forested sites on the CRA, we realize that timber harvest on this resource area is simply not appropriate.

BLM Response to Letter No. 34 *continued*

determined through periodic review and/or renewal of grazing permits. Timelines for completing these actions would be included in the Implementation Plan for the approved RMP.

34-33: Please see response 34-2.

34-34: Challis Resource Area staff will make periodic inspections for compliance. The number of inspections would depend on staffing levels, funding, and priorities. BLM grazing regulations have procedures to follow if range improvement maintenance is not done.

34-35: Your preference for Alternative 5 is noted. Prescribed burning of sagebrush for resource objectives other than livestock forage have been conducted in the Challis RA specifically for bighorn sheep on bighorn winter ranges. Most of these burned areas are not grazed by livestock due to steepness of slope, or because they are within areas closed to livestock use. The BLM believes that the PRMP decisions related to vegetation treatments (e.g., prescribed burns) would adequately protect other resource values (see PRMP, Rangeland Vegetation Treatment Projects, Goal 1, #1-7 and Attachment 8: Design Specifications, "Rangeland Improvement" #2 and 7).

34-36: Your preference for a cost-benefit analysis of any new livestock facilities is noted. A site-specific environmental assessment would be completed on all livestock management facilities prior to construction. An environmental assessment is essentially a non-economic cost-benefit analysis that considers the benefits of the project and potential for adverse effects on other resource values. Removal of livestock may be considered as an alternative on a case-by-case basis.

34-37: The PRMP has been revised in response to your comment. The PRMP emphasizes the propagation and health of native plant communities (see Livestock Grazing, Goal 1 and decision #10). Native species would also be emphasized when designing vegetation treatment projects; non-native species would be included in the seed mix only when resource conditions or project objectives warrant their use (see PRMP, Attachment 8: Design Specifications, "General" 3-5).

34-38: Please see the Glossary definition of "allotment categorization."

34-39: Please see response 34-37.

34-40: Your preference for Alternative 4 is noted. Please see response 32-8.

34-41: This decision is intended to identify monitoring priorities among wildlife habitats in the Challis Resource Area.

Letter No. 34 *continued*

95 Timber harvest levels described in the RMP are so low that they would not support any mill or logger. There is simply no reason to harvest timber, except if the BLM believes that it is obligated to supply timber from any land which has trees growing on it. WE hope that is not the case. The fact that very little timber was harvested in the last decade shows good judgment on the part of the BLM.

96 #2 - Alt 2 - No timber should be harvested, and certainly no "sustained yield averages" set until the intensive forest inventory is completed.

97 #3 - Alt 2 & 4 - Please define "forest ecosystem values". (Don't forget to include micchorizal fungi.)

98 #7 - Alt 2 - If timber harvest is allowed, there should be no clearcutting of any forest types. It is impossible to control dwarf mistletoe in Doug fir stands - ask the Challis National Forest. In any case, dwarf mistletoe very rarely causes mortality and does not qualify as a reason to remove trees.

99a #11 - Alt 2 - National Forests in Central Idaho have had problems regenerating Douglas fir, even in shelterwood stands. A shelterwood cut is really nothing more than a clearcut when the overstory is removed. It is still even-aged management and the young trees that *may* have grown 15 years after the initial harvest will provide little in the way of cover for wildlife or for ecosystem values. And for all those 15 years, all we have is a greatly thinned stand with a few large trees left in the middle of a big arid land mass.

99b #15 - Alt 2 - This might work if the weather cooperates and you weren't dealing with fragile and problem reforestation sites.

#15 - Alt 5 - Some forest management might be needed if timed to mimic natural levels of disturbance - possibly if stands are seriously overcrowded. The problem with thinning prescriptions is that large diameter trees always seem to be added to the sale to make it economically viable.

100 #17 - All alts - Buffer strips for riparian areas should be 300 feet wide. No logging should be allowed in these strips to reduce insect or disease risks or where stream degradation is highly unlikely.

101 #20 - Alt 4 - We support this alternative and believe that all forested areas in ACEC's should be withdrawn from harvest.

102 #20 - Alt 4 - What are the elk habitat requirements for regeneration that would allow removal of 200 foot buffer strips around clearcuts? For an interesting look at the effectiveness of buffer strips between clearcuts in a big open area (it's a big open area now), visit the Moose Creek plateau of the Targhee National Forest. They don't have any elk left.

103 #21 - Alt 4 - We support the withdrawal from commercial harvest of the Willow Creek Summit elk winter range.

Letter No. 34 *continued*

104 #25 - We support the withdrawal of all commercial timber in the Corral-Horse Basin, Jerry Peak and Burnt Creek WSAs to maintain biodiversity, primitive values, and old growth timber values.

Managing for Biodiversity

105 Goal 1 - Please replace the term ecosystem *products* with ecosystem *values*. It is time for the BLM to turn its focus from production to stewardship of values, a concept found many places in this plan.

106a #3 - Alt 2 - A good idea. How will you ensure implementation?

106b # 8 - Alt 2 - When does the clock start on the 4 year requirement? What if the timeline is not met? Are there consequences?

107 #7-10 - Alt 2 - All of these are excellent ideas. The completion of these pieces of alt.2 would be very helpful to the protection of biodiversity. But, how will they be accomplished. This plan is full of hopeful ideas that we fear will never happen.

Oil, Gas, Geothermal, Locatable and Salable Minerals

108 It seems unreasonable that 99.8% of the CRA is open to oil and gas development. All WSA's and ACEC's should be withdrawn from oil and gas development to protect other resource values.

109 The Thousand Springs ACEC should certainly be closed to mineral material sales because its values are unique in the CRA. Other ACEC's and WSA's should be withdrawn from mineral development to protect biodiversity, scenic values and primitive values.
110

Visual Quality Management

111 We support the increased acreage in Alt 4. Is the 50,000 acre decrease in Class 1 because of release of Wild and Scenic River eligible segments? If not, what has caused the decrease?

Off Highway Vehicle Use

112 Goal 1 - As well as protecting other resource values from degradation, the goal should also be to protect some areas from noise pollution. Thousands of acres on public land are effected by noise pollution. There are few opportunities to designate quiet trails in those areas. The BLM should take this opportunity to designate quiet areas and protect the hush of the land.

113 We support the closures identified in Alt. 4. We have concerns about areas which are infinitely open to motorized use and allow cross country travel. Mechanisms for monitoring should be determined in the RMP in order to determine if resource damage is occurring. If it becomes a problem, use should be limited to designated roads and trails.

BLM Response to Letter No. 34 *continued*

The decision has been reworded in the PRMP to clarify that each habitat area has equal priority for monitoring.

34-42: Although the BLM agrees that specific data on the abundance of many wildlife species are limited, goal statements are generally written in relative terms to establish an intent. Please also see response 31-3.

34-43: Non-game bird studies are ongoing (see PRMP, Appendix L, Item 1 for studies performed to date). The BLM's ability to perform future studies is influenced by overall funding priorities and special funding opportunities such as cost-sharing grants.

34-44: Woody riparian habitats important to non-game birds would be protected by the riparian stubble-height and bank shearing criteria established in the PRMP (see Riparian Areas, Goal 1, #5 and 6). These criteria are expected to limit utilization of woody riparian vegetation and promote the productivity and health of riparian communities, without specific utilization limits on woody species. BLM would prefer to establish species-specific limits on woody use at the activity planing level, if an interdisciplinary team determines that use limits are necessary (see PRMP, Attachment 3, last paragraph).

34-45: Your preference is noted.

34-46: This decision is clarified in the PRMP - see Wildlife Habitat, Goal 2, #3.

34-47: Your preference is noted. Please see response 14-4.

34-48: Your preference for Alternative 4 is noted.

34-49: BLM believes that PRMP utilization criteria for key forage species (Livestock Grazing, Goal 1, #7), coupled with riparian stubble-height and bank shearing criteria (Riparian Areas, Goal 1, #4-7) would maintain or improve nesting habitat for sage grouse and songbirds. Please also see responses 31-146, 32-10, and 32-14.

34-50: This decision was revised in the PRMP (see Wildlife Habitat, Goal 2, #6). Alternatives 1 and 3 in the DRMP represented differences in emphasis on management of resources and were intended to display a range of reasonable management options. Alternatives 1 and 3 are meant to have different meanings, as each alternative displays a different management philosophy (discussed on pp. 24-25 of the DRMP).

34-51: Your preference for Alternative 4 is noted.

34-52: The DRMP provided maps of big game winter ranges, Donkey Hills elk calving areas, and sage grouse winter ranges and strutting grounds (Maps 3, 8, 12, 28, and 36).

114 In areas where OHV use is limited to existing roads, signs should be in place which explain that failure to comply with these limits will result in the closing of the area to motorized use.

115 All WSA's should be closed to OHV use, whether or not they are released from Wilderness Review, in order to provide quiet places on the CRA.

Cultural Resources Management

We support the protection of cultural resources. This is a diminishing resource, because of unintentional impacts on cultural sights. On the CRA, this problem is caused mainly by livestock grazing.

116 How will you ensure that the proposals you make in Alt 2 will be implemented?

Thank you for the opportunity to comment on this important plan. We look forward to working with you during the rest of the planning process.

Sincerely,

Linn Kincannon
Idaho Conservation League
Public Lands Associate

Craig Gehrke
The Wilderness Society
Regional Director

Enc: 2

These maps delineate only some of the habitat areas referred to in Wildlife Habitat Management, Goal 2, #12.

34-53: (a) The 15 year timeframe was established as a general goal for accomplishing the actions listed, and would begin when the Record of Decision for the approved RMP is signed. (b) Habitat suitability can be improved for many species by providing water sources in otherwise dry areas. Please see response 31-372. (c) All prescribed burn proposals would be subject to an environmental assessment to document expected effects on other resources, including sagebrush-dependent wildlife species. Please see response 34-35.

34-54: The 15 year timeframe would begin when the Record of Decision for the approved RMP is signed. It is a general goal for completion of forest raptor surveys on all commercial forest areas in the Challis RA. However, it is expected that a site-specific raptor nest site survey would be completed prior to timber harvest on any proposed timber sale area (see PRMP, Wildlife Habitat, Goal 2, #8 and 9(b)).

34-55: Your opinion is noted. Permit terms and conditions are developed on a case-by-case basis. The decision you have cited would be included when appropriate.

34-56: Timelines for developing and revising activity plans would be identified in the RMP Implementation Plan.

34-57: Your preference for Alternative 4 is noted. Please see response 16-3(e).

34-58: Please note that Alternative 4 and the Preferred Alternative are the same. This management is included in the PRMP. The BLM could not find any further comment on this decision in the "Forest Resources" section of your letter.

34-59: Quality habitat is highly diverse, varying by species, and thus, cannot be defined under this goal in a measurable or meaningful way for all riparian-dependent wildlife species. Many species have their own unique habitat requirements.

34-60: Please see response 34-26.

34-61: Your preference for Alternative 4 is noted.

34-62: Your concerns and preferences are noted.

34-63: This decision has been revised in the PRMP. Any rangeland improvement project proposal would be evaluated during activity or project planning, with full public involvement and compliance with BLM policies, including current standards for rangeland health and

guidelines for grazing administration.

34-64: (a) The PRMP adds a decision which addresses compliance with current standards for rangeland health and guidelines for grazing administration (see Livestock Grazing, Goal 1, #1). The Upland Watershed goal to achieve "satisfactory condition watersheds" (see Glossary: watershed condition class) is consistent with these standards and guidelines. (b) The PRMP specifies several means to measure progress towards achieving upland watershed health, including periodic Ecological Site Inventory, analysis, interpretation, and evaluation of long term upland monitoring studies, and rangeland health assessments.

34-65: Your support for Alternative 4 is noted. The use of non-native species may be necessary for recovery of some sites (see PRMP, Attachment 8: Design Specifications - "General" #3 and 4).

34-66: Your comments are noted. Please see responses 31-316, 34-1, and 34-3.

34-67: Your opinion is noted. Please see response 34-3.

34-68: Riparian monitoring is ongoing in the Challis RA, with several new key areas being established each year. Monitoring sites are selected in conjunction with activity planning, as they are the primary means of assessing progress towards site-specific resource objectives. The schedule for implementing monitoring is dynamic and would not be appropriate for inclusion in the PRMP.

34-69: See responses 34-3 and 34-21.

34-70: (a) The PRMP has been revised to state that riparian stubble height standards must be maintained during the scheduled grazing period, or, on pastures grazed before July 10, sufficient regrowth prior to the end of the growing season must be expected (see PRMP, Riparian Areas, Goal 1, #5). (b) Stubble height criteria would be implemented upon signature of the Record of Decision for the approved RMP. Criteria would be incorporated into the terms and conditions of grazing permits as appropriate. (c) Your opinion is noted.

34-71: This decision has been rewritten in the PRMP (see Riparian Areas, Goal 1, #6).

34-72: Please see response 31-83.

34-73: Your support for Alternative 2 is noted.

34-74: The activities in Goal 2 are ongoing.

34-75: Timelines and priorities for determining support status of

streams will be identified in the Implementation Plan for the approved RMP.

34-76: (a) This decision has been clarified in the PRMP (see Riparian Areas, Goal 3, #2). The intent of the decision is to develop riparian exclosures throughout the Resource Area that would provide a reasonable representation of the variety of riparian site types for future use as reference areas. (b) Your support for Goal 3 is noted.

34-77: Your support for Goal 4, #3, Alternative 4 is noted. The PRMP has incorporated this provision.

34-78: Your opinion is noted. Please see response 34-3.

34-79: Your preference is noted. The PRMP has incorporated the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (see response 34-3). Attachment 8: Design Specifications, "Rangeland Improvements" #4 and 8 detail the parameters to be used for the protection of developed springs and seeps.

34-80: (a) The beneficial use and support status information available to the BLM at the time the PRMP was published is shown in Appendix J, Item 1. No timeline has been established for achieving Water Quality, Goal 1, since the workload is unknown. Current water quality of all streams has not been assessed, nor have all problem areas been identified and evaluated. Please also see response 34-75.

(b) The timeline for implementing Management Concern: Water Quality, Goal 1, #5 will be established in the Implementation Plan for the Challis RMP. Please note that this decision does indicate priority streams.

34-81: Your preference for Alternative 4 is noted. Please see response 16-7.

34-82: A timeline for achieving Management Concern: Fisheries, Goal 1 is not realistic because many of the PRMP fisheries decisions involve ongoing activities, such as monitoring (Goal 1, #3, as revised in the PRMP) and cooperative management (Goal 1, #5, 6, 9). Where appropriate, the PRMP fisheries decisions specify a timeframe.

34-83: The timeframe has been deleted from the PRMP. Identification of crucial habitats was completed in 1994, although refinement of habitat and population data are ongoing efforts performed as necessary.

34-84: Your preference for Alternative 4 is noted.

34-85: Most of the fish distribution work has been completed (see response 34-83 above), but the habitat inventory,

following R1/R4 survey protocols, may take several years, given current funding and staffing levels. Inventory efforts have thus far provided a good indication of habitat condition on most streams. This effort continues to be one of the highest priorities in the Resource Area for funding.

34-86: Your preference for Alternative 4 and opinions about Alternative 2 are noted.

34-87: (a) Your support of Goal 1 is noted. (b) Your opinion is noted. The Federal Land Policy and Management Act of 1976, Title II -- Land Use Planning; Land Acquisition and Disposition, Sec. 203 Sales, (a)(3) provides for disposition through sale for the purposes you oppose.

34-88: Your support of Idaho Rivers United's comments is noted. Please see the responses to letter 22.

34-89: Your preference for Alternative 4 is noted. Please see response 6-3.

34-90: Unless another desired plant community better meets resource needs, attainment of PNC is a goal for the entire Resource Area, including ACECs; see PRMP, Livestock Grazing Goal 1, #10.

34-91: Your opinions and suggestions are noted. The PRMP limits motorized vehicle use to existing roads, vehicle ways and trails throughout the Resource Area, unless more stringent limitations or closures apply (see PRMP, OHV Use, Goal 1).

34-92: Your preference for Alternative 4 and your opinions are noted. Based on the analysis of environmental consequences, the BLM believes elk habitat in the Donkey Hills ACEC can be managed in conjunction with timber harvest (also see response 34-101).

34-93: Your preference for Alternative 4 is noted. The BLM believes bighorn sheep habitat in the Birch Creek area can be adequately protected without closing the area to grazing; see PRMP, Wildlife Habitat, Goal 2, #6.

34-94: (a) Your opinions regarding motorized vehicle use in WSAs if released are noted. Proposed OHV management would continue to limit OHV use in WSAs, even if released from wilderness review (see PRMP, Off-highway Vehicle Use, Goal 1, #3). (b) Your opinion is noted. (c) Your preference is noted. Most WSA acreage is estimated to be in late seral stage, or at PNC; this condition should be maintained through the management proposed in the PRMP.

34-95: Please see responses 26-6 and 31-27. Approximately 60% of forest land in the Resource Area is not proposed

for commercial timber harvest in the PRMP. Although commercial forest sites have relatively low productivity and management problems, they are manageable. Little timber was harvested in the Resource Area during the past decade because forest management efforts focused on backlog regeneration projects (see DRMP, p. 207a, Note #1).

34-96: Your opinion is noted. The PRMP proposes harvest limits within the sustained yield levels calculated through extensive inventories. The decadal sustained yield average proposed while inventories are being completed (6.60 MMBF/decade) is well below the current allowable sale quantity (922 MBF/year) and recent harvest levels, and is considered sustainable, based on eastern Idaho zone forest inventories completed in 1984 (see DRMP, p. 227a, analysis point #2, Alternative 2 and p. 207a, Note #1).

34-97: Forest ecosystem values include all abiotic and biotic components necessary for long term sustainability of forests. In order to maintain forest ecosystem values, the BLM must maintain all the parts of the forest community, regardless of whether or not their function in the complex system is fully understood.

34-98: Please see responses 31-105(a) and 31-107. Regarding your point on dwarf mistletoe, planting of non-host species has resulted in mistletoe-free stands in the Lemhi Resource Area (which adjoins the Challis Resource Area). Your point about dwarf mistletoe-caused mortality is usually true. However, the BLM regularly observes significantly increased mortality in heavily mistletoed forest stands, often caused by secondary factors such as insects (usually Douglas-fir beetle) due to tree weakening. For example, in the Birch Creek area within the Lemhi Resource Area, up to one tenth of the mistletoed trees noted alive in 1986 are currently dead (Elzinga, personal observation, October, 1997).

34-99: (a) Natural regeneration has not been a problem in most of the CRA. In fact, in the similar dry conditions of the Lemhi RA, excessive amounts of regeneration have become a concern; excessive regeneration has most often occurred on shelterwood cuts. In the forests of both the Lemhi and Challis RAs, only one (90 acre) overstory removal has been implemented on a shelterwood harvest area to date. All of the other re-harvested shelterwood stands have been logged to remove the dying, diseased, or poor vigor trees for stand maintenance. In some stands, group selection (less than .25-acre groups removed) has been used to release regeneration or enhance the growth of new regeneration.

(b) Your comments are noted. Commercial thinning has not been economically viable in the CRA, due to the

small diameter trees and distance from multiple product centers like particle board and pulp mills.

34-100: Your comments are noted. This decision has been revised in the PRMP to clarify the BLM's proposed management of commercial timber harvest activities in riparian habitats (see Forest Resources, Goal 1, #15). The BLM prefers to retain the flexibility to manage forest stands within riparian areas in order to promote and sustain long term watershed health.

34-101: Your preference for Alternative 4 and your other comments are noted. The Donkey Hills ACEC is proposed to maintain elk winter range and calving habitat. Harvesting as proposed in the PRMP would not change human access to the area or significantly alter current elk hiding and/or thermal cover in the Donkey Hills. Forage may increase as a result of timber harvest. As a result, the values for which the Donkey Hills ACEC has been proposed would not be compromised through timber harvest, and timber harvest could continue without adverse effects on elk.

34-102: When buffer strips can be removed would be determined in the future by BLM staff specialists in consultation with IDFG and appropriate Federally recognized tribes. Only 2 to 3 percent of commercial timber in the Donkey Hills is in lodgepole pine dominated stands. As a result, widespread clearcuts could not occur within the Donkey Hills under the PRMP (see ACECs, Donkey Hills ACEC, #3(c)). Buffer strips would then primarily exist only around group selection and shelterwood cuts in Douglas-fir stands, where there would be large amounts of post-harvest timber. The comparison with the Moose Creek plateau of the Targhee National Forest is inconsistent with management techniques that would be employed under the PRMP.

34-103: Your preference for Alternative 4 is noted.

34-104: Your opinion is noted.

34-105: The PRMP has been revised to read "ecosystem products and values."

34-106: (a) This management decision is not included in the PRMP. (b) The PRMP does not specify a timeframe for accomplishing this action.

34-107: Your support of Biodiversity, Goal 1, #7-10, Alternative 2 is noted. The Challis Resource Area will seek partnerships and other opportunities to implement these decisions. The schedule for implementing these actions will be established in the Implementation Plan for the approved RMP.

34-108: Your opinion is noted. Please be aware that the potential for oil and gas leasing in the Challis Resource Area is low (see PRMP, Map 31). Existing WSAs are closed to energy mineral development. In WSAs if released from wilderness review, stipulations would be applied to protect resource values. (See PRMP, Minerals, Goal 1, #4.) Resource values in designated ACECs would be protected by standard stipulations, which can include "no surface occupancy" (see PRMP, Minerals, Goal 1, #5). The BLM believes the PRMP's provisions for stipulations to protect resource values are sufficient; no withdrawal is necessary.

34-109: Your preference for Alternative 4 is noted. Mineral material sales are discretionary actions and can be refused for any particular site.

34-110: Your opinion is noted.

34-111: Your preference of Alternative 4 is noted. Please see response 31-23.

34-112: In general, the PRMP limits OHV use to existing roads, vehicle ways, and trails throughout the Resource Area (see PRMP, Off-highway Vehicle Use). The PRMP's proposed changes in OHV management are in response to public concern over the impacts of OHVs (including noise pollution) on other resources, activities and uses. OHV use is restricted in some areas (e.g., WSAs) where motorized vehicle travel would affect primitive resource values such as solitude and quiet.

34-113: Your support for Alternative 4 is noted. No areas within the Challis Resource Area would be "open" to OHV use (cross-country travel) under the PRMP (see PRMP, OHV Use, Goal 1).

34-114: Once the RMP is signed, an OHV implementation plan would be developed to manage OHV use. Maps and narratives describing permissible OHV activities would be developed and made available to the public. Signs indicating permissible uses would also be placed along vehicle travel routes. If necessary, appropriate action would be taken to enforce these decisions.

34-115: Your opinion is noted. Please see response 34-112.

34-116: Management of cultural resources in the Challis Resource Area will be in conformance with the approved RMP, as required by Sec. 302(a) of FLPMA. Cultural resource management will also be consistent with other relevant law, regulation, and policy (such as the ARPA, American Antiquities Act, and National Historic Preservation Act). The cultural resources decisions in the PRMP will be implemented according to the Implementation Plan for the approved RMP.

Letter No. 35

Kathe Rhodes, Resource Management Plan Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, box 610
Salmon, Idaho 83467

COMMENTS ON: Challis Resource Area Draft Resource Management Plan & Environmental Impact Statement

Dear Kathe,

We feel that there are numerous points of potential debate spread throughout the document. The general under tone of the entire document is biased against cattle grazing. The lack of current inventory and monitoring information on which this document is
1 based is incredible. Your data is too old to be used to prepare a document that is going to have such an influence on so many peoples lives, at least 1977 or 1979. We believe it is extremely difficult to decide where you are going without having any idea of where you are currently. How can you determine the successes or failures of past management without knowing the condition and trend of these resources in relation to those management alternatives used in the past?

2 If range conditions are as deteriorating as the Draft RMP implies, why do we see record numbers of elk and antelope, wild horse herds continuing to increase, recreational use of the public lands increasing and livestock numbers maintaining to declining slightly over the past 20 years? With all of these demands on the resource that is declining in condition, one would expect that range conditions would continue to suffer, which would in turn cause the wildlife, wild horses and others dependent upon the habitat, to eventually decline.

3 We do not agree with alternatives 2,3,4,or 5 on increasing the ACEC'S such as Herd Creek ACEC and Road Creek ACEC. We currently have a number of these ACEC sites in the Challis Resource Area.

4 We do not agree with the grazing restrictions that are on maps 22 and 23.

5 We do not agree that the existing management has all negative effects from livestock grazing. Herd Creek has improved and we have photos from the same photo points since 1974 that show this to be true fact. Most of the stream damage that has occurred along the Lake Creek is due to the wash out of the Herd Lake in the early summer of 1982. We see no mention of this occurrence in the document.

6 On page 205a and 205b we prefer alternative one because it has no AUMs cut whereas alternative 2 has 25% cut, alternative 3 has about
7 a 25% cut, alternative 4 has a 59% cut and alternative 5 has a 57% cut. How can you say that alternative 1 would cause the range conditions to remain static or deteriorate if you have no data to

Letter No. 35 *continued*

7 show what has happened the last 20 years.

8 The general thrust of this section appears to be preparation of the local economy for the shift to more service oriented functions associated with tourism and retirees. This should be done with open eyes and the realization that shifts from basic industries such as agriculture, timber and mining to services will result in significant changes in the local economy. From your economic models, what can you say about the numbers of retirees or river rafters or some other service-oriented sector employees that would be need to replace the lost income and employment from reducing grazing by 25 percent in the resource area?

9 Management Concern: Minimum Streamflow Alt 2 The water belongs to the State of Idaho. BLM does not control the amount of water private landowners divert and so this should be removed from the RMP. BLM has no right interfering with private water rights. It is stated that BLM is working with IDFG. BLM is busy enough without worrying about minimum streamflow and diversions. The landowners of East Fork are working with the Model Water shed on a Habitat project. BLM does have a person on the advisory board and so will have representation without spending more time and money setting up a team to deal with something that is already being handled by the Idaho Department of Water Resource, IDFG, landowners, and Model Watershed.

10 Volume 3 pages 524 and 525 Appendix C: Summary of Fisheries Habitat condition in Drainage of the Challis RA East Fork Salmon River Drainage--BLM has stated that habitat has significantly degraded over the past 30 year, bank stability is rated fair to poor on most private ground, and the private sections have unstable banks and channels as a result of poor grazing management in the riparian zones. This is untrue. In the model Watershed Plan prepared by: Idaho Soil Conservation Commission in cooperation with: Bonneville Power Administration, BLM, IDFG, NRCS, Northwest Power Planning Council, Shoshone-Bannock Tribe, and USFS it states under Chapter 6-2: East Fork of the Salmon River Watershed: Fish Habitat Conditions: "Overall, the quality and quantity of salmon habitat in the East Fork watershed is good and conditions have changed very little in the past 50 years. The major problem is simply a lack of returning adult fish."

We reserve the right to amend our above comments and protest.

BLM Response to Letter No. 35

35-1: Please see response 20-1.

35-2: Please see response 20-9.

35-3: Your preference for Alternative 1 (no additional ACEC designations) is noted.

35-4: Your preference is noted. These alternatives were not adopted in the PRMP.

35-5: (a) The Draft RMP/EIS acknowledges the economic benefits of livestock grazing.

(b) Resource conditions along Herd Creek have improved under grazing management applied since 1993, as evidenced by the results of the recent 1995 upland range inventory of the Herd Creek and Warm Springs allotments. Analysis of these data shows a generally favorable trend on the upland portions of those allotments. This favorable trend is believed to be the result of implementing intensive grazing systems and constructing new range improvement projects. Riparian habitat improvement has been measured on numerous streams within the East Fork Salmon River drainage since initial baseline data were established in 1993. Within the Herd Creek Allotment, noticeable improvement has been documented in Herd Creek and Lake Creek.

(c) The BLM acknowledges that damage caused by natural catastrophic events can have adverse effects on stream channels. However, certain areas in the Herd Creek Allotment, including the Lake Creek drainage above the lake, have sustained past levels of livestock use that have adversely affected riparian and aquatic habitats. Damage would likely have been less, and recovery rates after natural occurrences more rapid, with lower levels of livestock use. There is no mention of the 1982 natural event in the Draft RMP because this level of detail was not essential to the development of an adequate plan and NEPA analysis.

35-6: Your preference for Alternative 1 is noted.

35-7: The effectiveness of past rangeland management actions was evaluated in 1992 through an analysis of 120 upland trend studies, which included nested frequency data and permanent photo plots. This analysis indicated that management applied up until 1992 had produced only very limited changes in resource conditions (see PRMP, Chapter 3 - Livestock Grazing, "Rangeland Monitoring and Evaluation").

35-8: Please see response 20-12.

35-9: Your comments are noted. Please see response 16-7.

BLM Response to Letter No. 35 *continued*

35-10: Please see response 25-11.

Letter No. 36

Kathe Rhodes-RMP Coordinator
BLM/Salmon Field Office
Rt 2 Box 610
Salmon, Idaho 83467

Re: DRAFT RMP/EIS 1610/1793 (045)

Dear Ms. Rhodes:

As a livestock permittee of the Challis Resources Area, I would like to have the following written comments included as part of the record, and complete consideration given to my comments concerning the Challis Draft RMP/EIS, dated May 1996.

1 I realize that accompanying changes in political administrations, new public policies are adopted to express the desired goals of that particular administration. It is obvious to me that the Fundamental Rangeland Health and Standards Guidelines For Grazing Administration (subpart 4180, August, 1995), as adopted by the current administration, were designed to achieve specific administration goals, and those goals are not favorable to the continued existence of grazing the public lands. As government employees, you are compelled to administer accordingly, or suffer the consequences of being removed in favor of someone who will follow those directives. My greatest objection to this procedure is the total disregard given to the previous goals and standards that were implemented to attain a similar result...improved rangeland health.

Each time new rangeland health objectives are being adopted, the message being given to society is that the old standards were a failure. Because both you and I (you as agency personnel calling the shots, and I as a permittee complying to your decisions) are looked on as the prime culprits of NOT meeting the new goals, it only follows that society will view us as failures as well. Maybe you are content with that, but I am not. I also do not believe the old standards were failures, and one look at comparison photographs of the rangeland conditions will prove my point.

As you well know, I have cooperated with your agency to the fullest extent possible in trying to attain the desired goals. This I have done even at times when we didn't agree on the specified action. But, then again, I really do not have any choice given that you are the agency who decides the goals and directs the actions. I am the permittee who must adhere to your policies or be removed from using the range. This process has been repeated a number of times. Now, you are giving me a new set of goals and directives to comply with which says that the old ones were a failure. I object to your reasoning, your actions, and your ID Team's conclusions.

2 The three Management Framework Plans currently being used to determine stocking rates etc. have been effective in accomplishing the desired results...improved rangeland health. These current goals have been modified and revised a number of times in order to comply

BLM Response to Letter No. 36

36-1: Your comments are noted.

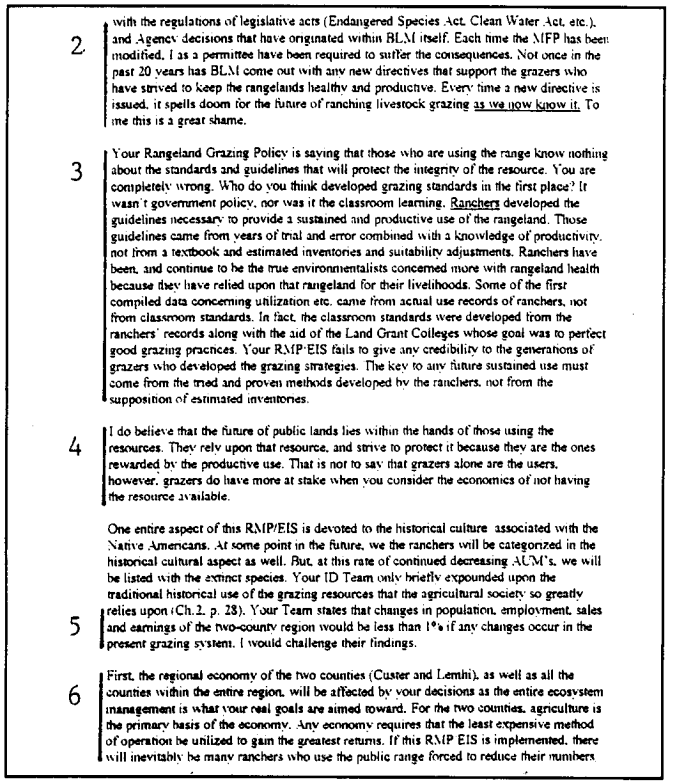
36-2: Although the management provisions of the existing Management Framework Plans (MFPs) have contributed some to the improvement of range conditions, existing management has not been successful at improving range conditions throughout the Resource Area. Implementation of the Proposed RMP and the Standards and Guidelines for livestock grazing administration (43 CFR 4180) would enhance efforts to improve rangeland health.

36-3: Your comments are noted.

36-4: Your opinions are noted.

36-5: The economic model the BLM used was specific for the region and based on information collected through the University of Idaho and the Cooperative Extension System of Custer and Lemhi counties. Based on expected changes to grazing management from Alternative 1 (existing management) to Alternative 2, the economic model indicates less than 1% decrease in population, employment, earnings, and sales would occur in the two-county region. These changes are not as large s you might have expected, because the two-county economy is diverse - grazing is just one of many economic activities which occurs in the two-county region. For the Pahsimeroi subregion, where the economy is predominantly agricultural, the impacts

Letter No. 36 *continued*



with the regulations of legislative acts (Endangered Species Act, Clean Water Act, etc.), and Agency decisions that have originated within BLM itself. Each time the MFP has been modified, I as a permittee have been required to suffer the consequences. Not once in the past 20 years has BLM come out with any new directives that support the grazers who have strived to keep the rangelands healthy and productive. Every time a new directive is issued, it spells doom for the future of ranching livestock grazing as we now know it. To me this is a great shame.

2

Your Rangeland Grazing Policy is saying that those who are using the range know nothing about the standards and guidelines that will protect the integrity of the resource. You are completely wrong. Who do you think developed grazing standards in the first place? It wasn't government policy, nor was it the classroom learning. Ranchers developed the guidelines necessary to provide a sustained and productive use of the rangeland. Those guidelines came from years of trial and error combined with a knowledge of productivity, not from a textbook and estimated inventories and suitability adjustments. Ranchers have been, and continue to be the true environmentalists concerned more with rangeland health because they have relied upon that rangeland for their livelihoods. Some of the first compiled data concerning utilization etc. came from actual use records of ranchers, not from classroom standards. In fact, the classroom standards were developed from the ranchers' records along with the aid of the Land Grant Colleges whose goal was to perfect good grazing practices. Your RMP/EIS fails to give any credibility to the generations of grazers who developed the grazing strategies. The key to any future sustained use must come from the tried and proven methods developed by the ranchers, not from the supposition of estimated inventories.

3

I do believe that the future of public lands lies within the hands of those using the resources. They rely upon that resource, and strive to protect it because they are the ones rewarded by the productive use. That is not to say that grazers alone are the users, however, grazers do have more at stake when you consider the economics of not having the resource available.

4

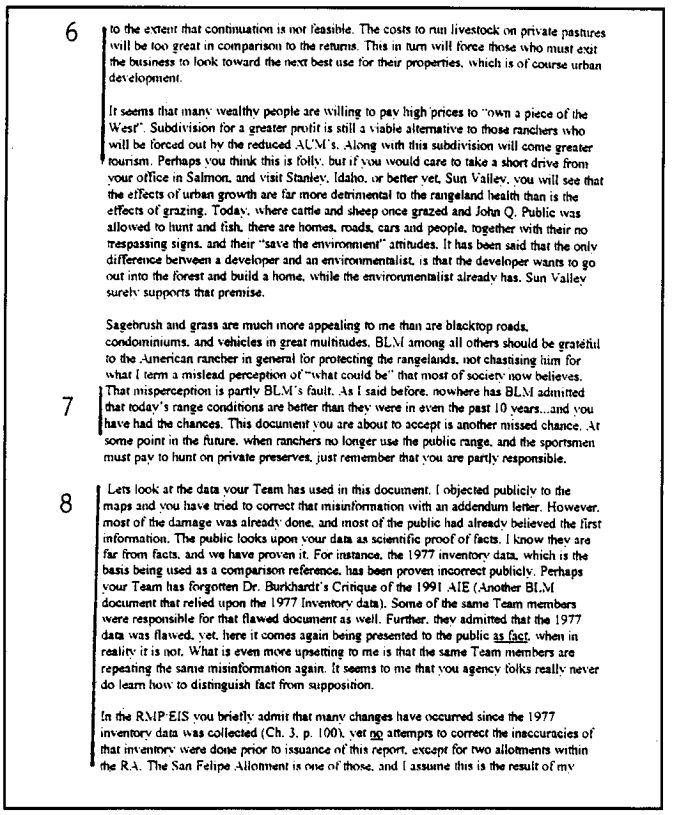
One entire aspect of this RMP/EIS is devoted to the historical culture associated with the Native Americans. At some point in the future, we the ranchers will be categorized in the historical cultural aspect as well. But, at this rate of continued decreasing AUM's, we will be listed with the extinct species. Your ID Team only briefly expounded upon the traditional historical use of the grazing resources that the agricultural society so greatly relies upon (Ch.2, p. 28). Your Team states that changes in population, employment, sales and earnings of the two-county region would be less than 1% if any changes occur in the present grazing system. I would challenge their findings.

5

First, the regional economy of the two counties (Custer and Lemhi), as well as all the counties within the entire region, will be affected by your decisions as the entire ecosystem management is what your real goals are aimed toward. For the two counties, agriculture is the primary basis of the economy. Any economy requires that the least expensive method of operation be utilized to gain the greatest returns. If this RMP EIS is implemented, there will inevitably be many ranchers who use the public range forced to reduce their numbers

6

Letter No. 36 *continued*



to the extent that continuation is not feasible. The costs to run livestock on private pastures will be too great in comparison to the returns. This in turn will force those who must exit the business to look toward the next best use for their properties, which is of course urban development.

6

It seems that many wealthy people are willing to pay high prices to "own a piece of the West". Subdivision for a greater profit is still a viable alternative to those ranchers who will be forced out by the reduced AUM's. Along with this subdivision will come greater tourism. Perhaps you think this is folly, but if you would care to take a short drive from your office in Salmon, and visit Stanley, Idaho, or better yet, Sun Valley, you will see that the effects of urban growth are far more detrimental to the rangeland health than is the effects of grazing. Today, where cattle and sheep once grazed and John Q. Public was allowed to hunt and fish, there are homes, roads, cars and people, together with their no trespassing signs, and their "save the environment" attitudes. It has been said that the only difference between a developer and an environmentalist, is that the developer wants to go out into the forest and build a home, while the environmentalist already has. Sun Valley surely supports that premise.

Sagebrush and grass are much more appealing to me than are blacktop roads, condominiums, and vehicles in great multitudes. BLM among all others should be grateful to the American rancher in general for protecting the rangelands, not chastising him for what I term a mislead perception of "what could be" that most of society now believes. That misperception is partly BLM's fault. As I said before, nowhere has BLM admitted that today's range conditions are better than they were in even the past 10 years...and you have had the chances. This document you are about to accept is another missed chance. At some point in the future, when ranchers no longer use the public range, and the sportsmen must pay to hunt on private preserves, just remember that you are partly responsible.

7

Lets look at the data your Team has used in this document. I objected publicly to the maps and you have tried to correct that misinformation with an addendum letter. However, most of the damage was already done, and most of the public had already believed the first information. The public looks upon your data as scientific proof of facts. I know they are far from facts, and we have proven it. For instance, the 1977 inventory data, which is the basis being used as a comparison reference, has been proven incorrect publicly. Perhaps your Team has forgotten Dr. Burkhardt's Critique of the 1991 AIE (Another BLM document that relied upon the 1977 Inventory data). Some of the same Team members were responsible for that flawed document as well. Further, they admitted that the 1977 data was flawed, yet, here it comes again being presented to the public as fact, when in reality it is not. What is even more upsetting to me is that the same Team members are repeating the same misinformation again. It seems to me that you agency folks really never do learn how to distinguish fact from supposition.

8

In the RMP/EIS you briefly admit that many changes have occurred since the 1977 inventory data was collected (Ch. 3, p. 100), yet no attempts to correct the inaccuracies of that inventory were done prior to issuance of this report, except for two allotments within the R.A. The San Felipe Allotment is one of those, and I assume this is the result of my

BLM Response to Letter No. 36 *continued*

would be greater (see DRMP pp. 205-206 and response 27-25.)

36-6: The analysis of impacts acknowledges that RMP decisions would affect the Custer-Lemhi counties' regional economy, but impacts are expected to be minor (see DRMP, p.205a/b, #1). This is because the economy of the two-county region is diverse (based upon activity in several economic sectors); agriculture is only one of many components of the two-county economy (see DRMP, Appendix B, Items 1 and 3, pp. 504 and 506). Agriculture, mining, and business associated with visitors to the area all have a sizeable proportion of employment, sales, and earnings. Local use of public lands generates only a small proportion of the area's economic activity. Impacts were not calculated for regions of Idaho outside of Custer and Lemhi counties for several reasons (see response 31-66).

The BLM believes that many operators would be able to comply with the RMP's grazing management actions without any reduction in AUMs. It is also expected that conversion of agricultural lands to urban development would not occur in most cases. Strategies such as modified season of use, increased riding, improved livestock distribution, or fencing may satisfactorily address rangeland health concerns.

36-7: The PRMP has been revised to incorporate more recent information on range condition (see Chapter 3 - Livestock Grazing, "Rangeland Inventory" and "Rangeland Monitoring and Evaluation"). Also see response 15-2.

36-8: Your comments regarding the 1977 range inventory data are noted. The 1977 data were not the primary data or the only data used to develop and analyze the impacts of the grazing management decisions in the PRMP. The BLM does not believe that the 1977 inventory data were proven incorrect or that the data must be discarded or ignored because they are disputed by an individual.

36-9: The 1977 inventory would not be used to reduce permitted livestock use on an allotment-by allotment basis. The PRMP analysis of impacts states that the management decisions outlined in the PRMP could "result in estimated annual livestock use up to about 12,657 AUMs (about 25%) below the active grazing preference..." This 25% estimate was for the Resource Area as a whole, not for individual operators or allotments. Some allotments may experience no change in annual use, while others may experience reductions greater than 25% in order to improve resource conditions, particularly on stream-side riparian areas.

36-10: The Draft RMP, Volume 1, p. 29, does not state or imply

previous objections. However, your Team continued to use the 1977 data as specific management concerns for the selection of the over-all preferred alternative. Thus, the updated inventory upon the two allotments was wasted as both they and all others may have AUM's reduced up to 25% throughout the entire RA. It appears to me that policy is dictating the goal, and that goal is to force ranchers like us out of business. I really do not understand why this is being done. Perhaps it is only POLITICS, but for whatever reasons, we are going to suffer the consequences.

This RMP/EIS addresses the fisheries issue with citing livestock grazing as the core of the problem. You should be able to prove that degradation due to livestock grazing in Road Creek, or Sheep Creek is the main reason why the Salmon are nearly extinct in the Snake River system (p.29, Vol. 1, *Alternatives*), but you simply cannot, and you know it. You should be able to prove that wild ungulates have little or no detrimental impact upon areas of concern (p. 458, Vol. 2), but then again you can not. You should be able to prove that the desired stubble height will further enhance the rangeland health. Again, you can not. It fact, you know that the stubble height will be unlikely attained in many of the areas you have designated, therefore, what you are really saying is "Do not graze". This you have done even though studies have proven that desired stubble heights may be reached by regrowth after the livestock are removed.

and I have discussed at length with your BLM ID Team the scientific aspect of the RMP/EIS within the San Felipe allotment, and I know that we can prove your Team conclusion wrong with scientific evidence. I will not address those same issues in this correspondence. This letter is coming from the heart as well as from the mind, and I believe your Agency actions may well be the un-settling of the West. I do not approve of this RMP/EIS document, nor of the flawed information within, and, I assume you knew very well that I wouldn't. I hope you are not disappointed. I am.

With Great Concern.

that "degradation due to livestock grazing in Road Creek or Sheep Creek is the main reason why the salmon are nearly extinct in the Snake River system," as you claim.

36-11: You cite a portion of Attachment 6: IDFG/BLM/USFS Elk Policy Statement and Memorandum of Understanding (DRMP, p. 458); this Policy Statement is specific to elk and uses the term "wild ungulates." The BLM's observational data on resource conditions in elk and cattle exclosures in the Challis RA and other studies strongly indicate that wild ungulates (particularly elk) have little or no detrimental impact upon most areas of concern (e.g., riparian areas), as stated in the Policy Statement. In addition to the exclosure evidence, a formal study of elk and cattle range relations was conducted in response to perceived conflicts between elk and cattle on the Lee Creek Forest Service Allotment near Leadore, Idaho (Kelly and Merrill, 1995). The study found that nearly 90% of all graminoid forage removed across the allotment was attributed to cattle, while other herbivores (including elk) removed just over 10%. Both BLM and the Region 7 Office of the IDFG believe that this study, when reviewed in light of the exclosure data and observations, is generally reflective of use by elk and other wild herbivores (except wild horses) within the Challis RA.

36-12: Stubble height standards have been applied on some portions of the Resource Area since 1993. These standards have successfully reduced the impacts of livestock grazing to riparian and wetland habitats in many watersheds; specifically, Herd Creek, Lake Creek, Road Creek, Horse Basin Creek, and Bear Creek. Marked increases in hydric vegetation community composition and woody age structure and improved aquatic habitat condition and stream channel dynamics have been realized, even while significant levels of livestock grazing have been allowed.

36-13: The BLM disagrees with your assertion that areas are incapable of attaining the desired stubble heights. Data provided from protective cages distributed throughout the Resource Area, even on the harshest sites, indicate good growth potential, well beyond the indicated stubble standard. The BLM agrees there are some areas within the Resource Area that, due to reduced vigor, are not producing at their maximum potential. These areas are the exception and, it seems reasonable, should receive less grazing pressure.

36-14: The BLM agrees that regrowth is likely on many riparian systems, which is why stubble height standards are modified for early season grazing (see Riparian Areas, Goal 1, #5c). The extent of regrowth is diminished as the season progresses and on less productive sites, which limits livestock grazing opportunities later in the summer

BLM Response to Letter No. 36 *continued*

or into the fall. The annual (or seasonal) monitoring process includes taking stubble height measurements prior to livestock grazing and late in the year, in order to analyze grazing by other ungulates and regrowth potentials.

36-15: Your concerns are noted.

Letter No. 37

1-5-96

Kathe Rhodes, Resource Management Plan Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

COMMENTS ON: Challis Resource Area Draft Resource Management Plan & Environmental Impact Statement

Dear Kathe,

1 Our recommendation is for Alternative 2, the Preferred Alternative with the following exceptions. Furthermore, our comments pertain to the East Fork of the Salmon River.

2 1)Issue: Range Management-Management Concern: Livestock Grazing- Alt 2 #4 = Restrictions on livestock use on the bighorn sheep winter range on the East Fork should be lifted as in Alt #3. Through our Stewardship Project on the Baker Allotments we would like to investigate time grazing on the bighorn sheep range. The vegetation on this range has become old and rank and the old wolf plants are dying. The sheep are spending less and less time on their range and more and more time in our irrigated pastures where vegetation is lush. By time grazing, the cows could graze off these old plants and allow new growth, brake up the crusted soil to allow new seedlings and the retention of more water.

3 2) Table 2-1: Issue: Range Management- Management Concern: Livestock Grazing =Alt 2 #14 We feel that if AUMs are held for watershed protection and wildlife habitat until vegetative objectives are reached, make sure the objective is obtainable and realistic so the AUMs can be reallocated. Lost AUMs is a financial loss for the rancher and BLM. We really prefer Alt 1 on this.

4 3)Table 2-1: Issue: Range Management- Management Concern: Livestock Grazing = Alt 2 #19 Livestock would be excluded from the designated recreation sites identified in *Appendix D, Item 1.* Ziegler's Hole Rec. Site and Jimmy Smith Lake Campground are both in our BLM allotments. Neither are developed campground and how can you justify developing campgrounds alongside streams that are considered by BLM as critical andronomous fish habitat? Neither campground is fenced and so keeping the cattle out of the campground is not feasible. Throughout the Draft RMP livestock are noted for negative impact. This is easy to find on almost every page having to do with livestock issues. Reading through the Draft RMP we did not note where recreation was sighted as having negative impact on the resource. Overuse by recreationalists can be just as damaging as that of cattle. The campsite at Jimmy Smith Lake is a good example of over use by recreationalists. We feel a recreationalist over use should be addressed, planned for, and monitored along with all other uses of the resource.

BLM Response to Letter No. 37

37-1: Your preference for Alternative 2, with exceptions, is noted. The BLM's responses to the exceptions you recommend are stated in responses 37-2 through 37-12 below.

37-2: Please see response 25-2.

37-3: Please see response 25-4.

37-4: Please see response 25-5.

37-5: Please see response 25-3.

37-6: Please see response 25-6.

37-7: Your preference for Alternative 1 is noted. Please see response 16-7.

37-8: Your opinions are noted.

37-9: Please see response 25-9.

37-10: Please see response 25-10.

37-11: Please see response 25-11.

37-12: Please see response 25-12.

Letter No. 37 *continued*

5 4)SRMAs-Alt 2 expands the SRMAs. BLM lands are already being managed and an expansion of management is not necessary but would only be an added expense in another group of administrators and biologists under a different title.
An increase in recreationalists on the East Fork by listing Road Creek on the "Wild Horse" Back Country Byway (as stated on page 117) would only intensify problems in an area BLM feels already has problems in resource and water quality. We feel Alt 1 is a better standard here.

6 5) On BLM maps, we want private property on the East Fork left out of BLM areas of management and study, since BLM does not have authority to manage or study private property. This would help show a truer interpretation and not a misleading portrayal of BLM management.

7 6) Management Concern: Minimum Streamflow Alt 2- The water belongs to the State of Idaho. BLM does not control the amount of water private landowners divert and so this should be removed from the RMPs. BLM has no right interferring with private water rights. It is stated that BLM is working with IDFG. BLM is busy enough without worrying about minimum streamflow and diversions. The landowners of East Fork are working with the Model Watershed on a habitat project. BLM does have a person on the advisory board and so will have representation without spending more time and money setting up a team to deal with something that is already being handled by the Idaho Department of Water Resource, IDFG, landowners, and Model Watershed. We feel the wording on Alt 1 should be used here.

8 7) Management Concern: Floodplain/Wetland Areas = Goal 2: Alt 2 #1 The use of troughs or "waterholes" ponds with seeps should be decided on a case by case bases, not a blanket one or the other. Soil conditions and spring flow rate are two conditions that help decide which water development is feasible. We do feel all spring heads should be fenced to keep livestock and wildlife out. Ponds should not be totally removed from BLM allotments because they can be beneficial to all users of the resource.

9 8) Page 546 also Page 99 *Appendix F* Range Conditions The data for range conditions was from 1977 or '79. This is not a realistic representation of the present resource condition.Many different progressive improvements have been implemented since 1979 such as: rest rotation system, numerous water developments, numerous drift fences, later turn on dates, decreased numbers, increased riding; to name a few. The records the BLM Range Con has collected from '79 to '96 should be on file and should have been used for current, accurate data of the present range condition.Once again you contradict your statements. In response to page 100, drought in the late 1980's has not offset the improvements that have been made. We understood that part of BLM's management duties was to monitor the range for changing conditions. You cannot plan the future of a resource using outdated data and untrue information. How can anyone choose the best alternative for managing the resource when the data used is 20 years old?

Letter No. 37 *continued*

10 9) Page 101 - 104 on Range Monitoring and Factors affecting livestock management. You have just contradicted your previous statement. On page 103- Table 3-11 is a Summary of Existing Range Improvements. Every allotment is different and should be managed differently. It is unrealistic to use the same criteria for every allotment. You admit that the big game population has increased during the past 15 years and state that SOME persons attribute poor range condition to increased use by wildlife. This is true.You should consider that the wildlife population remains there year round. Not only do decreased grazing numbers cause a financial hardship so does the increased loss of pasture on our private property also being utilized by the big game population. You paint a bleak picture of range conditions - yet you have the authority to control this. There are several other factors contributing to this picture other than cattle grazing. It is due to increased number of recreationists, greatly increased numbers of big game herds, and weather conditions to name a few.

11 10) Vol 3 Pages 524 and 525 *Appendix C:* Summary of Fisheries Habitat Condition in Drainages of the Challis RA - East Fork Salmon River Drainage = BLM has stated that habitat has significantly degraded over the past 30 years, bank stability is rated fair to poor on most private ground, and the private sections have unstable banks and channels as a result of poor grazing management in the riparian zones. This is untrue.

In the Model Watershed Plan prepared by: Idaho Soil Conservation Commission in cooperation with: Bonneville Power Administration BLM, IDFG, NRCS, Northwest Power Planning Council, Shoshone-Bannock Tribe, and U.S. Forest Service it states under Chapter 6-2: East Fork of the Salmon River Watershed: Fish Habitat Conditions: "Overall, the quality and quantity of salmon habitat in the East Fork watershed is good and conditions have changed very little in the past 50 years. The major problem is simply a lack of returning adult fish." The landowners on the East Fork are working in cooperation with the Model Watershed on a habitat project. This involves approximately 10 miles of river corridor through private property on the East Fork.

12 SUMMATION: This report has been a frustrating draft to read. Under every alternative that supported cattle was a comment only showing negative consequences. We do not feel this was a true picture or a fair interpretation to present to the public. It set grazing up for sure failure regardless of your alternative.

We feel the management by BLM using utilization standards and stubble height further set the rancher up for failure. We do feel BLM management standards and ranching practices can not only sustain the resource but improve the resource if properly implemented.

We feel all involved parties must allow for flexibility in managing the resource to reach its full potential. There are opportunities for innovation if we work together towards the common goal of protecting and enhancing the environment.

We are currently working through the Experimental Stewardship Program to find a feasible solution that will be a win-win system for all. Through Holistic Resource Management, we will address all interested parties' concerns and goals for the resource through a thorough plan including a biological assessment, time grazing and intensive

Letter No. 37 *continued*

herding. We feel the community can benefit economically and still improve the resource for cattle, wildlife, recreation and future generations. 12

We reserve the right to amend our above comments and protest.

Sincerely,

Letter No. 38

Alliance for the Wild Rockies
P.O. Box 8731
Missoula, MT 59807
(406) 542-0050

The Ecology Center, Inc
1519 Cooper Street
Missoula, MT 59802
(406) 728-5733

JAN 9 1997
RECEIVED

Kathe Rhodes, RMP Coordinator
Bureau of Land Management
Salmon Field Office
Rt 2, Box 610
Salmon, ID 83467

January 6, 1997

re:Challis Draft Resource Management Plan (RMP)/EIS

Dear Ms. Rhodes,

The Alliance for the Wild Rockies and The Ecology Center, Inc. want to be involved in land management decisions that impact public lands. We are concerned that domestic livestock grazing has greatly degraded large areas of the west and that the status quo approach to land management is likely to continue in the future. We point to the continuing decline in native species (both terrestrial and aquatic) along with the loss of habitat because of fragmentation and extractive uses. We urge you to look into the future and to make wise resource decisions based upon the best available science, proactive monitoring, fiscally responsibility planning, and restoration activities. We support the comments submitted by Kathy Richmond and hereby incorporate them by reference. The best alternative among those examined in the RMP is alternative 4. In addition we include the following issues for your consideration: 1 2

1. Alternatives for Consideration: We are aware that the impact that grazing has had on the land in the analysis area has been severe in some areas. Recovery of these resources impacted from past activities should receive at least equal consideration in both the Scope and the Purpose and Need. Consequently, we request at least one alternative focus entirely on recovery for those areas previously impacted from grazing and logging—fish and wildlife habitat improvements, watershed rehabilitation, and erosion control. 3 4

2. Biological Diversity: We insist that it is an absolute necessity that thorough surveys for Threatened, Endangered, and Sensitive species and Management Indicator Species (MIS) be conducted before NEPA documents are finalized so that effects can be expressed in terms of populations and habitat acres, and the public can have an opportunity to comment on the adequacy of any proposed mitigation. In addition, effects must be expressed both in terms of local populations and overall populations and distribution of the species in question. 5

3. Cumulative Effects: The BLM must consider all cumulative effects when they are determining the impacts of each alternative. This must include the existing or anticipated effects of past, present, and proposed activities, including those on nearby Forest Service, BLM, state and private lands. The cumulative affects analysis should, as accurately as possible, describe how the habitat for and distribution of TES and MIS species has been changed as a result of all management activities in the area, including fire suppression, road building, timber harvesting, etc. 6

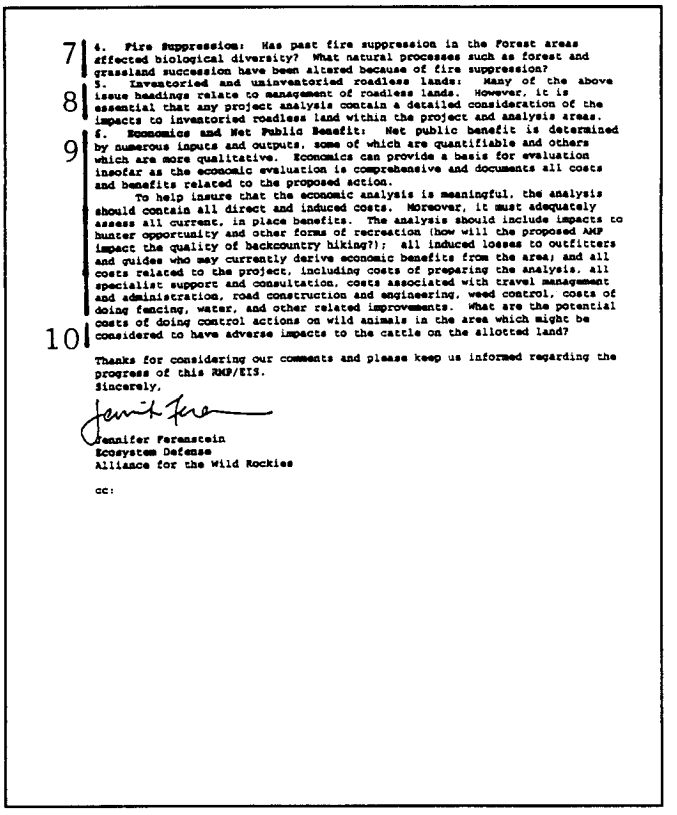
BLM Response to Letter No. 38

38-1: The Proposed RMP proposes actions to change livestock grazing management and improve range condition. The Proposed RMP also describes habitat management for native terrestrial and aquatic species (see PRMP: Biological Diversity; Fisheries; Special Status Species; and Wildlife Habitat).

38-2: Please see the responses to letter 14 (Kathy Richmond). Your preference of Alternative 4 is noted.

38-3: Concern about the impacts of actions - whether past, present, or future - is included in the Draft RMP's statement of Purpose and Need (DRMP, p. 13) which calls for a "land use plan consistent with multiple use and sustained yield objectives." The concept of sustained yield would inherently include restoring lands subjected to unacceptable resource damage, regardless of when the damage occurred.

38-4: All four "action" alternatives (Alternatives 1 through 5) developed in the Draft RMP would lead to resource recovery, although at different rates. The BLM did not believe it was necessary to develop another alternative which focuses on recovery of areas which were previously impacted by land use activities. PRMP goals and management decisions emphasize protection for and recovery of resources which have sustained resource



7 4. Fire Suppression: Has past fire suppression in the Forest areas affected biological diversity? What natural processes such as forest and grassland succession have been altered because of fire suppression?

8 5. Inventoried and uninventoried roadless lands: Many of the above issue headings relate to management of roadless lands. However, it is essential that any project analysis contain a detailed consideration of the impacts to inventoried roadless land within the project and analysis areas.

9 6. Economics and Net Public Benefit: Net public benefit is determined by numerous inputs and outputs, some of which are quantifiable and others which are more qualitative. Economics can provide a basis for evaluation insofar as the economic evaluation is comprehensive and documents all costs and benefits related to the proposed action.

To help insure that the economic analysis is meaningful, the analysis should contain all direct and induced costs. Moreover, it must adequately assess all current, in place benefits. The analysis should include impacts to hunter opportunity and other forms of recreation (how will the proposed AMP impact the quality of backcountry hiking?); all induced losses to outfitters and guides who may currently derive economic benefits from the area; and all costs related to the project, including costs of preparing the analysis, all specialist support and consultation, costs associated with travel management and administration, road construction and engineering, weed control, costs of doing fencing, water, and other related improvements. What are the potential costs of doing control actions on wild animals in the area which might be

10 considered to have adverse impacts to the cattle on the allotted land?

Thanks for considering our comments and please keep us informed regarding the progress of this RMP/EIS.
Sincerely,

Jennifer Fierenstein
Ecosystem Defense
Alliance for the Wild Rockies

cc:

degradation or are at risk of being degraded, regardless of the cause of degradation. The PRMP proposes to manage livestock grazing and timber harvest activities in a manner which minimizes adverse resource impacts (see Livestock Grazing, Goals 1 and 2; and Forest Resources, Goal 1). The PRMP also contains actions to improve fisheries and wildlife habitats, rehabilitate watersheds, and control erosion.

38-5: The Proposed RMP would require an assessment of biological diversity and special status species during project and activity planning and preparation of relevant NEPA documentation (see PRMP: Biological Diversity, Goal 1, #1; and Special Status Species, Goal 2, #1). We have noted your suggestions about how those assessments should be conducted.

38-6: The Draft RMP includes a cumulative effects analysis, by alternative, for each resource analyzed (see DRMP, Chapter 4). The BLM's definition of cumulative impacts is similar to the definition you provide (see DRMP, Glossary: "Effects (impacts)", p. 569). The Proposed RMP would require a cumulative analysis of impacts to biodiversity components (including special status species, if appropriate) as part of project and activity planning (see PRMP, Biological Diversity, Goal 1, #1).

38-7: In forested areas, fire suppression activities may have adversely affected biological diversity on some sites. Sagebrush densities on grassland habitats are believed to have increased on some sites, which can reduce forage quantity and quality. In some forested areas, fire suppression may have suppressed growth rates, reduced nutrient cycling due to an increased woody debris layer; increased the build-up of ladder fuels; promoted overstocking and poor growth; increased the risk of insect/disease epidemics due to increased competition for soil nutrients, water, and light; altered species composition of stands; and increased the risk of catastrophic fire. (See Draft RMP, pp. 72-73.)

38-8: An analysis of impacts from proposed actions is and would continue to be standard operating procedure during project and activity planning and preparation of any relevant NEPA documentation.

38-9: The methodology of the Custer-Lemhi Economic Model depicts direct, indirect, and induced effects. Aspects of the economic analysis which could not be quantified are described in qualitative terms (see DRMP, pp. 201-212). Please note that it is beyond the scope of an RMP analysis to calculate site-specific, project-level costs - a Resource Management Plan provides general management guidance and sets some priorities for project development; it does not describe or analyze all site-specific actions which may occur.

BLM Response to Letter No. 38 *continued*

The wildlife analysis of cumulative impacts (DRMP, p. 330, #44) describes expected impacts to big game population productivity and hunter opportunity. The recreation analysis describes impacts to dispersed, developed, motorized, and non-motorized recreation opportunities (see DRMP, pp. 257-266). The economic aspects of these recreation-related impacts are discussed in the DRMP on p. 208 (#5).

38-10: The PRMP proposes coordination with the Animal and Plant Health Inspection Service on matters concerning animal damage control, in accordance with the ADC annual cooperative agreement (see PRMP, Wildlife Habitat, Goal 2, #4). The PRMP does not define the number or type of ADC occurrences which would take place on public lands. Without some measure of predation, it is not possible to calculate the cost of doing control actions or the estimated loss of cattle on allotted lands.

Letter No. 40

Working for the Nature of Tomorrow.

NATIONAL WILDLIFE FEDERATION

Rocky Mountain Natural Resource Center
2260 Baseline Rd., Suite 100, Boulder CO 80302

303/786-8001
FAX 303/786-8054

January 6, 1997

Kathe Rhodes, RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

JAN 10 1997

Re: Comments on livestock grazing aspects of the Challis Resource Area Draft Resource Management Plan and Environmental Impact Statement.

Dear Folks:

The National Wildlife Federation offers the following comments on the Challis Resource Area Draft Resource Management Plan and Environmental Impact Statement ("DRMP"). Our comments pertain only to livestock grazing and the resources affected by such grazing.

I. MORE SPECIFIC AND COMPREHENSIVE MEASURES MUST BE INCLUDED TO ENSURE GOALS FOR RIPARIAN AND FISHERIES RECOVERY ARE MET.

1 We are concerned the DRMP contains too much wishful thinking and insufficient concrete measures to ensure specific goals will be attained. As the BLM has recognized, the Challis Resource Area has a poor track record of meeting objectives in its land use plans.[1] Rather than repeat history, this Plan should be outfitted so future managers have a clear mandate — and methods — to take action to achieve the Plan's goals.

For example, Goal 1, for *Management Concern: Livestock Grazing* (DRMP at 350a), commits to a lofty undertaking to "[b]ring 75% of riparian/wetland areas into proper functioning condition ... within 5 years." We fully support such a goal, and believe it is required by BLM's range management regulations which provide that lands be managed to achieve fundamentals of rangeland health.[2]

[1] "These data seem to indicate that current management has not met existing land use plan objectives to improve range condition in the Resource Area. Three reasons may account for the lack of improvement: (a) grazing systems may not have been fully implemented as planned; (b) overstocking; and (c) seasons of use that are incompatible with improving the vigor of desired species." DRMP at 101.

[2] 43 C.F.R. § 4180.1 requires:

(continued

BLM Response to Letter No. 40

40-1: The PRMP provides future managers with specific goals and specific methods for achieving those goals. The BLM believes the grazing management proposed in the PRMP will be effective at addressing resource concerns, because similar livestock grazing management has been implemented on portions of the Challis Resource Area since 1993, with noticeable improvement in resource conditions (see response 15-5). Whether the BLM can fully meet the goals described in the Challis RMP will depend on future budgets, funding levels, staffing, etc. If RMP decisions are found to be ineffective in achieving the stated goals, the RMP can be modified in accordance with 43 CFR 1610.5-4 through 1610.5-6.

40-2: The Draft RMP decisions you are concerned about (DRMP, p. 373, #5 and p. 374, #7) have been revised in the PRMP (see Livestock Grazing, Goal 1, #5 and 7). Actions to address permittee non-compliance are specified at the activity plan level (e.g., Allotment Management Plans). The RMP's wording is general on purpose, to give future land managers the flexibility to choose the best possible options for livestock management in a given allotment, under given circumstances. The Challis Resource Area's treatment of this issue is consistent with the new grazing regulations (see 43 CFR 4110.3-3, 4130.3-3 and subpart 4180, August 21, 1995). The regulations indicate the BLM must take action, but no specific course of action is

Letter No. 40 *continued*

Page 2

1 However, although the Plan contains specific actions to be undertaken to achieve the goal, there is little guidance on what is to be done if those actions are unsuccessful. This is especially troubling given the current estimate for the amount of riparian acreage in proper functioning condition is only 21.4%. DRMP at 150. Because of the importance of improving riparian condition and the sorry state of the current riparian areas, it is disconcerting that the Plan has few mechanisms to ensure its goal will be met.

We have no quarrel with the specific actions intended to improve riparian areas and eventually meet the goal. In particular we support Alternative 2, *Management Concern: Livestock Grazing*, #7 (DRMP at 352a) which incorporates the more specific criteria found under *Management Concern: Riparian Areas*, Goal 1, ## 4, 5, and 6. DRMP at 372a, 373a & 374a.[3]

---

[3](...continued)
The authorized officer shall take appropriate action under subparts 4110, 4120, 4130, and 4160 of this part as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management needs to be modified to ensure that the following conditions exist.

(a) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.

(b) Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.

(c) Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives such as meeting wildlife needs.

(d) Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Category 1 and 2 Federal candidate and other special status species.

[3] These criteria call for 4" end of season stubble heights where streams are in (continued...)

Letter No. 40 *continued*

Page 3

2 However, these well-intentioned specific criteria are not adequately backed up by a response *if* the permittee does not comply, or *if* application of these criteria is not achieving enough improvement to accomplish the goal ("75% of riparian/wetland areas into proper functioning condition ... within 5 years.") The DRMP's mechanisms to "ratchet-up" the protection if the stubble criteria are not achieving the goal are too discretionary. They only provide:

> "Where monitoring indicates that stubble height criteria have not been successful at improving riparian condition, complete rest from livestock grazing may be initiated." DRMP 373a, #5, alternative 2. Emphasis added.
>
> "Adjustments in livestock use in riparian areas should be based on the criteria outline above in Alternative 2 ... If riparian improvement to meet objectives is not occurring within three years, based on trend monitoring, additional measures would be implemented prior to the next grazing season (*e.g.* rest, reduced livestock numbers, changed season of use)." DRMP at 374a, #7.

We respectfully submit that the two "remedies" set out above are not specific enough to withstand pressures from the livestock permittees to continue excessive livestock use. The DRMP's possible responses to indications that its riparian goal will not be timely met ("complete rest .... may be initiated"; "additional measures would be initiated") are too vague.

3 Moreover, BLM's responses can only be initiated by monitoring which determines that the riparian improvement is not being met. Yet there is no guarantee that BLM will have the staff or budget to carry out such monitoring. Isn't it likely that in many instances monitoring will not be done, and as a result BLM will not know whether there is riparian improvement or whether more protective grazing prescriptions need to be implemented if there is to be any hope of achieving the Goal? Our impression is that the past history of monitoring within the Challis Resource area suggests it will be difficult, if not impossible, for BLM to undertake enough monitoring to know if its goals are being met, or even if its stubble criteria are being complied with. Some mechanism to account for this must be included in the Plan, or BLM risks merely another paper exercise.

4 As to the lack of specific remedies should monitoring disclose the riparian goal is not being timely met, we suggest a more certain and specific approach: upon

---

[3](...continued)
proper functioning condition, and 6" end of season stubbles where streams are functional-at-risk or non-functional. BLM may allow utilization below the stubble minimum in pastures used before July 10th. In other pastures, livestock will be removed "prior to exceeding the applied stubble height criteria." DRMP at 373a, #5(c) (emphasis added).

BLM Response to Letter No. 40 *continued*

dictated.

40-3: Monitoring can be detailed quantitative data or simply photos or field observations (see 43 CFR 4110.3-2). Some decisions in the PRMP are "triggers" that allow the BLM to take action without an end-of-year analysis of monitoring (e.g., Livestock Grazing, Goal 1, #7 and Riparian Areas, Goal 1, #5 and 6). All but four allotments currently have monitoring in place. The BLM prioritizes field activities in critical areas, since it is not possible to actively monitor every area of every allotment every year.

40-4: Your suggested remedies if riparian goals (or annual standards) are not being met have been noted. The PRMP provides general management direction for circumstances when goals are not being achieved (for example, see Riparian Areas, Goal 1, #7). However, specific management strategies and remedies for grazing management to meet riparian habitat goals, objectives or standards in a pasture or allotment are to be defined through the interdisciplinary team process (see PRMP, Fisheries, Goal 1, #4).

40-5: Attachment 15 has been re-written in the PRMP to (a) clarify that the Attachment does not contain standards to be achieved, but rather lists the minimum aquatic and riparian habitat conditions needed to ensure good aquatic habitat for resident and anadromous fish, and (b) describe the means through which these minimum habitat conditions can be modified. Numerous management decisions were also revised in the PRMP to better clarify when progress toward these minimum habitat conditions must be ensured.

The BLM's responses to your itemized comments #1 through 4 are as follows:

(1) As stated in the PRMP, Fisheries, Goal 1, #4b, strategies to meet or exceed these minimum aquatic and riparian habitat conditions would be developed through the ID team process. These strategies may vary on a watershed or more site-specific basis, depending on site capability, resource conflicts and the like. For this reason, the PRMP does not address implementation strategies specifically. The PRMP does, however, specify in many decisions that progress toward these habitat conditions must be made (see, for example: Livestock Grazing, Goal 1, #8, 9, and 11; Minerals, Goal 1, #6, Goal 2, #6, and Goal 3 #5; Transportation, Goal 1, #9; and Wild Horses and Burros, Goal 1, #7).

(2) These habitat conditions are intended to be the desired minimum habitat conditions for the life of the Challis RMP, unless modified according to the procedure described in Attachment 15. Timelines for attaining

Letter No. 40 *continued*

4 discovery that the riparian goal was not being met (i.e. there was not enough progress in a riparian pasture as compared to an exclosure in a comparable pasture), then grazing would cease on the pasture (or riparian portions of the pasture) until it had caught up to the goal or conditions in the riparian exclosure. If the permittee exceeded the stubble criteria, the consequence would be *at least* to increase the minimum stubble standard for the next year by the amount below which the stubble minimum had been grazed in the current year.

II. SOME SPECIFIC CRITERIA INCLUDED IN THE PLAN ARE NOT INCORPORATED INTO ACTUAL MANAGEMENT.

5 There are several instances where specific criteria which would be useful in improving resources are included in the DRMP but are not incorporated into specific management actions. For example, Attachment 15: Minimum Riparian and Aquatic Habitat Standards (DRMP at 496) suggests, by its name ("Minimum ... Standards") that it would apply to the management of riparian areas in the Challis Resource Area. However, it is difficult to find how these Minimum Standards are applied to actual management.

In the first place, there is no date by which these standards are to be met. Second, these minimum standards are apparently only referred to in:

(a) *Management Concern: Fisheries*, but then only that strategies are to be developed (by when is never specified) that will meet or exceed the minimum standards in Attachment 15. DRMP at 382a-383a, #4; and

(b) *Management Concern: Livestock Grazing*, but then only to "ensure attainment of the riparian and aquatic habitat standards identified in ... Attachment 15." DRMP at 352a, #7. There is no time table or specific method for implementing these minimum standards.

We strongly support the inclusion of specific minimum standards such as are provided in Attachment 15. But such standards are of little use unless the remainder of the Plan makes clear precisely: (1) how these standards are to be implemented; (2) over what time period the standards are to be complied with; (3) what facilities for monitoring exist to ensure the standards are being met; and (4) what remedies will be used should it become evident that the standards are not being satisfied.

6 Finally, we are disappointed the specific minimum standards in Attachment 15 relating to bank shearing are waived for streams which do not already "achieve greater than 90% total streambank stability." DRMP at 373a-374a, #6. For all those streams — which arguably are the ones with the greatest incentive to be healed according to Attachment 15's minimum standards — up to a third of the bank can be sheared by livestock if there are special status fish species and up to one-half the banks can be sheared if no such fish (or their critical habitat) are present. And in

Letter No. 40 *continued*

6 Horse Basin, up to one-half can be sheared by livestock and horses, at least until some future analysis is completed.

This latitude in bank shearing not only fails to apply Attachment 15's minimum standards, but appears to mock them.

III. THE PREFERRED ALTERNATIVE DEVOTES TOO MUCH LAND TO LIVESTOCK GRAZING, TO THE DETRIMENT OF OTHER RESOURCES THE BLM IS OBLIGATED TO PROTECT.

7 Under the Federal Land Policy Management Act, BLM is obligated to manage public lands for multiple uses. Given this mandate, BLM should chose an alternative that moves away from the fact that "[a]bout 96% ... of BLM administered lands in the RA are currently allocated for livestock grazing." DRMP at 7. Even if livestock grazing were not causing resource damage, it would be appropriate to have more areas devoted to uses that do not easily co-exist with livestock, such as pristine recreation in riparian areas, and better wildlife habitat to benefit consumptive and non-consumptive users of wildlife.

8 To accommodate BLM's multiple use management obligation, we make two recommendations. The first is to adopt alternative 4 as the preferred alternative, because it provides more balanced allocation among uses instead of the traditional dominant use by livestock. The benefits of a more equitable distribution among users are evident throughout the DRMP, and are well illustrated by the Summary of Effects of Alternative 4, DRMP at 319b, #4:

> [S]ignificant habitat improvement would occur under this alternative as a result of allocating 24% of the available forage resource to big game for use as food and cover. There would be low potential for adverse effects on big game habitat or populations as a result of conflicts between resource uses, because conflicts would always be resolved to maintain big game numbers.

9 Second, BLM should undertake a suitability analysis to consider whether, and which lands are appropriate for livestock grazing. Such an analysis is also necessary for BLM to fulfill its obligation to manage the public lands for multiple uses. The analysis should not merely consider the physical capability of lands to support livestock or other uses, but also evaluate whether those uses conflict and whether it is appropriate to manage more land for non-livestock pursuits.

IV. THE PLAN SHOULD BE ORGANIZED AND CLARIFIED SO PERFORMANCE CRITERIA ARE MORE EASILY IDENTIFIED.

Many of the goals, time-frames in which to achieve them, specific criteria to meet management concerns, and the possible remedies if the goals and time-frames

BLM Response to Letter No. 40 *continued*

these habitat conditions were purposely omitted from the PRMP. Timelines and site-specific strategies for meeting the habitat conditions will be identified when objectives are developed through the ID team process (see PRMP, Fisheries, Goal 1, #4b). PRMP decisions which refer to Attachment 15 either state that progress toward these habitat conditions must be ensured (i.e., the resource condition trend should be upward) or that the proposed activity cannot hinder progress toward these conditions (i.e., no resource degradation can occur).

(3) The BLM has established procedures for aquatic habitat monitoring which follow the Region 1/Region 4 Fish Habitat Standard Inventory Procedures (Overton, et. al. 1997). This monitoring is not an annual exercise, but is rather designed for a 3 to 5 year cycle to determine if management actions are effective in reaching the established site-specific aquatic habitat objectives.

(4) Response #40-2 above describes remedies if annual (or seasonal) grazing standards are not being met for grazing actions. If aquatic and riparian habitat monitoring reveal that grazing management actions are not ensuring progress toward riparian and aquatic habitat conditions, grazing management will be modified.

40-6: Management Concern: Riparian Areas, Goal 1, #6 has been re-written in the PRMP to ensure more rapid progress toward attaining proper functioning riparian condition, including stable streambanks.

40-7: The BLM believes that the PRMP's allocations for livestock grazing are consistent with FLPMA's multiple use mandates. Many other multiple use allocations for the Challis Resource Area are also widespread (e.g. off-highway vehicle use on existing roads, vehicle ways or trails; dispersed and developed recreation opportunities; wildlife hunting and viewing opportunities; and areas open to mineral development).

40-8: Your preference of Alternative 4 is noted.

40-9: Although suitability analysis is an acceptable procedure, it is not specifically described in any BLM reference documents. Utilization pattern mapping is the Challis Resource Area's preferred method of identifying areas physically suitable for livestock grazing.

Livestock have been excluded from some locations in the Challis RA to address resource concerns (see PRMP, Livestock Grazing, Goal 1, #2, 17, and 18). In areas open to grazing, livestock grazing is restricted by the seasons of use and grazing systems described in activity plans such as Allotment Management Plans and Herd Management Plans, and by PRMP decisions such as Livestock Grazing, Goal 1, #7; Riparian Areas, Goal 1,

Letter No. 40 *continued*

are not met are difficult to find in the DRMP. The reader must jump from one cross-reference to another, and finally to an appendix.

10 We suggest the final RMP include a table of showing, for various resources, goals, time frames, specific prescriptions, and remedies similar to the table below:

Resource	Goal	Time frame	Prescriptions	Remedies
Riparian areas	75% in proper functioning condition	5 years	1. 6" min. end of season stubble for functional-at-risk or non-functional streams. 2. 4" min. end of season stubble for proper functioning streams.	1. If progress not equivalent to comparable exclosure, pasture rested until area catches up. 2. If min. stubble exceeded, min. for next year increased by amt. below which the min. stubble was grazed.

11 We also came across one legal error in the DRMP which may affect the ability to implement new performance standards. The DRMP is incorrect when it says that "[v]egetative inventories ... cannot be used to change livestock grazing preferences." DRMP at 100. Under the current livestock grazing regulations, there are no artificial limits on which data BLM may use to make changes in numbers of livestock.[4]

We appreciate the opportunity to comment on this draft plan, and will be eager to discuss the development of this plan with the BLM staff.

Respectfully submitted,

Thomas D. Lustig
Senior Staff Attorney

[4] 43 C.F.R. § 4110.3 provides, "The authorized officer shall periodically review the permitted use specified in a grazing permit or lease and shall make changes in the permitted use as needed to manage, maintain or improve rangeland productivity, to assist in restoring ecosystems to properly functioning condition, to conform with land use plans or activity plans, or to comply with the provisions of subpart 4180 of this part. These changes must be supported by monitoring, field observations, ecological site inventory or other data acceptable to the authorized officer." Emphasis added.

BLM Response to Letter No. 40 *continued*

#5, 6, and 7; and Wildlife Habitat, Goal 2, #6.

Performing an in-depth analysis of use conflicts in the Challis Resource Area would become a never-ending circle of frustration, because an allocation that may constitute a "use conflict" to one user may not be seen as a use conflict by another user. In the PRMP the BLM decided to accommodate multiple use throughout the Resource Area, rather than segregate single uses to separate "pieces of the pie." The PRMP contains what the BLM considers to be the best possible balance of resource and land use allocations; this conclusion is based on an assessment of resource conditions, needs, and opportunities as well as a consideration of public demands.

40-10: Your suggestion is noted. The level of detail in your suggested table is inappropriate in a RMP; however, a table such as this may have merit at the activity plan level.

40-11: This error has been corrected in the PRMP/FEIS.

Letter No. 41

IDAHO STATE HISTORICAL SOCIETY

To educate through the identification, preservation, and interpretation of Idaho's Cultural Heritage.

Steve Guerber, Interim Director — January 13, 1997 — Philip E. Batt, Governor

Kathe Rhodes
RMP Coordinator
BLM-Salmon Field Office
Route 2, Box 610
Salmon, Idaho 83467

JAN 17 1997

RE. Challis Draft Resource Management Plan/Environmental Impact Statement

Dear Ms. Rhodes:

Thank you for providing us with a copy of the Challis Draft Resource Management Plan/EIS for our review and comment. This document thoroughly addresses cultural resources and provides detailed accounts of the impacts likely to occur under each management alternative. After reviewing the consequences of each alternative, we conclude the following.

1 Although Alternative 5 seems to offer the greatest protection to the cultural resources in the Challis Resource Area, we recognize its potential for disrupting local economies. Therefore, we would support preferred Alternative 2 as the next best treatment for cultural resources. We are pleased to see the management measures that you propose under Alternative 2: development of cultural resources overview and activity plans, inventory of nonproject-related land, development of a patrol plan for deterring site vandalism, protection of grave sites, a study of rock art sites, interpretation of specific sites, and an ethnographic inventory. The ethnographic inventory should

2 be helpful in the BLM's identification of traditional uses of the resource area. It appears the lack of such information hindered the identification of the specific impacts that each alternative would have upon tribal pursuit of treaty rights (p. 277a). We are pleased to see that these proposed activities are included under the preferred alternative. Their implementation should be very valuable in managing your cultural resources in a proactive manner.

Sincerely,

Robert M. Yohe II
State Archaeologist and
State Historic Preservation Officer

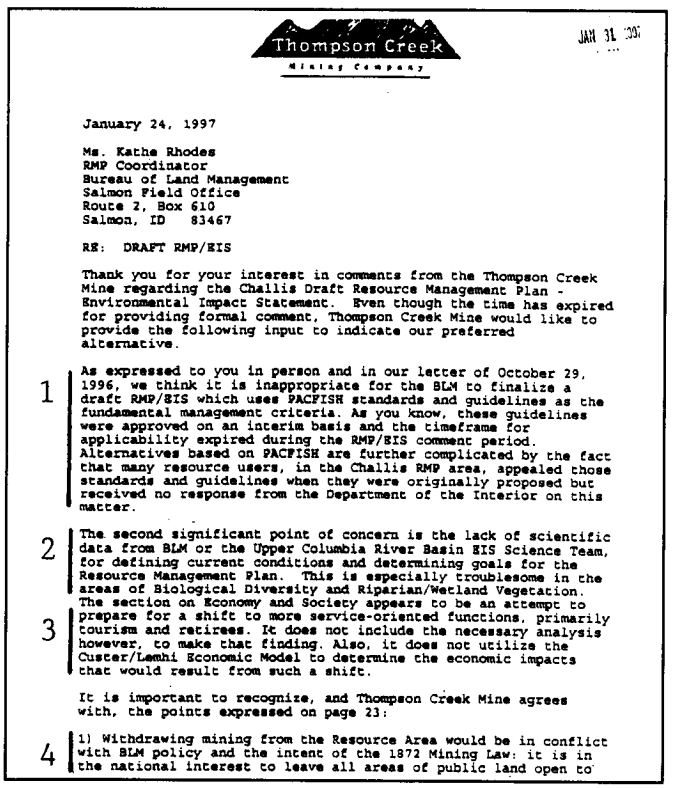
Administration 1109 Main Street, Suite 250 Boise, Idaho 83702-5642 208-334-2682 Fax: 208-334-2774
Historic Preservation 210 Main Street Boise, Idaho 83702-7264 208-334-3847, 3861 Fax: 208-334-2775
Historic Sites 2445 Old Penitentiary Road Boise, Idaho 83712-8251 208-334-2844 Fax: 208-334-3225
Historical Library and Archives 450 North Fourth Street Boise, Idaho 83702-6027 208-334-3356 Fax: 208-334-3198
Historical Museum 610 North John Davis Drive Boise, Idaho 83702-7695 208-334-2120 Fax: 208-334-4059

BLM Response to Letter No. 41

41-1: Your preference of alternatives is noted. The cultural resources management described in Alternative 2 has been carried forward to the Proposed RMP.

41-2: Thank you for your comments.

Letter No. 42



Thompson Creek
Mining Company

JAN 31 [illegible]

January 24, 1997

Ms. Kathe Rhodes
RMP Coordinator
Bureau of Land Management
Salmon Field Office
Route 2, Box 610
Salmon, ID 83467

RE: DRAFT RMP/EIS

Thank you for your interest in comments from the Thompson Creek Mine regarding the Challis Draft Resource Management Plan - Environmental Impact Statement. Even though the time has expired for providing formal comment, Thompson Creek Mine would like to provide the following input to indicate our preferred alternative.

1 As expressed to you in person and in our letter of October 29, 1996, we think it is inappropriate for the BLM to finalize a draft RMP/EIS which uses PACFISH standards and guidelines as the fundamental management criteria. As you know, these guidelines were approved on an interim basis and the timeframe for applicability expired during the RMP/EIS comment period. Alternatives based on PACFISH are further complicated by the fact that many resource users, in the Challis RMP area, appealed those standards and guidelines when they were originally proposed but received no response from the Department of the Interior on this matter.

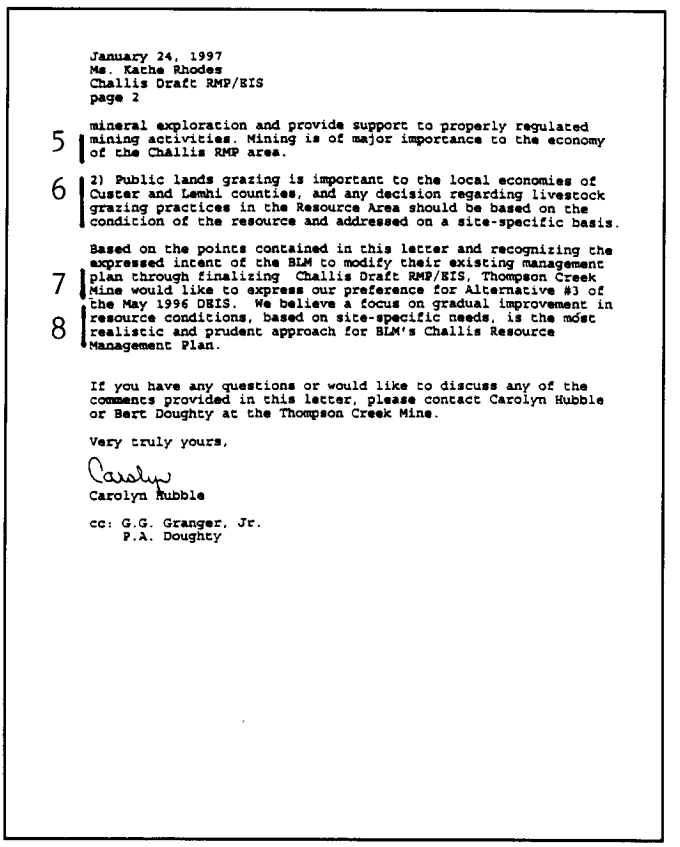
2 The second significant point of concern is the lack of scientific data from BLM or the Upper Columbia River Basin EIS Science Team, for defining current conditions and determining goals for the Resource Management Plan. This is especially troublesome in the areas of Biological Diversity and Riparian/Wetland Vegetation.

3 The section on Economy and Society appears to be an attempt to prepare for a shift to more service-oriented functions, primarily tourism and retirees. It does not include the necessary analysis however, to make that finding. Also, it does not utilize the Custer/Lemhi Economic Model to determine the economic impacts that would result from such a shift.

It is important to recognize, and Thompson Creek Mine agrees with, the points expressed on page 23:

4 1) Withdrawing mining from the Resource Area would be in conflict with BLM policy and the intent of the 1872 Mining Law; it is in the national interest to leave all areas of public land open to

Letter No. 42 *continued*



January 24, 1997
Ms. Kathe Rhodes
Challis Draft RMP/EIS
page 2

5 mineral exploration and provide support to properly regulated mining activities. Mining is of major importance to the economy of the Challis RMP area.

6 2) Public lands grazing is important to the local economies of Custer and Lemhi counties, and any decision regarding livestock grazing practices in the Resource Area should be based on the condition of the resource and addressed on a site-specific basis.

7 Based on the points contained in this letter and recognizing the expressed intent of the BLM to modify their existing management plan through finalizing Challis Draft RMP/EIS, Thompson Creek Mine would like to express our preference for Alternative #3 of the May 1996 DEIS. We believe a focus on gradual improvement in

8 resource conditions, based on site-specific needs, is the most realistic and prudent approach for BLM's Challis Resource Management Plan.

If you have any questions or would like to discuss any of the comments provided in this letter, please contact Carolyn Hubble or Bert Doughty at the Thompson Creek Mine.

Very truly yours,

Carolyn Hubble

cc: G.G. Granger, Jr.
P.A. Doughty

BLM Response to Letter No. 42

42-1: Your comments are noted. The BLM recognizes that "PACFISH" is an interim management strategy (which is still in effect as of publication of the PRMP/FEIS). The various standards and management decisions contained in the PRMP were selected because they are expected to achieve the desired resource improvement and maintenance goals for the Challis Resource Area, including goals for riparian and aquatic habitats.

42-2: The Challis Draft RMP/EIS does not include information from the Upper Columbia River Basin (UCRB) science assessment because that information was published after the Draft RMP was at the printer for publication. The PRMP/FEIS does incorporate information from the UCRB science assessment, as appropriate.

The BLM disagrees with your statement about the lack of scientific data. The Draft RMP cited over 250 references, approximately 80-85% of which were technical scientific journals. These references were used by the interdisciplinary team in the development of the RMP alternatives, description of the affected environment, and analysis of environmental consequences. The content of the Challis Draft RMP/EIS was also based on the professional judgment of resource specialists, and extensive internal BLM review. The PRMP/FEIS updates and expands scientific information about the Challis RA.

The resource goals stated in the PRMP were primarily derived from existing laws, regulations, Department directives, Bureau policy, and national initiatives. The goals for management of Riparian/Wetland Areas and Biological Diversity are consistent with current law, regulation, and policy, including the 1997 Idaho Standards for Rangeland Health.

42-3: The affected environment description of the Lemhi-Custer counties economy (see DRMP, Chapter 3, pp. 63-70) describes trends in employment and income/earnings during the past 20-25 years; increases in the service sector of the economy and in-migration of retirees are events which occurred prior to RMP development. These trends were summarized from the social, fiscal, and economic study of Lemhi and Custer counties which was completed by University of Idaho researchers under contract by the BLM, USFS, Custer County, and Lemhi County. This study was cited as the primary source of information for the Affected Environment discussion of the local economy (see DRMP, p. 63).

Expected impacts to "tourism" from RMP actions are described in the Draft RMP. The analysis of recreation impacts states that the RMP's impact on regional increases in tourism would not be significant (see DRMP, p. 257, #2). A qualitative discussion of impacts is

presented on p. 208 (#5); the economic model was not used to prepare this portion of the economic analysis, because recreation-related impacts could not be quantified.

42-4: Your comments are noted.

42-5: The importance of mining to the local economy was discussed in the DRMP (see Chapter 3 - Economy and Society and Appendix B).

42-6: Your opinions are noted.

42-7: Your preference for Alternative 3 is noted.

42-8: Your opinion is noted.

Letter No. 43

January 30, 1997

Bureau of Land Management
Gloria Romero
P.O. Box 430
Salmon, Idaho 83467-0430

FEB 4 1997

SUBJECT: PROPOSED DESERT LAND ENTRY

Dear Gloria:

This letter is in regard to our conversation in your office on January 27, 1997, concerning the Desert Land Act. We would like to propose an additional Desert Land Entry for a parcel of land that neighbors our existing property and current Desert Land Entry. 1

My wife and I have always felt we would like to acquire another piece of neighboring land through a Desert Land Entry (D.L.E.), depending upon the current D.L.E. that has applied for. However, from our conversation, it appears this avenue of acquiring land may not be available much longer. Therefore, this proposal (also see enclosed map) was sent to you for consideration by your resource managers as another D.L.E. From past experience, we are aware that it takes much time and effort to complete a Desert Land Act Application. This application can not be completed in time for your next meeting on February 6, 1997, thus this proposal. We understand that the comment period is closed for the resource plan currently being developed. But as we discussed, the Desert Land Act is still in effect.

This proposed piece of land would be very beneficial for us. It would provide more farm land which is much needed for our ranching operation. Most importantly, it would connect our existing property with the current D.L.E. that was applied for by my wife Brenda. The water application for the present D.L.E. is currently in Boise for final approval. At this time, there have been no protests or problems with the water transfer request. By connecting the current D.L.E. with this new proposed Desert Land Entry, irrigation would be feasible since one pump site could be established (see map) to irrigate both pieces. This would be cost effective for us since only one pump would be needed and the line extension for three phase power to the pump site would be minimal.

Further explanations of projected costs, revenues and feasibility will be forthcoming with the Desert Land Act Application we are currently completing. We are asking that you consider this proposal for a D.L.E., even though the Resource Plan does not acknowledge this parcel for disposal. We feel this land would be feasible since it neighbors the existing D.L.E. and could be irrigated from the same pump site.

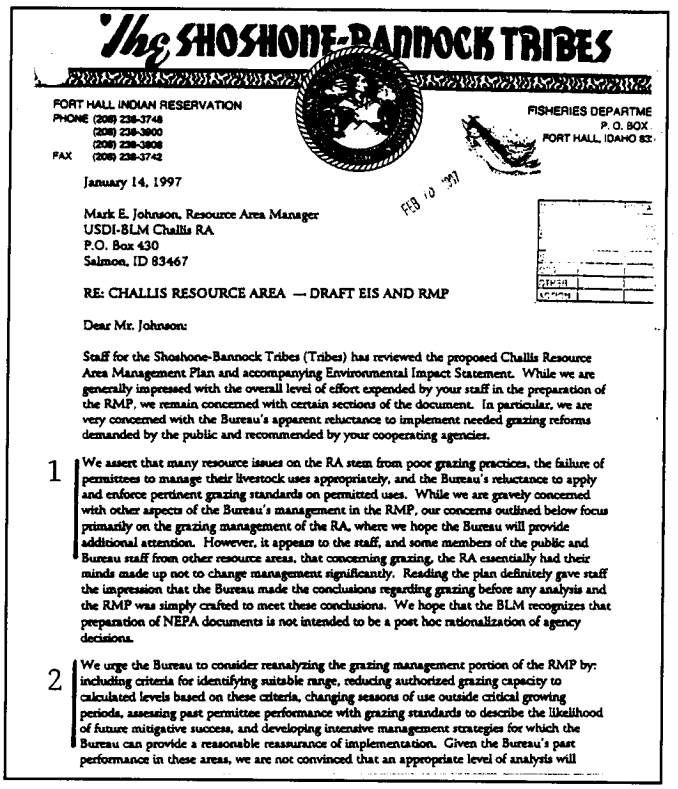
Thank you for your time reviewing this proposal. We would also like to thank you for all the attention that you have given our current project. If you have any questions, feel free to contact us at the above address and phone.

Sincerely,

BLM Response to Letter No. 43

43-1: The public lands you asked the BLM to make available for desert land entry (T14N, R19E, Section 25, S^2 S^2 NE^4 and SE^4 SE^4 NW^4, approximately 50 acres) have been added to the Proposed RMP as an adjustment area on Map A: Adjustment/Management Areas. This would make them available for consideration for disposal through exchange or desert land entry.

Letter No. 44



The SHOSHONE-BANNOCK TRIBES

FORT HALL INDIAN RESERVATION
PHONE (208) 238-3748
(208) 238-3900
(208) 238-3808
FAX (208) 238-3742

FISHERIES DEPARTME
P. O. BOX
FORT HALL, IDAHO 83

January 14, 1997

Mark E. Johnson, Resource Area Manager
USDI-BLM Challis RA
P.O. Box 430
Salmon, ID 83467

RE: CHALLIS RESOURCE AREA — DRAFT EIS AND RMP

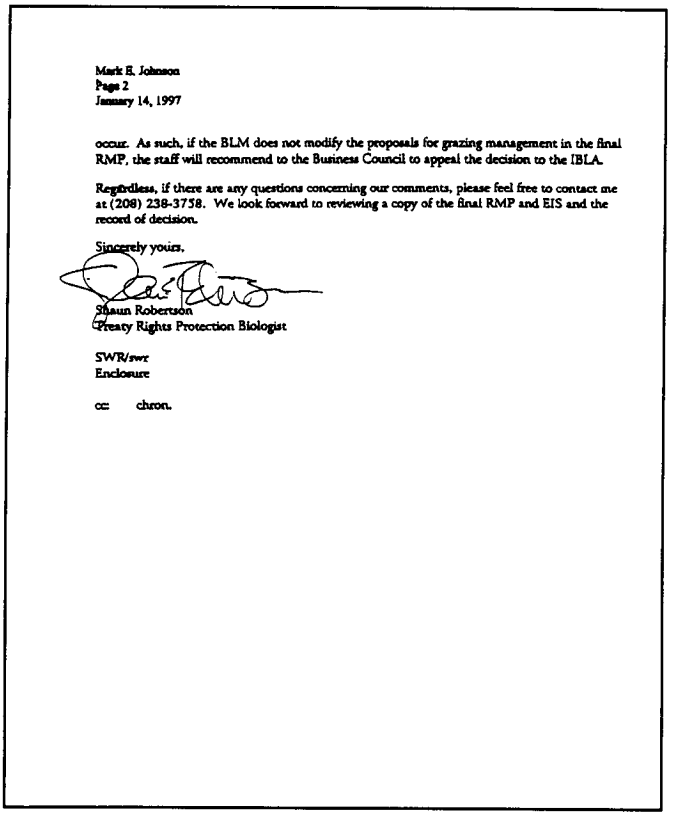
Dear Mr. Johnson:

Staff for the Shoshone-Bannock Tribes (Tribes) has reviewed the proposed Challis Resource Area Management Plan and accompanying Environmental Impact Statement. While we are generally impressed with the overall level of effort expended by your staff in the preparation of the RMP, we remain concerned with certain sections of the document. In particular, we are very concerned with the Bureau's apparent reluctance to implement needed grazing reforms demanded by the public and recommended by your cooperating agencies.

1 We assert that many resource issues on the RA stem from poor grazing practices, the failure of permittees to manage their livestock uses appropriately, and the Bureau's reluctance to apply and enforce pertinent grazing standards on permitted uses. While we are gravely concerned with other aspects of the Bureau's management in the RMP, our concerns outlined below focus primarily on the grazing management of the RA, where we hope the Bureau will provide additional attention. However, it appears to the staff, and some members of the public and Bureau staff from other resource areas, that concerning grazing, the RA essentially had their minds made up not to change management significantly. Reading the plan definitely gave staff the impression that the Bureau made the conclusions regarding grazing before any analysis and the RMP was simply crafted to meet these conclusions. We hope that the BLM recognizes that preparation of NEPA documents is not intended to be a post hoc rationalization of agency decisions.

2 We urge the Bureau to consider reanalyzing the grazing management portion of the RMP by: including criteria for identifying suitable range, reducing authorized grazing capacity to calculated levels based on these criteria, changing seasons of use outside critical growing periods, assessing past permittee performance with grazing standards to describe the likelihood of future mitigative success, and developing intensive management strategies for which the Bureau can provide a reasonable reassurance of implementation. Given the Bureau's past performance in these areas, we are not convinced that an appropriate level of analysis will

Letter No. 44 *continued*



Mark E. Johnson
Page 2
January 14, 1997

occur. As such, if the BLM does not modify the proposals for grazing management in the final RMP, the staff will recommend to the Business Council to appeal the decision to the IBLA.

Regardless, if there are any questions concerning our comments, please feel free to contact me at (208) 238-3758. We look forward to reviewing a copy of the final RMP and EIS and the record of decision.

Sincerely yours,

Shaun Robertson
Treaty Rights Protection Biologist

SWR/swr
Enclosure

cc: chron.

BLM Response to Letter No. 44

44-1: Your comments and concerns are noted.

44-2: (a) The PRMP would provide for identification of suitable range through Utilization Pattern Mapping Methodology (UPM) and Ecological Site Inventory (ESI) surveys, which are approved as part of Idaho BLM's Minimum Monitoring Standards. UPM and ESI would be used in lieu of suitability analysis to adjust livestock stocking levels to the carrying capacity of the land (see PRMP, Livestock Grazing, Goal 1, #2 and 6). The PRMP contains upland utilization and riparian stubble-height criteria (Livestock Grazing, Goal 1, #7; and Riparian Areas, Goal 1, #4, 5, and 7) which would also influence livestock distribution and use of suitable range on most allotments.

(b) The PRMP identifies forage utilization criteria that are based on season of use (Livestock Grazing, Goal 1, #7). These utilization criteria would limit livestock use during the critical growth period.

(c) The BLM believes that attempting to "describe the likelihood of future mitigative success" by "assessing past permittee performance with grazing standards" would not be a sound basis for future management decisions. Human attitudes, perceptions, and responses to land use planning and direction are subject to frequent change based on education, experience, and changing values. The BLM's approach to ensure permittee compliance with AMPs and permit terms and conditions would be in accordance with the BLM grazing regulations (see 43 CFR 4110.3-3, 4130.3-3 and Subpart 4180, August 21, 1995).

(d) The BLM believes the PRMP describes a method of developing future grazing management strategies (e.g., see Livestock Grazing, Goal 1, #4) which can be implemented and would be effective (see response 15-5). Many grazing management strategies would be implemented upon signing of the Record of Decision for the approved RMP (e.g., Livestock Grazing, Goal 1, #7 and Riparian Areas, Goal 1, #4-7.) Please also see response 44-20.

44-3: A definition of "existing roads, vehicle ways, and trails" has been added to the Glossary for the PRMP/FEIS. The Draft RMP provided definitions for the terms "road," vehicle way," and "trail." These definitions have been included in the PRMP.

For the purposes of calculating road densities, as in response 44-5 below, the Challis BLM uses all roads and vehicle ways shown on USGS 7.5 minute topographic quadrangle maps.

44-4: As requested by the Tribes during consultation meetings

Letter No. 44 *continued*

3 Donkey Hills ACEC: (pg. 21) The Donkey Hills area provides significant winter range benefits to big game and is an important area for Tribal hunting. The RMP references, but does not define "existing roads" and "vehicle ways" for the ACEC. Does the BLM consider all traveled surfaces, such as two tracks, as existing roads for purposes of calculating open road densities?

4 The RMP also recommends a seasonal (winter) closure, but does not identify the starting date for this closure. The Tribes are concerned that winter closure would unreasonably interfere with the established Tribal hunting season, which closes on December 31. The Tribes request

5 that the BLM identify the timing of the seasonal closure, the current open road density of the ACEC, which roads the proposed closure will apply to, and the potential effects to Tribal hunting if the starting date of the closure is before the ending date of the Tribal hunting season.

6 The RMP recommends continuing the current full suppression fire strategy on the ACEC. Tribal staff are concerned that this strategy may lead to additional vegetative changes on the ACEC to the detriment of wintering big game. Current literature, as the BLM has recognized in other sections of the RMP, suggests that the lack of natural fire regimes has led to dramatic, and often detrimental, changes in native vegetative communities. The Tribes request that the BLM assess whether fire suppression on the ACEC is resulting, or will result in changes in the vegetative community that may negatively affect big game winter range. Further, if the BLM anticipates detrimental impacts, the Tribes request that the BLM propose, as mitigation for the RMP, preparation of an ACEC natural and prescribed ignition fire plan that would ensure maintenance and improvement of desired plant communities.

7 The RMP states that "[c]ontinued livestock use should not conflict with the maintenance of ACEC values, since livestock use is light." We could not find a definition or description of the actual utilization level associated with "light" use. Further, the RMP did not describe any data that supported the BLM's contention that livestock use is not conflicting with the primary uses of the ACEC (big game winter range).

8 Bighorn Sheep: The RMP discusses three populations of bighorn sheep have been extirpated on the Challis RA (pg. 51) without discussing the reasons for their extinction or the potential for reestablishing herds in these areas. Metapopulations of sheep are vital to maintaining overall productivity in sheep herds throughout their distribution. Overall, the RMP appears to give a very cursory review of bighorn sheep habitats, production, impacts, and possibilities for enhancements. The Tribes request that the BLM commit, as mitigation, to an in-depth cooperative evaluation of sheep throughout the RA. The study should include an assessment of potential reintroduction sites, habitats, current conflicts, and other important factors of herd health on the RA.

9 Cultural Resources: The RMP discusses the extent of cultural resource surveys accomplished in the past (pg. 57), but fails to describe the sites in their ecological context. The Tribes contend that describing the evaluated sites in their context is important to develop accurate predictive models for the remainder of the RA. The Tribes request that the previously surveyed sites be

Letter No. 44 *continued*

9 evaluated to determine if they are representative of the RA as a whole. If it is determined that additional sites require evaluation, the Tribes request that procedures for collecting further documentation to build a predictive model be included in the RMP.

10 The BLM states that many cultural resource sites have been shown to have a downward trend in site condition (pg 59). However, the Tribes could find no proposed implementation actions identified that would be implemented to reverse this trend. Further, the RMP did not delineate the percentage of sites that have been affected by a particular activity (e.g. % of sites affected by off-road vehicles), the ecological context of the affected sites, and the extent of damage to the sites.

11 Tribal Socio-economics: (pg 63) As the BLM has identified, Tribal hunting is crucial for continuance of Tribal lifeways and maintenance of subsistence and ceremonial values. With regards to subsistence values, the Tribes wish to stress the critical nature of harvesting resources from the RA. For many members, if wild foods are not procured under treaty rights, no other methods are available to provide substitute resources. Also for the many traditional members that will not consume domestic meat due to religious reasons, no other alternatives are available.

12 Fire: (pg 72-73) The BLM recognizes the importance that natural fire has in the RA ecosystem (pg 83 fire suppression has led to overstocking in the RA). The RMP further identifies numerous problems associated with current fire suppression strategies including undesirable vegetative changes. However, the RMP fails to identify any implementation actions that would address this issue. The Tribes request that a proposal to prepare a prescribed natural fire plan be included in the RMP.

13 Resident Fisheries: (pg 75) The RMP states that some resident fish populations are decreasing or stable, but does not describe the actual status (numerical) of the stocks. The Tribes request that the BLM describe the status and trend of these stocks in terms of their productivity. In other words, are the populations stable below replacement, approaching capacity, or if below potential production, how far below potential? Further, we request that the BLM discuss the

14 actual reasons that the populations are declining and commit to measures that would ensure maintenance or improvement of the stock status.

15 Unresolved Trespass Issues: (pg 93) The RMP mentions numerous trespass situations of the RA. However, the Tribes could not find proposed mitigation measures to resolve these situations or a schedule for resolution of trespass issues.

16 Grazing: (pg 96) The Tribes gravest concerns with the proposed RMP are associated with the BLM's assessment, or lack thereof, regarding grazing on the RA. Clearly, grazing is the largest resource impact on the RA and the BLM has recognized that monitoring data "seem to indicate that current management has not met existing land use plan objectives to *improve* range

BLM Response to Letter No. 44 *continued*

with the BLM, the Draft RMP (Alternative 2) and the PRMP propose a winter limitation on the use of motorized vehicles in the Donkey Hills ACEC between 12/16 and 4/30 (see PRMP, Off-highway Vehicle Use, Goal 1, #4). This seasonal limitation on motorized vehicle use is designed to limit human disturbance on the winter range and reduce stress and associated adverse effects on big game populations.

44-5: Dates of the seasonal limitation on motorized vehicle use are 12/16-4/30. During the remainder of the year, motorized vehicle use would be limited to existing roads and vehicle ways. Current road densities are low in the Donkey Hills ACEC area (0.66 miles of roads and/or vehicle ways per square mile of area). This seasonal limitation on the use of motorized vehicles would apply to the area delineated as the Donkey Hills ACEC (see PRMP, Map 8). Potential effects on the Tribal hunting season are expected to be minimal. No conflicts between the existing winter closure (12/15-4/15) and Tribal hunting have been documented or reported to BLM during the last 10 years. The BLM believes this seasonal closure would benefit future tribal hunting opportunity by helping to ensure a viable elk population remains in the Donkey Hills area.

44-6: The decision to require full suppression of wildfires on the Donkey Hills winter range was intended to ensure that the winter forage supply (both herbaceous forage and mountain mahogany browse) is not destroyed by a catastrophic fire event. This decision would not preclude the use of prescribed fire or prescribed natural fires to improve big game habitat. Preparation of activity plans for management of ACECs (see PRMP, ACECs, Goal 1, "Management Decisions Common to All ACECs" #4) and preparation of fire management activity plans (see PRMP, Fire Management, Goal 1, #2 and 7) would provide for development of future decisions relating to the use of prescribed fire and prescribed natural fire in the ACEC.

44-7: The phrase "livestock use is light" was used in reference to the Big Butte Resource Area's portion of the proposed Donkey Hills ACEC (see Map 8). The term "light" generally means forage utilization levels of 20% or less. Livestock use within the Big Butte Resource Area portion of the ACEC is limited by distance from water sources and steepness of slopes.

44-8: The information on the three small sheep populations came from the 1979 Challis Unit Resource Analysis. The information was based on historical discussions and interviews with private individuals, National Forest employees, and IDFG personnel. The PRMP does not preclude any type of cooperative wildlife study in the Challis RA, nor would a land use plan decision be

Letter No. 44 *continued*

Mark E. Johnson
Page 5
January 14, 1997

16 condition in the Resource Area". The Tribes agree that the primary reasons for the lack of improvement include: (a) grazing systems not being fully implemented as planned, (b) overstocking, and (c) seasons of use that are incompatible with improving the vigor of desired species. Failure of the permittees to comply with AMP's and the BLM's reluctance to ensure permittee compliance with grazing permits are also reasons that the grazing systems have not been implemented. Given the BLM's conclusions, the Tribes anticipated reviewing implementation actions which addressed these issues specifically. However, the RMP fails to recommend any standards or guidelines to address these issues, but rather, attempts to resolve all grazing issues by promoting utilization standards as corrective measures.

The Tribes concur that utilization standards are important tools for achieving resource protection on the allotment. However, given the nature and extent of other grazing related issues, the failure of permittees to comply with current AMP's (which would effectuate the utilization standards), and the apparent reluctance of the BLM to enforce the standards in current AMPs/permits (the assurance of effectuation of the utilization standards) the Tribes challenge whether the BLM has appropriately addressed grazing issues in the RMP.

17 As such, the Tribes request that the BLM assess and consider the following issues: 1) changing
18 season of use on allotments so that grazing occurs outside of critical growing periods; 2) the BLM calculate actual stocking rates for each allotment on the RA using criteria to identify
19 suitable range; 3) the BLM identify past permittee compliance with AMPs and permits to assess the likelihood of implementing future mitigation; and 4) the BLM identify intensive
20 grazing management strategies which have a likelihood of success.

21 The BLM has stated that "nearly all allotments are used during the most critical growing season..." and that the season of use on nearly all allotments inhibits the vigor of desired plant species. As the BLM has recognized, use during the critical growing season inhibits plant growth and productivity, while contributing to overall resource degradation or inhibiting resource recovery. However, rather than modify the seasons of use on the RA allotments, the BLM identifies utilization standards, relying upon information in Clary and Webster, which are not shown to this issue. Clary and Webster recommend that the first decision to be made is to determine whether grazing can and should occur on each particular allotment. The BLM has not shown that any authorized grazing during critical periods, even if utilization standards are met, will not have a detrimental affect on plant vigor. The Tribes request that the BLM assess whether plant vigor will be protected during the proposed seasons of use, given that the permittees typically fail to comply with utilization standards, and whether any grazing at all should occur during these critical time periods.

22 The Tribes are not convinced that any permittees will comply with the proposed utilization standards, even if the BLM chooses to enforce the standards. BLM staff has stated that due to numerous constraints, monitoring of the allotments may be non-existent. In a meeting in Fort Hall with Tribal staff, the BLM stated that the Tribes may have to monitor grazing on the

Letter No. 44 *continued*

Mark E. Johnson
Page 6
January 14, 1997

22 allotments in order to determine whether standards have been met. As the BLM has recognized, many goals and standards in existing plans and permits have not been met due to a number of factors, including permittee noncompliance. Given the many factors leading to grazing mismanagement on the RA, the Tribes do not concur that merely proposing utilization standards will resolve even the primary grazing effects, in particular within riparian zones.

23 Tribal data supports the BLM's conclusion that "riparian zones throughout the Resource Area are well below functioning condition". Due to the topography of the RA, cattle tend to congregate in riparian zones unless intensively managed, which has not occurred on the majority of allotments. The Tribes have recommended intensive management strategies, in addition to a reduced stocking rate during an appropriate season of use, such as active riding by permittees. The BLM has failed to include any of these guidelines in the RMP and appears to be promoting revision of the individual AMPs, at some future time, for the method to implement intensive management strategies required to restore resources on the RA. However,

24 as stated above, and as the BLM has stated in numerous sections of the RMP, there is no reasonable reassurance that AMP's will be revised in a sufficiently timely manner to correct and reverse downward trends in resource condition:

> "Development and revision of AMP's to correct intensive livestock use of riparian areas is ongoing. However, due to very limited budgets in the range program, progress is very slow, and the riparian resource continues to function below its potential. In many parts of the Resource Area, the riparian resource is sustaining severe damage that will take years of intensive management to rectify."

The Tribes request that a detailed schedule for AMP revisions be included in the RMP. This schedule should also identify allotments that currently do not have an AMP and/or a NEPA compliance document. BLM should assess whether the proposed schedule is sufficiently timely in order to ensure implementation of management strategies to reverse downward trends in the allotment. If BLM reaches the conclusion, as Tribal staff has, that revision of the AMPs to include standards--that may not even be adhered to by the permittees--is insufficient to provide a reasonable assurance that the current downward trends will be reversed, then the BLM must incorporate intensive management options to be implemented concurrently with signature on the Record of Decision.

25 Tribal staff are appalled by the BLM's "analysis" of authorized grazing on the RA. Calculated grazing capacity, identified from inventory, is stated as 42,734 AUMs, but "planning" allowed for 44,825 AUMS's "after balancing the needs of all user's". It appears to us, that the BLM's definition of balance is to transfer part of the available forage base from other uses to those of domestic livestock grazers. While this approach is consistent with the Challis RA's history of promoting grazing as the primary use of the RA--to the detriment of other uses--we believe it to be inconsistent with multiple use principles of federal land management, the desires of the public for resource protection, and objectives established by the BLM for other resources in the

BLM Response to Letter No. 44 *continued*

necessary to implement or begin a cooperative study. The PRMP would manage bighorn sheep as a priority resource on several bighorn sheep habitat areas (e.g., see PRMP, Wildlife Habitat, Goal 1, #6 and Goal 2, #9f), and provides for reintroduction of bighorn sheep in unoccupied habitats (see PRMP, Wildlife Habitat, Goal 4).

44-9: The PRMP would provide the necessary steps for describing sites in their ecological context; this data could be used to produce a predictive model, if needed, in the future (see Cultural Resources, Goal 1, #1-4, 10, and 13, and Goal 3, #1 and 2.

44-10: The PRMP contains management to help reverse the downward trend in cultural resources site condition (e.g., see PRMP, Cultural Resources, Goal 1, #3, 5, 6, 8, 9, 11, 12, 13, and 14). Many of the sites recorded within the Resource Area do not have information on the type and degree of impacts, and therefore this information was not included in the discussion of the Affected Environment.

44-11: Actions in the PRMP seek to enhance the Tribes' opportunities to hunt, fish, and gather natural resources in the Challis Resource Area (see PRMP, Tribal Treaty Rights and Chapter 4 - Tribal Treaty Rights).

44-12: The PRMP proposes the preparation of fire management activity plans that would provide for the use of prescribed natural fires and prescribed burning (see PRMP, Fire Management, Goal 1, #2 and 7).

44-13: The statement on page 75 of the DRMP concerning population status and trend of resident salmonid populations is a generalization based on data obtained from the Idaho Department of Fish and Game, and other Federal, State and local agencies. Since bull trout are listed as "threatened" under the ESA and westslope cutthroat trout are a state sensitive species, it stands to reason that the populations of these two species would be either stable or in a downward trend. The BLM has collected some basic presence/absence data for most of the streams in the Resource Area (see PRMP, Appendix C, Item 1); however, population status and trends are unknown. The BLM manages fisheries habitat, so inventory and monitoring studies and other PRMP actions focus primarily on aquatic habitat, not fish populations.

44-14: A discussion of factors limiting the habitat and production of resident and anadromous fish was presented in the DRMP on pages 76-77. The PRMP contains numerous upland, riparian, and aquatic habitat management decisions which are intended to benefit fisheries resources. The impacts of these PRMP decisions on fisheries are described in the PRMP in Chapter 4 - Fisheries. Since the BLM manages fisheries

Letter No. 44 *continued*

RA. Further, given the overwhelming information presented in the RMP regarding destabilized resource condition on the RA due to grazing, the Tribes question whether this policy of authorizing grazing above the calculated capacity should continue.

26 The RMP is replete with statements that should precipitate the BLM, and probably would compel a reasonable land manager, to modify current authorized grazing on the RA:

> "stocking levels on fourteen allotments...have grazing preference more than 30% over the inventoried grazing capacity"
>
> "Utilization levels throughout the Resource Area have been above the 50% limit prescribed by the land use plan"
>
> "The livestock grazing capacity defined in the Challis Planning Unit EIS...may be above the true capacity of the range; suitability criteria were essentially eliminated from the draft proposed action because the recommended stocking level decreases were considered too great a financial hardship for the permittees";
>
> "As the draft Challis, Ellis-Pahsimeroi, and Mackay grazing EIS's were prepared, they all contained criteria for range suitability...For a variety of reasons, the suitability criteria were not used in the final Ellis-Pahsimeroi and Mackay grazing EISs. Suitability is still a valid range concept..."

In a prejudicial conclusion, the BLM states, without further comment, that "since the current grazing preferences will be used for RMP without adjustment for factors such as suitability, suitability criteria will probably be most useful in targeting areas where review of the stocking rate may be appropriate". The Tribes contend that any decision that relies upon the above conclusion will be arbitrary and capricious since: the BLM has not provided a reasonable justification for not addressing stock levels; and other conclusions of the BLM and the available data suggest that grazing capacity is both a major issue in the an analysis and a primary reason for detrimental effects associated with grazing. The BLM has not, and most likely cannot, provide a reasonable reassurance to the public that AMPs will be revised in a timely manner in order to resolve grazing issues such as authorized capacity. Consequently, the BLM cannot assure the public that the issues of suitable range, a primary criteria in determining authorized
27 grazing capacity, will ever be considered by the BLM. The Tribes request that the BLM specifically identify suitable range on each allotment in order to calculate an appropriate grazing capacity for the RA.

28 BLM's justification, in part for authorizing grazing almost 20% higher than the calculated rate (51,069 AUMS's authorized), is the "installation of range improvements and a number of other factors" (emphasis added). The Tribes disagree that this is a reasonable justification given that some range improvements have not been constructed, permittees have not

Letter No. 44 *continued*

28 maintained the structures to BLM standards, and drought conditions may have offset the benefits of these projects. Consequently, these so-called range "improvements" may have, in fact, not achieved the objectives leading to the increased authorized grazing capacity.

29 A principle tenet of mitigation (i.e. range improvements to offset the increased damage of higher authorized grazing) under NEPA is a conclusion regarding the potential for success of implementing the measure. Given that the permittees have a long history of failing to comply with AMP's including maintaining range improvement structures and that "because of personnel limitations, the BLM cannot adequately assess the maintenance status of all improvements", the authorized grazing preference, as related to completion of range improvements, cannot be considered a valid conclusion. Further, since there is a documented record of lack of success in past mitigation efforts, the BLM must consider the potential for additional failure in future proposed mitigation efforts.

30 Consequently, the Tribes request that the BLM assess whether these range "improvements" have actually met the conditions for authorizing grazing preference significantly higher than the calculated rate. The Tribes also question what other "factors" would precipitate the BLM to authorize a higher utilization than what was calculated. If these factors included those apparent, such as political pressure from the grazing industry, this should be stated. Otherwise, the factors should be described in order for the public to assess whether these factors are still present or whether grazing preference should be assessed and modified.

31 The RMP states that under some poor conditions, permittees sometimes use less forage than their preference. This statement indicates that the BLM has not and does not propose to reduce grazing use during similar conditions in the future. Given many RA permittees past grazing performance, the Tribes request that the BLM build in to the RMP, procedures to reduce grazing during conditions which warrant a reduction, such as drought or wildfire.

32 Most of the vegetative management inventories conducted to assess range condition are over 20 years old and BLM recognizes that "many changes have occurred in livestock management and resource condition since the inventories were completed". The BLM, in order to escape obtaining timely and useful information on the RA, does not propose updating these inventories since "under current BLM policies, [vegetative inventories] cannot be used to change livestock grazing preferences". Clearly, inventories have additional uses, in addition to changing livestock grazing preference, such as assessing current conditions and identifying trends in resource recovery. Further, the BLM fails to describe what information can be used to change grazing preference. Perhaps it is the "factors" that the BLM mentions, but does not
33 discuss, that modified the original authorized preference above the calculated level. The BLM further states that "these inventories are sufficient for the purposes they will be used for in the Challis RMP", but fails to discuss what the proposed uses actually will be in the RMP.

BLM Response to Letter No. 44 *continued*

habitat, not fisheries populations, impacts are generally discussed in terms of fisheries and aquatic habitat.

44-15: The PRMP proposes measures to resolve cases of land trespass (see Land Tenure and Access, Goal 4, #1). The time required for resolution of each trespass case would vary, depending on the circumstances of the case, available funding, other management priorities, and availability of personnel. An implementation schedule for resolution of trespass cases would be part of the RMP implementation plan to be developed following signature of the Record of Decision for the approved RMP.

44-16: Your comments and concerns are noted. Please see response 44-2(c).

44-17: The PRMP identifies forage utilization criteria that are based on season of use (see PRMP, Livestock Grazing, Goal 1, #7). These utilization criteria would limit livestock use during the critical growth period. The BLM believes that livestock grazing use can be sustained on key forage species during critical growing periods, provided that the use is managed and controlled through the use of utilization standards and other knowledgeable and reasonable practices.

44-18: Please see response 44-2(a).

44-19: Please see response 44-2(c).

44-20: Intensive grazing management strategies which have a likelihood of success would be determined at the activity planning level (i.e., during the development of allotment management plans or integrated resource activity plans). Intensive management strategies would vary significantly from allotment to allotment and even pasture to pasture due to topography, location of fences and water developments, and resource values. For example, grazing management strategies that might be implemented include deferred-rotation grazing systems, high intensity-short duration grazing systems, rest-rotation grazing systems, and frequent herd movements by riders. Other examples of intensive grazing strategies can be found in BLM Technical Reference 1737-6, Management Techniques in Riparian Zones; and Technical Reference 1734-7, Grazing Management in Riparian Areas. Prescribing site-specific grazing strategies on an allotment by allotment basis is not the purpose of the RMP. The PRMP does prescribe resource use criteria for livestock management (for example, Livestock Grazing, Goal 1, #6; and Riparian Areas, Goal 1, #4-6). Intensive management strategies developed to manage livestock grazing and improve resource conditions would be designed to help livestock managers meet these resource use criteria. The BLM is confident that implementation of the resource use criteria identified in the PRMP would

Letter No. 44 *continued*

Mark E. Johnson
Page 9
January 14, 1997

34 The RMP states that twenty-two allotments do not currently have management plans and that many of the current plans are outdated, have not been implemented successfully, or are not being followed. Consequently, the Tribes request that the BLM propose a schedule for completion of these AMP's and revision of current plans. Further, we recommend that the BLM describe the number of AMP's that are still consider viable in terms of reflecting the current condition, updated NEPA compliance, and similar.

35 Wildlife: (pg 163) Wildlife, in particular are of primary concern to the Tribes from a ceremonial and subsistence perspective. Road densities have been shown to be a primary factor in providing security cover for numerous species. The BLM recognizes this factor and has stated that "preferred areas of use are usually away from well-traveled roads". The Tribes request that the BLM provide a definition of "open" roads for the RMP, calculate the current open road densities on the RA, and assess the potential effects on big-game security habitat present within the RA. Further, we request that the BLM work with the Tribes and Idaho Department of Fish and Game to establish road density standards within security habitats for big game.

36 The Tribes are very concerned with the cumulative effects of activities on all lands throughout the RA and the effects on big game. As has been explained to BLM staff in consultation meetings, the Tribes assert that the BLM has a duty to consider to cumulative nature of effects occurring on private, state, and other federal lands surrounding the RA and the potential limitations these effects may place on proposed BLM activities. Even though we have requested this assessment, the Tribes could not find any discussion in the RMP which dealt with this issue. Consequently, we are again requesting that the BLM identify current conditions on adjacent lands which may affect RA resources, the activities and potential effects on RA resources from these activities, and constraints on BLM activities from these effects.

37 At least two bighorn sheep populations on the RA appear to below levels necessary for replacement (<50 animals). Yet no measures are proposed to protect and enhance these herds. The Tribes request that the BLM identify the distance of these herds from domestic sheep allotments, the OHV use, road densities, and other factors within the distribution of the herds which may be affecting production. The Tribes are very concerned with the interactions between domestic sheep and bighorn sheep and the potential for detrimental affects on bighorn sheep. The RMP did not describe any standards, such as the current BLM guidelines for managing domestic sheep in bighorn habitats, that would ensure protection of bighorn sheep populations. Current literature on this issue suggests that a temporal segregation between the two species is insufficient to preclude disease transmission. We request that the BLM identify sufficient spatial buffers between allotments and herd ranges that would ensure that diseases will not be transmitted between the two species.

Letter No. 44 *continued*

Mark E. Johnson
Page 10
January 14, 1997

38 In addition, domestic sheep may be inhibiting production of winter range forage critical to bighorn sheep. As discussed above, the Tribes are requesting that the BLM enter in to a cooperative assessment of bighorn sheep condition on the RA. However, prior to this analysis,
39 the Tribes request that the BLM assess current bighorn sheep habitats on the RA, potential effects from domestic sheep grazing, and design protective strategies to ensure that bighorn sheep will be protected from potential disease transmission.

BLM Response to Letter No. 44 *continued*

result in resource improvement (see response 15-5).

44-21: The PRMP would prescribe utilization criteria, herbaceous riparian stubble-height criteria, and to maintain plant vigor (see PRMP, Livestock Grazing, Goal 1, #7 and Riparian Areas, Goal 1, #4 and 5). These actions would have positive effects on plant vigor (see PRMP, Chapter 4 - Vegetation, #4, and 27).

44-22: Your concerns are noted. Permittee compliance with the resource use criteria outlined in the PRMP would be monitored by the BLM. The BLM believes that the upland utilization and riparian stubble-height criteria and other management actions outlined in the PRMP would result in substantial resource improvement (see response 15-5). Please also see response 44-2(c).

44-23: Please see responses 44-20 and 44-2(a). With regard to livestock stocking rates, the PRMP provides for stocking level adjustments based on the results of monitoring and ecological site inventories (see PRMP, Livestock Grazing, Goal 1, #2 and 6).

44-24: The PRMP establishes priorities for revision of existing AMPs (see Livestock Grazing, Goal 1, #4). The PRMP also identifies priorities for establishing stocking rates on specific allotments (Livestock Grazing, Goal 1, #2). Revision of AMPs is expected to be done concurrently with establishment of stocking rates. The PRMP is not intended to establish the specific schedule for implementation. That schedule would be developed immediately following approval of the RMP and signature of the Record of Decision. The implementation plan would address the first five years following approval of the RMP, and would be modified and adjusted in response to such things as actions completed, effectiveness of actions in achieving RMP objectives, or changes in staffing and budget priorities. Examples of "intensive management options" that would be implemented upon signing of the Record of Decision (and would not be dependent on an AMP revision schedule) include upland utilization and stubble height criteria (see PRMP, Livestock Grazing, Goal 1, #7; and Riparian Areas, Goal 1, #5-6). Other allotment-specific intensive management strategies would be implemented when the AMPs or other activity plans are developed. The BLM believes these actions would provide reasonable assurance of resource improvement.

44-25: Your comments apparently refer to the forage allocation discussion on page 99 of the DRMP. This section simply discusses what has happened in the past, and is not a decision that "transfers forage to livestock." The PRMP provides a number of decisions that would correct any past forage allocation issues that might exist. For example, Livestock Grazing, Goal 1, #7; and Riparian

Areas, Goal 1, #4 and 5 prescribe upland forage utilization criteria and riparian stubble-height criteria that would effectively result in an allocation of vegetation to watershed protection and wildlife habitat. In the short term, the BLM estimates that grazing use would be reduced by up to 25% as a result of implementing various RMP actions (see DRMP, p. 235a, #2, Alternative 2), which could be interpreted to mean that 25% would be available for other uses. In both the short and long term, the BLM believes that the management decisions in the PRMP would result in appropriate adjustments of livestock grazing use to levels commensurate with the carrying capacity of the land. Please also see response 44-2(a).

44-26: Your comments are noted.

44-27: BLM believes that the PRMP adequately addresses stocking levels and grazing capacity by requiring adjustments of livestock use based on (a) utilization pattern mapping and ESI surveys (see PRMP, Livestock Grazing, Goal 1, #2) and (b) utilization, riparian stubble heights, and bank shearing criteria (see PRMP, Livestock Grazing, Goal 1, #7; and Riparian Areas Goal 1, #4-7). The PRMP would also prioritize grazing allotments for adjustments of grazing use (see PRMP, Livestock Grazing Goal 1, #2). The BLM believes that this package of management decisions would result in appropriate adjustments of livestock grazing use to levels commensurate with the carrying capacity of the land.

44-28: The justification for past stocking levels, and detailed summaries of the number and kind of range improvements were presented in three Rangeland Program Summary progress reports published for the Challis Planning Unit in 1985, the Ellis-Pahsimeroi Planning Unit in 1987, and the Mackay-Big Lost Planning Unit in 1988. A review of these documents reveals the following: Over fifty-four miles of fence, eighty-six miles of pipeline, 6,573 acres of vegetation treatment projects, and eighty individual water development projects were completed during the first five years of plan implementation on thirty-six allotments throughout the Challis Resource Area. Recent ecological range condition inventories performed in 1994 and 1995 indicate that upland range conditions have improved significantly since the late 1970's on at least 20% of the Resource Area (see response 15-2).

44-29: Your comments are noted. The PRMP does not propose or justify current authorized grazing levels based on completion of range improvements.

44-30: The BLM believes that the assessment of factors in the past authorization of stocking levels is beyond the scope

of the RMP. Such an assessment would not result in any meaningful information that would provide a sound basis for developing and implementing management actions to adjust grazing authorizations to proper levels. Appropriate "factors" that were used to develop management direction for adjustment of grazing authorizations through PRMP decisions included existing range conditions, inventories and vegetation monitoring.

44-31: The grazing regulations in 43 CFR 4110.3-3 provide the BLM with authority to restrict grazing "when the authorized officer determines that the soil, vegetation, or other resources on the public lands require immediate protection because of conditions such as drought, fire, flood, insect infestation, or when continued grazing use poses an imminent likelihood of significant resource damage." PRMP decisions on utilization criteria (see Livestock Grazing, Goal 1, #7) would also provide for adjustments of livestock use during drought or other years of low precipitation. The proposed utilization levels would be used as a "trigger" to move livestock between pastures and to remove livestock from allotments when the standards are reached for all pastures. For example, during a year of below normal forage production (or drought year), a given range site may produce only 100 pounds of forage, and a utilization standard of 50% would allow only 50 pounds of forage to be consumed before livestock are moved. During a year of normal precipitation when the site might produce 200 pounds of forage, a utilization level of 50% would allow 100 pounds of forage to be consumed.

44-32: The grazing regulations (43 CFR 4110.3) provide the BLM with the authority to make changes in permitted use (i.e., grazing preference). The regulations state that "these changes must be supported by monitoring, field observations, ecological site inventory or other data acceptable to the authorized officer." The PRMP would provide for the use of ecological site inventory data and utilization pattern mapping (Livestock Grazing, Goal 1, #2), upland utilization criteria (Livestock Grazing, Goal 1, #7), riparian stubble height criteria (Riparian Areas, Goal 1, #4 and 5) and bank shearing criteria (Riparian Areas, Goal 1, #6) as the primary data that would be used to support any necessary changes in permitted use.

44-33: Existing vegetation inventories were one of the many sources of data and information used by the BLM to formulate the RMP's goals, objectives, management decisions, alternatives, and environmental consequences. Updated vegetation inventories were completed on several allotments during 1994 and 1995 (see response 15-2). These inventories were used to document existing resource conditions and to infer changes in resource conditions when compared with previous inventory data. Coupled with the analysis of other types of resource data

and information, the BLM developed and incorporated management decisions into the PRMP that are designed to ensure the maintenance and improvement of existing vegetation conditions.

44-34: Please see response 44-24. The BLM considers all existing AMPs to be valid until replaced or otherwise updated.

44-35: Please see the definitions of "road" and "vehicle way" in the glossary for the PRMP. The terms "road" and "vehicle way" were used somewhat synonymously in the analysis of effects on wildlife described in Chapter 4. The BLM agrees that road densities (for well-traveled and maintained roads) can affect habitat suitability for big game, particularly during hunting seasons and in areas of high intensity recreation use. The BLM determined that completion of a road density study (along with a coordinated effort with the Tribes to establish road density standards) was not essential to implementation of the RMP, based on several considerations. First, the apparent health and productivity of existing elk herds in the Challis RA suggests that current road densities on BLM lands are not having any appreciable adverse effect on the herds. Elk use is heaviest on BLM lands during winter when motor vehicle use on most roads is limited by winter conditions. During spring, summer, and fall, most of the animals are found on adjacent National Forest lands where security and thermal cover are more available. Current road densities within preferred elk habitats on public lands in the RA are estimated at less than 0.75 road miles/square mile of public land (also see response 44-3). Virtually all of these roads are primitive "vehicle ways" that are seldom maintained. Some studies suggest that such roads have little effect on elk habitat use (Perry and Overly 1975). Second, the BLM believes that the PRMP's proposed seasonal limitations on motorized vehicle use would adequately limit adverse effects on elk during the critical winter period. The PRMP would also limit motorized vehicle use to existing roads and vehicle ways Resource Area-wide, thus preventing the proliferation of new vehicle ways. Please review the PRMP decisions under Off-highway Vehicle Use for decisions which define when, where, and under what conditions motorized vehicle travel would be allowed on existing roads and vehicle ways. Finally, the following decisions would limit the adverse effects of roads on elk habitat use: the intended closure of any new logging roads that may be constructed during the life of the RMP (see PRMP, Attachment 8: Design Specifications, Forest Management: Road Construction and Rehabilitation, #3), seasonal restrictions on timber harvest to protect wildlife values (see PRMP, Forest Resources, Goal 1, #17), and restrictions on permitted activities on big game ranges and other key habitats (see PRMP, Wildlife Habitat, Goal 2, #8).

44-36: Cumulative effects on wildlife resources were discussed in the DRMP on pages 331-332. Cumulative effects are also described in the PRMP, Chapter 4, generally at the end of each resource analysis. The management decisions identified in the PRMP were developed with consideration of cumulative effects from activities on adjacent National Forests, private and State lands, to ensure protection and maintenance of public land resources.

44-37: Several PRMP decisions, including those regarding the Cronk's Canyon ACEC and the Birch Creek ACEC, are designed to protect bighorn sheep habitat for these two small populations and prescribe measures for management of OHV use in these bighorn sheep habitats (see PRMP, ACECs, Goal 1, Cronk's Canyon and Birch Creek ACECs; and Wildlife Habitat, Goal 1, #6). No domestic sheep grazing is permitted on any BLM allotments in the vicinity of these ACECs. Two unimproved vehicle ways bisect the Birch Creek ACEC. The PRMP would limit OHV use on these roads to the spring-summer period between May 1 and December 15, and OHV use would be prohibited during the winter/spring period between December 16 and April 30. The BLM believes that these limitations would provide sufficient protection of the bighorn populations from disturbance by motorized vehicles. These small populations are largely habituated to motorized vehicle traffic, due to the close proximity of Highway 75 and Highway 93, which are immediately adjacent to these ACECs. Bighorn sheep in both of these areas are commonly observed feeding adjacent to these highways. The Idaho Department of Transportation has signed the highways to warn motorists about the sheep. BLM guidelines for domestic sheep management in bighorn sheep habitat would be implemented as part of the RMP (see Attachment 5: Standard Operating Procedures; "Wildlife" #2; and Attachment 7: 1998 Revised Guidelines for Domestic Sheep and Goat Management in Native Wild Sheep Habitats).

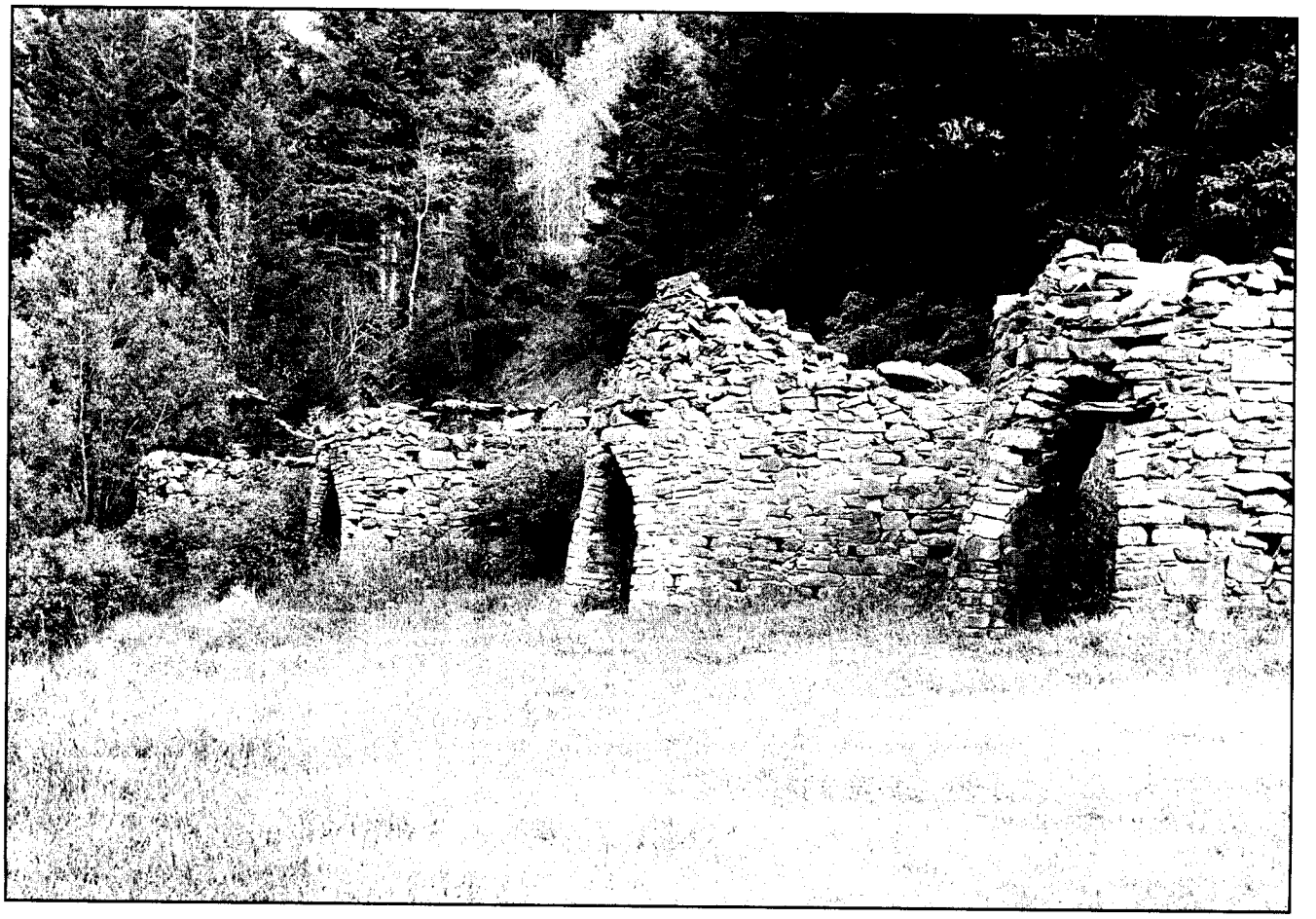
44-38: There is no evidence suggesting that domestic sheep are affecting winter range forage for bighorn sheep in the RA, because domestic sheep are not currently grazed on BLM public lands where bighorn sheep winter.

44-39: The IDFG has conducted a number of habitat studies on bighorn sheep habitat areas in the Challis RA, and the BLM has conducted nested frequency and forage utilization studies. Data from these studies do not suggest that habitat conditions are a limiting factor for bighorn sheep in the Challis RA. Domestic sheep are not grazed on BLM public lands overlapping bighorn sheep ranges in the Challis RA. Habitat studies, assessments, and cooperative efforts between the BLM, IDFG and the Tribes would not be precluded by the PRMP, and could

be entered into if needed without incorporating a specific management decision in the PRMP.

[this page is intentionally blank]

Appendices



Bayhorse Kilns

Appendix A: Cultural Resources

Item 1: Cultural Resources Special Areas

Birdie Peak - Preliminary work in the Birdie Peak area has identified archaeological values which may be significant to the Shoshone-Bannock Tribes, perhaps as a vision quest locale. The high peaks and ridges in the vicinity, the stunning viewsheds, and the type of features documented are all contributing factors in this assessment. The protection of the area is important as both an archaeological and traditional lifeway value.

Challis Archaeological Spring District - A total of 28 sites within the Challis Resource Area are listed on the National Register of Historic Places (NRHP) as part of the Challis Archaeological Spring District. These sites contain information on seasonal community patterns, areal settlement patterns, prehistoric chronologies, and climatic change through time (NRHP 1981). These sites appear to be associated with the persistence of a big game hunting strategy during prehistoric and into historic times. Butler (1978) refers to this as the Archaic Tradition, a regionally important concept that differs from previous hypotheses based on generally accepted Great Basin traditions. Collectively, these sites are of regional and national importance as a factor in defining and refining the archaeology of the Northern Rocky Mountain ecosystem.

Challis Bison Jump - The Challis Bison Jump is listed on the NRHP. Excavations in the early 1970s identified this site as a bison kill site, similar to the classic jumps prevalent in the Northern Plains cultural area and dating to late prehistoric times. The site is the only "jump" formally recorded in this region.

Lone Pine - Five sites located in the Lone Pine area are included as part of the NRHP listed Challis Archaeological Spring District. These sites contain cultural deposits predating 6700 B.P. based on the presence of apparently *in situ* remains significantly below Mazama ash. Test excavations identified over 45 "occupation" layers through time (Williams 1982). In addition, the Lone Pine sites can provide information on regional climatic sequences and changes and their relationship to settlement patterns and subsistence strategies through time. Finally, the presence of potential Paleoindian components in an "open" site situation such as the Lone Pine area is of regional and national significance, given the paucity of information on early man and the Paleoindian Period in North American archaeology.

Salmon River Corridor - Public lands along the Salmon River contain an abundance and apparent diversity of cultural resources. These sites have the potential to provide information on local settlement patterns, site function, and distribution within the Salmon River corridor. In addition, regional information on subsistence strategies, seasonal use, foraging patterns, resource procurement, chronology, and perhaps ethnicity can be obtained through additional work at these sites.

Appendix B: Economy and Society

Item 1: 1991 Employment in the Two-County Region, by County and Employment Sector[1]

Employment Sector	Custer County[3]		Lemhi County[4]		Two-County Region	
	FTE[5]	% of county	FTE[5]	% of county	FTE[5]	% of region
Agriculture	430	22.93	666	25.04	1,096	24.18
Mining	669	35.68	181	6.80	850	18.74
Timber[6]	18	0.96	296	11.13	314	6.92
Visitors	335	17.87	695	26.13	1,030	22.71
Linked to ROI[2]	71	3.79	157	5.90	228	5.03
State and Local Government	121	6.45	256	9.62	377	8.31
Federal Government	195	10.40	367	13.80	562	12.39
Other	36	1.92	42	1.58	78	1.72
Total	1,875	100.00	2,660	100.00	4,535	100.00

[1] Source: The Custer-Lemhi County Economic Model (CLEModel), pp. 9-12; in *A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties, Idaho: A Model* (BLM 1994).

[2] "Linked to ROI" is defined as income in, and multiplier-generated by, industries servicing the spending of residents with outside incomes. "ROI" = "Resident's Outside Income" and is defined as a broad mix of incomes received by community residents from sources outside the communities. These include social security payments, public assistance, unemployment compensation, private retirement income, the receipt of dividend, interest, and rent payments, military (*e.g.*, national guard) income, and the income of out-commuters.

[3] Custer County figures are based on values for the Challis, Big Lost River, Stanley, and Pahsimeroi subregions shown in *Appendix B, Item 2*. The Pahsimeroi subregion includes the Patterson Division, which is in Lemhi County and has a population of 392.

[4] Lemhi County figures are based on values for the Salmon, Tendoy-Leadore, and North Fork subregions shown in *Appendix B, Item 2*.

[5] FTE - Full time equivalent (see *Glossary*).

[6] Baseline data for the timber sector are from 1991 and do not reflect closure of the Salmon Intermountain sawmill in 1995.

Appendix B: Economy and Society

Item 2: 1991 Employment in Custer and Lemhi Counties, by Subregion and Employment Sector[1]

Employment Sector	Custer County								Lemhi County					
	Challis Subregion		Big Lost River Subregion		Stanley Subregion		Pahsimeroi Subregion[3]		Salmon Subregion		Tendoy-Leadore Subregion		North Fork Subregion	
	FTE[4]	%	FTE[4]	%	FTE[4]	%	FTE[4]	%	FTE[4]	%	FTE[4]	%	FTE[4]	%
Agriculture	157	13.07	205	50.64	0	0.00	68	83.95	522	22.65	139	76.63	5	2.84
Mining	664	55.36	5	1.33	0	0.00	0	0.00	181	7.86	0	0.00	0	0.00
Timber[5]	12	1.00	6	1.54	0	0.00	0	0.00	293	12.74	0	0.00	3	1.70
Visitors	143	11.92	34	8.49	151	78.69	7	8.64	572	24.84	11	6.12	112	63.65
Linked to ROI[2]	32	2.65	36	8.80	1	0.58	2	2.47	150	6.51	3	1.55	4	2.27
State and Local Gov't	70	5.86	41	10.20	8	4.41	2	2.47	234	10.16	13	7.37	9	5.11
Federal Gov't	97	8.12	66	16.23	30	15.73	2	2.47	309	13.43	15	8.27	43	24.43
Other	24	2.02	11	2.77	1	0.59	0	0.00	42	1.81		0.06	0	0.00
Total	1,199	100.00	404	100.00	191	100.00	81	100.00	2,303	100.00	181	100.00	176	100.00

[1] Source: The Custer-Lemhi County Economic Model (CLEModel), pp. 9-12; in *A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties, Idaho: A Model* (BLM 1994).

[2] "Linked to ROI" is defined as income in, and multiplier-generated by, industries servicing the spending of residents with outside incomes. "ROI" = "Resident's Outside Income" and is defined as a broad mix of incomes received by community residents from sources outside the communities. These include social security payments, public assistance, unemployment compensation, private retirement income, the receipt of dividend, interest, and rent payments, military (*e.g.,* national guard) income, and the income of out-commuters.

[3] The Pahsimeroi subregion includes the Patterson Division, which is in Lemhi County and has a population of 392.

[4] FTE - Full time equivalent (see *Glossary*).

[5] Baseline data for the timber sector are from 1991, and do not reflect closure of the Salmon Intermountain sawmill in 1995.

Appendix B: Economy and Society

Item 3: 1991 Earnings in the Two-County Region, by County and Employment Sector[1]

Employment Sector	Custer County Earnings[3]		Lemhi County Earnings[4]		Two-County Region Earnings	
	$1,000s	% of county	$1,000s	% of county	$1,000s	% of region
Agriculture	10,020	21.92	11,234	21.66	21,254	21.78
Mining	22,227	48.61	5,660	10.91	27,887	28.58
Timber[5]	602	1.32	7,941	15.31	8,543	8.75
Visitors	3,908	8.55	9,817	18.92	13,725	14.06
Linked to ROI[2]	1,714	3.75	3,673	7.08	5,390	5.52
State and Local Government	2,845	6.22	6,016	11.60	8,861	9.08
Federal Government	3,317	7.25	6,589	12.70	9,906	10.15
Other	1,088	2.38	944	1.82	2,032	2.08
Earnings Total	45,721	100.00	51,874	100.00	97,595	100.00

[1] Source: The Custer-Lemhi County Economic Model (CLEModel), pp. 9-12; in *A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties, Idaho: A Model* (BLM 1994).

[2] "Linked to ROI" is defined as income in, and multiplier-generated by, industries servicing the spending of residents with outside incomes. "ROI" = "Resident's Outside Income" and is defined as a broad mix of incomes received by community residents from sources outside the communities. These include social security payments, public assistance, unemployment compensation, private retirement income, the receipt of dividend, interest, and rent payments, military (*e.g.*, national guard) income, and the income of out-commuters.

[3] Custer County figures are based on values for the Challis, Big Lost River, Stanley, and Pahsimeroi subregions shown in *Appendix B, Item 4*. The Pahsimeroi subregion includes the Patterson Division, which is in Lemhi County and has a population of 392.

[4] Lemhi County figures are based on values for the Salmon, Tendoy-Leadore, and North Fork subregions shown in *Appendix B, Item 4*.

[5] Baseline data for the timber sector are from 1991, and do not reflect closure of the Salmon Intermountain sawmill in 1995.

Appendix B: Economy and Society

Item 4: 1991 Earnings in Custer and Lemhi Counties, by Subregion and Employment Sector (in $1,000s and % of Subregion)[1]

Employment Sector	Custer County								Lemhi County					
	Challis Subregion		Big Lost River Subregion		Stanley Subregion		Pahsimeroi Subregion[3]		Salmon Subregion		Tendoy-Leadore Subregion		North Fork Subregion	
	$1,000s	%	$1,000s	%	$1,000s	%	$1,000s	%	$1,000s	%	$1,000s	%	$1,000s	%
Agriculture	3,194	9.99	4,003	49.79	0	0.00	2,823	96.51	7,126	15.78	4,089	85.40	19	0.99
Mining	22,001	68.78	226	2.81	0	0.00	0	0.00	5,660	12.53	0	0.00	0	0.00
Timber[4]	410	1.28	192	2.39	0	0.00	0	0.00	7,866	17.41	0	0.00	75	3.89
Visitors	1,587	4.96	303	3.76	2,002	72.32	16	0.54	8,886	19.67	93	1.94	838	43.65
Linked to ROI[2]	729	2.28	939	11.68	22	0.80	24	0.82	3,564	7.89	53	1.10	56	2.94
State and Local Gov't	1,644	5.14	965	12.00	197	7.12	39	1.32	5,495	12.17	305	6.38	216	11.26
Federal Gov't	1,656	5.18	1,140	14.18	497	17.94	24	0.81	5,635	12.48	245	5.12	709	36.95
Other	765	2.39	273	3.39	50	1.82	0	0.00	935	2.07	3	0.06	6	0.32
Earnings Total	31,986	100.00	8,041	100.00	2,768	100.00	2,926	100.00	45,167	100.00	4,788	100.00	1,919	100.00

[1] Source: The Custer-Lemhi County Economic Model (CLEModel), pp. 9-12; in *A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties, Idaho: A Model* (BLM 1994).

[2] "Linked to ROI" is defined as income in, and multiplier-generated by, industries servicing the spending of residents with outside incomes. "ROI" = "Resident's Outside Income" and is defined as a broad mix of incomes received by community residents from sources outside the communities. These include social security payments, public assistance, unemployment compensation, private retirement income, the receipt of dividend, interest, and rent payments, military (*e.g.*, national guard) income, and the income of out-commuters.

[3] The Pahsimeroi subregion includes the Patterson Division, which is in Lemhi County and has a population of 392.

[4] Baseline data for the timber sector are from 1991, and do not reflect closure of the Salmon Intermountain sawmill in 1995.

Appendix B: Economy and Society

Item 5: 1991 Personal Income Analysis for the Two-County Region, by County and Subregion[1]

County/ Subregion	Earnings		Resident's Outside Income[2]		Total Personal Income	
	$1,000s	% County/ Subregion	$1,000s	% County/ Subregion	$1,000s	% Two-County Region
Custer County	45,721	81.38	10,464	18.62	56,185	45.26
Challis Subregion	31,986	90.89	3,207	9.11	35,193	28.35
Big Lost River Subregion	8,041	64.78	4,373	35.22	12,414	10.00
Stanley Subregion	2,768	81.91	611	18.09	3,379	2.72
Pahsimeroi Subregion[3]	2,926	56.28	2,273	43.72	5,199	4.19
Lemhi County	51,874	76.34	16,076	23.66	67,950	54.74
Salmon Subregion	45,167	77.25	13,298	22.75	58,465	47.10
Tendoy-Leadore Subregion	4,788	85.29	826	14.71	5,614	4.52
North Fork Subregion	1,919	49.57	1,952	50.43	3,871	3.12
Total Two-County Region	**97,595**	**78.62**	**26,540**	**21.18**	**124,135**	**100.00**

[1] Source: The Custer-Lemhi County Economic Model (CLEModel), pp. 9-12; in *A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties, Idaho: A Model* (BLM 1994).

[2] Resident's Outside Income is defined as a broad mix of incomes received by community residents from sources outside the communities. These include social security payments, public assistance, unemployment compensation, private retirement income, the receipt of dividend, interest, and rent payments, military (*e.g.*, national guard) income, and the income of out-commuters.

[3] The Pahsimeroi subregion includes the Patterson Division, which is in Lemhi County and has a population of 392.

Appendix B: Economy and Society

Item 6: Economic Values of Fisheries Resources in the Challis RA

Resident trout stream fishing in the Challis Resource Area is considered very good by the Idaho Department of Fish and Game. Mackay Reservoir has a high quality trout and kokanee fishery which is locally very popular. Steelhead trout fishing from the Salmon River is very popular and has State-wide, if not nation-wide, recognition. The current value of sport fishing for resident species and steelhead trout in the Challis Resource Area is estimated at approximately $662,000 per year (see discussion below).

Historically, an estimated 10,000 angler days (see *Glossary*) were spent in the Challis Planning Unit in 1974 -- 1,739 days on anadromous fisheries and 8,261 days on resident fisheries (USDI, BLM 1977). (Note: The Challis Planning Unit comprised only **one** portion of the current Challis Resource Area.) Recent estimates provided by the Idaho Department of Fish and Game (June and August, 1995 - see Planning Record) indicate an annual average of approximately 17,900 angler days were spent in the Challis RA in 1993 and 1994 -- 6,977 angler days on anadromous species (steelhead trout) and 10,894 angler days on resident game species.

Each year, large amounts of money are spent by anglers on license fees, tackle, food, beverages, lodging, fuel, boating, guide services, camping, etc. These expenditures provide economic benefits on local, regional, and State-wide levels. However, exact dollar amounts spent directly or indirectly on recreational fishing in a particular area are difficult to estimate. The following discussions present some research findings related to current and historic fisheries economic benefits. Dollar values should be viewed as general trends.

Resident Fisheries Values

Historic Economic Benefit: In 1974 approximately 8,261 angler days were spent on resident fisheries in the Challis Planning Unit (USDA, BLM 1977). Gordon *et. al.* (1973) calculated the value of one trout angler day to be $10.60. Thus, in 1974 approximately $87,567 may have been spent on resident species sport fishing in the Challis Planning Unit, assuming a non-trout species (mountain whitefish, kokanee salmon) angler day had the same value as a trout angler day.

Current Economic Benefit: The 1997 estimated angler day value for cold water sport fishing species is $41.08 (Sorg, *et. al.* 1985, adjusted for inflation). Recent Idaho Department of Fish and Game estimates indicate about 10,894 angler days were spent on resident sport fishing in the Challis RA, including 10,000 angler days on the popular Mackay Reservoir. These angler days would have an approximate annual value of $447,526.

Anadromous Fisheries Values

Commercially, anadromous fish produced in the Columbia River system were worth an estimated $100 million annually to the Pacific Northwest (Tuttle 1978). Mallet and Bjornn (1970) estimated that Idaho spawning grounds account for 55 percent of the steelhead trout, 34 percent of the spring chinook salmon, and 41 percent of the summer chinook salmon in the entire Columbia River drainage. Historically, the Salmon River watershed produced about 50 percent of the steelhead trout and 98 percent of the chinook salmon harvest in Idaho (Mallet and Bjornn 1970). (For an additional economic analysis of the chinook salmon fishery in the area (based on Tuttle *et. al.* (1975)), please see the 1977 Challis Environmental Impact Statement.

At present, hatchery-produced steelhead trout are the only anadromous fish species which can be harvested in the Challis Resource Area. No sport fishing of chinook or sockeye salmon is permitted (because these species are listed as endangered under the Endangered Species Act), and any wild steelhead trout which are caught must be released. However, the economic value of the chinook salmon is still described, to indicate the possible economic value of that species if its population was restored.

Steelhead Trout:

Historic Economic Benefit: No attempt was made in the 1977 Challis EIS to evaluate the annual net value of steelhead trout. The Idaho Department of Fish and Game estimated 1,166 wild steelhead trout spawned each year in the Salmon River drainage above the Lemhi River confluence (1970-77 average). Ninety-seven percent of these fish moved above the Pahsimeroi River confluence into and above the Challis RA. Steelhead trout have had a slightly higher commercial value than salmon; thus, the annual value of these fish in the 1970s would probably have been at least $167,624 ($143.76 spawning fish value x 1,166 spawning steelhead).

Current Economic Benefit: Recent IDFG data indicate anglers spent an average of 6,977 steelhead angler days on BLM river frontage in the RA during both the spring 1993 and 1994 steelhead trout seasons. The 1997 estimated value of one steelhead angler day is $30.73 (Donnelly, *et. al.* 1985, adjusted for inflation). Thus, the average annual value of steelhead trout sport fishing in the RA would be approximately $214,403.

An alternative method of calculation yields a similar result. Adjusting Tuttle *et. al.*'s 1974 spawning fish value for inflation since the 1970s (to $176.11) and assuming a continuing annual average of 1,166 spawning steelhead in the RA would mean the approximate annual value of steelhead trout fisheries in the Challis RA would be $205,344 in 1990s dollars.

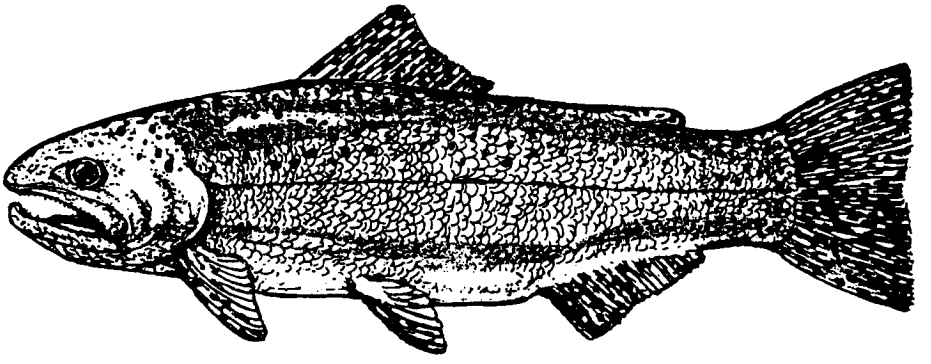
Chinook Salmon:

Historic Economic Benefit: Idaho Department of Fish and Game chinook salmon spawning surveys from the early 1970s indicated at least 180 summer chinook and 245 spring chinook redds could be attributed to the Challis RA each year. These counts probably approximated no more than half of the actual number of redds (Reingold, 1973), so about 850 redds were probably constructed annually. Bjornn (1975) found there were 1.3 males for each female spawner; thus, each redd represented 2.3 fish. Based on these data, an estimated annual run of 1,955 chinook salmon spawned in the East Fork Salmon River, Herd Creek, and main Salmon River above Challis Creek. (Other tributaries that produce chinook salmon (like the Pahsimeroi River) are not included in this estimate.) Tuttle *et. al.* (1975) calculated that each spawning salmon had a net annual value of $143.76. Thus, in the 1970s chinook salmon fisheries in the Resource Area would have been valued at approximately $281,051.

Current Economic Benefit: Redd counts for the entire Salmon River basin have diminished dramatically during the past two decades (see *Appendix C, Item 3*) and chinook salmon may no longer be harvested (except under Native American tribal treaty rights). Thus, the chinook salmon fishery no longer has any economic benefit to the local area. However, if Tuttle *et. al.*'s $143.76 value for spawning chinook salmon is adjusted for inflation since the 1970s, the estimated value of a spawning salmon would be $176.11. If chinook salmon populations could be restored to historic levels, 1,955 spawning chinook salmon would have an annual value of $344,295 in 1990s dollars.

Sockeye Salmon:

Sockeye salmon have insignificant economic value at this time, and this is not likely to change in the future.



Steelhead trout

Appendix B: Economy and Society

Item 7: Economic Values of Select Wildlife Species

Several wildlife species of the Challis Resource Area have economic importance on a local, and possibly regional, level. Based on the estimates of economic value described below, huntable wildlife species in the Challis Resource Area are valued at over $2,200,000 annually.

The following estimates of economic value for various wildlife species should be viewed as general trends. For further information on how these estimates were calculated, see the *Planning Record* for (a) the Idaho Department of Fish and Game's data on hunter days (see *Glossary*) spent in this general geographic area, (b) the BLM's calculations to estimate the portion of those days attributable to the Challis Resource Area, and (c) current Idaho BLM hunter day values.

Community businesses and outfitter/guide services in the Mackay, Challis, and Salmon, Idaho areas depend on elk hunting for a substantial portion of income. In 1997 an elk hunter day was valued at $56.55 (Sorg and Nelson 1986, adjusted for inflation). Average annual estimated elk hunter days in the Challis Resource Area for general and controlled hunts approximate 11,743 days. Thus, elk hunting in the Challis Resource Area is worth approximately $664,067 annually.

Community businesses and outfitter/guide services in Mackay and Challis, Idaho also depend on mule deer hunter expenditures for a portion of income. The 1997 estimated hunter day value for mule deer was $43.18 (Donnelly and Nelson 1986, adjusted for inflation). According to recent IDFG data, mule deer hunters spend an annual average of 25,269 hunter days on Challis Resource Area public lands. Thus, the value of mule deer in the RA would be approximately $1,091,115 annually.

Antelope hunting expenditures probably provide income for businesses in Challis and Mackay, Idaho. In 1993, hunters spent an estimated 2,881 hunter days hunting antelope in the Challis RA. In 1997 each antelope hunter day was worth $86.81 (Loomis, *et. al.* 1985, adjusted for inflation), for a total annual value of $250,100.

Bighorn sheep hunters spend an annual average of 277 hunter days hunting bighorn sheep in the Challis Resource Area, and bear or mountain lion hunters spent 189 hunter days hunting black bear or mountain lions (1993 and 1991 data). An "other big game" (*e.g.*, bighorn sheep, bear, mountain lion) hunter day was valued at $57.88 in 1997 (Sorg and Nelson 1987, adjusted for inflation). Thus, bighorn sheep, black bear, and mountain lion hunting in the Challis Resource Area has an approximate annual value of $26,972 (466 hunter days x $57.88). No data are available on the economic value of other furbearing wildlife species.

About 1,101 hunter days were spent hunting waterfowl in the Challis Resource Area in 1993. Each waterfowl hunter day had a value of $45.83 in 1997 (Sorg and Nelson March, 1987, adjusted for inflation), for a total economic value of approximately $50,459.

In the Challis Resource Area in 1993, about 2,528 hunter days were spent hunting various upland game and small game animals, including forest grouse, sage grouse, chukar, huns, pheasants, rabbits, and doves. An upland and small game hunter day was valued at $45.81 in 1997 (Young *et. al.* 1987, adjusted for inflation). Thus, upland and small game hunting in the RA has an approximate value of $115,808.

Appendix C: Fisheries

Item 1: Game Fish Species Distribution, by Drainage and Stream[1]

Drainage/Stream	Resident Species					Anadromous Species	
	Cutthroat Trout	Brook Trout	Bull Trout	Rainbow Trout	Mountain Whitefish	Chinook Salmon	Steelhead Trout
Salmon River[2]	x		x	x	x	x	x
Allison Creek	x						
McKim Creek	x		x	x			
Ellis Creek				x			
Cherry Creek				x			
Cow Creek	x		x	x			x
Pat Hughes Creek	x		x				
Little Hat Creek				x			
Morgan Creek	x	x	x	x	x	x	x
West Fork Morgan Creek	x	x	x	x			x
Challis Creek	x	x	x	x	x		x
Mill Creek	x	x	x	x			
Eddy Creek	x			x			
Darling Creek	x						
Garden Creek	x	x		x			
Buckskin Creek	x						
Bayhorse Creek	x	x	x	x			x
Lyon Creek	x						
Kinnikinic Creek	x	x		x			
Spud Creek	x						
Sullivan Creek	x						
Squaw Creek	x		x	x	x	x	x
Thompson Creek	x	x	x	x	x	x	x
Pat Hughes Creek		x					

Drainage/Stream	Resident Species					Anadromous Species	
	Cutthroat Trout	Brook Trout	Bull Trout	Rainbow Trout	Mountain Whitefish	Chinook Salmon	Steelhead Trout
Pahsimeroi River	x	x	x	x	x	x	x
Big Creek	x	x	x	x		x	x
Burnt Creek		x	x	x			
Big Gulch			x				
Ditch Creek			x				
Tater Creek			x				
Short Creek				x			
Morse Creek	x		x				
Lawson Creek				x			
Donkey Creek	x			x			
Falls Creek	x		x				
Goldburg Creek	x	x	x		x		
Little Morgan Creek	x		x	x			
Mahogany Creek			x				
Patterson Creek	x		x				x
Little Lost River		x	x	x			
Dry Creek	x	x					
Summit Creek		x		x			
East Fork Salmon River	x		x	x	x	x	x
Road Creek	x			x			
Horse Basin Creek	x						
Mosquito Creek	x						
Bear Creek	x			x			
Herd Creek	x		x	x	x	x	x
Lake Creek	x			x		x	x
Big Lake Creek				x	x	x	x
McDonald Creek				x			
Fox Creek			x				

Drainage/Stream	Resident Species					Anadromous Species	
	Cutthroat Trout	Brook Trout	Bull Trout	Rainbow Trout	Mountain Whitefish	Chinook Salmon	Steelhead Trout
Pine Creek			x				
Big Boulder Creek	x		x	x	x	x	x
Little Boulder Creek	x		x	x	x	x	x
Big Lost River		x		x			
Twin Bridges Creek				x			
Thousand Springs		x		x			
Mackay Reservoir[3]				x			

[1]This table lists the majority of game fish species distribution information for the Challis Resource Area, as of August 1998. Additional species presence may be confirmed in the future as additional information becomes available.
[2]Sockeye salmon also migrate in the main Salmon River.
[3]Kokanee salmon are also found in Mackay Reservoir.

Sources: Species distribution information for westslope cutthroat trout, brook trout, bull trout, rainbow trout, chinook salmon, and steelhead rainbow trout is from stream surveys conducted in the Challis RA in summer, 1994 and other recent presence/absence surveys conducted by BLM personnel. Information about mountain whitefish distribution is from Challis RA historic files.

[this page is intentionally blank]

Appendix C: Fisheries

Item 2: Existing and Potential Spawning and Rearing Habitat Conditions of Surveyed Anadromous and Resident Fisheries Streams in the Challis RA

Stream	Spawning Habitat[1]			Rearing Habitat[1]		
	Existing	Potential	Limiting Factors	Existing	Potential	Limiting Factors
Salmon River	F/G	F/G	siltation	G	E	dewatering diversions
Allison Creek	F	F	gravels gradient	F	F/G	pool:riffle dewatering
McKim Creek	F	F	gravel gradient	F	F	pool:riffle dewatering
Morgan Creek	F/P	G	private land dewatering migration barrier	F	G	private land dewatering diversions
Challis Creek	G	E	dewatering	F	G	dewatering
Bayhorse Creek	P	F	dewatering gradient	P	F	dewatering pool:riffle
Squaw Creek	F/G	G/E	dewatering sediment	F	G	dewatering pool:riffle
Thompson Creek	F/G	G/E	sediment	F	G	pool:riffle
U. Pahsimeroi River	F/G	G	dewatering	F/G	E	dewatering
L. Pahsimeroi River	G/E	E	private land dewatering	G/E	E	private land dewatering
Big Creek - upper[2]	E	E	n/a	E	E	n/a
Big Creek - lower[2]	P	P	dewatering	P	P	dewatering
Burnt Creek	F/P	E	livestock	F/P	E	livestock
Goldburg Creek	G	E	private land	G	E	private land
Mahogany Creek	F	F	livestock elevation	F	F	livestock elevation
Little Morgan Cr. - upper[2]	G	G	n/a	G	G	n/a

Stream	Spawning Habitat[1]			Rearing Habitat[1]		
	Existing	**Potential**	**Limiting Factors**	**Existing**	**Potential**	**Limiting Factors**
Little Morgan Cr. - lower[2]	P	P	dewatering	P	P	dewatering
Patterson Cr. - upper[2]	G	G	old mine (inactive)	G	G	old mine (inactive)
Patterson Cr. - lower[2]	P	P	mining dewatering	P	P	mining dewatering
Summit Creek (Little Lost River)	G/E	E	State land livestock	G/E	E	State land livestock
East Fork Salmon River	F/G	E	sediment	G	E	private land pool quality
Herd Creek	F	E	sediment private land	G	E	sediment private land
Lake Creek	P	F	gravels gradient	F	F	gradient pool:riffle
Big Lake Creek	F	G	gradient	F	G	gradient pool:riffle
Big Boulder Cr.	P	F	gradient gravels	F	G	gradient pool:riffle
Little Boulder Cr.	P	F	gradient gravels	F	G	gradient pool:riffle
Road Creek	P	F	sediment channel condition	P	F	pool quality channel condition

Source: Challis Resource Area stream surveys; Summer, 1994.

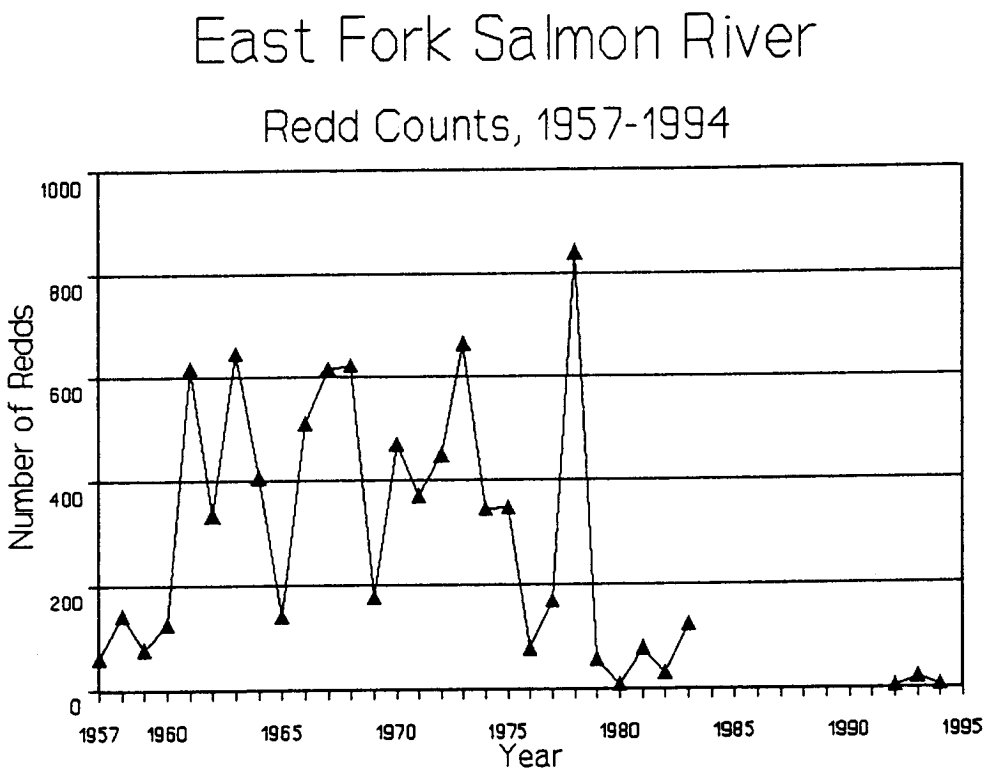
[1] E = Excellent; G = Good; F = Fair; P = Poor.

[2] The lower 11.0 miles of Big Creek, the lower 4.0 miles of Little Morgan Creek, and the middle 6.0 miles of Patterson Creek are limited by dewatering. "Upper" means that section of stream hydrologically connected to the perennial portion of the stream. "Lower" means that portion of the stream dewatered by diversion and (or) hydrologically connected to the Pahsimeroi River, with a dewatered center reach.

Appendix C: Fisheries

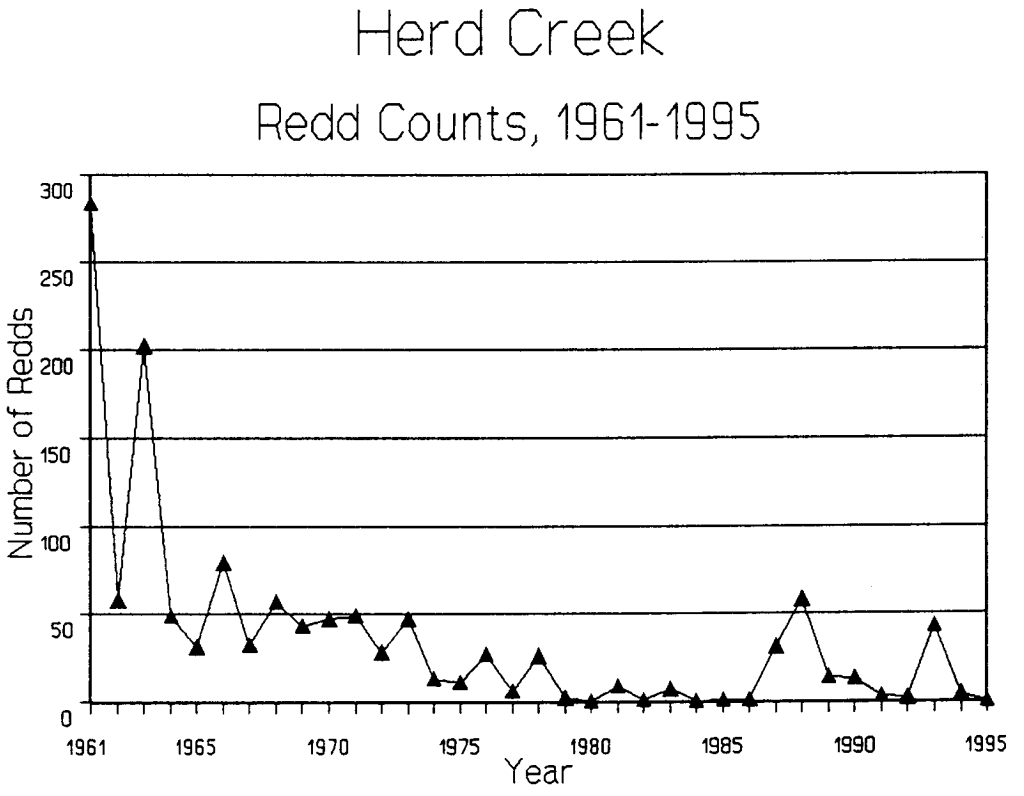
Item 3: Counts of Spring Chinook Salmon Redds

Annual survey counts of spring chinook salmon redds constructed in two important anadromous fisheries streams of the Challis Resource Area (the East Fork Salmon River and Herd Creek) indicate that the number of redds constructed each year has decreased substantially.



(**Note:** No counts were performed from 1984 to 1991. Only portions of the drainage were counted in 1992-1994.)

(**Sources:** Hall-Griswold and Cochnauer 1988; Saffel *et al* 1995.)



(**Sources:** Hall-Griswold and Cochnauer 1988; Richards and Cernera 1988, Richards *et al* 1989, Rowe *et al* 1989, and Rowe *et al* 1991 *in* Rowe *et al* 1994; Mike Rowe, personal communication 1996.)

Appendix C: Fisheries

Item 4: Stream Ownership and Condition Rating for Surveyed Portions of Fisheries Streams of the Challis RA (in miles)

Drainage/Stream	Private/State Ownership					BLM Public Lands					Surveyed Stream Totals
	Excellent	Good	Fair	Poor	Total	Excellent	Good	Fair	Poor	Total	
Salmon River	--	16.80	--	--	16.80	--	26.5	--	--	26.5	43.30
Allison Creek	--	--	0.40	1.00	1.40	--	--	1.35	--	1.35	2.75
McKim Creek	--	--	1.03	0.50	1.53	--	--	0.47	--	0.47	2.00
Morgan Creek	--	--	2.85	1.75	4.60	--	7.5	--	--	7.50	12.10
Challis Creek	--	3.0	4.75	0.25	8.0	--	--	0.5	--	0.5	8.5
Mill Creek	--	--	0.8	--	0.8	--	--	3.6	--	3.6	4.4
Garden Creek	Unknown				8.4	--	--	--	--	0.0	8.4
Birch Creek	--	--	0.6	--	0.6	--	--	--	2.0	2.0	2.6
Bayhorse Creek	.55	0.75	0.5	--	1.8	1.6	0.2	--	--	1.8	3.2
Lyon Creek	--	--	0.6	--	0.6	--	1.1	--	0.5	1.6	2.2
Kinnikinic Creek	--	--	1.0	--	1.0	—	2.5	1.3	--	3.8	4.8
Squaw Creek	--	1.6	2.0	--	3.6	0.2	0.9	0.8	--	1.9	5.5
Thompson Creek	--	--	0.3	--	0.3	.25	6.4	0.95	--	7.6	7.9

Drainage/Stream	Private/State Ownership					BLM Public Lands					Surveyed Stream Totals
	Excellent	Good	Fair	Poor	Total	Excellent	Good	Fair	Poor	Total	
Upper Pahsimeroi River	--	--	--	--	0.0	--	11.40	--	4.5	15.90	15.90
Lower Pahsimeroi River	Unknown				24.90	--	--	--	-	0.00	24.90
Big Creek	Unknown				4.40	0.60	0.32	--	6.43	7.35	11.75
Burnt Creek	--	--	0.20	3.40	3.60	--	2.85	3.00	2.30	8.15	11.75
Goldburg Creek	Unknown				11.63	--	0.70	0.67	--	1.37	13.00
Mahogany Creek	--	--	--	--	0.0	--	--	1.75	0.50	2.25	2.25
Little Morgan Creek	--	--	0.75	--	0.75	--	2.75	--	2.75	5.50	6.25
Patterson Creek	Unknown				9.24	0.33	--	1.4	3.78	5.51	14.75
Summit Creek (Little Lost River)	--	--	0.50	--	0.50	2.00	--	--	--	2.00	2.50
East Fork Salmon River	--	3.2	13.0	--	16.2	--	1.0	4.0	--	5.0	20.2
Herd Creek	--	1.6	2.0	--	3.6	--	2.6	1.2	--	3.8	7.4
Lake Creek	--	--	1.0	--	1.0	--	3.8	3.0	--	6.8	7.6
Road Creek	--	--	--	4.75	4.75	--	7.2	2.0	0.5	9.7	14.4
Big Lake Creek	--	2.2	--	--	2.2	--	1.2	--	--	1.2	3.4
Big Boulder Creek	0.1	0.2	--	--	0.3	0.9	0.3	--	--	1.2	1.5
Little Boulder Creek	0.3	--	--	--	0.3	1.8	--	--	--	1.8	2.1

Rating System: Adapted from a "Stream Habitat Evaluation" process developed by the Denver Service Center - BLM (Denver, Colorado) on one-quarter mile stream section surveys. Ratings are developed by assigning points from 1 to 4, with 4 being "excellent," to these factors: stream shade, streambank condition, streambank stability, stream channel stability, and siltation of streambed, summing the points, and applying the sum to this scale: 17+ = Excellent; 14-16 = Good; 10-13 = Fair; 5-9 = Poor.

Sources: Challis Unit Resource Analysis, Volume 2, Fisheries Section; and Summary of 1997 Field Inventory - updated to reflect monitoring and condition assessments from 1993 through 1997.

Appendix C: Fisheries

Item 5: Summary of Fisheries Habitat Condition in Drainages of the Challis RA

NOTE: This Appendix item summarizes detailed information contained in Appendix C: Fisheries, Items 2, 4, and 7.

Salmon River Drainage

The Salmon River has multi-state value, and has been classified as a "Class I" (*i.e.*, the highest fishery value) stream by the Idaho Department of Fish and Game. The Salmon River is the passageway for all anadromous fish in the region and is highly valued for sport fishing of resident fish species.

The fragmented ownership along the Salmon River in the Resource Area makes fisheries management and habitat improvement difficult. More than 62 miles of the Salmon River are within the Challis Resource Area. The BLM administers both banks along 20 miles and one bank along 14 miles; the remaining 28 miles are State or privately owned on both sides.

The majority of the water surface in the mainstem of the Salmon River can be characterized as riffle or deep run/pool habitat. Large pools in the Salmon River are extremely important holding areas for salmon and steelhead trout during migration. The bank stability of the mainstem Salmon River varies between the protected canyon areas and along many of the broader floodplain reaches, but is rated as fair to good overall. Lateral bank failures occur on both private and public lands along the mainstem Salmon River, due to naturally occurring events (*e.g.*, high spring flows) and limited woody vegetation along some streambanks.

The Salmon River is vital to the passage of thousands of adult steelhead trout and chinook salmon which spawn upstream of the Challis Resource Area. Young steelhead and salmon smolts also depend on the Salmon River for temporary rearing habitat as they outmigrate to the ocean. Some summer chinook salmon spawning occurs in the Salmon River in and around the confluence with the East Fork Salmon River, although annual redd counts by the Idaho Department of Fish and Game in the Salmon River between Thompson Creek (upper boundary of the Challis Resource Area) and the town of Challis, Idaho indicate this activity is limited (IDFG, personal communication - Jim Lukins, 1992). The water temperature of the Salmon River below the town of Challis can exceed 70 °F in the late summer as water conditions approach low flows.

Dewatering of streams for agricultural purposes is widespread in the tributaries of the main Salmon River. Allison, Challis, Morgan, Bayhorse, and Garden creeks may be completely dewatered during low water years. In low water years Squaw and Thompson creeks can also be sufficiently dewatered to prevent salmon from spawning. If water flows could be maintained during the entire year, all of these streams have the potential to accommodate spawning and rearing salmon.

The main Salmon River has a rather limited resident salmonid fishery consisting primarily of rainbow trout. Most of the rainbow trout are stocked and show good growth throughout the summer; however, population densities remain low. Westslope cutthroat trout and bull trout are also found in the main Salmon River in low numbers, although they are most often encountered in tributary streams. Bull trout can no longer be harvested as a sport fish. Mountain whitefish are also present in the Salmon River and are frequently sought after during the winter.

Stream surveys indicate many of the tributaries of the Salmon River in the Resource Area are in fair to good fishery habitat condition. Instream cover is fair to good, streambank and channel stability are good to fair, bank cover is good to fair, and the canopy cover (shading) is fair to good. Pool:riffle ratios on most streams are fair at approximately 30:70, with the exception of Morgan Creek (58:42). Pool quality is generally fair to poor, with most streams averaging 70 to 90% of their pool area in classes 4 or 5.

Pahsimeroi River Drainage

The Pahsimeroi River is the largest tributary to the Salmon River in the Challis Resource Area. The Pahsimeroi headwaters are on the east slope of the Lost River Range, which contains Mount Borah, the highest peak in Idaho. The main Pahsimeroi River is 40.8 miles long from its mouth to the Challis National Forest boundary. The lower 24.9 miles are privately owned and the upper 15.9 miles are administered by either the BLM or USFS. Typically, BLM and USFS stream surveys are confined to the upper reaches because of land ownership.

A small anadromous fish hatchery (owned by the Idaho Power Company and operated by the Idaho Department of Fish and Game) is located near the mouth of the Pahsimeroi River. Historically, the Pahsimeroi River was a prime spawning and rearing stream for natural steelhead trout and summer chinook salmon. Currently, all natural steelhead trout and summer chinook salmon are diverted into the hatchery and held for egg collection. The Pahsimeroi River is ideal for fish production because of the relatively constant flow of the lower Pahsimeroi River from numerous high quality springs along its lower reaches. However, the upper river and the upper one-third of private property dewaters in early summer.

Resident salmonids are present in adequate densities to provide a fair to good wild trout fishery throughout much of the upper drainage on public land. The lower Pahsimeroi River on private land supports a good resident rainbow trout fishery. The Idaho Department of Fish and Game manages the drainage as a wild trout fishery by natural reproduction, with harvest controlled under their general regulations (*i.e.*, except for a State-wide closure on bull trout, no special regulations for resident fish species are in place on the Pahsimeroi River).

The upper Pahsimeroi River drainage was surveyed in 1981 to determine the physical habitat availability and condition for salmonid production.

In general, the upper Pahsimeroi River on public land is in fair to good fishery condition. The pool:riffle ratio is very good, averaging 42:48. The pool quality is, however, rated as fair to good (good depth and size, but only fair bank and instream cover). Approximately 48% of the pools

were in classes 1, 2, or 3. Spawning gravels appear to be relatively abundant, and surface fines are at approximately 18 percent. Channel dewatering is probably the most limiting factor for salmonid production in the upper Pahsimeroi River. However, there is high potential to improve the available spawning habitat and instream flows through cooperative management throughout the drainage.

Few tributaries to the Pahsimeroi River have surface flows which reach the mainstem Pahsimeroi, due to irrigation diversions and the high natural permeability of the alluvial soils. The major tributaries with the potential for good yearlong flows are Little Morgan Creek, Morse Creek, Falls Creek, Patterson Creek, Big Creek, Goldburg Creek, the upper Pahsimeroi River, and Burnt Creek. The upper Pahsimeroi River and Burnt Creek are above the Pahsimeroi "sinks," and subsequently have limited access for anadromous fish (especially chinook salmon, which spawn in the summer during the height of the irrigation season). Thus, the potential for anadromous fish production in the upper tributaries is extremely limited at the present. However, all of these streams contain good populations of bull trout and (or) westslope cutthroat trout, which have been able to access the upper tributaries during higher flows.

In general, the surveyed tributaries of the Pahsimeroi River on public land are in fair habitat condition for resident salmonid species. The pool:riffle ratios average around 40:60, which is good for streams in this region. However, pool quality is relatively poor, with 80 to 90 percent in classes 4 or 5. Streambank and channel stability are generally good. However, all tributaries have isolated sections which have poor bank and channel stability, with extensive bank failures and associated channel sedimentation. Bank cover (especially woody vegetation) and instream cover are rated as fair. Spawning gravels are present in limited quantity and fair quality, with the exception of Big Creek and Patterson Creek, where surveys located little or no suitable substrate on public land. The presence of bull trout and westslope cutthroat trout in both of these drainages suggests that spawning gravels are present which were not identified during the survey. Although the existing spawning and rearing conditions on the upper Pahsimeroi River can only be rated as fair, the potential to develop good to excellent conditions through good management is high. The major limiting factor on all tributaries is low flow conditions because of agricultural diversions.

East Fork Salmon River Drainage

The East Fork Salmon River is critical for the recovery and enhancement of the anadromous fish stocks in the upper Salmon River. The East Fork Salmon River is classified as a "Class I" stream by the Idaho Department of Fish and Game. Historically, the East Fork drainage supported large runs of both chinook salmon and steelhead trout. Regional fishery biologists consider the East Fork to have excellent spawning potential, especially for chinook salmon. Only five miles of the 21 miles of the East Fork located within the Challis Resource Area are in public ownership. Five streams in the East Fork drainage have been identified as providing potential spawning and rearing habitat for anadromous fish: Herd, Big Boulder, Lake, Little Boulder, and Big Lake creeks. Herd Creek has the highest potential for salmonid production in the drainage.

Cobble embeddedness in the mainstem East Fork Salmon River and Herd Creek and Lake Creek generally is greater than 20%, while cobble embeddedness in Big Lake, Big Boulder, and Little Boulder creeks is generally less than 20% due to their higher gradients. Road Creek is the only exception, with embeddedness ratings well above 20%. Bank stability on the East Fork on public land is rated fair to good; however, bank stability is rated fair to poor on most private ground. Overall channel stability is rated as good, with good armoring and little channel shifting and braiding. Some rip-rap has been installed along the East Fork to help maintain the channel stability in highly erosive reaches. The bank and channel stability on the tributaries is generally quite good as the result of natural armoring by the large cobble/boulder substrate. The high gradient and heavy woody riparian vegetation help make the tributaries less susceptible to livestock damage. The three main exceptions are localized portions of Road Creek and Lake Creek and the private sections of Herd Creek, which have unstable banks and channels as the result of improper grazing management in the riparian zones.

No tributary streams of the East Fork Salmon River drainage are stocked with resident trout species by the Idaho Department of Fish and Game (IDFG). However, during the past 10 years, the IDFG has periodically stocked the East Fork Salmon River and Herd Creek with hatchery produced steelhead trout and occasionally chinook salmon. The Sawtooth Hatchery will be the primary source of spring chinook salmon in the future. In addition to releasing smolts to return as adults to the hatchery, the hatchery is being utilized as an outplanting facility to seed under-utilized habitats. The East Fork has been identified as a recipient for the release of 700,000 East Fork stock chinook smolts and 200,000 fingerlings from the Sawtooth Hatchery (BPA 1991).

The IDFG estimates that the East Fork drainage collectively contains about 95 miles of spawning and rearing habitat for anadromous fish (Petrosky and Holubetz, 1986). Spring chinook salmon spawn in the East Fork, Herd Creek, Big Boulder Creek, and Little Boulder Creek. Estimates suggest that about 30% of the redds in the East Fork drainage occur in Herd Creek. Summer chinook are generally "big river" fish; they spawn primarily in the 49 miles of the upper Salmon River above the East Fork and, to a lesser extent, in the lower portion of the East Fork. The East Fork and its tributaries are also important steelhead trout habitat. Steelhead trout spawning occurs in Herd Creek, Big Lake Creek, Big Boulder Creek, and Little Boulder Creek.

Cattle ranching is the main agricultural use along the East Fork Salmon River. Historically, mining was also an important use of the region. The Livingston Mine, currently inactive, was the largest mine in the drainage and is located at the head of Jim Creek, a tributary to Big Boulder Creek. Both cattle ranching and mining activities have introduced sediment into many stream channels, limiting fisheries habitat.

The mainstem East Fork Salmon River generally falls into the 20% embeddedness category, which is above the desired management goal of <20%. Approximately 70% of the available spawning gravel in Herd Creek falls into the fair category, with surface fines approaching 20%. Most of the tributaries have embeddedness ratings of less than 20%; but they have limited spawning potential due to high channel gradients and (or) gravels which are unavailable because of migration barriers.

Six streams in the East Fork Salmon River drainage have been identified as providing existing or potential spawning and rearing habitat for resident and anadromous salmonids: Road Creek, Herd Creek, Big Boulder Creek, Lake Creek, Little Boulder Creek, and Big Lake Creek. In general, the tributaries of the East Fork on public land appear to be in fair to good condition. Instream cover, canopy cover (shading), and low bank cover are generally rated as good, while bank and channel stability are rated as fair to good. The pool:riffle ratios are fair at approximately 30:70. Pool quality is also limited, with most pools falling into classes 4 and 5 due to a lack in overall pool size. However, pool size naturally decreases as stream gradient increases. Pool:riffle ratios and pool quality tend to limit the overall carrying capacity of the tributaries for rearing and overwintering salmonids.

Big Lost River Drainage

The Big Lost River Valley is one of the major structural intermountain basins of east central Idaho. It is located at the boundary between the northern portion of the Snake River Basin and the southern-most section of the Northern Rocky Mountains.

The mainstem Big Lost River is formed about 29 river miles upstream from Mackay Reservoir by the confluence of the East Fork of the Big Lost River and North Fork of the Big Lost River. There are approximately 180 miles of Big Lost River tributary streams within the Challis Resource Area. However, most streams are ephemeral or intermittent and provide little or no fishery value. The primary tributaries to the Big Lost River within the Resource Area are the East Fork of the Big Lost River, North Fork of the Big Lost River, and Thousand Springs Creek.

The Big Lost River has historically had streambank erosion problems; aquatic specialists in the region consider this to be the most critical factor in managing the drainage. During high flows, extensive movement of the streambed material occurs, causing major annual changes by in the channel configuration. Critical streambank erosion sites were identified by the Idaho Department of Health and Welfare in 1980. The area of greatest concern is mostly private land which extends along the 27-mile reach from the Bartlett Point Bridge to Mackay Reservoir. These critical streambank erosion sites are generally within the sagebrush-grass and riparian vegetation types. Various agencies and land owners have applied a variety of structural and non-structural treatments since 1980, with moderate success.

Streams in the Big Lost River drainage lose water very rapidly after they leave the mountains and flow across the alluvial fans in the valleys. On the Big Lost River the bed loss is so great that at medium to low flow, the entire surface flow in the mainstem disappears into the alluvium in the "Chilly Butte" area and is known locally as the "sinks." The primary fishery values of the river in the Resource Area lie in the upper reach, which runs 7 miles from the confluence of the East and North Forks and runs to the "sinks" area near Chilly Buttes.

The Big Lost River is a unique fishery because it has been isolated from other downstream drainages for hundreds of years. The fish population in the Big Lost River is comprised primarily of planted salmonids and native sculpins. Results of electrofishing carried out in the drainage by the IDFG indicate a fish population made up of rainbow trout, brook trout, mountain whitefish,

and sculpin. Bull trout have been found in the system, but no documented occurrence has occurred since 1976 when the IDFG found them in the Big Lost River below Arco, Idaho. Kokanee salmon are present in Mackay Reservoir and utilize the Big Lost River above the reservoir for spawning in the fall. Overall, the Big Lost River drainage is considered to be one of the better fisheries in eastern Idaho. The Big Lost River drainage is managed primarily as a wild trout fishery by natural reproduction with special regulations in place to limit the annual harvest and increase the number of larger fish in the population. Some fish stocking does occur in the upper drainages on National Forest land, but little or no stocking has taken place on the lower river in the Resource Area in the recent past. Recent surveys by the IDFG indicate the Big Lost River below Mackay Reservoir has an excellent population of trophy-sized (>18 inches) rainbow trout and a good population of large brook trout. Like other areas in Idaho, fishing pressure on the Big Lost River is steadily increasing.

The Big Lost River is beset by a number of problems impacting the fishery. Sections of streams in the upper watershed show damage by livestock grazing, which is aggravated by natural factors such as heavy surface runoff caused by rapid spring snowmelt and high intensity localized summer storm events. Riverbank erosion along the Big Lost River is the major problem contributing to water quality degradation and sedimentation of fisheries and macroinvertebrate habitat in the river and Mackay Reservoir. In some localized areas of the lower reach, winter icing contributes to bank and channel damage and, in some cases, winter fish kill. In the Chilly Sinks reach, the surface water sinks underground during the late summer leaving a dry channel, thus allowing only a transitory fish population during high flow periods.

Only two streams in the Big Lost River drainage within the Challis Resource Area presently have adequate habitat for good salmonid fishery production. These are the upper mainstem of the Big Lost River and Thousands Springs Creek. However, Burnt Creek and Grant Creek both have an adequate supply of year round flow to potentially maintain a small resident trout fishery if habitat conditions could be improved. Mackay Reservoir also provides a good put-and-take fishery for rainbow trout and kokanee salmon. It is known as one of the best ice fishing lakes in the region.

Of the first 6.5 miles of the Big Lost River below the Sawtooth National Forest boundary, 5.7 miles are on public land. The remainder of the Big Lost River through the Resource Area is privately owned, with the exception of approximately 2.7 miles of fragmented and scattered stream segments. These isolated parcels are difficult to effectively manage. Thus, management emphasis is focused on the resident trout fishery in the upper 5.7 miles.

The Thousand Springs Creek area is unique, being comprised of an extensive wetlands with a spring-fed stream. Approximately 2.65 miles of stream are on public land above the confluence with the Big Lost River, and more is being acquired through land exchanges and purchase. This stream currently contains a good population of rainbow trout and brook trout.

Nine minor tributary drainages feed the upper Big Lost River on public land: Deep Creek, Twin Bridges Creek, Lake Creek, Garden Creek, Bady Creek, Pinto Creek, Bartlett Creek, Rock Creek, and Talman Creek. During base flow conditions in the late summer, the surface flow at the mouth of these streams is reduced or completely dewatered. As the result of low flows and poor riparian

conditions due to adjacent land use activities, the fishery condition in these streams is poor. Although these streams have little fisheries potential, all contribute to sedimentation in the Big Lost River.

The upper portion of the Big Lost River is relatively straight with very little meandering. Most of the stream is shallow, fast-flowing riffle-type habitat with limited pool development. The few pools that are present are behind large boulders and the occasional debris jam. The pool:riffle ratio ranges from 10:90 to as high as 30:70 and appears to improve as the river moves downstream. Spawning habitat for resident trout is minimal in this section of river and is the most limiting factor for trout production in this section of river.

Overall, the existing fishery condition on this 5.7 miles of stream is rated as fair to good with a moderate to high fishery improvement potential. Recent surveys by the IDFG indicate a fair population of resident trout. However, the last several years of fishery data suggest that this section of river is not responding to the special management regulations in place, and further analysis is needed.

Thousand Springs Creek: Thousand Springs Creek originates from numerous small springs on private land and flows approximately 14 miles in a southeasterly direction, where it enters the Big Lost River approximately 7 miles above Mackay Reservoir. Approximately 2.65 miles of this stream are presently on public land. However, negotiations with the existing landowners are taking place to try and acquire more of this unique environment and place it under BLM management. The entire course of Thousand Springs Creek is a unique wetland unlike any other in the Challis and Lemhi Resource Areas.

There are essentially two separate fish populations in Thousands Springs. The stream flows above ground from the source downstream approximately 5 miles where it sinks and re-emerges a short distance downstream. The upper area has only rainbow trout. All of the known spawning habitat in the upper reach occurs on private land within 200 yards of the spring source, and 90% of all the fish occur in the first 1.0 mile of stream below the source. Thousand Springs Creek re-emerges approximately 4.5 miles above its confluence with the Big Lost River where it is locally known as Whiskey Springs. Suitable spawning habitat is available in the two miles of stream above the confluence with the Big Lost River. This lower section is a series of pools and riffles with a gravelly substrate, as opposed to the upper area which is heavily silted and shallow. The lower reach contains primarily brook trout and a few rainbow trout.

Mackay Reservoir: Mackay Dam was constructed in 1917 and its source of water is the Big Lost River. The reservoir has a surface area of 1,341 acres and a full capacity of 45,050 acre-feet. When filled to the spillway elevation, it has a maximum depth of 65 feet.

The reservoir is stocked with rainbow trout and kokanee salmon and provides a good put-and-take fishery. It also has the reputation of being one of the best ice fishing lakes in the region. The Big Lost River, Warm Spring Creek, and Parsons Creek are vital to these fish as spawning and nursery areas.

[this page is intentionally blank]

Appendix C: Fisheries

Item 6: Anadromous and Resident Fish Life Histories and Habitat Requirements

Anadromous Fish Species

The general life history for all anadromous species in the upper Salmon River is similar (see *Table C-1*). Young fish are spawned in the tributaries and reared in their natal waters for 1 to 3 years before migrating back to the Pacific Ocean in April and May. After maturing for 1 to 3 years in the ocean, the adults swim up to 850 miles to return to their natal streams to spawn and complete their life cycle.

Chinook salmon in the upper Salmon River are considered "spring" or "summer" stocks depending on the time they leave the ocean and enter the Columbia River. Spring chinook destined for the upper Salmon River enter the Columbia River during March through May, arrive in the Challis area in June and July, and spawn in August to September. Historically, the runs were comprised of exceptionally large 4 and 5 year old fish (Bjornn *et. al.* 1960). The eggs incubate in the gravel until December, with fry emerging in February and March. Juvenile rearing extends until the spring (March and April) of the second year when the fish are about 4 to 5 inches long (BPA 1991). Summer chinook enter the Columbia River in late May, June, and early July, arrive in the mainstem Salmon River and lower East Fork Salmon River in mid-July to August, and spawn in September and early October. Spring chinook tend to spawn in smaller tributaries and the East Fork Salmon River, while summer chinook tend to spawn entirely in the mainstem Salmon River, the East Fork Salmon River, and the Pahsimeroi River.

Steelhead rainbow trout of the upper Salmon River and its tributaries are termed "summer" steelhead because they enter the Columbia River in June through August. Arrival in the Challis area is not until the following spring, after the fish have overwintered lower in the main Salmon River, usually near the town of North Fork, Idaho. Steelhead spawning occurs in April and May. Fry emerge from redds in early July and rear the rest of the summer in their natal streams. When water temperatures cool in September and October, the young fish either overwinter in their natal streams, if adequate habitat is available, or migrate downstream to the Salmon River to overwinter. The following spring many of the fry will smolt and migrate to the ocean. Those that have not sufficiently matured will migrate back up a tributary and spend another year before migrating to the ocean. Approximately 80% of the Salmon River steelhead rainbow trout will remain in the ocean for one year, while the remaining 20% will spend two years in the ocean before returning to the Salmon River to spawn.

Sockeye salmon migrate through the Resource Area in mid-July and August and spawn in Redfish Lake in September and October. The smolts are reared in Redfish Lake after hatching and outmigrate two years later, moving down the Salmon River to the ocean during high spring flows (April through May).

Table C-1: Anadromous Fish Species Life Histories and Habitat Requirements

Life Cycle/Habitat	Spring Chinook	Summer Chinook	Steelhead Trout	Sockeye Salmon
adult fish age at maturity (years)	mostly 4 and 5 some 3	3 to 5	mostly 4 and 5	mostly 4 and 5
time in ocean (years)	1 to 3	1 to 3	1 to 2	1 to 3
return migration to Upper Salmon River	June to July	mid-July to August	Oct. to May	mid-July to August
spawning	August to early September	September to early October	April to mid-June	August to September*
preferred size of spawning gravels (inches)	3 to 6	3 to 6	1/2 to 4	n/a*
redd size	16 square yards	16 square yards	6.5 square yards	n/a*
egg incubation, hatching, and emergence	August to March	September to April	April to mid-July	n/a*
young fish rearing - time in fresh water (years)	1	1	mostly 2 some 1 and 3	1 or 2
out-migration to ocean	majority in April and May	majority in April and May	majority in April and May	most in May
food habits	Young chinook and steelhead eat mostly aquatic macroinvertebrates and terrestrial insects.			Young sockeye live only in Redfish Lake (outside the Challis Resource Area) and feed on plankton.

Sources: Bell 1973; Bjornn, *et. al.* 1968; Bruner 1951; Orcutt, *et. al.* 1968; White and Cochnauer 1975; and Parkhurst 1950.

*Sockeye salmon migrate through waters within the Challis Resource Area boundary, but do not spawn or rear young fish in RA waters.

Resident Fish Species

The waters of the upper Salmon River and its tributaries are used by several economically important resident fish species for movement, spawning and rearing. All phases of these species' life histories are spent in these waters, as opposed to anadromous fish which migrate to the ocean for a part of their lives. Bull trout, westslope cutthroat trout, and rainbow trout are discussed further in this section. *Table C-2* describes the general life histories and habitat requirements for rainbow trout, westslope cutthroat trout, brook trout, bull trout, and mountain whitefish.

Bull trout are found throughout the Salmon River drainage, as well as portions of the Big Lost River and Little Lost River drainages. However, although bull trout may be present in these river systems, their distribution is highly disjunct, primarily as a result of diversions or other artificial obstructions which adversely affect distribution and abundance. Bull trout populations are generally only present in upper stream reaches of tributaries of the Salmon River (see *Appendix C, Item 1: Game Fish Species Distribution*). Bull trout spawn in the fall in spring areas or areas of clean gravel and cold water. Eggs incubate through the fall, and fry and juvenile rearing occurs in natal streams. Adults move from stream to stream, if possible, in their search for spawning and rearing areas. Where these fish occur, the streams are used for spawning, rearing, and migration. Important habitat requirements for these fish, as defined in the *State of Idaho Bull Trout Conservation Plan* (Batt 1996), include good bank and channel stability, unsedimented substrate, good cover, temperatures below 59 °F, and uninterrupted migration corridors. If any of these factors are compromised, then the ability of this species to survive in its habitat is adversely affected.

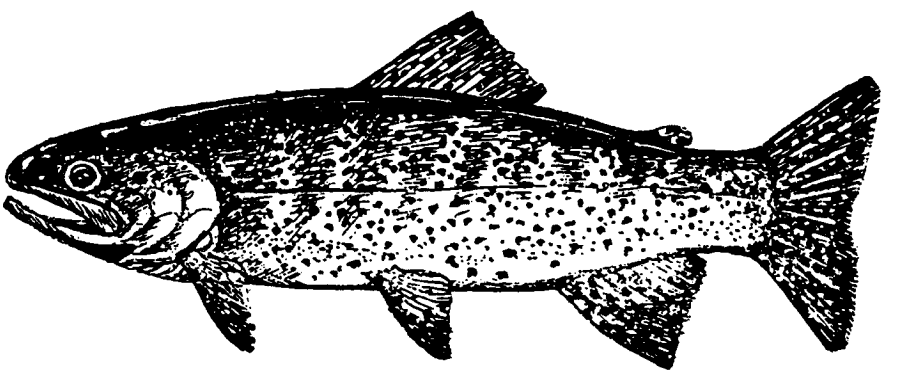
Westslope cutthroat trout are found throughout the Salmon River drainage, either naturally or as hatchery plants, and are sought after as sport fish. Cutthroat trout populations are highly disjunct, for the same reasons bull trout populations are disjunct; the two species are often found concurrently within the same stream. Westslope cutthroat trout habitat requirements are approximately the same as for the bull trout, although they do not need extremely cold and high quality waters to survive. Cutthroat trout spawn in the spring, in clean gravel areas and during spring high flows, with incubation occurring over the summer months. Rearing of emergent fry occurs in the natal stream with adults moving less than bull trout, although some movement does occur between systems.

Rainbow trout follow a similar pattern as cutthroat trout, although they do not require as high quality habitat as bull trout or cutthroat trout. They appear able to withstand higher temperatures and sediment loads. Rainbow trout spawn in the spring, in clean gravel areas and during spring high flows, with incubation occurring over the summer months. Fry emerge from redds in early July and rear the rest of the summer in their natal streams. When water temperatures cool in September and October, the young fish either overwinter in the natal streams, if adequate habitat is available, or migrate downstream to the Salmon River to overwinter. They will move back into tributary streams as conditions permit. Many steelhead rainbow trout (see "Anadromous Fish Species" above) will remain in the Salmon River drainage as resident fish and live out their lives without migration to the sea.

Table C-2: Resident Fish Species Life Histories and Habitat Requirements

Life Cycle/Habitat	Rainbow Trout	Westslope Cutthroat Trout	Brook Trout	Bull Trout	Mountain Whitefish
Spawning	April to June	May to June	Sept. to Nov.	Sept. to October	October to January
Egg Incubation, Hatching, and Emergence	April to July	May to July	Sept. to April	Sept. to April	October to early May
Age at Maturity	3 to 4 years	3 to 4 years	3 to 4 years	4 to 6 years	3 to 4 years
Preferred Size of Spawning Gravels	1/4 to 1-1/2 inches				Whitefish broadcast spawn over gravel and cobble bottoms.
Food Habits	All trout fry initially feed on zooplankton and very small aquatic macroinvertebrates. Their diet gradually changes to progressively larger insects, aquatic macroinvertebrates, and crustaceans. As they grow larger, rainbow and cutthroat trout consume some small fish. Bull trout become very predaceous on small fish and anadromous fish eggs during spawning.				Whitefish are bottom feeders, eating primarily aquatic macroinvertebrates. They will also take small terrestrial insects on the surface and occasionally even a small fish.

Sources: Bell 1973; Bjornn, *et. al.* 1968; Bruner 1951; Orcutt, *et. al.* 1968; and White and Cochnauer 1975.



Westslope cutthroat trout

Appendix C: Fisheries

Item 7: Stream Characteristics of Surveyed Fisheries Streams of the Challis RA

Stream	% Gradient	Average Width (feet)	Average Riffle Depth (inches)	Average Pool Depth (inches)	Pool: Riffle Ratio	Pool Quality		Spawning Gravels (sq. yds.)		Surface Fines (1995-1996 data)	Shade[1]	Low Bank Cover[1]	Stream-bank Stability[1]	Channel Stability[1]	In-stream Cover[1]
						Classes 1, 2, 3	Classes 4, 5	Good	Marginal						
Salmon River	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Allison Cr.	7.4	6	6	9.5	15:85	8%	92%	0	64.5	>20%	F	G/F	F	G/F	G/F
McKim Cr.	6.8	11	9	18.0	36:64	23%	77%	45.0	19.0	>20%	F	G/F	G	G/F	G
Morgan Cr.	2.2	15	6	20.0	58:42	38%	62%	60.0	217.0	15.4%	F/P	G/F	E	G	G/F
Challis Cr.	1.5	17	8	--	20:80	--	--	1,444	11,435	--	F/G	G/F	F	G/F	--
Bayhorse Cr.	5.0	13	10	--	36:64	--	--	384	688	5.1%	G	G	G/E	G	--
Squaw Cr.	1.5	24	10	--	33:67	--	--	3,244	10,435	13.9%	F/G	F/G	G/F	G/F	--
Thompson Cr.	2.2	19	10	--	20:80			1,244	3,168	14.8%	G	G	F	F	--
L. Pahsimeroi R.	0.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U. Pahsimeroi R.	2.0	18.3	15	24.0	42:48	48%	52%	0.0	80.0	18.3%	F/P	G/F	F/P	G/F	G/F
Big Cr.	2.4	17	9	14	37:63	15%	85%	0.0	0.0	<20%	G/F	G/F	G/F[3]	E/G	G/F
Burnt Cr.	1.9	6	5	13.0	44:56	9%	91%	48	57	27.7%	P	F/P	F/G	F/P	P
Goldburg Cr.	1.5	12.9	10	18.4	37:63	100%	0%	10.3	0.0	>20%	F	E/G	G/F	F	F
Mahogany Cr.	3.7	6	5	14.0	56:44	15%	85%	18.5	27.8	>20%	F/P	F	F	F	F
L. Morgan Cr.	5.0	13	9	15.0	40:60	13%	87%	73.0	19.0	>20%	G	G	G/F[3]	G	G
Patterson Cr.	1.7	18	10	16.0	50:50	12%	88%	0.0	0.0	<20%	F	G	G	E/G	G/F
Summit Cr. - (Little Lost R.)	0.5	14.8	10	2.2	50:50	100%	0%	--	abundant	<20%	E	E	E	E	E

Stream	% Gradient	Average Width (feet)	Average Riffle Depth (inches)	Average Pool Depth (inches)	Pool: Riffle Ratio	Pool Quality		Spawning Gravels (sq. yds.)		Surface Fines (1995-1996 data)	Shade[1]	Low Bank Cover[1]	Stream-bank Stability[1]	Channel Stability[1]	In-stream Cover[1]
						Classes 1, 2, 3	Classes 4, 5	Good	Marginal						
East Fork Salmon River	--	--	--	--	--	--	--	--	--	>20%	<20%	G	F/G	G	G
Herd Cr.	1.2	19	14[a]	6[b]	26:74	--	--	9,117	20,888	17.8%	33%	G[2]	F/G[2]	G/F[2]	G[2]
Lake Cr.	4.2	7	6[a]	3[b]	28:72	--	--	65	435	30.2%	80%	G	G	G	G
Big Lake Cr.	4.7	7	9[a]	2.5[b]	20:80	--	--	1,075	1,368	<20%	78%	G	G	G	G
Big Boulder Cr.	4.5	16	13[a]	5[b]	28:72	--	--	20	126	<20%	68%	G	G	G	G
Little Boulder Cr.	5.0	19	14[a]	3.5[b]	32:68	--	--	29	281	<20%	85%	G	G	G	G
Road Cr.	--	--	--	--	--	--	--	0	unk.	36.2%	<20%	F	G	F/P	F/P

Sources: Challis Unit Resource Analysis, Volume 2, Fisheries Section; Summer, 1994 stream surveys of the Challis RA; and Summary of 1997 Field Inventory - updated to reflect monitoring and condition assessments from 1993 through 1997.

[1] E = Excellent; G = Good; F = Fair; P = Poor

[2] bank stability, channel stability, bank cover, and instream cover are all fair to poor on private land. Along Herd Creek, streambank stability is good on public lands and fair on private lands

[3] Streambank stability along Big Creek and Little Morgan Creek in the Upper Pahsimeroi River is good in the upper section and fair in the lower section.

[a] column data are average depth (inches)

[b] column data are maximum pool depth (feet)

Appendix C: Fisheries

Item 8: Irrigation Diversion Structures

Within the Challis Resource Area there are at least 21 screened and 43 unscreened water diversion structures for agricultural purposes on anadromous and resident fisheries streams. These diversions are in direct conflict with Resource Area fishery management goals and objectives for the following reasons: (a) many are unscreened, allowing fish to be diverted into ditches and canals where they eventually perish; (b) many diversions completely dewater sections of a stream for several weeks or months out of the year, making anadromous fish migration in and out of some streams impossible and providing only a transitory fish population in these sections; (c) reduced flows below diversions reduce available fish habitat, degrade other habitat features, and increase water temperature above optimal levels; and (d) the numerous screened diversions can significantly slow down the migration of anadromous smolts, reducing their chance of successfully reaching the ocean.

The BLM is presently coordinating with the Idaho Department of Fish and Game, Bonneville Power Administration, and National Marine Fisheries Service to delineate all diversions on BLM public lands and to prioritize a construction program for screening all unscreened diversions and replacing existing screens that are in poor condition or otherwise inoperable. The BLM needs to coordinate with the Idaho Department of Water Resources in a program to gate all diversions so that only the legal water right is diverted, retaining adequate instream flows for fish and wildlife values. Instream flow rights need to be filed for on all important fishery streams in the Resource Area.

Many irrigation diversions are present along the mainstem Salmon River and nearly all of its tributaries in the Challis Resource Area. *Table C-3* lists the number of known diversions on important fishery streams and rivers on BLM public lands in the Challis Resource Area, and their relative impact on the flow at the stream's mouth. (**Note:** Streams not listed have no known diversions on Challis RA public lands. Diversions located on private and U.S. Forest Service lands are not identified in *Table C-3*, although those diversions create the same negative effects on fish and aquatic habitat discussed in this section.) The location of these structures and the relative amount each diverts are presently being researched. During years of extremely low flows, many diversion structures extend across the entire Salmon River, although none prevent anadromous fish migration on the river.

Dewatering of streams for agricultural purposes is widespread in the tributaries of the mainstem Salmon River. The irrigation demand is at its peak when stream flows are at their lowest. This situation generally eliminates fish migration into and out of most tributaries, while the reduced flows decrease the overall carrying capacity and associated salmonid production in most of these tributaries and the main Salmon River. Several stream sections on public land are totally dewatered for irrigation, eliminating all fish and aquatic life for several months out of the year. Other streams also have the potential to be completely dewatered, depending on the annual precipitation and surface water available in a given year.

Water diversions have six negative impacts on fish: (1) loss of water results in a direct loss of habitat; (2) low flows degrade essential habitat features for all aquatic life; (3) water flow reductions cause increases in water temperature; (4) fish (especially outmigrating steelhead trout and chinook salmon smolts) are killed when stranded in irrigation ditches and fields as the result of unscreened diversions; (5) diversion structures and/or dewatering retard or prevent upstream migration of anadromous fish; and (6) the numerous screened diversions can significantly slow down the outmigration of anadromous smolts, reducing their chance of successfully completing the journey.

Table C-3: Irrigation Diversion Structures on Challis RA Public Lands

Drainage/Stream	# Screened	#Unscreened	Status at Mouth
Salmon River	11	3	n/a
Bayhorse Creek	0	2	reduced flow
Challis Creek	0	1	reduced flow
Eddy Creek	0	1	dry
Cow Creek	0	2	reduced flow
Lyon Creek	0	2	reduced flow
McKim Creek	0	1	reduced flow
Morgan Creek	0	2	dry
Squaw Creek	0	1	reduced flow
Pahsimeroi River	n/a/	n/a	n/a
Little Morgan Creek	0	1	dry
Tater Creek	0	1	dry
Morse Creek	0	2	dry
Falls Creek	0	2	dry
Patterson Creek	0	3	dry
Big Creek	0	2	dry
Ditch Creek	0	1	dry
Goldburg Creek	0	unknown	reduced flow
Big Gulch Creek	0	unknown	reduced flow
Donkey Creek	0	1	dry
Upper Pahsimeroi River	0	1	dry
Mahogany Creek	0	1	reduced flow
Sulphur Creek	0	1	dry
Trail Creek	0	1	dry
Lawson Creek	0	1	dry
East Fork Salmon River	6	2	reduced flow
McDonald Creek	0	1	dry
Fox Creek	0	1	dry
Herd Creek	1	0	reduced flow
Big Boulder Creek	2	0	reduced flow
Little Boulder Creek	0	1	reduced flow
Big Lake Creek	1	1	reduced flow
Road Creek	0	4	reduced flow

Appendix D: Land Tenure and Access

Item 1: Withdrawal Status of Campgrounds and Recreation Sites*

Site Description	Site Location		Acreage
Mackay Reservoir	T. 7N.,R.23E.;	Sec. 1: SWSW	40.00
		Sec. 2: SESE	40.00
Black Daisy Recreation Site[1]	T. 7N.,R.23E.;	Sec.11: SESE	40.00
Pinto Creek Rec. Site (Garden Creek)	T. 8N.,R.21E.;	Sec.30: Lot 2	51.69
Upper East Fork Campground (Little Boulder Creek)	T. 9N.,R.17E.;	Sec.22: SESW	40.00
		Sec.27: NWSW	40.00
		Sec.28: SWSE	40.00
Fox Creek Campground[1]	T. 9N.,R.18E.;	Sec. 3: Lot 3	39.39
		Lot 4	39.00
Lake Creek Picnic Site	T. 9N.,R.19E.;	Sec.23: SESE	40.00
Ziegler's Hole Recreation Site[1]	T.10N.,R.18E.;	Sec.24: SESW	40.00
Jimmy Smith Lake Campground	T.10N.,R.18R.;	Sec.30: Lot 4	38.19
Clayton Ranger Station Campground[1]	T.11N.,R.17E.;	Sec.29: Lot 11	37.30
		Sec.30: Lot 10	37.10
East Fork Recreation Site	T.11N.,R.18E.;	Sec.22: Lot 5	29.39
Birch Creek Recreation Site[1]	T.11N.,R.18E.;	Sec.22: Lot 8	38.43
Spud Creek Rec. Site[1]	T.11N.,R.18E.;	Sec.22: Lot 11	25.89
		Sec.27: Lot 1	33.65
		Lot 2	0.92
		Sec.28: Lot 2	45.26
		Lot 3	44.05
Summit Creek Rec. Site	T.11N.,R.25E.;	Sec.22: NENE	40.00
		Sec.23: NWNW	40.00
Bayhorse Creek Rec. Site	T.12N.,R.18E.;	Sec. 2: S2SESE	20.00
		Sec.11: N2NENE	20.00

(continued)

Site Description	Site Location		Acreage
Deadman Hole Recreation Site	T.12N.,R.19E.;	Sec.19: Lot 7	28.42
		Sec.30: Lot 1	32.30
		Lot 2	34.75
		Lot 3	41.38
Wood Creek Recreation Site (Dugway)	T.12N.,R.19E.;	Sec. 6: Lot 13	26.14
Double Springs Recreation Site[1]	T.12N.,R.23E.;	Sec.31: Lot 4	34.47
Round Valley Rec. Site (Challis Bridge)	T.13N.,R.19E.;	Sec.10: Lot 6	15.31
		Lot 7	33.80
Morgan Creek Recreation Site	T.16N.,R.19E.;	Sec.33: Lot 2	35.10
Mike Ellis Bridge Recreation Site[1]	T.16N.,R.20E.;	Sec.34: Lot 3	12.10
		Lot 4	24.80
		Lot 7	44.75
		Sec.35: Lot 1	23.15
Cow Creek Recreation Site[1]	T.16N.,R.21E.;	Sec. 8: Lot 4	41.71
		Lot 5	46.80
Cronk's Canyon Recreation Site[1]	T.16N.,R.21E.;	Sec. 8: Lot 8	52.00
		Sec.17: Lot 1	23.52
		Total	1,450.76

* Includes lands segregated from Homestead Entry, Desert Land Entry, Indian Allotment, Public Sale, and the General Mining Laws.

[1] Recreation site is not developed at present.

Appendix E: Legislation

Item 1: Expanded Description of Legislation Relevant to the Challis RMP

American Antiquities Act of 1906 (P.L. 59-209; 34 Stat. 225; 16 U.S.C. 432, 433). Chronologically and philosophically the basis legislation for the protection and preservation of cultural properties (archaeological and historic, without regard to minimum age) on Federal lands. It provides for permits to authorize scholarly use of properties, for misdemeanor-level penalties to control unauthorized use, and for Presidential designation of outstanding properties as national monuments for long-term preservation.

American Indian Religious Freedom Act of 1978 (P.L. 95-341; 92 Stat. 469; 42 U.S.C. 1996). The Act resolves that is shall be the policy of the United States to protect and preserve for the American Indian, Eskimo, Aleut, and Native Hawaiian the inherent right of freedom to believe, express, and exercise their traditional religions, including but not limited to access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites.

Archeological and Historic Preservation Act of 1974 (P.L. 93-291; 88 Stat. 174; 16 U.S.C. 470). Amends the Reservoir Salvage Act of 1960 and expands the National Historic Preservation Act of 1966 by authorizing agency funds for survey of archaeological sites and the recovery of significant archaeological materials caused by any alteration of terrain from any Federal action.

Archeological Resources Protection Act of 1979 (P.L. 96-95; 93 Stat. 721; 16 U.S.C. 470aa *et seq.*) as amended. Act provides for felony-level penalties, more severe than those of the American Antiquities Act of 1906, for the unauthorized or attempted unauthorized excavation, removal, damage, alteration, or defacement of any archaeological resource more than 100 years of age, found on public lands or Indian lands. The Act also prohibits the sale, purchase, exchange, transportation, receipt, or offering of any archaeological resource obtained from public lands or Indian lands in violation of any Federal law.

Clean Water Act of 1977. Provides for protection, restoration, or improvement of water quality, including riparian/wetland areas.

Emergency Wetland Resources Act of 1986. Promotes the conservation of riparian/wetland areas by intensifying cooperative efforts among state, private, and Federal interests.

Endangered Species Act of 1973. A Federal law requiring all Federal departments and agencies to conserve species listed by the Secretary of the Interior or Secretary of Commerce as threatened or endangered, to ensure that the continued existence of listed species is not jeopardized and that designated critical habitat of listed species is not destroyed or adversely modified. Requires consultation with the U.S. Fish and Wildlife Service or National Marine Fisheries Service if it is determined that any BLM action may affect a listed species or its habitat.

Executive Order 11593 ("Protection and Enhancement of the Cultural Environment," 36 F.R. 8921, May 13, 1971). This order directs Federal agencies to inventory cultural properties under their jurisdiction, to nominate to the National Register of Historic Places all Federally owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and to assure that Federal plans and programs contribute to the preservation and enhancement of non-Federally owned properties.

Executive Order 11987 of May 1977 (Exotic Organisms). Directs Federal agencies, to the extent permitted by law, to restrict the introduction and/or importation and funding of exotic species into natural ecosystems on the lands they administer. It also encourages state and local governments and private citizens to prevent introduction of exotic species.

Executive Order 11988 of May 1977 (Floodplain Management). A Federal executive order, signed by the President, directing Federal agencies to evaluate the potential effects of their actions on floodplains and to ensure that their planning programs and budget requests take flood hazards and floodplain management into account. Requires Federal agencies to take actions to reduce the risk of floodplain loss, minimize the impacts of floods, and restore and preserve the natural and beneficial values of floodplains.

Executive Order 11989 of May 1977 (Off-road Vehicle Use). A Federal executive order, signed by the President, directing Federal agencies to close areas to off-road vehicle use whenever it is determined that use of ORVs is causing or will cause considerable adverse impact on soil, vegetation, wildlife, wildlife habitat, or certain other resources on public lands.

Executive Order 11990 of May 1977 (Protection of Wetlands). A Federal executive order, signed by the President, directing Federal agencies to minimize the destruction, loss, and degradation of wetlands, and to preserve and enhance the beneficial values of wetlands.

Executive Order 12088 of 1978 (Federal Compliance with Pollution Control Standards). Requires Federal compliance with pollution control laws.

Executive Order 12372 (Intergovernmental Review of Federal Programs). Requires Federal agencies to provide an opportunity for review of Federal programs and activities by other appropriate affected levels of government.

Executive Order 13007 of May 1996 (Indian Sacred Sites) - Directs Federal agencies with responsibility for managing Federal lands to (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites.

Federal Land Policy and Management Act of 1976 (FLPMA) (P.L. 94-579). A Federal law that establishes public land policy and establishes guidelines for its administration, to provide for the management, protection, development, and enhancement of the public lands. Requires that public lands be managed in a manner that will protect the quality of ecological, environmental, and water resource values, among others, including riparian/wetland areas. Regarding fish and

wildlife resources, FLPMA directs that the public lands be managed in a manner that will provide food and habitat for fish and wildlife. FLPMA identifies "fish and wildlife development and utilization" as a principal land use and authorizes designation of ACECs to protect and prevent damage to fish and wildlife and other resources. Section 201(a) provides for the preparation and maintenance of an inventory of public land resources on a continuing basis. Section 401(b)(1) authorizes the use of Range Betterment Funds for the protection, maintenance, rehabilitation, improvement, and management of wildlife habitat.

Federal Regulations: 43 CFR 3809. Locatable mineral development on BLM-managed public lands is subject to the 43 CFR 3809 regulations which are authorized by the Federal Land Policy and Management Act of 1976. Three thresholds of development are recognized: casual use, Notice level, and Plan of Operations level. Casual use level operations include activities which cause no, or minimal, surface disturbances, such as claim staking, work with hand tools, and some underground work. Operations in excess of casual use are required to file a "Notice" to the BLM at least 15 days prior to the start of operations. The BLM does not approve or disapprove a properly submitted Notice, but merely reviews the Notice and informs the miner how to avoid "unnecessary or undue degradation" to public lands and resources. Mining operations which require Plans of Operation instead of Notices are: surface disturbance in excess of five acres, non-casual use operations in special category areas (wild and scenic river corridors, areas designated "closed" to off-road vehicle use, designated wilderness areas administered by the BLM, and ACECs), and non-complying miners operating under a Notice. The filing of a Plan of Operations requires that an environmental assessment be prepared by the BLM prior to the start of mining. Mitigation measures and reclamation bonding are often required as part of the approval of the Plan. All operations are required to prevent unnecessary or undue degradation to the public lands and resources and to abide by all applicable Federal, State, and local laws and regulations.

Fish and Wildlife Coordination Act of 1958. Requires that wildlife conservation be coordinated within water-resource development programs, that possible damage to fish and wildlife resources from work planned in navigable waters and drainages be assessed, and that measures be adopted to prevent such losses or damages. Provides for development and improvement of wildlife and fisheries resources.

Food Security Act of 1986. Provides incentives for riparian/wetland protection and restoration on farmlands.

General Mining Law of 1872. All metallic minerals, such as gold, silver, copper, and certain non-metallic minerals, such as gypsum, talc, and bentonite, on open unappropriated Federal lands, can be obtained by locating and perfecting mining claims under the General Mining Law of 1872, as amended. The location of mining claims, exploration and extraction of locatable minerals, and issuance of mineral patents on open public land is not a discretionary action of the BLM. Federal Regulations at 43 CFR parts 3700 and 3800 were issued to implement this act.

Geothermal Steam Act of 1970. This act authorized the leasing of geothermal resources and associated byproducts on public lands through competitive and noncompetitive leasing systems. This law is implemented by Federal Regulations promulgated at 43 CFR 3200. Leasing of geothermal resources is a discretionary action by the Department of the Interior, and such leases may be subject to any mitigation measures deemed necessary.

Historic Sites Act of 1935 (P.L. 74-292; 49 Stat. 666; 16 U.S.C. 461). Declares national policy to identify and preserve "historic sites, buildings, objects and antiquities" of national significance, providing a foundation for the National Register of Historic Places.

Land and Water Conservation Fund Act of 1964. Establishes a fund to preserve, develop, and assure access to outdoor recreation resources.

Materials Act of 1947. This law authorized discretionary disposal from public land and Federal mineral estate of certain common variety minerals such as sand and gravel, stone, clay, pumice, and volcanic cinders by sale. These mineral materials are sold at fair market value. Free use of these minerals can be permitted for non-commercial use by government and non-profit agencies. Federal Regulations found at 43 CFR 3600 further define this act.

Mineral Leasing Act of 1920. This law removed deposits of coal, oil and gas, sodium, phosphate, and oil shale from disposal under the General Mining Law of 1872 and made such deposits subject to a leasing system. Leasing of minerals under this act is discretionary and the Secretary of the Interior is given broad discretion in granting leases and permits. Federal Regulations at 43 CFR 3100 regulate oil and gas leasing. Regulations at 43 CFR 3500 give specifics for the management of solid leasable minerals other than coal or oil shale.

National Environmental Policy Act (NEPA) of 1969. A Federal act to declare a national policy which will a) encourage productive and enjoyable harmony between man and his environment; b) promote efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity; c) enrich the understanding of ecological systems and natural resources important to the nation; and d) establish a Council on Environmental Quality.

National Historic Preservation Act of 1966 (P.L. 89-665; 80 Stat. 915; 16 U.S.C. 470), as amended). Extends the policy in the Historic Sites Act to include state and local as well as national significance, expands the National Register of Historic Places, and establishes the Advisory Council on Historic Preservation, State Historic Preservation Officers, and a preservation grants-in-aid program. Directs all Federal agencies to take into account effects of their undertakings (actions and authorizations) on properties included in or eligible for the National Register of Historic Places.

Native American Graves and Repatriation Act of 1990 (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001). Directs Federal agencies and museums on the disposition, inventory, and repatriation of Native American human remains, associated funerary objects, and other cultural items.

Non-commercial Rock Collection. Federal Regulations at 43 CFR 8365.1-5(b)(2) allow for the free collection of reasonable amounts of "rock." Rock includes, but is not limited to, sand, gravel. cobbles, boulders, volcanic cinders, pumice, pumicite, and decomposed granite. This collection may be for personal and non-commercial use only. Collection may be made by hand or with hand tools only. Collectors are required to avoid unnecessary or undue degradation to public lands and associated resources, as defined by 43 CFR 3600.0-5(k).

Public Rangelands Improvement Act (PRIA) of 1978. A Federal law directing improvement of rangeland conditions in accordance with land use planning under FLPMA. PRIA directs development and maintenance of an inventory of range conditions and trends as part of FLPMA's inventory process and provides for establishment of Experimental Stewardship Program areas. PRIA also provides funding for rangeland improvements, which includes providing habitat for wildlife. PRIA requires consultation with State wildlife agencies and other individuals having scientific expertise and special knowledge of wildlife management.

Recreation and Public Purposes Act (R&PP Act). A Federal act authorizing the Secretary of Interior to lease or convey public lands for recreational and other public purposes under specified conditions of states or their political subdivisions, and to non-profit corporations and their associations.

Sikes Act of 1960. Authorizes preparation and implementation of joint BLM-State wildlife agency habitat management plans (HMPs).

Sikes Act of 1974. Provides for the conservation, restoration, and management of species and their habitats in cooperation with state wildlife agencies, including establishment of a hunting and fishing stamp program, with revenues to be spent upon lands on which fees are collected.

Taylor Grazing Act of 1934. A Federal law requiring the Secretary of the Interior to protect, administer, regulate, and improve grazing districts created in accordance with the Act; to regulate the use of grazing districts; to preserve the land and its resources from destruction or unnecessary injury; to provide for the orderly use, improvement, and development of the range; and to provide for cooperation with local stockmen associations, state land officials, and state agencies. Directs the Secretary of the Interior to stop injury to the public lands (including riparian/wetland areas) by preventing overgrazing and soil deterioration.

Water Quality Act of 1987. Establishes a program to manage nonpoint source pollution.

Wild and Scenic Rivers Act of 1968 (PL 90-542, as amended). Directs that selected rivers of the nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geological, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. Resources or values identified as "Outstandingly Remarkable" shall be protected on eligible, suitable, and designated Wild and Scenic River segments.

Wild Free-Roaming Horse and Burro Act of 1971 (PL 92-195). A Federal law providing protection, management, and control of wild free-roaming horses and burros on public lands. This act requires that (1) management activities for wild horses be carried out in consultation with State wildlife agencies in order to protect the natural ecological balance of all wildlife species; and (2) any adjustments in forage allocations take into consideration the needs of all wildlife species.

Appendix F: Livestock Grazing

Item 1: Allotment Summary

Allotment	Class[1]	AUMs[2]	Acres[3]	Category[4]	Season of Use[5]	AMP Date[6]	# Permittees
Allison Cr.	C	532	12,227	M	May 01-Oct 21	11/09/84	4
Hat Cr.	C	1,214	20,374	I	May 10-Oct 28*	10/03/84	2
Morgan Cr.	CH	2,395	48,164	I	May 01-Jan 30*	03/01/72	10
Lawson Cr.	C	1,481	25,278	M	May 01-Oct 16*	11/08/84	5
Lit. Morgan	C	350	6,256	M	May 01-Dec 15*		1
Highway	H	74	1,389	M	May 16-Oct 31		2
Eddy Creek	CH	93	1,866	M	May 01-Nov 15*		1
Trail Cr.	C	277	5,327	M	May 01-Oct 20*		2
Spud Cr.	C	227	6,302	I	May 08-Jul 15	06/02/88	1
Falls Cr.	CH	545	13,485	I	May 01-Nov 15		3
Hamilton	C	60	321	I	May 11-Jul 10	10/18/88	1
Mahogany Cr.	C	113	1,957	M	May 10-Jul 31	02/15/85	1
Patterson Cr.	C	120	1,730	I	May 01-Jun 06	09/23/86	1
Grouse Cr.	CS	2,218	35,564	I	Apr 26-Jan 15		3
Meadow Cr.	C	240	2,809	M	May 27-Jun 26	01/29/85	1
Countyline	C	496	9,751	I	May 05-Jun 15	09/23/86	1
Mill Cr.	CH	155	3,308	M	May 01-Nov 15		1
Big Cr.	CH	396	3,752	I	May 01-Oct 31		1
L. Goldburg	C	196	4,960	I	May 16-Jun 15		1
Bear Cr.	CS	1,301	11,111	M	May 16-Nov 30	06/22/89	2
Pines/Elkhorn	CSH	1,840	19,787	I	May 16-Nov 15		4
Goldburg	CS	517	15,868	M	May 16-Aug 15		2
Donkey Hills	C	1,328	17,442	I	May 16-Oct 31		1
U. Pahsimeroi	C	2,867	23,273	I	Jun 16-Nov 30		1
Rock Cr.	C	162	1,470	M	Jun 01-Oct 15	03/27/87	1
Burnt Cr.	C	858	4,884	I	Jun 16-Sep 30		1
Dry Cr.	C	2,024	14,565	I	Jun 16-Sep 30		2
Summit Cr.	C	1,920	20,218	I	May 21-Oct 31		1
Round Valley	C	290	7,490	M	May 05-Sep 15	06/17/81	3
Garden Cr.	CH	631	22,720	M	May 15-Oct 14	04/24/81	2
Warm Springs[7]	C	4,295	60,173	I	May 01-Jan 15	05/22/81	1
Squaw Cr.	C	264	7,044	M	May 21-Oct 15*	12/03/81	1
Eastfork	C	288	14,761	I	May 21-Jun 10	02/19/82	2
Bayhorse	C	156	9,305	I	May 15-Jul 15	04/21/81	1
Bald Mountain	CH	446	15,951	M	May 10-Oct 15	04/21/81	2
Bradshaw Bas.	C	475	7,493	M	May 16-Jul 15	04/21/81	4
Bradbury Flat	C	414	15,705	I	May 16-Sep 27	12/01/82	3
Mountain Sprgs [7]	C	8,375	81,600	I	May 11-Oct 15	01/15/82	1
Road Cr.	C	259	7,730	M	May 16-Aug 28	05/20/81	2
Herd Cr.	C	1,035	21,502	I	Jun 16-Oct 31	02/26/75	2
Stanley B. Tr.	C	42	160	C	May 29-Nov 01*	Unsigned	2
Challis Cr.	C	139	4,079	M	May 25-Jun 14	04/21/81	2
Lime Cr.	C	140	2,440	C	May 15-Oct 15	04/14/80	1
Pennal Gulch	C	94	3,573	I	May 15-Sep 12	01/12/81	1
Spud Cr.	C	236	8,856	M	May 10-Jul 12	04/21/81	1
Thompson Cr.	C	43	5,595	I	May 25-Aug 15	12/19/80	1

Allotment	Class[1]	AUMs[2]	Acres[3]	Category[4]	Season of Use[5]	AMP Date[6]	# Permittees
Pine Cr.	C	153	4,523	M	May 23-Jun 30	09/27/82	1
Sullivan Cr.	CH	57	2,866	C	May 11-Oct 15*	04/21/81	1
French Cr.	C	28	988	C	Jun 01-Aug 15	01/22/82	1
Split Hoof	C	187	8415	M	May 16-Jun 15	09/04/81	1
Arentson Gulch	C	448	6,131	M	May 20-Sep 25	07/09/86	1
Dickey	C	570	5,333	M	May 18-Sep 30	01/27/87	2
Whiskey Spr.	C	280	5,539	I	May 10-Jul 09	03/20/72	1
Mackay	CH	1,497	17,191	I	May 01-Dec 15	08/30/84	6
Asay	C	108	819	C	May 11-Jul 25		1
Woodbury	C	30	80	C	Nov 01-Nov 30		1
Copper Basin	C	1,255	21,259	M	May 15-Oct 26*		9
Boone Creek	CH	714	9,826	I	May 15-Oct 26		5
Wildhorse	CH	2,096	24,642	I	May 07-Oct 10*	10/19/84	8
Sage Creek	C	1,023	5,996	I	May 16-Sep 30		3
Thousand Spr.[7]	C	881	5,670	I	May 01-Dec 25*	10/01/85	1
Willow Creek	C	121	1,439	C	Jun 11-Jul 10		1
Totals		**51,069**	**750,332**				

[1] C=Cattle, H=Horses, S=Sheep.
[2] Active preference in AUMs as of 1991, when the Challis RMP was started.
[3] Acres of BLM public land within the allotment boundary.
[4] Categories: M = maintain, I = improve, C = custodial (see *Glossary* definition: allotment categorization).
[5] Earliest date on allotment to latest date livestock are permitted.
[6] Date AMP was approved by the BLM (for allotments with an AMP).
[7] Data for the Warm Springs, Mountain Springs (San Felipe) and Thousand Springs allotments were updated to reflect a new Ecological Site Inventory completed during the 1994 field season.

* Split season; livestock are not on the allotment for the entire time shown.

Appendix F: Livestock Grazing

Item 2: Range Condition Summary by Allotment

Allotment Name	No.	Categ.[1]	Acres	Poor[2]	Fair[2]	Good[2]	Excel.[2]	Unclass.[2]
Allison Creek	4409	M	12,227	2,893	2,996	6,076	262	0
Hat Creek	4410	I	20,374	7,063	5,767	5,865	0	1,679
Morgan Creek	4411	I	48,164	7,548	23,210	12,795	794	3,817
Lawson Creek	4412	M	25,278	3,806	11,104	9,444	0	924
Little Morgan Creek	4413	M	6,256	0	3,064	2,044	284	864
Highway	4414	M	1,389	0	1,389	0	0	0
Eddy Creek	4415	M	1,866	936	624	0	0	306
Trail Creek	4501	M	5,327	81	1,437	2,381	1,377	51
Spud Creek	4502	I	6,302	53	3,392	1,625	356	876
Falls Creek	4503	I	13,485	5,831	6,466	1,188	0	0
Hamilton	4504	I	321	321	0	0	0	0
Mahogany Creek	4505	M	1,957	0	915	1,042	0	0
Patterson Creek	4506	I	1,730	1,134	79	346	0	171
Grouse Creek	4507	I	35,564	7,923	7,793	18,326	254	1,268
Meadow Creek	4508	M	2,809	292	939	1,408	0	170
County Line	4509	I	9,751	9,751	0	0	0	0
Mill Creek	4510	M	3,308	331	408	1,679	0	890
Big Creek	4511	I	3,752	348	1,505	1,613	0	286
Lower Goldburg	4512	I	4,960	2,117	2,843	0	0	0
Bear Creek	4513	M	11,111	3,501	3,773	2,569	0	1,268
Pines/Elkhorn	4514	I	19,787	1,506	9,987	6,627	95	1,572
Goldburg	4515	M	15,868	2,328	2,120	10,704	0	716
Donkey Hills	4516	I	17,442	6,898	5,471	4,277	0	796
Upper Pahsimeroi	4517	I	23,273	4,181	7,084	11,774	0	234
Rock Creek	4518	M	1,470	0	712	555	203	0
Burnt Creek	4519	I	4,884	110	2,882	989	707	196
Dry Creek	4520	I	14,565	771	4,529	7,375	1,094	796
Summit Creek	4521	I	20,218	0	8,699	6,587	0	4,932
Round Valley	5601	M	7,490	1,972	831	3,754	0	933
Garden Creek	5602	M	22,720	5,996	15,615	1,109	0	0
Warm Springs[3]	5603	I	60,173	14,637	37,448	5,800	0	2,288
Squaw Creek	5604	M	7,044	2,651	1,036	760	0	2,597
East Fork	5605	I	14,761	4,854	7,437	61	0	2,409
Bayhorse	5606	I	9,305	2,827	6,114	364	0	0
Bald Mountain	5607	M	15,951	4,557	4,484	927	0	5,983
Bradshaw Basin	5608	M	7,493	1,413	2,078	271	0	3,731
Bradbury Flat	5609	I	15,705	1,833	6,694	5,301	0	1,877
Mountain Springs[3]	5610	I	81,600	0	4,017	49,050	22,239	6,294
Road Creek	5611	M	7,730	165	1,395	0	0	6,170
Herd Creek	5612	I	21,502	2,138	6,637	7,744	0	4,983
Stanley Basin Trail	5613	C	160	0	0	0	0	160
Challis Creek	5615	M	4,079	1,176	2,903	0	0	0
Lime Creek	5616	C	2,440	370	1,474	596	0	0
Pennal Gulch	5617	I	3,573	0	1,308	1,842	0	423
Spud Creek	5618	M	8,856	2,797	3,568	307	0	2,184

Allotment Name	No.	Categ.[1]	Acres	Poor[2]	Fair[2]	Good[2]	Excel.[2]	Unclass.[2]
Thompson Creek	5619	I	5,595	785	2,119	276	0	2,415
Pine Creek	5621	M	4,523	74	3,337	548	0	564
Sullivan Creek	5622	C	2,866	218	862	202	0	1,584
French Creek	5623	C	988	108	119	0	0	761
Split Hoof	5624	M	8,415	2,759	5,153	0	0	503
Arentson Gulch	5701	M	6,131	0	74	6,057	0	0
Dickey	5702	M	5,333	0	1,502	3,831	0	0
Whiskey Springs	5703	I	5,539	342	2,847	2,350	0	0
Mackay	5704	I	17,191	195	10,885	6,111	0	0
Asay	5705	C	819	0	535	284	0	0
Woodbury	5706	C	80	0	80	0	0	0
Copper Basin	5707	M	21,259	307	4,412	16,540	0	0
Boone Creek	5708	I	9,826	92	4,723	5,011	0	0
Wildhorse	5709	I	24,642	3,089	9,277	12,276	0	0
Sage Creek	5710	I	5,996	0	822	5,174	0	0
Thousand Springs[3]	5712	I	5,670	417	1,600	3,653	0	0
Willow Creek	5713	C	1,439	0	433	1,006	0	0
Other Areas								
Cronk's Canyon	4411a	n/a	1,511	0	213	248	550	500
Morgan Cr BHS Past.	4411b	n/a	3,642	845	2,506	0	0	291
Dry Cr I.F. District	4520	n/a	820	0	795	0	0	25
E/P Unlicensed Use	4599	n/a	1,488	10	68	883	0	527
Mackay Unallot. Areas	5798	n/a	2,543	0	0	0	0	2,543
Malm Gulch Area	5699	n/a	10,340	2,206	2,128	4,110	0	1,896
Bruno Creek	5620	n/a	2,378	77	536	494	0	1,271
Sand Hollow	5698	n/a	5,476	0	0	0	0	5,476
All Other Areas	9999	n/a	12,377	0	0	0	0	12,377
E/P BLM-USFS Admin.	4599	n/a	1,660	0	25	1632	0	3
	Total Acres		**792,567**	**128,633**	**277,278**	**265,861**	**28,215**	**92,580**
	Percent of RA		**100**	**16.2**	**35.0**	**33.5**	**3.6**	**11.7**

[1] Categories: M = maintain, I = improve, C = custodial (see *Glossary* definition: allotment categorization).

[2] Sources: Ecological status inventories of the Challis Planning Unit (1977), the Ellis-Pahsimeroi Planning Unit (1979), and the Mackay Planning Unit (1981).

[3] Data for the Mountain Springs (San Felipe), Warm Springs, and Thousand Springs allotments were updated to reflect a new Ecological Site Inventory completed during the 1994 field season.

Appendix G: Minerals

Item 1: Locatable and Saleable Minerals Site Descriptions and Locations

NOTE: See *Map 30: Locatable Minerals Land Classification* and *Map 37: Saleable Minerals Land Classification* for the location of specific mine sites, mining districts, and pit sites.

Locatable Minerals

P-1 The Ima Mine is located near the town of Patterson and within the only organized mining district (Blue Wing) in the Pahsimeroi Planning Unit. Tungsten was mined from the Ima Mine and associated properties, with minor amounts of molybdenum, silver, copper, and lead. Between 1863 and 1988 production from the Blue Wing Mining District was $21.9 million (USDI Bureau of Mines 1988). The mine has been inoperative since 1958.

P-2 Barite has been extracted from a small open pit mine approximately 8 miles north of the town of Challis. The mine has been inoperative since 1980.

P-3 Opaline material has been extracted from small trenches approximately 12 miles north of the town of Challis. The Blue Opal claims consist of two lode claims, one of which has not had assessment work recorded since 1981.

P-4 The Ellis uranium properties are located near the town of Ellis. Many exploratory holes have been drilled in the past (1973-1981), but no development has occurred. Assessment work has not been recorded on most of the claims since 1982.

C-1 The Thompson Creek area is in the extreme western end of the Challis Planning Unit, north of the Salmon River. It includes lands in the upper Thompson and Bruno Creek drainages. Tungsten has been produced in the past and molybdenum is currently being produced. The Cyprus Thompson Creek Molybdenum Mine is the active property in the area. The Twin Apex Mine adjacent to the Cyprus Thompson Creek Mine produced small quantities of lead and silver in the early 1900s, but has been inoperative for many years. The Tungsten Jim Mine, also a small producer of tungsten, has been inoperative since the 1960s.

C-2 The Kinnikinic area includes all mines and properties in the Kinnikinic drainage and the Clayton area. Commodities produced in the past include lead, silver, and zinc, with byproduct copper and cadmium. At the present time all properties in the area are inoperative. The Clayton Silver Mine was the most recent to close (in the early 1980s).

C-3 The Garden Creek and Bayhorse Creek area properties are in the northern portion of the Bayhorse Mining District. The Garden Creek and Bayhorse (Pacific) mines contain reserves of fluorite, with additional values in silver and lead at the Pacific property. Originally (1870-1890) this area was actively prospected for its silver and lead deposits,

with several active mines recording substantial production. In the extreme southern part of the area, the old Riverview Mine and the Turtle Mine produced lead, silver, copper, and a little gold. Currently, there are no active mines.

C-4 The Squaw Creek area contains reserves of lead and silver. Past producers include the Red Bird Mine, the South Butte Mine, and the Saturday Mountain Group. The South Butte Mine and the Saturday Mountain Group have been inoperative since the 1920s. The Red Bird Mine has run intermittently since 1878, with the most recent shutdown in 1976.

C-5 Several prospects are located on Poverty Flat and near the heads of the forks of Lyon and Sink creeks. The major property in this area is the old Silver Bell Mine. It was discovered in 1879 and worked until about 1897. Copper, silver, and lead were produced. Two less important producers were the Mammoth Mine (two miles east of the Silver Bell) and the Henie Hinie Mine (two miles southeast of the Silver Bell). They have been inoperative since the early 1900s.

C-6 Deposits of travertine rock occur in three areas of the Challis Planning Unit. The largest deposit is on the west side of Bradbury Flat and is of chemical grade. Two smaller deposits occur near the mouth of the East Fork of the Salmon River area.

C-7 Nineteen lode claims make up this prospect. Two backhoe trenches on this property expose barite crystals. The property is currently claimed; however, no production other than sampling has occurred.

M-1 Prospect holes dot the countryside in this area. Five abandoned tunnels are located on BLM lands in this area. The tunnels are driven in tactite, showing mineralization in jasperoid bodies. In the early days it appears there were numerous prospectors seeking a mine as prosperous as the nearby Empire Mine, which lies to the southwest on Forest Service lands. Of the five tunnels, the Cossack Tunnel is the only tunnel about which any specific information can be found. The Cossack Tunnel represents an early attempt to cut the downward extensions of the Empire Mine ore shoots. Examination of the dump indicates no significant mineralized rock. Dumps at other tunnels in the area exhibit some mineralization. At one time copper, gold, silver, and tungsten were produced on Forest Service lands that lie adjacent to the southwest.

M-2 Discovery trenches are a common site in this area. Several irregular, small bodies of magnetite crop out in dacite, and float is scattered over the area. The largest body exposed on the surface does not exceed 150 square feet. The prospect may consist of heterogeneously dispersed pods of massive magnetite. No development has taken place on the property.

M-3 The Bartlett Point area was explored from 1988 to 1990 by two separate companies in consecutive years. Test borings were completed by both companies. No active development of the property has been proposed.

M-4 The Lehman Butte area was explored from 1988-1990 by two separate companies in consecutive years. Test boring and sampling trenches were completed by both companies. No development active of the property has been proposed.

Saleable Minerals

PS-1 The West Fork Morgan Creek Community Borrow Pit is located along the Morgan Creek Road near its intersection with the West Fork of Morgan Creek Road approximately 6 miles from State Route 93 South. The site consists of a colluvial slope of a gravelly sandy clay. The material is suitable for common borrow and as surfacing on secondary roads. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

PS-2 The Morgan Creek Community Rip-Rap Pits are located along Morgan Creek Road commencing 3.5 miles from the intersection of Morgan Creek Road and State Route 93 South to a point 5 miles from the intersection. The 5 sites consist of talus slopes of blocky quartzite with rock size ranging from 6 inches to 3 feet. This material is suitable for armoring stream banks. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

PS-3 The Burstead Lane Community Sand and Gravel Pit is located near the mouth of the Pahsimeroi Valley at the intersection of Burstead Lane and the West Side Pahsimeroi Valley Road. The site consists of a river terrace deposit of gravels with intermittent pockets of silty sands. This material is suitable for surfacing secondary roads and common borrow. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

PS-4 The California Ditch Community Borrow Pit is located in the upper portion of the Pahsimeroi Valley approximately 3/4-mile west of Hatch Lane and 1/4-mile southeast of the California Ditch. The site consists of a colluvium deposit of gravelly clay. This material is suitable for lining ponds and ditches and for the surfacing of secondary gravel roads. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

PS-5 The Goldburg Creek Community Gravel Pit is located in the upper portion of the Pahsimeroi Valley near the intersection of Hatch Lane and the West Side Pahsimeroi Valley Road. The site consists of a large stream alluvium deposit of gravel with some sand and silt. This material is suitable as common borrow and for aggregate purposes. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

CS-1 The Challis Creek Community Borrow Pit is located in the northwest portion of Round Valley. The site consists of a talus slope where andesite of the Challis Volcanics weathers to small (1" x 3") tabloid fragments. This material is suitable for use in surfacing gravel roads. Public access is good on an improved gravel roadway, and the

quantity is adequate (based on historical use) for the foreseeable future.

CS-2 The Bradbury Flat Community Topsoil Pit is located in the northern portion of Bradbury Flat approximately nine miles south of the town of Challis. The site consists of a lens of silty sandy loam that is a portion of a large alluvial fan. This material is suitable for many landscaping applications. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

CS-3 The Spar Canyon Community Rip-Rap Pit is located approximately 3/4-mile northeast of the intersection of the Spar Canyon Road and the East Fork Salmon River Valley Road. The site consists of a talus slope where andesite of the Challis Volcanics weathers to large blocky fragments. This material is suitable for armoring stream banks. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

MS-1 The Lake Creek Community Rip-Rap Pit is located in the southwestern portion of the Thousand Springs Valley. The site consists of a talus slope where basaltic lava of the Challis Volcanics weathers to large blocky fragments. This material is suitable for armoring stream banks. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

MS-2 The Lake Creek Community Shale Pit is located in the southwestern portion of the Thousand Springs Valley. The site consists of a talus slope where basaltic lava of the Challis Volcanics weathers to small tabloid fragments. This material is suitable for use in surfacing gravel roads. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

MS-3 The Pinto Creek Community Shale Pit is located in the southwestern portion of the Thousand Springs Valley. The site consists of a talus slope where argillite of the Copper Basin Formation has been sheared into small irregular flat pieces. This material is suitable for use in surfacing gravel roads. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

MS-4 The Bartlett Point Road Community Topsoil Pit is located in the southwestern portion of the Thousand Springs Valley. The site consists of a swale area containing sandy loam material. This material is suitable for many landscaping applications. Public access is excellent on an improved gravel roadway, and the quantity is somewhat limited.

MS-5 The Chilly Buttes Community Sand and Gravel Pit is located in the central portion of the Thousand Springs Valley. The site consists of a large river terrace deposit of sand and gravel. This material is suitable for common borrow and the production of aggregates. Public access is excellent on an improved gravel roadway, and the quantity is adequate (based on historical use) for the foreseeable future.

Appendix H: Paleontological Resources

Item 1: Paleontology Areas of Special Note

Broken Wagon Locality - Fissure fill material from this locality has produced bone including a partial *Microtis* (vole) skull. It appears this locality could be a productive site for vertebrate paleontological remains.

Challis Creek - Faunal materials collected from this locality represent a variety of identified vertebrate families or species, including the following:

Osteichthyes (bony fish, probably minnow vertebrae)
Aves (bird)
Ochotona princeps (pika)
Sylvilagus (cottontail)
Marmota flaviventris (yellow bellied marmot)
Spermophilus sp. (ground squirrel)
Thomomys sp. (gopher)
Microtis (vole)
Neotoma sp. (packrat)
cf. *Vulpes vulpes* (red fox)
Ovis canadensis (mountain sheep).

Malm Gulch - Malm Gulch is the only area within the Challis Resource Area which is managed specifically for paleontological resources. The Malm Gulch area is designated as an ACEC; petrified forest fossil remains which are of significant paleontological value are a major component requiring special management and recognition in the ACEC. During early studies it was reported that "nearly all the tree trunks preserved are large, and some of them are giants far outranking any now growing in the region..." (Ross 1937). At least six successive levels of forests are present, as demonstrated by stumps of sequoia trees still in growth position (standing). The forest levels are distributed through a sequence of volcanic ash layers 175 feet thick. Each forest level represents a period between eruptions that was long enough for trees to grow to as much as ten feet in diameter before being destroyed by falling volcanic ash. There are also known leaf fossils in the area which are of Middle Oligocene volcanic ash. The presence of these ancient, standing petrified sequoia trunks in the Challis Resource Area indicates that a demonstrably wetter climate (with considerable precipitation) once occurred in the area.

Poison Springs Locality - Poison Springs is the location of a previously recorded archaeological site with an abundance of faunal material. In July, 1988 the site was visited by a group of Idaho State University paleontologists to ascertain its significance as a vertebrate paleontological locale. Results of this visit are unavailable at present.

Appendix I: Vegetation

Item 1: Riparian Species Known or Thought to Occur in the Challis Resource Area

This list is based on collections housed in the Salmon BLM Herbarium, literature review, and professional judgement of Dr. Caryl Elzinga, Challis RA botanist from 1990 to 1993. Nomenclature follows Hitchcock and Cronquist (1973), except graminoids.

SPECIES	FAMILY	SPECIES	FAMILY
Acer glabrum	Aceraceae	*Cornus stolonifera*	Cornaceae
Cicuta bulbifera	Apiaceae	*Cardamine pensylvanica*	Cruciferae
Cicuta douglasii	Apiaceae	*Descurainia richardsonii*	Cruciferae
Sium suave	Apiaceae	*Rorippa nasturtium-aquaticum*	Cruciferae
Apocynum cannabinum	Apocynaceae	*Thlaspi arvense*	Cruciferae
Bidens cernua	Asteraceae	*Juniperus scopularum*	Cupressaceae
Alnus incana	Betulaceae	*Carex mertensii*	Cyperaceae
Betula glandulosa	Betulaceae	*Carex lanuginosa*	Cyperaceae
Mertensia ciliata	Boraginaceae	*Carex canescens*	Cyperaceae
Myosotis laxa	Boraginaceae	*Carex simulata*	Cyperaceae
Barbarea orthocerus	Brassicaceae	*Carex leporina*	Cyperaceae
Lonicera ciliosa	Caprifoliaceae	*Carex aquatilis*	Cyperaceae
Cerastium vulgatum	Caryophyllaceae	*Carex scirpoidea*	Cyperaceae
Chenopodium fremontii	Chenopodiaceae	*Carex lenticularis*	Cyperaceae
Chenopodium rubrum	Chenopodiaceae	*Carex praegracilis*	Cyperaceae
Chenopodium gluacum	Chenopodiaceae	*Carex lasiocarpa*	Cyperaceae
Kochia scoparia	Chenopodiaceae	*Carex rostrata*	Cyperaceae
Salicornia rubra	Chenopodiaceae	*Carex disperma*	Cyperaceae
Achillea millefolia	Compositae	*Carex microptera*	Cyperaceae
Antennaria rosea	Compositae	*Carex nebraskensis*	Cyperaceae
Arnica cordifolia	Compositae	*Carex aurea*	Cyperaceae
Artemisia douglasiana	Compositae	*Eleocharis palustris*	Cyperaceae
Aster foliaceus	Compositae	*Kobresia simpliciuscula*	Cyperaceae
Aster hesperinus	Compositae	*Scirpus americanus*	Cyperaceae
Centaurea maculosa	Compositae	*Scirpus microcarpus*	Cyperaceae
Cirsium arvense	Compositae	*Scirpus fluviatilis*	Cyperaceae
Cirsium undulatum	Compositae	*Scirpus validus*	Cyperaceae
Matricaria chamomilla	Compositae	*Scirpus acutas*	Cyperaceae
Senecio debilis	Compositae	*Equisetum hymenale*	Equisetaceae
Senecio integerrimus	Compositae	*Equisetum palustre*	Equisetaceae
Senecio triangularis	Compositae	*Equisetum variegatum*	Equisetaceae
Senecio hydrophilus	Compositae	*Equisetum fluviatile*	Equisetaceae
Sisyrinchium angustifolium	Compositae	*Equisetum laevigatum*	Equisetaceae
Solidago canadensis	Compositae	*Pyrola asarifolia*	Ericaceae
Sonchus uliginosus	Compositae	*Astragalus diversifolius*	Fabaceae
Tancetum vulgare	Compositae	*Glycyrrhiza lepidota*	Fabaceae
Tragopogon dubious	Compositae	*Medicago lupulina*	Fabaceae
Chrysanthemum leucanthemum	Compositae	*Melilotus alba*	Fabaceae

SPECIES	FAMILY
Melilotus officinalis	Fabaceae
Trifolium repens	Fabaceae
Vicia sativa	Fabaceae
Corydalis aurea	Fumariaceae
Frasera speciosa	Gentianaceae
Geranium viscosissimum	Geraniaceae
Ribes hudsononianum	Grossulariaceae
Ribes cereum	Grossulariaceae
Ribes aureum	Grossulariaceae
Hippuris vulgaris	Hippuridaceae
Philadelphus lewisii	Hydrangeaceae
Phacelia franklinii	Hydrophyllaceae
Hypericum formosum var. *scouleri*	Hypericaceae
Iris missouriensis	Iridaceae
Juncus nodosus	Juncaceae
Juncus bufonius	Juncaceae
Juncus effusus	Juncaceae
Juncus acuminatus	Juncaceae
Juncus ensifolius var. *montanus*	Juncaceae
Juncus balticus	Juncaceae
Juncus ensifolius	Juncaceae
Juncus longistylis	Juncaceae
Juncus torreyi	Juncaceae
Triglochin maritimum	Juncaginaceae
Triglochin palustre	Juncaginaceae
Agastache urticifolia	Labiatae
Lycopus americana	Lamiaceae
Mentha arvense	Lamiaceae
Mentha spicata	Lamiaceae
Astragalas leptaleus	Leguminosae
Lupinus argenteus	Leguminosae
Oxytropis deflexa	Leguminosae
Thermopsis montana	Leguminosae
Utricularia vulgaris	Lentibulariaceae
Allium brevistylum	Liliaceae
Streptopus amplexifloius	Liliaceae
Streptopus roseus	Liliaceae
Zigadenus elegans	Liliaceae
Linum perenne	Linaceae
Lythrum salicaria	Lythraceae
Epilobium watsonii	Onagraceae
Equisetum arvense	Onagraceae
Corallorhiza mertensiana	Orchidaceae
Habenaria hyperborea	Orchidaceae
Plantago eriopoda	Plantaginaceae
Plantago major	Plantaginaceae
Agropyron repens	Poaceae
Agropyron smithii	Poaceae
Agropyron spicatum	Poaceae
Agropyron inerme	Poaceae
Agropyron desertorum	Poaceae
Agrostis scagra	Poaceae
Agrostsis exarata	Poaceae
Agrostsis alba var. *palustris*	Poaceae
Alopecuris aequalis	Poaceae
Beckmannia syzigachne	Poaceae
Bromus vulagris	Poaceae
Bromus inermis	Poaceae
Calamagrostis neglecta	Poaceae
Calamagrostis canadensis	Poaceae
Catabrosa aquatica	Poaceae
Dactylis glomerata	Poaceae
Deschampsia caespitosa	Poaceae
Deschampsia danthonioides	Poaceae
Echinochloa crusgalli	Poaceae
Elymus cinereus	Poaceae
Festuca rubra	Poaceae
Festuca scabrella	Poaceae
Festuca octoflora	Poaceae
Glyceria grandis	Poaceae
Glyceria borealis	Poaceae
Glyceria occidentalis	Poaceae
Glyceria striata	Poaceae
Glyceria elata	Poaceae
Glyceria paucifolia	Poaceae
Hordeum jubatum	Poaceae
Hordeum brachyantherum	Poaceae
Leersia oryzoides	Poaceae
Muhlenbergia richardsonis	Poaceae
Muhlendbergia asperifolia	Poaceae
Phalaris arundinaceae	Poaceae
Phleum pratense	Poaceae
Phragmites communis	Poaceae
Phyleum alpinum	Poaceae
Poa juncifolia	Poaceae
Poa compressa	Poaceae
Poa pratense	Poaceae
Poa pulustris	Poaceae
Polypogon monspeliensis	Poaceae
Puccinellia distans	Poaceae
Puccinellia pauciflora	Poaceae
Puccinellia lemoni	Poaceae
Spartina gracilis	Poaceae
Phlox kelseyi	Polemoniaceae
Phlox diffusa	Polemoniaceae
Polemonium occidentale	Polemoniaceae
Polygonum bistortes	Polygonaceae
Polygonum agrotisiti	Polygonaceae

SPECIES	FAMILY
Polygonum hydropiper	Polygonaceae
Polygonum lapathifolium	Polygonaceae
Polygonum ramosissimum	Polygonaceae
Polygonum amphigium	Polygonaceae
Polygonum californicum	Polygonaceae
Polygonum amphimbium	Polygonaceae
Polygonum sawatchense	Polygonaceae
Polygonum monspeliensis	Polygonaceae
Polygonum californicum	Polygonaceae
Rumex crispus	Polygonaceae
Rumex paucifolius	Polygonaceae
Rumex occidentalis	Polygonaceae
Rumex paucifolius	Polygonaceae
Sagittaria cuneata	Polygonaceae
Androsace filiformis	Primulaceae
Dodecathon pauciflorum	Primulaceae
Glaux maritima	Primulaceae
Glaux maritimum	Primulaceae
Primula alkalina	Primulaceae
Caltha leptosepala	Rannunculaceae
Actaea rubra	Ranunculaceae
Anemone multifida	Ranunculaceae
Aquilegia formosa	Ranunculaceae
Clematis columbiana	Ranunculaceae
Ranunculus urticifolia	Ranunculaceae
Ranunculus hyperboreus	Ranunculaceae
Ranunculus aquatilis	Ranunculaceae
Ranunculus macouni	Ranunculaceae
Ranunculus scleratus	Ranunculaceae
Ranunculus pennsylvanicus	Ranunculaceae
Ranunculus cymbalaria	Ranunculaceae
Thalictrum occidentale	Ranunculaceae
Amelanchaier alnifolia	Rosaceae
Fragaria virginiana	Rosaceae
Geum macrophyllum	Rosaceae
Geum triflorum	Rosaceae
Geum macrophyllum	Rosaceae
Physocarpus malvaceus	Rosaceae
Potentilla glandulosa	Rosaceae
Potentilla fruiticosa	Rosaceae
Potentilla anserina	Rosaceae
Potentilla gracilis	Rosaceae
Potentilla palustris	Rosaceae
Prunus virginia	Rosaceae
Rosa woodsii	Rosaceae
Rosa woodsii v. *ultramontana*	Rosaceae
Rubus idaeus	Rosaceae
Sorbus scopulina	Rosaceae
Spiraea betulifolia	Rosaceae
Galium aparine	Rubiaceae
Galium triflorum	Rubiaceae

SPECIES	FAMILY
Salix exigua ssp. *exigua*	Salicaceae
Populus trichocarpa	Salicaceae
Salix bebbiana	Salicaceae
Salix exigua ssp *melanopsis*	Salicaceae
Salix boothii	Salicaceae
Salix wolfii	Salicaceae
Salix lasiandra	Salicaceae
Salix lasiandra var. *caudata*	Salicaceae
Salix geyeraniana	Salicaceae
Salix planifolia	Salicaceae
Salix lutea	Salicaceae
Parnassia parviflora	Saxifragaceae
Castilleja minuata	Scrophulariaceae
Mimulus guttatus	Scrophulariaceae
Mimulus lewisii	Scrophulariaceae
Phacelia sericea	Scrophulariaceae
Veronica americana	Scrophulariaceae
Veronica serpyllifolia	Scrophulariaceae
Veronica anagallis-aquatica	Scrophulariaceae
Solanum dulcamara	Solanaceae
Sparganium simplex	Sparganiaceae
Sparganium emersum	Sparganiaceae
Typha angustifolia	Typhaceae
Typha latifolia	Typhaceae
Osmorhiza occidentalis	Umbelliferae
Ozmorhiza chilensis	Umbelliferae
Urtica dioica	Urticaceae
Valeriana edulis	Valerianaceae
Viola palustris	Violaceae

Appendix I: Vegetation

Item 2: Habitat Areas Associated with the Alkaline Primrose and Wavy Leaf Thelypody

Calcareous Wetland Species

The alkaline primrose (*Primula alcalina*) has been extensively inventoried by the BLM, Conservation Data Center, and academic botanists. Only three locations of this special status species are known world-wide. Two locations are in the Lemhi Resource Area (which adjoins the Challis Resource Area) and one is in the Challis Resource Area (the Summit Creek ACEC/RNA). All three sites are unusual due to their hydrology, chemistry, and species associates. Each site occurs in the headwaters of spring-fed alkaline streams where flow is relatively constant throughout the year and scouring flood events are rare. The substrate is calcareous clays, and conditions are somewhat fen-like (normally covered with water). The specific habitat requirements of this species facilitates effective inventory, and botanists are relatively certain that nearly all habitat areas have been intensively examined. Because of a checkered land ownership pattern, the Thousand Springs complex is the only potential area of alkaline primrose populations that has not been intensively examined. Areas of potential primrose habitat within the Thousand Springs complex have, however, been examined, with no successful location of this species.

Three other sensitive species occur at the Summit Creek site: *Lomatogonium rotatum* (marsh felwort), *Astragalus diversifolius* (meadow milkvetch), and *Salix candida* (hoary willow). Two other sensitive species, *Astragalus leptaleus* (park milkvetch) and *Carex livida* (livid sedge) were recently located at one of the other alkaline primrose sites in the Lemhi Resource Area, and thus may occur at the Summit Creek site as well. Any of these sensitive species may also occur at Thousand Springs; the inventory is incomplete.

Challis Volcanic Species

Four species often occur together on steep erosive slopes of Challis volcanic weatherings: *Thelypodium repandum* (wavy leaf thelypody), *Astraglus amblytropis* (Challis milkvetch), *Astragalus aquilonius* (Lemhi milkvetch), and *Malacothrix torreyi* (Torrey's malacothrix).

T. repandum and *A. amblytropis* occur only on steep erosive Challis volcanic substrate, and are Challis endemics. Distribution for these two species is the East Fork Salmon River and its tributaries (especially Road Creek, Herd Creek, and Spar Canyon) and along the Salmon River to Ellis. *Astragalus amblytropis* also occurs in the Hat Creek and McKim Creek area, and there is potential for *T. repandum* to occur there as well.

M. torreyi and *A. aquilonius* often occur with the two Challis endemics, but their distribution extends beyond the Challis area. *Malacothrix torreyi* is also found on bentonite substrate in the Lemhi area. *Astragalus aquilonius* is found at the southern end of the Lost River and Lemhi ranges on limestone gravely slopes, as well as in a few drainages near the town of Leadore, Idaho, where the plant was first discovered (hence the common name of Lemhi milkvetch). Within the Challis area, *Astragalus aquilonius* is also found on more gentle slopes, as well as the steep erosive slopes containing the two Challis endemics. The center of distribution of *Astragalus aquilonius* is the Bradbury Flat/Round Valley area, where the plant becomes a regular, although uncommon, member of the range flora.

Appendix J: Water Resources

Item 1: Beneficial Use Classifications for Drainage Segments

Beneficial use classifications for streams in the Big Lost River, Little Lost River, East Fork Salmon River, Pahsimeroi River, and Main Salmon River drainages are shown below. In addition to the classifications listed below, Bruno Creek in the Main Salmon River is identified by the BLM as an "industrial water supply" beneficial use. No streams in the above drainages are classified as an "outstanding resource waters" beneficial use. Listed beneficial uses were either identified by the BLM (shown with an "X") or published in the Idaho Department of Health and Welfare, Division of Environmental Quality, Title 01, Chapter 02, "Water Quality Standards and Wastewater Treatment Requirements," February 1998.

Drainage Big Lost River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
ROCK CREEK		X	X		X		X	X	
LONE CEDAR CREEK			X		X		X	X	
MAHOGANY CREEK		X	X	X	X		X	X	
FRANKLIN CANYON			X		X		X	X	
NAVARRE			X	X	X		X	X	
LEHMAN CREEK			X	X	X		X	X	
BOONE CREEK			X		X		X	X	
GARDEN CREEK		X	X		X		X	X	
GRANT		X	X		X		X	X	
BIG LOST*	D	D	D	D	D	D	D	D	D
CORRAL CREEK		X	X		X		X	X	
SAGE CREEK		X	X		X		X	X	
BRADSHAW CREEK		X	X		X		X	X	
N. FORK SAGE CREEK		X	X		X		X	X	
JONES CREEK			X		X		X	X	
UPPER CEDAR CREEK		X	X		X		X	X	
DEEP CREEK			X		X		X	X	
TWIN BRIDGES CREEK*	X	X	X	X			X	X	
MACKAY RESERVOIR	X	X	X	X	X		X	X	
THOUS. SPRINGS CR.		X	X	X	X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Little Lost River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
SUMMIT CREEK *		X	X	X	X		X	X	
DRY CREEK		X	X	X	X		X	X	

Drainage East Fork Salmon River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
EAST FK. SALMON	D	D	D	D	D	D	D	D	D
HORSE BASIN			X	X	X		X	X	
BEAR CREEK			X	X	X		X	X	
ROAD CREEK*			X	X	X		X	X	
MOSQUITO CREEK			X	X	X		X	X	
HERD CREEK	X	X	X	X	X		X	X	
LAKE CREEK		X	X	X	X		X	X	
MCDONALD CREEK			X	X	X		X	X	
FOX CREEK			X		X		X	X	
PINE CREEK			X	X	X		X	X	
BAKER CREEK			X		X		X	X	
WICKIUP CREEK		X	X	X	X		X	X	
LITTLE BOULDER CR.		X	X	X	X		X	X	
BIG BOULDER CREEK	X	X	X	X	X		X	X	
BLUETT CREEK			X		X		X	X	
BIG LAKE CREEK		X	X	X	X		X	X	
JIMMY SMITH CREEK		X	X	X	X		X	X	
CORRAL CREEK			X	X	X		X	X	
MARCO CREEK					X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Pahsimeroi River

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
LITTLE MORGAN CREEK		X	X	X	X		X	X	
PATTERSON CREEK*	X	X	X	X	X		X	X	
MILL CREEK			X		X		X	X	
STINKING CREEK			X		X		X	X	
BIG CREEK*	X	X	X	X	X		X	X	
LONG CREEK		X	X	X	X		X	X	
BABY CREEK			X		X		X	X	
SHORT CREEK		X	X	X	X		X	X	
SQUAW CREEK			X		X		X	X	
DONKEY CREEK		X	X	X	X		X	X	
GOLDBURG CREEK		X	X	X	X		X	X	
BURNT CREEK		X	X	X	X		X	X	
ELKHORN CREEK			X		X		X	X	
PAHSIMEROI RIVER*	D	D	D	D	D	D	D	D	D
DOUBLE SPRING			X	X	X		X	X	
MEADOW CREEK			X		X		X	X	
ELBOW CREEK			X		X		X	X	
SULPHUR CREEK			X		X		X	X	
TRAIL CREEK			X		X		X	X	
LAWSON CREEK			X		X		X	X	
MORSE CREEK*	X	X	X	X	X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Main Salmon River (page 1 of 2)

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
MAIN SALMON RIVER*	D	D	D	D	D	D	D	D	D
MCKIM		X	X	X	X		X	X	
ALLISON CREEK			X		X		X	X	
COW CREEK		X	X	X	X		X	X	
SHEP CREEK			X		X		X	X	
DRY			X	X	X		X	X	
CAMP CREEK			X		X		X	X	
BROKEN WAGON			X		X		X	X	
LONE PINE			X	X	X		X	X	
WARM SPRINGS CR.*	X	X	X	X	X		X	X	
SPUD CREEK			X		X		X	X	
SULLIVAN CREEK			X		X		X	X	
FRENCH CREEK			X		X		X	X	
THOMPSON CREEK		D	D	D	D		D	D	
BRUNO CREEK			X	X	X		X	X	
SQUAW CREEK		D	D	D	D		D	D	
KINNIKINIC CREEK*			X	X	X		X	X	
BIRCH CREEK			X		X		X	X	
SINK CREEK			X	X	X		X	X	
LYON CREEK			X	X	X		X	X	
RATTLESNAKE CREEK			X		X		X	X	
BAYHORSE CREEK			X	X	X		X	X	
CENTENNIAL FLAT			X		X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Drainage Main Salmon River (continued - page 2 of 2)

BENEFICIAL USE CLASSIFICATION

SEGMENT	PRIMARY CONTACT RECREATION	SECONDARY CONTACT RECREATION	COLD WATER BIOTA	SALMONID SPAWNING	AGRICULTURAL WATER SUPPLY	DOMESTIC WATER SUPPLY	WILDLIFE HABITAT	AESTHETICS AND HUMAN HEALTH	SPECIAL RESOURCE WATERS
GARDEN CREEK*	X	X	X	X	X	X	X	X	
MILL CREEK			X	X	X		X	X	
JEFF'S CREEK			X		X		X	X	
CHALLIS CREEK*	X	X	X	X	X		X	X	
DARLING CREEK			X	X	X		X	X	
MORGAN CREEK		X	X	X	X		X	X	
W.FK. MORGAN C.		X	X	X	X		X	X	
BLUE CREEK			X		X		X	X	
BLOCK CREEK			X		X		X	X	
SAGE CREEK			X		X		X	X	
ELLIS CREEK			X		X		X	X	
LITTLE HAT CREEK			X	X	X		X	X	
BIG HAT CREEK		X	X	X	X		X	X	
PARK CREEK			X	X	X		X	X	

* Water Quality Limited Segment as of May 15, 1998 (Draft DEQ Section 303(d) list)
X Beneficial Use Identified by the BLM during 1991 field surveys
D Beneficial Use Designated by the Division of Environmental Quality

Appendix J: Water Resources

Item 2: Surface Water Quality Condition and Trend

Water quality in the Challis Resource Area is adversely affected by land use activities occurring in the Resource Area, because land use activities generally disturb the protective soil cover, vegetation, or hydrologic processes to some extent. Most activities are relatively localized, short term, or controllable, and, with properly applied restrictions, usually do not pose a widespread threat to water quality. On a landscape scale, livestock grazing is the most water quality-impairing land use activity occurring in the Resource Area.

In-depth monitoring of water quality indicators and an assessment of their relationship to livestock grazing was conducted in 1993. A variety of parameters have been monitored that either directly or indirectly indicate the status for support of beneficial uses and water quality condition and trend. A summary of the on-going monitoring, analysis, and conclusions of current water quality conditions and trends is presented below for each principal drainage basin within the Resource Area (see *Map 25: Geography and Principal Drainage Basins*).

Main Salmon River:

The BLM currently monitors water quality on seven tributaries that drain into the Main Salmon River. These include Cow Creek, Little Hat Creek, Morgan Creek, West Fork of Morgan Creek, Bayhorse Creek, Squaw Creek, and Thompson Creek. Only water temperature has been monitored in the West Fork of Morgan Creek.

Temperature data indicate that during years of adequate snowpack and rainfall, Bayhorse, West Fork of Morgan and Cow creeks all meet temperature standards (USDA Forest Service and USDI-BLM, February 1995) for chinook salmon migration (<64 °F) and spawning (<60 °F) requirements. Thompson and Little Hat creeks meet the chinook salmon migration standard and come close to meeting chinook salmon spawning requirements, while Squaw and Morgan creeks have been exceeding all standards (USDI - BLM, National Marine Fisheries Service Annual Monitoring Report, 1996). Critical bull trout temperatures, indicated as a 24 hour average, for rearing (53.6 °F, June through August) and spawning (48 °F, after September 15) (IDAPA 16, 1998) can only be assessed through a review of the available daily maximum and daily minimum temperatures. The Hobo thermographs are being re-programmed to provide daily averages from multiple daily readings over a 24-hour time period. Rearing temperatures are generally not being met, while spawning temperatures are being met after September 15. Exceptions are Cow Creek, Bayhorse Creek, and the upper reaches of Little Hat Creek where both standards are being met.

Over the past five years of monitoring, trends indicate that Bayhorse, West Fork of Morgan and Cow creeks are in stable condition. Little Hat Creek has shown some decline. Thompson, Squaw and Morgan creeks show slight improvement, as the number of days exceeding standards have decreased. There are several contributing factors such as roads, private land ownership and land use practices along the Squaw and Morgan Creek drainage that are negatively impacting water

quality, but are outside the scope of BLM management.

Sedimentation in the Main Salmon River drainage has been periodically monitored through R1/R4 stream habitat surveys between 1995 and 1997. Six of the seven streams have slight to moderate sediment levels, most of which fall within the desired standard of ≤ 20% (NCASI, Technical Bulletin No. 428, 1984). Sedimentation in Little Hat Creek is well above desired levels, partially due to beaver dams throughout the system. However, it is believed that this stream is not a major contributor of sediment to the Salmon River due to its location high in the watershed.

Biological monitoring assessing aquatic macroinvertebrate populations is considered to be an effective indicator of past water quality trends and current conditions. Interpretation of the health and integrity of the aquatic ecosystem is based on a number of biotic indices and life history characteristics of individual taxa, physical habitat and water chemistry data. Macroinvertebrate community structure and species composition in Cow and Bayhorse creeks indicate good water quality. Squaw and Thompson Creek are fair, with an upward trend in macroinvertebrate quality. Little Hat and Morgan creeks have remained in poor condition, although the percentage of pollution-tolerant species has decreased since 1993 in Morgan Creek and overall data in Little Hat shows improvement, but still is not meeting desired standards (USDI-BLM, National Marine Fisheries Service Annual Monitoring Report, 1996).

Water chemistry sampling is performed to coincide with macroinvertebrate samples. All streams sampled within the Main Salmon River watershed had dissolved oxygen and pH levels within the desired criteria (Vinson 1992) to support cold water biota.

Coliform levels were initially sampled in 1979 and indicate that the majority of tributaries, in addition to the seven the BLM regularly monitors, generally were within State standards for primary (500 coliforms/100 ml at any time) and secondary (200 coliforms/100 ml in more than 10% of samples over a 30 day period) contact recreation (Vinson 1992). At this time, specific trends are unknown since repeated sampling has not been conducted.

East Fork Salmon River:

The BLM currently monitors water quality on ten tributaries that drain into the East Fork Salmon River. These include Big Boulder Creek, Little Boulder Creek, Big Lake Creek, Bear Creek, Horse Basin Creek, Herd Creek, Lake Creek, Pine Creek, Mosquito Creek and Road Creek. Only water temperature has been monitored at Big Boulder Creek, Big Lake Creek and Little Boulder Creek.

Temperature data indicates that during years of adequate snowpack and rainfall, Herd and Lake creeks meet temperature standards (USDA Forest Service and USDI-BLM, February 1995) for chinook salmon migration (<64 °F) and come close to meeting chinook salmon spawning (<60 °F) requirements. Bear and Mosquito creeks meet the chinook salmon migration standard but do not meet spawning requirements. Road Creek and Horse Basin Creek have not been meeting standards on a regular basis and Big Lake Creek did not meet them in 1997. Four streams (Herd, Lake, Bear, and Mosquito) have been displaying fairly good instream water temperatures throughout the summer, while the others show potential for improvement (USDI-BLM, National

Marine Fisheries Service Annual Monitoring Reports, 1994-1996). Critical bull trout temperatures, indicated as a 24-hour average, for rearing (53.6 °F, June through August) and spawning (48 °F, after September 15) (IDAPA 16, 1998) can only be assessed through a review of the available daily maximum and daily minimum temperatures. The Hobo thermographs are being re-programmed to provide daily averages from multiple daily readings over a 24-hour time period. The Road Creek drainage which includes Road, Bear, Mosquito, and Horse Basin creeks, does not contain bull trout and is not considered bull trout habitat. Bull trout rearing standards are generally not being met in Herd or Lake creeks, but spawning standards are being met. Big Lake Creek generally does not meet spawning standards until early October.

Sedimentation has been periodically monitored through R1/R4 stream habitat surveys between 1995 and 1997. The majority of the surveyed streams in the watershed depict evidence of increased sediment levels, most of which do not fall within the desired standard of $\leq$ 20% (NCASI, Technical Bulletin No. 428, 1984). Only one stream (Herd Creek) met this guideline. Within the Road Creek drainage, most streams have sediment levels that are slightly elevated above the desired standard, particularly in Road Creek.

Biological monitoring assessing aquatic macroinvertebrate populations is considered to be an effective indicator of past water quality trends and current conditions. Interpretation of the health and integrity of the aquatic ecosystem is based on a number of biotic indices and life history characteristics of individual taxa, physical habitat and water chemistry data. Very few desired standards are being met at the various sampled sites within the Road Creek drainage. However, the data are showing improvement over time. Although no standards were met in Lake Creek, several indices were very close and the overall indication is that quality is improving. Herd Creek has remained relatively stable, meeting some, but not all, macroinvertebrate indices, with variations probably due to climatic changes (USDI-BLM, National Marine Fisheries Service Annual Monitoring Report, 1996).

Water chemistry sampling is performed to coincide with macroinvertebrate samples. All streams sampled within the East Fork Salmon River watershed had dissolved oxygen and pH levels within the desired criteria (Vinson 1992) to support cold water biota.

There is no available information on coliform levels in the East Fork Salmon River drainage.

Pahsimeroi River:

The BLM currently monitors water quality on the Pahsimeroi River and eleven tributaries of the Pahsimeroi River. These include Burnt Creek, Big Creek, Donkey Creek, Falls Creek, Little Morgan Creek, Long Creek, Mahogany Creek, Mill Creek, Morse Creek, Patterson Creek, Short Creek and the Upper Pahsimeroi River. Monitoring on several of these streams was recently implemented in 1997, and only water temperature has been monitored in Mill, Falls, Little Morgan, Short, Long, and Morse creeks. Temperature data indicate that during years of adequate snowpack and rainfall, the Upper Pahsimeroi River, Little Morgan Creek and Mahogany Creek meet temperature standards (USDA Forest Service and USDI-BLM, February 1995) for chinook salmon migration (<64 °F) and spawning (<60 °F) requirements. Burnt Creek meets the chinook

salmon migration standard and comes close to meeting spawning requirements (USDA Forest Service and USDI-BLM, Pahsimeroi River Watershed Biological Assessment, 1997). Most streams are in good condition, with Burnt Creek and the Upper Pahsimeroi River demonstrating slightly lower temperatures and less fluctuation during the summer months. Critical bull trout temperatures, indicated as a 24-hour average, for rearing (53.6 °F, June through August) and spawning (48 °F, after September 15) (IDAPA 16, 1998) can only be assessed through a review of the available daily maximum and daily minimum temperatures. The Hobo thermographs are being reprogrammed to provide daily averages from multiple daily readings over a 24-hour time period. The bull trout streams, consisting of Burnt, Little Morgan, Morse, Falls, Patterson, Big, Ditch, Mahogany, Tater, and Big Gulch creeks and the Pahsimeroi River, are generally meeting all bull trout temperature standards. The exceptions are lower Burnt Creek and Little Morgan creeks, which meet only the spawning standard, and the lower Pahsimeroi River which meets the spawning standard later than desired (in early October).

Sedimentation has been periodically monitored through R1/R4 stream habitat surveys between 1995 and 1997. Of the four streams surveyed, one (Donkey Creek) stream displayed slightly elevated sediment levels, one (Burnt Creek) was borderline with the desired standard of $\leq$20% (NCASI, Technical Bulletin No. 428, 1984) and two streams (Mahogany Creek and Upper Pahsimeroi River) met the criteria. It is believed that only slight amounts of suspended sediment reach the Pahsimeroi River from the other tributaries (USDA Forest Service and USDI-BLM, Pahsimeroi River Watershed Biological Assessment, 1997).

Biological monitoring assessing aquatic macroinvertebrate populations is considered to be an effective indicator of past water quality trends and current conditions. Interpretation of the health and integrity of the aquatic ecosystem is based on a number of biotic indices and life history characteristics of individual taxa, physical habitat and water chemistry data. Macroinvertebrate community structure and species composition in Mahogany Creek indicates good water quality. Burnt Creek data indicate that the stream is in fair to poor condition, with a declining trend in macroinvertebrate quality. Macroinvertebrate data on the remaining creeks sampled in 1997 (Big Creek, Donkey Creek, and the Upper Pahsimeroi River) have not yet been analyzed.

Water chemistry sampling is performed to coincide with macroinvertebrate samples. All streams sampled within the Pahsimeroi watershed had dissolved oxygen and pH levels within the desired criteria (Vinson 1992) to support cold water biota.

Coliform levels were initially sampled in 1979 and indicate that the majority of streams, in addition to the twelve the BLM regularly monitors, are within State standards for primary (500 coliforms/100 ml at any time) and secondary (200 coliforms/100 ml in more than 10% of samples over a 30 day period) contact recreation (Vinson 1992). At this time, specific trends are unknown, since repeated sampling has not been conducted.

Big Lost River:

At this time the BLM has little information about the Big Lost River Watershed, as no monitoring is conducted. It is believed that most streams meet temperature and pH requirements for cold

water biota. The Big Lost River system is not considered anadromous or bull trout habitat. Through observation and professional judgement, the majority of streams appear to fall into a functional-at-risk category (see **Volume 1**, *Attachment 1: Riparian-Wetland Area Function Classification*, pp. 101-102). Extrapolating from these conclusions, overall water quality would seem to be in fair condition with the potential for improvement.

Little Lost River:

The BLM currently has limited information about this watershed, since monitoring occurs on only two streams. The Little Lost River system is not considered anadromous habitat. Critical bull trout temperatures, indicated as a 24-hour average, for rearing (53.6 °F, June through August) and spawning (48 °F, after September 15) (IDAPA 16, 1998) can only be assessed through a review of the available daily maximum and daily minimum temperatures. The Hobo thermographs are being re-programmed to provide daily averages from multiple daily readings over a 24-hour time period. Temperature has been monitored on Summit Creek since 1993 and intermittently on Dry Creek since 1994. Temperatures are slightly elevated in Summit Creek and very close to meeting desired standards for cold water biota in Dry Creek (USDI-BLM, National Marine Fisheries Service Annual Monitoring Report, 1997).

Coliform levels were initially sampled in 1979 at several locations along Summit Creek and were within State standards for primary (500 coliforms/100 ml at any time) and secondary (200 coliforms/100 ml in more than 10% of samples over a 30 day period) contact recreation (Vinson 1992).

Appendix K: Wild Horses and Burros

Item 1: Relative Percent Density of Discerned Contents from Wild Horse Fecal Samples

Tentative Identification	Spring	Summer	Fall	Winter	
Grasses and Grasslike Plants					
Western wheatgrass (*Agropyron smithii*)	0.31	0.50	0.00	0.57	
Bluebunch wheatgrass (*Agropyron spicatum*)	52.87	39.63	77.90	43.20	
Brome (*Bromus*)	0.00	0.20	0.00	0.00	
Reedgrass (*Calamagrostis*)	0.62	1.00	0.35	0.11	
Sedge (*Carex*)	1.74	1.93	2.45	0.46	
Wildrye (*Elymus*)	0.00	1.11	0.00	0.00	
Idaho fescue (*Festuca idahoensis*)	5.22	18.72	0.21	1.16	
Junegrass (*Keoleria cristata*)	3.18	10.09	0.94	5.86	
Indian ricegrass (*Oryzopsis hymenoides*)	2.20	2.77	0.14	1.16	
Bluegrass (*Poa*)	5.10	5.29	0.87	3.70	
Squirreltail (*Sitanion*)	0.51	1.61	0.00	1.63	
Dropseed (*Sporobolus*)	0.51	0.40	0.14	0.23	
Needlegrass (*Stipa*)	0.62	5.75	0.21	0.69	
Unknown sedge	0.10	1.61	0.14	0.00	
Unknown grass	0.00	0.10	0.00	0.81	
Total	72.98%	90.71%	83.36%	59.58%	77%
Forbs					
Milkvetch (*Astragalus*)	0.00	0.30	0.07	0.57	
Buckwheat (*Eriogonum*)	0.00	2.45	0.07	4.20	
Lupine (*Lupinus*)	0.31	1.10	1.84	0.93	
Phlox (*Phlox*)	22.95	2.45	8.01	19.58	
Mullein (*Verbascum*)	0.00	0.10	0.00	0.00	
Unknown forb	0.00	0.00.	0.00	0.11	
Total	23.26%	5.40%	9.99%	25.39%	16%
Shrubs					
Sagebrush (*Artemisia*)	0.00	0.50	0.36	10.08	
Saltbush (*Atriplex*)		0.20	0.00	0.07	0.46
Rabbitbrush (*Chrysothamnus*)	0.00	0.00	0.07	0.00	
Winterfat (*Eurotia lanata*)	3.85	3.08	1.46	3.70	
Prickly phlox (*Leptodactylon pungens*)	0.00	0.00	4.55	0.11	
Total	4.05%	3.59%	6.51%	14.35%	7%
					100%

Source: Hansen, Richard M., *Report of Microhistological Estimates of Ruminant Food Habits of Deer, Elk, Horses, Cattle and Antelope in the Challis Planning Unit.* Special Report, 1975.

Appendix L: Resource Studies

Item 1: Summary of Studies of the Challis Resource Area

This appendix item summarizes most of the past and present resource studies, inventories, surveys and research activities conducted within the Challis Resource Area. Major headings include: Upland Habitat, Riparian Habitat, Aquatic Habitat/Fisheries, Forest Resources, Cultural Resources, Wildlife, Climate, and Miscellaneous References. This summary of studies is in *addition* to the list of References contained in the PRMP/FEIS, Volume 2. Except for the studies listed under "Cultural Resources", the studies mentioned in this appendix item are available for review at the Challis Resource Area office in Salmon, Idaho.

Upland Habitat

* 145 upland nested frequency plots, permanently located on 45 allotments.
* 107 3' x 3' photo plots located on 39 allotments.
* Two established vigor studies on one allotment, utilizing fenced exclosures as comparative controls.
* Yearly utilization transects and utilization pattern mapping.
* Wild horse dietary studies (**Note:** The results of these studies are summarized in *Appendix K, Item 1*).
* Annual (since 1972) wild horse counts through aerial surveys.
* Site-specific and landscape inventories of special status plant species. (**Note:** The general distribution of special status plant species is presented on *Map 38.*)
* Site-specific inventories of noxious weed populations. (**Note:** The general distribution of known noxious weeds infestations is shown on *Map 28.*)
* Rangeland inventories, as listed below:

Year	Type	Purpose	# Allotments	# Acres	Planning Unit
1977	ESI(mod) [1]	Range Condition	22	331,163	Challis
1979	SVIM [2]	Range Condition	27	342,559	Ellis-Pahsimeroi
1981	SVIM [2]	Range Condition	12	118,845	Mackay
1994	ESI [1]	Ecological-Seral	1	79,298	Challis
1995	ESI [1]	Ecological-Seral	2	81,675	Challis

[1] Ecological Site Inventory
[2] Soil-Vegetative Inventory Method

Riparian Habitat

* 50 permanent study sites on 26 perennial creeks within 24 allotments.
* Permanently stacked photo points on an additional 7 perennial creeks.
* Additional photo series established on Road Creek (1987), Sage Creek (1988), North Fork Sage Creek (1988), Horse Basin Creek (1988), Little Anderson Ranch (1980), Corral Creek (1988), and Burnt Creek (1984), each with multiple permanent photo points.
* Summit Creek Exclosure Stream Study, established in 1975.
* Riparian vegetation/hydrologic inventory on 128 miles of perennial streams in 1994-1995.
* Bursik, R.J. 1994. *Field survey of plant communities at Thousand Springs/Chilly Slough, Custer County, Idaho.* Unpublished report prepared for The Nature Conservancy, Ketchum, Idaho. 20 pp.

Aquatic Habitat/Fisheries

* 38 permanent study sites on 20 perennial streams located on 15 allotments.
* Fish distribution surveys performed on 45 streams since 1994. (**Note:** Fish distribution data are summarized in Appendix C, Item 1).
* Fish habitat condition inventories have been performed on 21 perennial streams.
* End-of-Year Report to National Marine Fisheries Service for Endangered Species Act Section 7 Consultation Compliance. Annual reports from 1993 to present.
* Aquatic benthic macroinvertebrate monitoring reports from USDI - BLM Aquatic Ecosystem Laboratory, Fisheries and Wildlife Department, Utah State University, Logan, Utah. Annual reports from 1993 to present.
* Water temperature profiles for streams located in the Challis Resource Area. Annual summaries since 1995.

Forest Resources

* Timber Production Capability Classification (TPCC) inventory of 1984, and 1996 updates with maps and field forms.
* Yield and allowable sale quantity (ASQ) calculation databases (Lotus software).

Cultural Resources (**Note:** This information is not available for public review.)

* Broadscale Class II inventory performed as a random sample encompassing the entire Challis Resource Area, 1976-1979.
* Site-specific Class III inventories; ongoing as needed.
* Miscellaneous site-specific archaeological excavations.

Wildlife

* Barnes, Larry J. 1994. *The Birds of Chilly Slough, Idaho.* A report completed for The Nature Conservancy, Ketchum, Idaho. November 1994. 65 pp.
* Levine, Ed. 1992. *Peregrine habitat evaluation/Mackay area.* Memorandum to Alan Thomas from the Nongame and Endangered Wildlife Program of the Idaho Dept. of Fish and Game, Boise, Idaho.
* BLM, Challis Resource Area. *Small mammals of the Thousand Springs Marsh.* Unpublished small mammal trapping data. 1978.
* Small mammal trapping data.
* Nongame bird transects. 1988, 1989, 1990.
* Big game browse form class measurements. 1977-1980.
* Winter elk utilization data - bluebunch wheatgrass, Willow Creek Summit elk winter range. 1992.
* Big game winter range maps.
* Big game pellet group transect data.
* Bighorn sheep vegetative trend studies.
* Sage grouse lek monitoring data - 1970-1997.
* 1977 Raptor Cliff Nest Site Inventory.
* Big Game Winter Range Surveys, 1989, 1992, 1994, 1996. Idaho Department of Fish and Game. Older survey data also available.

Climate

* 31 precipitation gauges scattered throughout the Resource Area are maintained and read quarterly each year to determine annual and growing season precipitation.
* Three National Oceanographic Aeronautics Administration (NOAA) climate stations (Challis, Chilly, Mackay Ranger Station) are utilized for regional climate data.
* One RAWS (Remote Area Weather Station) site is monitored and utilized for precipitation, temperature, and wind data.

Miscellaneous References

* Custer/Lemhi Soil Survey, Natural Resources Conservation Service (in publication).
* Ecological Site Guides, Major Land Resource Areas (MLRA) B-12, Natural Resources Conservation Service, 1983.

References

References

Note: In addition to the literature citations and other references listed below, many planning and decisional documents were used to develop the Challis RMP (see Draft RMP/EIS, *Table 1-1*, pp. 14-16). A list of relevant law, regulation, and policy for each resource/program in the Challis Resource Area is provided at the beginning of each resource/program description in ***Chapter 3*** (see Proposed RMP/Final EIS, pp. 189-328). An expanded description of legislation relevant to the Challis RMP is provided in *Appendix E, Item 1*, pp. 638-643. Appendix L, Item 1, pp. 668-670, summarizes the past and present resource studies, inventories, surveys, and research activities within the Challis Resource Area; those resource studies are in addition to the references listed below.

* * * * * * *

Allen, D.R. and C.B. Marlow. 1991. *Effects of Cattle Grazing on Shoot Population Dynamics of Beaked Sedge. In* Clary, W.P., E.D. McArthur, D. Bedunah and C.L. Wambolt. **Proceedings - Symposium on Ecology and Management of Riparian Shrub Communities**. Sun Valley, ID; May 29-31, 1991. USDA - Forest Service, Intermountain Research Station: Ogden, Utah. pp. 89-91.

Anderson, L.D. 1991. *Bluebunch Wheatgrass DefoliationEffects and Vigor Recovery: A Review.* BLM Technical Bulletin 91-2. USDI - BLM, Idaho State Office: Boise, Idaho.

Armour, C.L. 1978. *Effects of Deteriorated Range Streams on Trout.* USDI - BLM, Idaho State Office; Boise, Idaho. 7 pp.

Armour, C.L., D.A. Duff and W. Elmore. 1991. *The Effects of Livestock Grazing on Riparian and Stream Ecosystems* (American Fisheries Society Position Statement). **Fisheries** 16(1):7-11.

Arno, Stephen F. and George E. Gruell. 1983. *Fire History at the Forest-Grassland Ecotone in Southwestern Montana.* **Journal of Range Management** 36(3):332-336.

Autenrieth, R.E. 1981. *Sage Grouse Management in Idaho.* P-R Project Report W-125-R and W-160-R. Wildlife Bulletin No. 9. Idaho Department of Fish and Game: Boise, Idaho. 44 pp.

Autenrieth, R.E. 1986. *Antelope-Feral Horses-Livestock Range Relations.* Final Report. Pittman-Robertson Project W-160-R. Idaho Department of Fish and Game: Boise, Idaho. 85 pp.

Ballard, G.L. 1991. *Habitat Relationships and Physiological Condition of Mountain Sheep in Morgan Creek, East-Central Idaho.* Unpublished Thesis. College of Graduate Studies, University of Idaho; Moscow, Idaho. 114 pp.

Barrett, M.W. 1981. *Environmental Characteristics and Functional Significance of Pronghorn Fawn Kidding Sites in Alberta.* **Journal of Wildlife Management** 45(1):120-131. *In:* **Habitat Suitability Index Models: Pronghorn.** U.S. Department of the Interior - Fish and Wildlife Service: Washington, D.C. FWS/OBS-82/10.65. June 1984. 22 pp.

Barton, D.R., W.D. Taylon and R.M. Biette. 1985. *Dimensions of Riparian Buffer Strips Required to Maintain Trout Habitat in Southern Ontario Streams.* **North American Journal of Fish Management** 5:364-378.

Batt, Governor Philip E. July 1, 1996. *State of Idaho Bull Trout Conservation Plan.* Office of the Governor: Boise, Idaho.

Bell, Milo C. 1973. *Fisheries Handbook of Engineering Requirements and Biological Criteria,* Chapter 5. U.S. Army Cops of Engineers, North Pacific Division, Fisheries Engineering Research Program: Portland, Oregon.

Bernt, W.C. 1976. *Observations on a Pronghorn Antelope Winter Range.* Unpublished Thesis. Idaho State University; Pocatello, ID. 58 pp.

Beschta, R.L. 1983. *Long-term Changes in Channel Widths of the Kowai River, Torlesse Range, New Zealand.* **Journal of Hydrology** 22(2):112-122.

Beschta, R.L and W.S. Platts. 1986. *Morphological Features of Small Streams: Significance and Function.* **Water Resources Bulletin** 22(3):369-379.

Bjorn, T.C., D.R. Craddock and D.R. Corley. 1968. *Migration and Survival of Redfish Lake, Idaho, Sockeye Salmon, Oncorhynchus nerka.* **Trans. American Fish Society** 97(4):360-373.

Blackburn, W. 1984. *Impacts of Grazing Intensity and Specialized Grazing Systems on Watershed Characteristics and Responses. In* **Developing Strategies for Rangeland Management**. Boulder, CO: Westview Press. pp. 927-981.

Bodie, W.L. 1979. *Mortality of Pronghorn Fawns in the Upper Pahsimeroi River Valley.* Completion Report for Pittman-Robertson Project W-170-R. Idaho Department of Fish and Game: Boise, Idaho. 98 pp.

Boggs, Bill. February 1, 1996. Personal communication between Bill Boggs, Recreation Planner for the Medicine Lodge Resource Area (formerly Recreation Planner for the Idaho Falls District BLM) and Pete Sozzi, Recreation Planner for the Challis Resource Area - BLM.

Bohn, C. 1989. *Management of Winter Soil Temperatures to Control Streambank Erosion.* Pages 69-72 *in* R.E. Gresswell, B.A. Barton and J.L. Kershner (*eds.*), **Practical Approaches to Riparian Resource Management**. Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

Boussu, M.F. 1954. *Relationship Between Wild Trout Populations and Cover on a Small Stream.* **Journal of Wildlife Management** 18(2):229-239.

Bruner, Clifford J. 1951. *Characteristics of Spawning Nests of Columbia River Salmon.* Fishery Bulletin 61. USDI - Fish and Wildlife Service: Washington, D.C.

Brussock, P.P., A.V. Brown, and J.C. Dixon. 1985. *Channel Form and Stream Ecosystem Models.* **Water Resource Bulletin** 21(5):859-866.

Budd, A.C. 1979. *Budd's Flora of the Canadian Prairie Provinces.* Research Branch, Agriculture Canada Publication 1662.

Bull, W.B. 1979. *Threshold of Critical Power in Streams.* **Geological Society of America Bulletin** I(90):453-464.

Busby, R.E. and G.F Gifford. 1981. *Effects of Livestock Grazing on Infiltration and Erosion Rates Measured on Chained and Unchained Pinyon-Juniper Sites in Southeastern Utah.* **Journal of Range Management** 34:400-405.

Butler, Robert B. 1978. *A Guide to Understanding Idaho Archaeology: The Upper Snake and Salmon River Country.* Third edition. A Special Publication of the Idaho Museum of Natural History. Pocatello, ID.

Call, M. W. and C. Maser. 1985. *Sage Grouse. In* USDI - BLM and USDA - Forest Service **Wildlife Habitats in Managed Rangelands - The Great Basin of Southeastern Oregon.** General Technical Report PNW-18. Pacific Northwest Forest and Range Experiment Station: Portland, Oregon. 30 pp.

Callihan, Robert H. and Timothy W. Miller. 1997. *A Pictorial Guide to Idaho's Noxious Weeds.* Noxious Weed Advisory Council, Idaho Department of Agriculture: Boise, Idaho.

Carvelho, J. 1997. Personal communication between Joe Carvelho, Forest Fire Management Officer, Salmon-Challis National Forest, Salmon, Idaho and Glenn Elzinga, Forester, Lemhi and Challis Resource Areas - BLM, Salmon, Idaho.

Challis Stewardship Program, Modoc/Washoe Stewardship Program, and East Pioneer Stewardship Program. December 1984. *Experimental Stewardship Program Report.* Report submitted to the Secretaries of Interior and Agriculture.

Chaney, E., W. Elmore and W.S. Platts. 1990. *Livestock Grazing on Western Riparian Areas.* Prepared by the Northwest Resource Information Center, Inc.: Eagle, Idaho.

Chen, J., Jerry Franklin and Thomas Spies. 1990. *Edge Phenomena in Old-growth Douglas-fir Forests: Microclimatic Pattern.* **Bulletin of Ecol. Society of Americ**a Supplement to Volume 71, No. 2. 117 pp.

Claire, E. and R. Storch. 1983. *Streamside Management and Livestock Grazing: An Objective Look at the Situation.* Pages 111-128 *in* J. Menke (*ed.*) **Workshop on Livestock and Wildlife-Fisheries Relationships in the Great Basin**. USDA - Forest Service: Berkeley, CA.

Clark, Scott F. 1986. *Nineteenth Century Shoshone-Bannock Riparian Adaptation.* Masters Thesis. Idaho State University. Pocatello, Idaho. 79 pp.

Clary, W.P. and D.E. Medin. 1990. *Differences in Vegetation Biomass and Structure Due to Cattle Grazing in a Northern Nevada Riparian Ecosystem.* USDA - Forest Service, Intermountain Research Station: Ogden, Utah. Research Paper INT-427. 8 pages.

Clary, W.P. and B.F. Webster. 1989. *Managing Grazing of Riparian Areas in the Intermountain Region.* USDA - Forest Service, Intermountain Research Station: Ogden, Utah. General Technical Report INT-263. 11 pp.

Clements, F.E. 1916. *Plant Succession: An Analysis of the Development of Vegetation.* Publication 242. Carnegie Institution of Washington: Washington, D.C.

Colter, Belma, Joanne Jensen, and Marlene Lindroth. August 1, 1995. *Community Assessment of Fort Hall Service Unit Delivery Area* (DRAFT). Public Health Nursing and Shoshone-Bannock Tribes: Fort Hall, Idaho.

Cooper, A.C. 1965. *The Effect of Transported Stream Sediments on the Survival of Sockeye and Pink Salmon Eggs and Alevin.* International Pacific Salmon Fisheries Commission. Bulletin 18.

Cooperative Extension Service, USDA-Forest Service, Natural Resource Conservation Service, USDI-Bureau of Land Management. 1996. *Utilization Studies and Residual Measurements.* Interagency Technical Reference TR-1737-3.

Cooperative Extension Service, USDA-Forest Service, Natural Resource Conservation Service, USDI-Bureau of Land Management. 1996. *Sampling Vegetation Attributes.* Interagency Technical Reference TR-1737-4.

Cooperrider, A.Y. 1990. *Conservation of Biological Diversity on Western Rangelands.* Transactions 55th North American Wildlife and Natural Resources Conference. pp. 451-461.

Cooperrider, A.Y., Boyd, R.J., and H.R. Stuart *(eds.).* September, 1986. *Inventory and Monitoring of Wildlife Habitat.* USDI - BLM, Denver Service Center: Denver, CO. 858 pp.

Copeland, G.L. 1980. *Antelope Buck Breeding Behavior, Habitat Selection and Hunting Impact.* Idaho Department of Fish and Game. Wildlife Bulletin No. 8-1980. 45 pp.

Cordone, A.J. and D.W. Kelley. 1961. *The Influences of Inorganic Sediment on the Aquatic Life of Streams.* **California Fish and Game** 47:189-228.

Costello, D.F. 1944. *Important Species of the Major Forest Types in Colorado and Wyoming.* **Ecological Monographs** 14:106-134.

Crane, M.F. and William C. Fischer. 1986. *Fire Ecology of the Forest Habitat Types of Central Idaho.* USDA - Forest Service, Intermountain Research Station: Ogden, Utah. General Technical Report INT-218. 86 pp.

Crouse, M.R., C.A. Callahan, K.W. Malueg, and S.E. Dominguez. 1981. *Effects of Fine Sediments on Growth of Juvenile Coho Salmon in Laboratory Streams.* **Transactions of the American Fisheries Society** 110:281-286.

Cummins, K.W. 1974. *Structure and Function of Stream Ecosystems.* **Bioscience** 24:631-641.

Dahlem, E.A. 1979. *The Mahogany Creek Watershed With and Without Grazing.* Pages 31-34 *in* Cope, O.B. *(ed.)*, **Forum - Grazing and Riparian Stream Ecosystems**. Trout Unlimited forum held in Denver, CO.

Davis, Roy J. 1952. *Flora of Idaho.* Brigham Young University Press: Provo, Utah.

Dealy, J.E., D.A. Leckenby and D.M. Concannon. 1981. *Plant Communities and Their Importance to Wildlife.* USDI - BLM and USDA - Forest Service General Technical Report PNW-120. **Wildlife Habitats in Managed Rangelands - The Great Basin of Southeastern Oregon.** 66 pp.

DeBano, L.F. and L.J. Schmidt. 1989. *Improving Southwestern Riparian Areas Through Watershed Management.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. General Technical Report RM-182. 33 pages.

Donnelly, Dennis M. and Louis J. Nelson. July 1986. *Net Economic Value of Deer Hunting in Idaho.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Resource Bulletin, RM-13.

Donnelly, Dennis M., John B. Loomis, Cindy F. Sorg, and Louis J. Nelson. April 1985. *Net Economic Value of Recreational Steehead Fishing in Idaho.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Resource Bulletin RM-9.

Duff, D.A. 1983. *Livestock Grazing Impacts on Aquatic Habitat in Big Creek, Utah.* Pages 129-142 *in* Menke, J.W. *(ed.)*. **Proceedings, Workshop on Livestock and Wildlife-Fisheries Relationships in the Great Basin**. University of California, Agricultural Sciences Special Publication 3301. Berkeley, CA.

Dyksterhuis, E.J. 1949. *Condition and Management of Range Land Based on Quantitative Ecology.* **Journal of Range Management** 2:104-115.

Eckert, R., F. Peterson, and J. Belton. 1986. *Relationship Between Ecological Range Condition and Proportion of Soil-Surface Types.* **Journal of Range Management** 39:409-414.

Ecosystem Analysis at the Watershed Scale: Federal Guide for Watershed Analysis. August 1995 (Revised - Version 2.2). Regional Interagency Executive Committee, Regional Ecosystem Office: Portland, Oregon.

Elmore, W. and R.L. Beschta. 1987. *Riparian Areas: Perceptions in Management.* **Rangelands** 9:260-265.

Elzinga, C.A. in press. *Rare and Sensitive Species of the Salmon District BLM.*

Environmental Protection Agency. 1979. *Livestock Grazing Management and Water Quality Protection.* EPA 910/9-79-67. 33 pages.

Federal Register. Friday, February 24, 1995. "Amendment to Notice of Intent to Initiate a Resource Management Plan and Prepare an Environmental Impact Statement for the Challis Resource Area." 60(37):10,403.

_____. August 2, 1996. "Notice of Availability of the Challis Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS)." Vol. 61, No. 150. p. 40431.

_____. August 9, 1996. "Environmental Impact Statements; Notice of Availability... EIS No. 960359, DRAFT EIS, BLM, ID." Vol. 61, No. 155. p. 41607.

_____. November 1, 1996. "Bureau of Land Management, Challis Resource Area, Idaho." Vol. 61, No. 213. p. 56568.

_____. June 13, 1997. "Endangered and Threatened Wildlife and Plants; Proposal to List the Klamath River Population Segment of Bull Trout as an Endangered Species and Columbia River Population Segment of Bull Trout as a Threatened Species." Vol. 62, No. 114. pp. 32268-32284.

_____. August 18, 1997. "Endangered and Threatened Species: Listing of Several Evolutionary Significant Units (ESUs) of West Coast Steelhead." Vol. 62, No. 159. pp. 43937-43954.

_____. July 8, 1998. "Endangered and Threatened Wildlife and Plants: Proposal to List the Contiguous United States Distinct Population Segment of the Canada Lynx; Proposed Rule." Vol. 63, No. 130. pp. 36993-37013.

Fichter, E. 1957a. *Study of Upper Pahsimeroi Valley Antelope Herd.* Federal Aid To Wildlife Restoration Project, Job Completion Report, Idaho Game Population Census and Range Study W 85-R-9, Job No. 4. Idaho Department of Fish and Game: Boise, Idaho. 13 pp.

_____. 1957b. *Study of Antelope Population on Upper Pahsimeroi.* Job Completion Report, Federal Aid To Wildlife Restoration Project, Idaho Game Population Census and Range Study W 85-R-10, Job No. 7. Idaho Department of Fish and Game.: Boise, Idaho. 25 pp.

Fichter, E. and E. Nielson. 1959. *Study of Antelope Population on Upper Pahsimeroi and Little Lost Drainages.* A Federal Aid To Wildlife Restoration Project, Job Completion Report, Idaho Game Population Census and Range Study W-85-R-11, Job No. 7. Idaho Department of Fish and Game: Boise, Idaho. 35 pp.

_____. 1962. *Study of Pronghorn Antelope Population.* Job Completion Report, Federal Aid To Wildlife Restoration Project, Idaho Game Population Census and Range Study W 85-R-13, Job No. 5. Idhao Department of Fish and Game: Boise, Idaho. 17 pp.

_____. 1964. *Pronghorn Antelope Study.* A Federal Aid To Wildlife Restoration Project, Job Completion Report, Idaho Big Game Harvest, Census and Range Study W-85-R-14, Job No. 6. Idaho Department of Fish and Game: Boise, Idaho. 16 pp.

Fowells, H.A. 1965. *Silvics of Forest Trees of the United States.* Agriculture Handbook No. 271. USDA - Forest Service.

Franklin, J.F. and C.T. Dyrness. 1973. *Natural Vegetation of Oregon and Washington.* USDA - Forest Service, Pacific Northwest Forest and Range Experment Station: Portland, OR. General Technical Report PNW-8. 71 pp.

Franklin, J.F., K. Cromack Jr., W. Denison, A. Mckee, C. Maser, J. Sedell, F. Swanson, and G. Juday. 1981. *Ecological Characteristics of Old-growth Douglas-fir Forests.* USDA - Forest Service, Pacific Northwest Forest and Range Experiment Station: Portland, OR. General Technical Report PNW-118. 35 pp.

Freeze, R.A. and J.A. Cherry. 1979. *Groundwater.* Englewood Cliffs, NJ: Prentice-Hall.

Gangmark, H.A. and R.G. Bakkala. 1960. *A Comparative Study of Unstable and Stable (Artificial Channel) Spawning Streams for Incubating King Salmon at Mill Creek.* **California Fish and Game** 46:151-164.

Gebhardt, K.A., C. Bohn, S. Jensen, and W.S. Platts. 1989. *Use of Hydrology in Riparian Classification.* Pages 53-59 *in* R.E. Gresswell, B.A. Barton and J.L. Kershner (*eds.*), **Practical Approaches to Riparian Resource Management**. Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

Goodman, T., G.B. Donart, H.E. Keisling, J.L. Holchek, J.P. Neel and D. Manzanares. 1989. *Cattle Behavior with Emphasis on Time and Activity Allocations Between Upland and Riparian Habitats.* Pages 95-102 *in* R.E. Gresswell, B.A. Barton and J.L. Kershner (*eds.*), **Practical Approaches to Riparian Resource Management**. Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

Gray, Wilson. January 1996. *Look for Further Price Pressures This Year.* **Idaho Farmer.**

Gresswell, R.E., B.A. Barton and J.L Kershner (*eds.*). May 1989. *Practical Approaches to Riparian Resource Management.* Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

Gruhn, Ruth. 1961. *The Archaeology of Wilson Butte Cave, South-Central Idaho.* Occasional Papers of the Idaho State College Museum, No. 6.

Hall, F.C. 1985. *Management Practices and Options. in:* USDI - BLM and USDA - Forest Service General Technical Report PNW-109. **Wildlife Habitats in Managed Rangelands - The Great Basin of Southeastern Oregon.** 17 pp.

Hall, Frederick C. and Larry Bryant. September 1995. *Herbaceous Stubble Height as a Warning of Impending Cattle Grazing Damage to Riparian Areas.* General Technical Report PNW-GTR-362. USDA - Forest Service, Pacific Northwest Research Station: Portland, Oregon. 9 pp.

Hall-Griswold, Judy and Tim Cochnauer. 1988. *Job Performance Report, Project F-73-R-9, Subproject II: Salmon and Steelhead Investigation, Study I: Salmon Spawning Ground Surveys.* Idaho Department of Fish and Game.

Hamilton, R.C., *ed.* 1993. *Characteristics of Old Growth Forests of the Intermountain Region.* USDA - Forest Service, Intermountain Region. Ogden, Utah.

Hansen, R.M. 1975. *Report of Microhistological Estimates of Ruminant Food Habitats of Deer, Elk, Horses, Cattle and Antelope in the Challis Planning Unit.* Special Report. USDI - BLM, Salmon District: Salmon, Idaho.

Hansen, R.M., R.C. Clark, and W. Lawhorn. March 1977. *Foods of Wild Horses, Deer, and Cattle in the Douglas Mountain Area, Colorado.* **Journal of Range Management** 30 (2).

Hansen, P.L., Steve W. Chadde and Robert D. Pfister. June 1988a. *Riparian Dominance Types of Montana.* Montana Forest and Conservation Experiment Station, School of Forestry, University of Montana: Missoula, MT. Miscellaneous Publication No. 49.

Hansen, P.L., Steve W. Chadde, Robert D. Pfister, John Joy, Dan Svoboda, John Pierce, and Lew Meyers. June 1988b. *Riparian Site Types, Habitat Types, and Community Types of Southwestern Montana.* Draft Version 1. Montana Riparian Association, School of Forestry, University of Montana: Missoula, Montana.

Hansen, Paul, Robert Pfister, John Joy, Dan Svoboda, Keith Boggs, Lew Myers, Steve Chadde, and John Pierce. July 1989. *Classification and Management of Riparian Sites in Southwestern Montana.* Montana Riparian Association, School of Forestry, University of Montana: Missoula, Montana.

Harju, H.J. 1974. *An Analysis of Some Aspects of the Ecology of Dusky Grouse.* Unpublished thesis. University of Wyoming. Laramie, WY. 141 pp.

Harris, Charles C., William J. McLaughlin, Sharon L. Timko, and Joanne F. Tynon. February 1988. *The Idaho Leisure Travel and Recreation Survey. Region VII: Final Report.* Idaho Department of State Parks and Recreation, Idaho Department of Commerce/Leisure Travel Promotion and the University of Idaho Department of Wildland Recreation Management.

Haslett, Mike. 1995. *1994 Lost River Range Fire History Overview, Challis National Forest.* Final Report. Contract No. 53-02S2-4-06023 IDAWY-19-94. Intermountain Technologies: Pocatello, Idaho.

Heede, B.H. 1977. *Case Study of a Watershed Rehabilitation Project: Alkali Creek, CO.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Research Paper RM-189.

_____. 1985. *Interactions Between Streamside Vegetation and Stream Dynamics.* Pages 54-58 *in* **Symposium on Riparian Ecosystems and Their Management: Reconciling Conflicting Uses**; April 16-18; Tucson, AZ.

Hitchcock, C. Leo, and Arthur Cronquist. 1973. *Flora of the Pacific Northwest - An Illustrated Manual.* Seattle, Washington: University of Washington Press.

Holechek, J.L., R.D. Pieper and C.H. Herbel. 1989. *Range Management Principles and Practices.* Englewood Cliffs, NJ: Prentice Hill. 501 pages.

Horsburgh, Chuck. February 15, 1996. Personal communication between Chuck Horsburgh, Idaho Falls Field Office - BLM and Jerry Gregson, Challis Resource Area - BLM.

Hubbard, Richard E., and Richard M. Hansen. September 1976. *Diets of Wild Horses, Cattle, and Mule Deer in the Piceance Basin, Colorado.* **Journal of Range Management** 29 (5).

Idaho Department of Commerce, Economic Development Division. 1989. *County Profiles of Idaho.* 6th Edition. Boise, Idaho.

Idaho Department of Commerce, Idaho Department of Parks and Recreation, and the USDA - Forest Service. 1989. *Marketing Direction for the National Forests in Idaho.* Boise, ID.

Idaho Department of Employment (Research and Analysis). December 1995. *Idaho Employment.* Volume 7, No. 8.

Idaho Department of Fish and Game (IDFG). June 1, 1984. *Idaho Anadromous Fish Management Plan, 1984-1990* (DRAFT).

_____. 1990a. *Bighorn Sheep Management Plan 1991-1995.* Idaho Department of Fish and Game. Boise, ID. 37 pp.

_____. 1990b. *Upland Game Management Plan 1991-1995.* Idaho Department of Fish and Game. Boise, ID. 102 pp.

_____. 1990c. *Waterfowl Habitat Management Plan 1991-1995.* Idaho Department of Fish and Game. Boise, ID. 117 pp.

_____. 1991a. *Elk Management Plan 1991-1995.* James W. Unsworth, Idaho Department of Fish and Game. Boise, ID. 62 pp.

_____. 1991b. *Mule Deer Management Plan 1991-1995.* Michael D. Scott, Idaho Department of Fish and Game. Boise, ID. 79 pp.

_____. 1991c. *Pronghorn Antelope Management Plan 1991-1995.* J.G. Crenshaw, Idaho Department of Fish and Game. Boise, ID. 35 pp.

_____. 1992a. *Information on Returns of Salmon to the Pahsimeroi Hatchery.* Idaho Department of Fish and Game, Personal Communication.

_____. 1992b. *Data on Habitat Conditions, Trend, and Limiting Factors.* Data on file, IDFG Region 7. Salmon, ID.

_____. January 6, 1997. Letter from Gary Power, Regional Supervisor, IDFG - Region 7 to Kathe Rhodes, RMP Coordinator, Salmon Field Office - BLM.

_____. 1997. *Idaho Sage Grouse Management Plan.* Idaho Department of Fish and Game: Boise, Idaho. 34 pages.

Idaho Department of Health and Welfare. 1979. *Water Quality Report - Coliform Bacteria.* Unpublished records. on file with USDI - BLM, Challis Resource Area: Salmon, Idaho.

Idaho Department of Health and Welfare; Division of Environmental Quality. 1988. *Idaho Water Quality Status Report and Nonpoint Source Assessment.* Boise, ID.

_____. 1989. *Idaho Nonpoint Source Management Program.*

_____. February 1998. Title 01, Chapter 02, "Water Quality Standards and Wastewater Treatment Requirements."

Idaho Department of Health and Welfare - Division of Environmental Quality and Idaho Department of Lands - Soil Conservation Commission. August 1993. *Idaho Agricultural Pollution Abatement Plan - 1991.* Idaho Soil Conservation Commission. Boise, Idaho.

Idaho Department of Water Resources, BLM and USFS. September 1992. *Upper Salmon River Basin Study Agreement.* (Regarding coordinated river basin planning activities consistent with the Memorandum of Understanding dated February 14, 1991.)

Idaho Employment. August 1995. Paragraph on Salmon International Sawmill Shutdown. p. 7.

Idaho Native Plant Society. 1998. *Results of the Fourteenth Annual Idaho Rare Plant Conference.* Sponsored by the Idaho Native Plant Society. February 10-11, 1998. Boise, Idaho.

Idaho Outlook - News of Idaho's Economy and Budget. June 1995. Volume XV, No. 12. State of Idaho, Division of Financial Management: Boise, Idaho.

_____. May 1997. "Beef Battles Back." Volume XVII, No. 11. State of Idaho, Division of Financial Management: Boise, Idaho.

Idaho Soil Conservation Commission. November 1995. *Model Watershed Plan: Lemhi, Pahsimeroi, and East Fork of the Salmon River.* U.S. Department of Energy, Bonneville Power Administration: Portland, Oregon.

Idaho Travel Council. 1989. *1989 Conversion Research Study.* Idaho Department of Commerce/Division of Travel Promotion. Recreation Management Information System. Boise, ID.

IDAPA 16. February 20, 1998. IDAPA 16, Title 01, Chapter 02, Subsection 250.02 e., p. 40.

Iwamoto, R.N, E.O Salo, M.A. Madej and R.L McComas. 1978. *Sediment and Water Quality: A Review of the Literature Including a Suggested Approach for Water Quality Criteria.* EPA 910/9-78-048.

Jorgensen, Joseph G. 1972. *The Sun Dance Religion: Power for the Powerless.* Chicago: University of Chicago Press.

Karl, M.G., S.G. Leonard, P.M. Rice, and J. Rider. 1995. *Noxious Weeds in the Interior Columbia Basin and Portions of the Klamath and Great Basins: Science Assessment of Selected Species.* Unpublished report. [Irregular pagination]. On file with: USDA - Forest Service and USDI - BLM, Interior Columbia Basin Ecosystem Management Project, 112 E. Poplar, Walla Walla, WA 99362.

Kauffman, J.B. and W.C. Krueger. 1984. *Livestock Impacts on Riparian Ecosystems and Streamside Management Implications.* **Journal of Range Management** 37:430-438.

Kauffman, J.B., W.C. Krueger and M. Vavra. 1983. *Effects of Late Season Cattle Grazing on Riparian Plant Communities.* **Journal of Range Management** 36(6): 685-691.

The Keystone Center. 1991. *Biological Diversity on Federal Lands. Report of a Keystone Policy Dialogue.* A Keystone Center Report. Keystone, CO. 96 pp.

Kelly, S. and E. Merrill. 1995. *Elk and Cattle Range Relations on the Lee Creek Rest-Rotation Allotment, Lemhi Mountains, Idaho.* Final Report, Department of Zoology and Physiology, University of Wyoming, Laramie. 71 pp.

Kinch, Gene. September 1989. *Grazing Management in Riparian Areas.* Riparian Area Management TR 1737-4. USDI - BLM, Service Center: Denver, Colorado.

Kinney, John W. and Warren P. Clary. 1994. *A Photographic Utilization Guide for Key Riparian Graminoids.* General Technical Report INT-GTR-308. USDA - Forest Service, Intermountain Research Station: Ogden, Utah.

Knack, Martha C. 1986. *Indian Economies, 1950-1980.* In **Handbook of North American Indians: Volume 11, Great Basin**. Warren L. D'Azevedo, ed. Smithsonian Institution: Washington, D.C.

Knight, Dennis H., *et. al.* 1991. *Water and Nitrogen Outflow from Lodgepole Pine Forest After Two Levels of Tree Mortality.* **Forest Ecology and Management** 46:215-225.

Knoph, F.L. and R.W. Cannon. 1982. *Structural Resilience of a Willow Riparian Community to Changes in Grazing Practices.* Pages 198-209. *in* **Wildlife-Livestock Relationships Symposium**; Proc. 10. University of Idaho, Forest, Wildlife and Range Experimental Station: Moscow, Idaho.

Kohler, Judith (The Associated Press). January 11, 1996. *Price Dip for Cattle Worries Ranchers.* **Idaho Statesman**.

Kovalchik, B.L. 1987. *Riparian Zone Associations: Deschutes, Ochoco, Fremont and Winema National Forests.* R6-ECOL-TP-279-87. USDA - Forest Service, Pacific Northwest Region: Portland, OR. 171 pages.

Kovalchik, B.L. and W. Elmore. 1991. *Effects of Cattle Grazing Systems on Willow Dominated Plant Associations in Central Oregon.* Pages 111-119 *in* Clary, W.P., E.D. McArthur, D. Bedunah and C. F. Wambolt; **Proceedings - Symposium on Ecology and Management of Riparian Shrub Communities**; Sun Valley, ID; May 29-31, 1991. Published by USDA - Forest Service, Intermountain Research Station. Ogden, UT.

Kratville, S.P. 1989. *Elk Habitat Selection, Distribution, and Nutrition as Influenced by Cattle in East-central Idaho.* Univ. of Montana Unpublished M.S. Thesis. 101 pp.

Küchler, A.W. 1964. *Manual to Accompany the Map -- Potential Natural Vegetation of the Conterminous United States.* American Geographical Society Special Publication No. 36. New York.

Kvale, Craig T. 1981. *Mule Deer, Elk, and Cattle Relationships on the Herd Creek Rest-Rotation Grazing System, East-Fork of the Salmon River, Idaho.* Unpublished Thesis. University of Idaho Graduate School, Moscow, ID. 202 pp.

Lauer, J.L. and J.M. Peek. 1976. *Big Game-Livestock Relationships on the Bighorn Sheep Winter Range, East Fork Salmon River, Idaho.* Cooperative Wildlife Research Unit, College of Forestry, Wildl. and Range Sciences. University of Idaho. Moscow, ID. 44 pp.

Leckenby, D.A., D.P. Sheehy, C.H. Nellis, R.J. Scherzinger, I.D. Luman, W.E. Elmore, J.C. Lemos, L. Doughty, and C.E. Trainer. 1982. *Mule Deer.* in **Wildlife Habitats in Managed Rangelands - The Great Basin of Southeastern Oregon.** USDI - BLM and USDA - Forest Service General Technical Report PNW-139. 40 pp.

Leckenby, D.A., J.W. Thomas, M.G. Henjum, and L.J. Erickson. 1986. *An Index to Evaluate Forage Quantity and Quality Interactions: One of Four Variables Proposed for Modeling Elk Habitat Effectiveness on Winter Ranges in the Blue Mountains of Oregon and Washington.* Paper presented in the Western States and Provinces Elk Workshop; March 16-19, 1986.

Leege, T.A., D.J. Herman, and B. Zamora. 1981. *Effects of Cattle Grazing on Mountain Meadows in Idaho.* **Journal of Range Management** 34(4):324-238.

Levinski, Carla L. August 1982. *BMPs for Road Activities: Volumes I and II.* Idaho Department of Health and Welfare, Division of the Environment. Boise, Idaho.

Lloyd, D.S., J.P. Koenings and J.D. LaPerriere. 1987. *Effects of Turbidity in Fresh Waters of Alaska.* **North American Journal of Fisheries Management** 7:18-33.

Logan, W., E.R. Brown, D. Longrie and R.A. Corthell. 1985. *Edges.* In E.R. Brown (*ed.*), **Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington,** Publication No. R6-F&WL-192-1985, USDA - Forest Service, Pacific Northwest Region. Portland, OR. pp. 115-127.

Long, J.N. 1977. *Trends in Plant Species Diversity Associated with Development in a Series of Pseudostuga menziesii/Gaulteria shallon Stands.* **NW Science** 51(2):119-130.

Loomis, John B., Dennis M. Donnelly, Cindy F. Sorg, and Lloyd Oldenburg. November 1985. *Net Economic Value of Hunting Unique Species in Idaho: Big Horn Sheep, Mountain Goat, Moose, and Antelope.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Resource Bulletin RM-10.

Lowe, Joseph. March 1, 1996. Personal communication between Joseph Lowe, Wildlife Biologist, Big Butte Resource Area - BLM and Kathe Rhodes, Planning and Environmental Coordinator, Salmon Field Office - BLM.

_____. March 5, 1996. Memorandum from Joseph Lowe, Wildlife Biologist, Big Butte Resource Area - BLM to Kathe Rhodes, Planning and Environmental Coordinator, Salmon Field Office - BLM.

Lowrance, R.J., K. Sharpe and J.M. Sheridan. 1986. *Long Term Sediment in the Riparian Zone of a Coastal Plain Watershed.* **Journal of Soil and Water Conservation** 41(4):266-271.

Mallis, Robert and Steve Moore. March 1992. Cover letter and reports submitted as fluid leasable minerals input to the Challis RMP/EIS. (Reply code: 1624.2(921)).

Manci, K.M. 1989. *Riparian Ecosystem Creation and Restoration: A Literature Summary.* U.S. Fish and Wildlife Service, Biological Report 89(20). 59 pages.

Marcuson, P.E. 1977. *The Effect of Cattle Grazing on Brown Trout in Rock Creek, Montana.* Montana Department of Fish and Game, Special Report, Project F-20-R-21.

Maret, Terry R. and Dave Jensen. 1991. *Protocols for Conducting Use Attainability Assessments for Determining Beneficial Uses to be Designated on Idaho Stream Segments. Water Quality Monitoring Protocols - Report No. 7.* Idaho Department of Health and Welfare, Division of Environmental Quality: Boise, Idaho.

Marlow, C.B., K. Olson-Rutz, and J. Atchley. 1989. *Response of a Southwest Montana Riparian System to Four Grazing Management Alternatives.* Pages 111-116 *in* R.E. Gresswell, B.A. Barton and J.L. Kershner (*eds.*). **Practical Approaches to Riparian Resource Management.** Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

Martin, Gina. February 16, 1996. Personal communication between Gina Martin, Idaho Falls Field Office - BLM and Kathe Rhodes, Salmon Field Office, BLM.

McDonald, Gerald, Neil E. Martin and Alan E. Harvey. 1987. *Occurrence of Armillaria spp. in Forests of the Northern Rocky Mountains.* Research Paper INT-381. USDA - Forest Service, Intermountain Research Station: Ogden, Utah. 7 pp.

McGregor, Mark D. and Dennis M. Cole, editors. 1985. *Integrating Management Strategies for the Mountain Pine Beetle with Multiple-resource Management of Lodgepole Pine Forests.* General Technical Report INT-714. USDA - Forest Service, Intermountain Forest and Range Experimental Station: Ogden, Utah. 68pp.

McInnis, Michael L. and Martin Vavra. 1987. *Dietary Relationships among Feral Horses, Cattle, and Pronghorn in Southeastern Oregon.* **Journal of Range Management** 40 (1), January 1987.

McKelvey, Jim. 1990. Lost River Valleys Chamber of Commerce.

Meehan, W.R. (*ed.*). 1991. *Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats.* American Fisheries Society Special Publication 19. Bethesda, MD. 749 pages.

Meiman, J.R. December, 1987. *Influence of Forests on Snowpack Accumulation.* In: **Management of Subalpine Forests: Building on 50 Years of Research.** General Technical Report RM-149. USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station: Fort Collins, Colorado. pp. 61-67.

Miller, B.M. (*ed.*). 1983. *Petroleum Potential of Wilderness Lands in the Western United States.* U.S. Geological Survey Circular 902-A-P.

Minimum Monitoring Standards Task Committee. 1984. *Minimum Monitoring Standards for BLM-Administered Rangelands in Idaho.* Distributed as an enclosure to Instruction Memorandum No. ID-84-213 (March 28, 1984). Bureau of Land Management, Idaho State Office. Boise, Idaho.

Morgan, J.K. 1970. *Rocky Mountain Bighorn Sheep Investigations.* Idaho Department of Fish and Game. Project W-142-R-1. 155 pp.

Morisawa, M. 1968. *Streams - Their Dynamics and Morphology.* New York, New York: McGraw-Hill Book Co.

Muggler, Walter F. 1985. *Vegetative Associations.* In: **Ecology and Management in the Western United States.** Norbert V. DeByle and Robert P. Winker (*eds.*). USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Fort Collins, CO. General Technical Report RM-119. 283 pp.

Myers, L.H. 1980. *Grazing on Stream Riparian Habitats in Southwestern Montana.* Proceedings of Montana Chapter of Wildlife Society, Great Falls, MT. 34th Annual Meeting.

_____. 1989. *Grazing and Riparian Management in Southwestern Montana.* Pages 103-110 *in* R.E. Gresswell, B.A. Barton and J.L. Kershner (*eds.*), **Practical Approaches to Riparian Resource Management**. Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

National Council of the Paper Industry for Air and Stream Improvement (NCASI). April,1984. *The Effects of Fine Sediment on Salmonid Spawning Gravel and Juvenile Rearing Habitat - A Literature Review.* NCASI Technical Bulletin No. 428. Section III, 49 pp.

National Register of Historic Places. 1981. Challis Archaeological Spring District National Register of Historic Places Inventory Nomination Form.

Orcutt, D.R., B.R. Pulliam and A. Arp. 1968. *Characteristics of Steelhead Trout Redds in Idaho Streams.* **Trans. American Fisheries Society** 97:42-45.

Overton, C. Kerry, Sherry P. Wollrab, Bruce C. Roberts, and Michael A. Radko. May 1997. *R1/R4 (Northern/Intermountain Regions) Fish and Fish Habitat Standard Inventory Procedures Handbook.* General Technical Report INT-GTR-346. USDA - Forest Service, Intermountain Research Station: Ogden, Utah.

Padgett, Wayne G., Andrew P. Youngblood, and Alma H. Winward. December 1989. *Riparian Community Type Classification of Utah and Southeastern Idaho.* USDA - Forest Service Intermountain Region Publication R4-Ecol-89-01.

Parkhurst, Z.E. 1950. *Survey of the Columbia River and Its Tributaries, Part VII.* Special Scientific Report: Fisheries No. 40. USDI - Fish and Wildlife Service.

Peek, J.M., R.A. Riggs, and J.L. Lauer. 1979. *Evaluation of Fall Burning on Bighorn Sheep Winter Range.* **Journal of Range Management** 32(6), November 1979. pp. 430-432.

Perry, C. and R. Overly. December, 1976. *Impact of Roads on Big Game Distribution in Portions of the Blue Mountains of Washington.* In: **Proceedings of the Elk-Logging-Roads Symposium.** Forest, Wildlife and Range Experiment Station, Univ. of Idaho: Moscow, Idaho. pp. 62-68.

Platts, W.S. 1979. *Livestock Grazing and Riparian/Stream Ecosystems -- An Overview.* Pages 39-45 *in* O.B. Cope (*ed.*), **Proceedings of the Forum-- Grazing and Riparian/Stream Ecosystems**. Trout Unlimited. Denver, CO.

_____. 1984. *Compatibility of Livestock Grazing Strategies with Riparian Stream Systems. In* **Range, Watershed, Riparian Zones and Economics: Interrelationships in Management and Use.** Short course, Oregon State University; Corvallis, OR. Pages 67-74.

_____. 1986. *Riparian Stream Management.* **Transactions Western Section of the Wildlife Society** 22:90-93.

_____. 1989. *Compatibility of Livestock Grazing Strategies with Fisheries.* Pages 103-110 *in* R.E. Gresswell, B.A. Barton and J.L. Kershner (*eds.*), **Practical Approaches to Riparian Resource Management**. Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

_____. 1990. *Managing Fisheries and Wildlife on Rangelands Grazed by Livestock.* Nevada Department of Wildlife.

_____. 1991. *Livestock Grazing.* Pages 389-424 *in* Meehan, W.R. (*ed.*). **Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats.** American Fisheries Society Special Publication 19. Bethesda, MD. 749 pages.

Platts, W.S., K.A. Gebhardt, and W.L Jackson. 1985. *The Effects of Large Storm Events on Basin-Range Riparian Stream Habitats.* Pages 30-35 *in* **Riparian Ecosystems and Their Management: Reconciling Conflicting Uses.** USDA - Forest Service, General Technical Report RM-120.

Platts, W.S. and R.L. Nelson. 1985. *Streamside and Upland Vegetative Use by Cattle.* **Rangelands** 7:5-7.

_____. 1989. *Stream Canopy and Its Relationship to Salmonid Biomass in the Intermoun tain West.* **North American Journal of Fisheries Management** 9:446-457.

_____. 1989. *Characteristics of Riparian Plant Communities and Streambanks with Respect to Grazing in Northeastern Utah.* Pages 73-82 *in* R.E. Gresswell, B.A. Barton and J.L. Kershner (*eds.*), **Practical Approaches to Riparian Resource Management**. Symposium; May 1989; Billings, MT. Published by the BLM, BLM-MT-PT-89-001-4351.

President's Task Force on Outdoor Recreation Resources. 1988. *Outdoor Recreation in a Nation of Communities.* Washington, D.C.

Ratliff, R.D. 1983. *Nebraska Sedge (Carex nebraskensis* Dewey): *Observations on Shoot Life History and Management.* **Journal of Range Management** 36(4):429-430.

Regional Economic Information System. Bureau of Economic Analysis. 1995. (computer database of economic information).

Rittenhouse, Bruce and Roger Rosentreter. 1994. *The Autecology of Challis Milkvetch, an Endemic of East-Central Idaho.* **Natural Areas Journal** 14 (1): 22-30.

Roath, L.R. and W.C. Krueger. 1982. *Cattle Grazing Influence on a Mountain Riparian Zone.* **Journal of Range Management** 35:100-104.

Ross, C.P. 1937. *Geology and Ore Deposits of the Bayhorse Region, Custer County, Idaho.* U.S. Geological Survey Bulletin 877.

Rowe, Mike. February 15, 1996. Personal communication between Mike Rowe, Fisheries Biologist for the Shoshone-Bannock Tribes, and Cynthia Weston, Fisheries Biologist for the Challis Resource Area, Salmon Field Office - BLM.

Rowe, M., R.W. Stonecypher, J.S. Spaulding, K. Bacon, J.M. Gunderman, and H. Hayball. May 1994. *Salmon River Habitat Enhancement, Annual Report 1991.* Shoshone-Bannock Tribes Annual Report; Project Number 83-359. Bonneville Power Administration, Portland, Oregon.

Saffel, Patrick, Hal Hayball, Kermit Bacon, and Mike Rowe. November 1995. *Salmon River Habitat Enhancement Annual Report 1994.* U.S. Dept. of Energy, Bonneville Power Administration Project Number 94-50. Shoshone-Bannock Tribes Fisheries Department. Fort Hall, Idaho.

Schmitz, R.F., *et. al.* 1989. *Effect of Partial Cutting Treatments of Lodgepole Pine Stands on the Abundance and Behavior of Flying Mountain Pine Beetles.* **Canadian Journal of Forest Research.** 19:566-574.

Schulz, T.T. and W. C. Leininger. 1990. *Differences in Riparian Vegetation Structure between Grazed Areas and Exclosures.* **Journal of Range Management** 43(4):295-299.

Schumm, S.A. 1973. *Geomorphic Thresholds and Complex Response of Drainage Systems.* Pages 229-310 *in* Morisawa, M. (*ed.*), **Fluvial Geomorphology**. Annual Geomorphology Symposia Series, 4th Proceedings; Binghamton, NY.

Scott, Mike. 1992. Personal communication between Jerry Gregson (BLM) and Mike Scott, Idaho Department of Fish and Game, Region 7.

Sheridan, David. 1981. *Desertification in the United States.* CEQ Report. U.S. Government Printing Office. Washington, D.C.

The Shoshone-Bannock Tribes. 1985. *The Fort Hall Indian Reservation Comprehensive Land Use Plan* (DRAFT). Fort Hall, Idaho.

_____. 1994. *1994 Treaty Rights Seminar Registration Booklet.* Seminar held May 18-20, 1994. Pocatello, Idaho.

Sigler, J.W., T.C. Bjorn and F.H. Everest. 1984. *Effects of Chronic Turbidity on Density and Growth of Steelhead and Coho Salmon.* **Transactions of the American Fisheries Society** 113:142-150.

Simpson, J.C. and R.L. Wallace. 1982. *Fishes of Idaho.* University of Idaho Press: Moscow, ID.

Smith, Bruce and Don Prichard. 1992. *Management Techniques in Riparian Areas.* Riparian Area Management TR 1737-6. USDI - BLM, Service Center: Denver, Colorado.

Society for Range Management. 1974. *Glossary of Terms Used in Range Management, Second Edition.* Compiled - Edited by: Range Glossary Committee, M.M. Kothmann, Chairman. Denver, CO.

_____. 1989. *A Glossary of Terms Used in Range Management.* Third Edition. Compiled and Edited by: Glossary Revision Special Committee, Publications Committee, Society for Range Management; Peter W. Jacoby, Chairman. Society for Range Management: 1839 York Street, Denver, CO 80206.

Sorg, Cindy F., John B. Loomis, Dennis M. Donnelly, George L. Peterson, and Louis J. Nelson. April 1985. *Net Economic Value of Cold and Warm Water Fishing in Idaho.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Resource Bulletin RM-11.

Sorg, Cindy F. and Louis J. Nelson. February 1986. *Net Economic Value of Elk Hunting in Idaho.* November 1986. USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Resource Bulletin RM-12.

_____. March 1987. *Nect Economic Value of Waterfowl Hunting in Idaho.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Resouce Bulletin RM-14.

Sozzi, Pete. March, 1997. Personal communication with Gary Pavek, Washington Office - BLM Wilderness Staff, concerning the initial WSAs inventory, State Director's final decision, and status of vehicle ways in existing WSAs.

_____. May 16, 1997. Personal communication with Bob Bruno, Las Vegas BLM Outdoor Recreation Planner - Off-highway Vehicle Use Planner, regarding how mountain bikes are managed under off-highway vehicle use designations.

State of Idaho, USFS, and BLM. February 14, 1991. *Memorandum of Understanding.* (Formalizing a cooperative relationship for conducting river planning efforts and Wild and Scenic Rivers Studies of Idaho's rivers.)

Steele, J.M., R.D. Ratliff, and G. L. Ritenour. 1984. *Seasonal Variation in Total Nonstructural Carbohydrate Levels in Nebraska Sedge.* **Journal of Range Management** 37(5):465-467.

Steele, Robert, Robert D. Pfister, Russell A. Ryker, and Jay A. Kittams. 1981. *Forest Habitat Types of Central Idaho.* USDA - Forest Service, Intermountain Forest and Range Experiment Station. Ogden, UT. General Technical Report INT-114. 138 pp.

Swanson, S. 1989. *Priorities for Riparian Management.* **Rangelands** 11(5):228-230.

Swenson, E.A. and C.L. Mullins. 1985. *Revegetating Riparian Trees in Southwestern Floodplains.* Pages 135-138 *in* Johnson, R.R *et al* (eds.). **First North American Riparian Conference. Riparian Ecosystems and Their Management: Reconciling Conflicting Uses**. April 16-18; Tucson, AZ. USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Fort Collins, CO. General Technical Report RM-120.

Thilenius, J.F. 1990. *Dimensional Weights and Forage Quality of Barclay Willow and Sweetgale on Moose Ranges in the Wetlands of the Copper River Delta, Alaska.* **Forest Ecology and Management** 33/34:463-483.

Thomas, J.W. C. Maser and J.E. Rodiek. 1979. *Riparian Zones.* in USDI - BLM and USDA - Forest Service General Technical Report PNW-80. **Wildlife Habitats in Managed Rangelands - The Great Basin of Southeastern Oregon.** 18 pp.

Troendle, C.A. and M.R. Kaufmann. December, 1987. *Influence of Forests on the Hydrology of the Subalpine Forest.* In: **Management of Subalpine Forests: Building on 50 Years of Research.** General Technical Report RM-149. USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station: Fort Collins, Colorado. pp. 68-78.

Tuhy, Joel S., and Sherman Jensen. 1982. *Riparian Classification for the Upper Salmon/Middle Fork Salmon Rivers, Idaho.* USDA Forest Service Final Report, Region IV Contract, White Horse Associates, Smithfield, UT. 200 pp.

U.S. Bureau of the Census. 1993. *Statistical Abstract of the United States - 1993.* 113th Edition. Washington, D.C.

_____. 1996. *USA Counties.* 1996 CD-ROM.

U.S. Department of Agriculture - Agricultural Research Service. 1968. *22 Plants Poisonous to Livestock in the Western States.* Agriculture Information Bulletin No. 327.

USDA-APHIS-ADC. September 1996. *Environmental Assessment: Predator Damage Management in Northern and Central Idaho.* Prepared in cooperation with the USDA - Forest Service, USDI - BLM, Idaho Dept. of Fish and Game, Idaho Dept. of Agriculture, and Idaho Dept. of Lands.

USDA-APHIS-ADC (Idaho). November 4, 1996. *Finding of No Significant Impact and Decision for Predator Damage Management in Northern and Central Idaho.*

U.S. Department of Agriculture - Forest Service and U.S. Department of the Interior - Bureau of Land Management. February 1995. *Decision Notice/Decision Record, Finding of No Significant Impact, and Environmental Assessment for the Interim Stategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California.*

_____. 1997. *Pahsimeroi River Watershed Biological Assessment - Effects of Federal Actions on Listed Snake River Spring/Summer Chinook Salmon (Oncorhynchus tshawytscha) and their Designated Critical Habitats in the Pahsimeroi River Watershed.* USDI - BLM, Challis Resource Area: Salmon, Idaho.

_____. June 1997. *An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (4 volumes). Thomas M. Quigley and Sylvia J. Arbelbide, technical editors. General Technical Report PNW-GTR-405. USDA Forest Service, Pacific Northwest Research Station: Portland, Oregon.

U.S. Department of Agriculture - Forest Service. 1990. Fish Survey, D3. Unpublished Stream Survey Data. R. Helzner. Challis National Forest, Challis, ID.

_____. June 2, 1992. *Draft Riparian Guideline Summary.* Beaverhead National Forest.

_____. 1992a. *Ongoing Forest Activities - Effects on Snake River Spring/Summer Chinook and Sockeye.* Salmon National Forest. October 9, 1992. Salmon, Idaho.

_____. 1992b. *Assessment of Ongoing Activities - Challis National Forest.* Challis National Forest. October 9, 1992.

_____. 1992. *Thompson Creek Draft Coordinated Resource Management Plan.* Unpublished Plan. USDA - Forest Service, Challis National Forest. Challis, ID.

_____. 1993. *Minimum Impact Suppression Tactics Guidelines.* USDA - Forest Service, Northern Region. Missoula, Montana.

_____. January 1995. *Lost Trail Pass-Gibbonsville, An Integrated Resource Analysis.* Salmon and Challis National Forests, Salmon, ID.

U.S. Dept. of Commerce - Bureau of Economic Analysis. August 1997. *Survey of Current Business.*

U.S. Department of Commerce - National Marine Fisheries Service. 1997. Estimation of percentages of listed spring/summer and fall chinook and sockeye salmon smolts arriving at McNary Dam in 1997. Memorandum for: Robert Ziobro, From: Michael H. Schiewe, dated January 8, 1997.

U.S. Department of the Interior (USDI). 1983. *BLM Planning: A Guide to Resource Management Planning on the Public Lands.* U.S. Government Printing Office. 1983-574-232.

U.S. Department of the Interior - Bureau of Land Management and Fish and Wildlife Service. 1990. *Conservation Agreement on Thelypodium repandum.* Salmon Field Office, BLM. Salmon, ID.

U.S. Department of the Interior - Bureau of Land Management. Recreation Information Management System (RIMS). Recreation information database.

_____. 1977. *Challis Range Survey.* Unpublished range survey data. USDI - BLM. Salmon, ID.

_____. 1978. *Challis Unit Resource Analysis.* USDI - BLM, Salmon District Office. Salmon, Idaho.

_____. 1979. *Challis Management Framework Plan.* Unpublished land use plan for the Challis Resource Area. USDI - BLM. Salmon, ID.

_____. 1980. *Visual Resource Management Program.* Division of Recreation and Cultural Resources. Washington, D.C.

_____. November 1980. *Idaho Intensive Wilderness Inventory - Final Decision.* USDI - BLM, Idaho State Office: Boise, Idaho.

_____. 1982. *The Interim Management Plan for Off-Road Vehicle Use in the Challis Planning Unit.* USDI - BLM, Challis Resource Area, Salmon, ID.

_____. 1984. *Rangeland Monitoring - Utilization Studies.* TR 4400-3. BLM - Denver Service Center: Denver, Colorado.

_____. 1984a. *The Interim Management Plan for Off-Road Vehicle Use in the Pahsimeroi Planning Unit.* USDI - BLM, Challis Resource Area, Salmon, ID.

_____. 1984b. *The Interim Management Plan for Off-Road Vehicle Use in the Mackay Planning Unit.* USDI - BLM, Challis Resource Area, Salmon, ID.

_____. 1985. *Northwest Area Noxious Weed Control Program, Final Environmental Impact Statement.* Oregon State Office.

_____. 1987. *Lemhi Draft Resource Management Plan and Environmental Impact Statement.* USDI - BLM, Lemhi Resource Area, Salmon, Idaho.

_____. 1987. *Supplement to the Northwest Area Noxious Weed Control Program, Final Environmental Impact Statement.* Oregon State Office.

_____. 1988. *Fish & Wildlife 2000 - A Plan for the Future.* BLM, Washington, D.C.

_____. October 25, 1988. BLM Manual H-1790-1: National Environmental Policy Act Handbook.

_____. 1989 update. *Challis Herd Management Area Plan.* USDI - BLM, Salmon District. Salmon, Idaho.

_____. 1990. *Timber Production Capability Classification.* BLM Manual Section 5251.

_____. 1990a. *Idaho Riparian Management Policy.* Idaho State Office.

_____. 1990b. *The State of the Public Rangelands 1990, The Range of Our Vision.* Washington, D.C.

_____. 1991. *Public Domain Forest Policy Statement.* BLM Manual Section 5000.

_____. 1991. *Final Environmental Impact Statement - Vegetation Treatment on BLM Lands in Thirteen Western States.* Wyoming State Office.

_____. 1991 to present. Challis Resource Area Level 1 Hazardous Materials Surveys (unpublished records). Salmon Field Office - BLM: Salmon, Idaho.

_____. 1992. *Rare Plants and Natural Plant Communities: A Strategy for the Future.* Fish & Wildlife 2000 Natural Strategy Plan Series.

_____. 1992a. *Thompson Creek Fish Habitat and Riparian Inventory.* Unpublished data. USDI - BLM, Challis Resource Area. Salmon, Idaho.

_____. 1992b. *Rangeland Improvement Projects System.* Computer database on file at the Challis Resource Area, Salmon Field Office - BLM. Salmon, Idaho.

_____. 1993. *Challis Resource Area National Wild and Scenic Rivers Eligibility Report.* Challis Resource Area - BLM: Salmon, Idaho..

_____. 1993. *Process for Assessing Proper Functioning Condition.* **Riparian Area Management.** TR 1737-9.

_____. 1993. ESA Section 7 Consultation Compliance Monitoring Report. USDI - BLM, Salmon District, Challis Resource Area: Salmon, Idaho.

_____. 1993a. *Forests: Our Growing Legacy.* Issue Paper published by the BLM.

_____. January 1993b. *East Fork West Biological Evaluation.* Unpublished report. USDI - BLM, Salmon District. Salmon, Idaho.

_____. 1993c. *Salmon District Recreation Marketing Plan.*

_____. 1994. ESA Section 7 Consultation Compliance Monitoring Report. USDI - BLM, Upper Columbia Salmon-Clearwater Districts, Challis Resource Area: Salmon, Idaho.

_____. March 1994. *A Social, Economic, and Fiscal Analysis of Custer and Lemhi Counties, Idaho: And Models.* Technical Report in Fulfillment of Cooperative Agreement No. D-040-A-2-006. BLM Idaho State Office, Boise, ID.

_____. 1994. *Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas.* Draft Technical Reference attached to Information Bulletin No. SC-94-200 (June 17, 1994). BLM Service Center; Denver, Colorado.

_____. 1995. *ESA Section 7 Consultation Compliance Monitoring Report.* USDI -BLM, Upper Columbia Salmon-Clearwater Districts, Challis Resource Area: Salmon, Idaho.

_____. 1995. Water temperature profiles for streams located in the Challis Resource Area. USDI - BLM, Upper Columbia Salmon-Clearwater Districts, Challis Resource Area: Salmon, Idaho.

_____. July 1995. *Interim Management Policy and Guidlines for Lands Under Wilderness Review.* Release 9-67; Manual H-8550-1.

_____. January 29, 1996. *Analysis of Challis RMP Proposals on Donkey Hills Area in Big Butte Resource Area.* Unpublished attachment to a memorandum from LeRoy Cook, Big Butte Area Manager, to Mark Johnson, Challis Area Manager (reply refer to 1617). USDI - BLM, Upper Snake River Districts, Idaho Falls District Office, Big Butte Resource Area. Idaho Falls, Idaho.

_____. May 1996. *Challis Resource Area Draft Resource Management Plan and Environmental Impact Statement.* Document number BLM/ID/PT-96-008. Challis Resource Area - BLM: Salmon, Idaho.

_____. 1996. *ESA Section 7 Consultation Compliance Monitoring Report.* USDI - BLM, Upper Columbia Salmon-Clearwater Districts, Challis Resource Area: Salmon, Idaho.

_____. 1996. Water temperature profiles for streams located in the Challis Resource Area. USDI - BLM, Upper Columbia Salmon-Clearwater Districts, Challis Resource Area: Salmon, Idaho.

_____. August 1997. *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management - Final.* Idaho State Office - BLM: Boise, Idaho.

U.S. Department of the Interior - Bureau of Mines. 1988. *Availability of Federally Owned Minerals for Exploration and Development in Western States: Idaho, 1988.* by: P.C. Hyndman, J. Ridenour, W.D. Crandell and C.M. Rumsey. USDI - Bureau of Mines Special Report. 56 pp.

U.S. Department of the Interior - Fish and Wildlife Service. 1984. *Habitat Suitability Index Models: Blue Grouse.* FWS/OBS-82/10.81. *by:* Richard L. Schroeder, USDI Fish and Wildlife Service, Washington, D.C. 19pp.

U.S. Department of the Interior - National Park Service. 1982. *The Nationwide Rivers Inventory.* Washington, D.C.

U.S. Department of the Interior - U.S. Geological Survey. 1996. *Selected Geohydrologic Data from a Regional Aquifer-System Analysis of the Northern Rocky Mountain Intermontane Basins of Idaho.* Boise, Idaho. pp. 13-27.

VanHavern, B. and B. Jackson. 1986. *Concepts in Stream Riparian Rehabilitation.* Pages 280-289 in **Transactions of the 51st North American Wildlife and Natural Resource Conference**. Wildlife Management Institute: Washington, D.C.

Vanote, R.L., G.W. Minshall, K.W. Cummins, J.R. Sedell and C.E. Cushing. 1980. *The River Continuum Concept.* **Canadian Journal of Fisheries and Aquatic Science** 37:130-137.

Vavra, Martin and Forrest Sneva. 1978. *Seasonal Diets of Five Ungulates Grazing the Cold Desert Biome.* In: **Proceedings of the First International Rangeland Congress**, pp. 435-437. Peerless Printing: Denver, CO.

Vinson, Mark. September, 1992. *Bureau of Land Management Water Quality Program Guide.* Appendix G - State of Idaho Water Quality Standards. USDI - BLM, Boise District: Boise, Idaho.

_____. 1994. *Aquatic Benthic Macroinvertebrate Monitoring Reports for 1993.* Report prepared for: USDI - BLM, Salmon District Office. USDI - BLM Aquatic Ecosystem Laboratory, Fisheries and Wildlife Department, Utah State University, Logan Utah.

_____. 1995. *Aquatic Benthic Macroinvertebrate Monitoring Reports for 1994.* Report prepared for: USDI - BLM, Salmon District Office. USDI - BLM Aquatic Ecosystem Laboratory, Fisheries and Wildlife Department, Utah State University, Logan Utah.

_____. 1996. *Aquatic Benthic Macroinvertebrate Monitoring Reports for 1995.* Report prepared for: USDI - BLM, Salmon District Office. USDI - BLM Aquatic Ecosystem Laboratory, Fisheries and Wildlife Department, Utah State University, Logan Utah.

_____. 1997. *Aquatic Benthic Macroinvertebrate Monitoring Reports for 1996.* Report prepared for: USDI - BLM, Salmon District Office. USDI - BLM Aquatic Ecosystem Laboratory, Fisheries and Wildlife Department, Utah State University, Logan Utah.

Vollard, L.A. 1985. *Guidelines for Forage Resource Evaluation Within Central Oregon Pumice Zone.* USDA - Forest Service, Pacific Northwest Research Station. Portland, OR. Region 6 Ecology 104-1985. 216 pp.

Walker, Deward E., Jr. 1993. *The Shoshone-Bannock: An Anthropological Reassessment.* **Northwest Anthropological Research Notes**. Volume 27, No. 2, pp. 139-160.

Wallestad, R.O. and D. B. Pyrah. 1974. *Movement and Nesting of Sage Grouse Hens in Central Montana.* **Journal of Wildlife Management** 38:630-633.

Westoby, M., B. Walker and I. Noy-Meir. 1989. *Opportunistic Management for Rangelands Not at Equilibrium.* **Journal of Range Management** 42:266-274.

Wetenskow-Wall, K.J. and W.C. Kruger, L.D. Bryant, and D.R. Thomas. May 1994. *Nutrient Quality of Bluebunch Wheatgrass Regrowth on Elk Winter Range in Relation to Defoliation.* **Journal of Range Management** 47(3):240-244.

White, Robert and Tim Cochnauer. 1975. *Stream Resource Maintenance Flow Studies.* A cooperatve study by the Idaho Department of Fish and Game and Idaho Cooperative Fishery Research Unit, funded by the Idaho Department of Water Resources.

Wilderness Study Policy; Policies, Criteria, and Guidlines for Conducting Wilderness Studies on Public Lands. **Federal Register** Volume 47, No. 23 pp. 5098-5122.

Williams, Barry G. 1982. *The Place of the Lone Pine Creek Sites in Regional Research.* MA Thesis, Department of Anthropology, Idaho State University. Pocatello, ID.

Wittinger, W.T. 1978. *Habitats, Food Habits, and Range Use of Mule Deer, Elk, and Cattle on the Herd Creek Rest-Rotation Grazing System, East Fork of the Salmon River, Idaho.* Unpublished Thesis. University of Idaho Graduate School. Moscow, ID. 125 pp.

Witzel, L.D. and H.R. MacCrimmon. 1983. *Redd-site Selection by Brook Trout and Brown Trout in Southwestern Ontario Streams.* **Transactions of the American Fisheries Society** 112:760-771.

Wright, Henry A. and Arthur W. Bailey. 1982. *Fire Ecology, United States and Southern Canada.* John Wiley and Sons: New York.

Yeo, Jeffrey J. 1981. *The Effects of Rest-Rotation Grazing on Mule Deer and Elk Populations Inhabiting the Herd Creek Allotment; East Fork Salmon River, Idaho.* Unpublished Thesis. University of Moscow, Idaho. 119 pp.

Young, John S., Dennis M. Donnelly, Cindy F. Sorg, John B. Loomis, and Louis J. Nelson. August 1987. *Net Economic Value of Upland Game Hunting in Idaho.* USDA - Forest Service, Rocky Mountain Forest and Range Experiment Station. Research Bulletin RM-15.

Youngblood, Andrew W., Wayne G. Padgett, and Alma H. Winward. December 1985. *Riparian Community Type Classification of Eastern Idaho-Western Wyoming.* USDA - Forest Service, Intermountain Region Publication R4-Ecol-85-01.

Zwickel, F.C. 1972. *Some Effects of Grazing on Blue Grouse During Summer.* **Journal of Wildlife Management** 36(2):631-634.

[this page is intentionally blank]

Index

Index

A

B

C

D

E

F

G

H

I

K

L

M

N

O

P

R

S

T

U

V

W

☆ U.S. GOVERNMENT PRINTING OFFICE: 1998—789-110 / 41306 Region No. 10