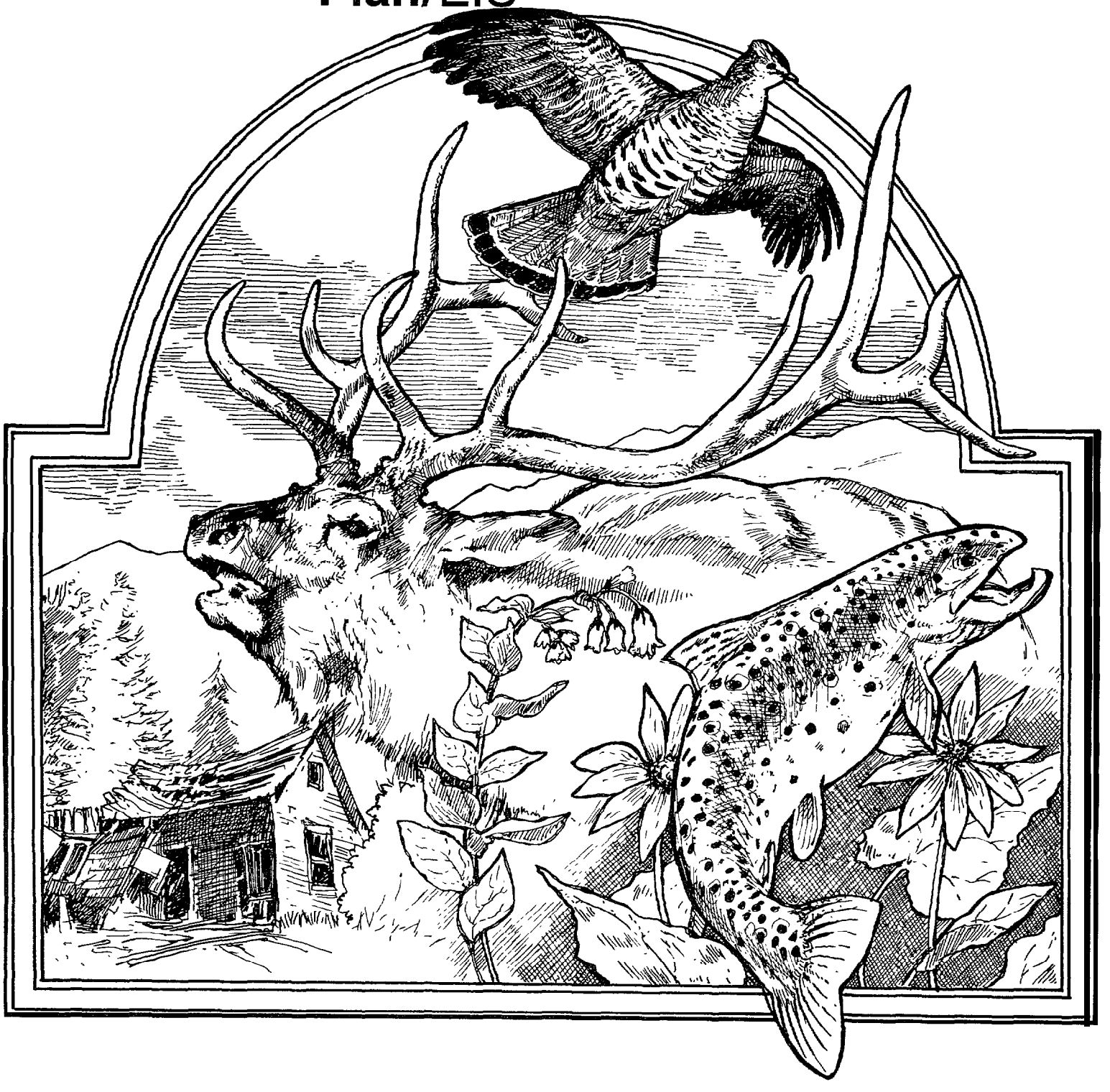
U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

FINAL

Spokane District Office
East 4217 Main
Spokane, Washington 99202

August **1985**

Spokane Resource Management Plan/EIS



IN REPLY REFER TO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

SPOKANE DISTRICT OFFICE
East 4217 Main
Spokane, Washington 99202

August 2, 1985

Dear Reader:

Enclosed for your review and comment is the Proposed Spokane Resource Management Plan and Final Environmental Impact Statement. The Draft RMP/EIS was published in October 1984, and was followed by a 90-day public comment period. Changes based upon public comments have been incorporated into this document and all unchanged portions of the draft have been reprinted in order to portray those changes. This document contains the Proposed Resource Management Plan which provides the framework from which more site-specific plans may be developed to guide resource management decisions. The Bureau of Land Management has prepared this document in partial fulfillment of its responsibilities under the Federal Land Policy and Management Act of 1976, and the National Environmental Policy Act of 1969.

If you wish the District Manager to consider your comments in the development of the record of decision for this RMP, please submit them by September 16, 1985. Your comments should be sent to:

Spokane District Manager
Bureau of Land Management
East 4217 Main Avenue
Spokane, Washington 99202

The approval of the plan will then be documented in the record of decision, which will be available to the public in early 1987.

The proposed plan cannot be approved until after the Governor of Washington has had an opportunity to review it to identify any inconsistencies and provide recommendations in writing. Approval of the plan will also be subject to the final action on any protest that maybe filed.

Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval of this RMP may protest such approval. A protest may raise only those issues which were submitted for the record during the planning process and should be filed with the director (202), Bureau of Land Management, 1800 C Street, N.W., Washington, D.C. 20240 within the official 30-day protest period ending September 16, 1985. Protests must contain the following information:

- The name, mailing address, telephone number, and interest of the person filing the protest.
- A statement of the issue or issues being protested.
- A statement of the part or parts being protested.
- A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the recorded.
- A concise statement explaining why the Spokane District Manager's decision is wrong.

Thank you for your interest and participation.

Sincerely yours,

Joseph K. Buesing
Spokane District Manager

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

FINAL

Spokane Resource Management Plan

Environmental Impact Statement

Office
Land Management
U.S. Department of

State Director, Oregon/Washington State Office

District Manager, Spokane District

Spokane Resource Management Plan and Environmental Impact Statement

Draft ( ) Final (X) RMP/EIS
Department of the Interior, Bureau of Land Management

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

2. Abstract: This Proposed Resource Management Plan (RMP) discusses resource management on 307,603 acres of public lands administered by the Bureau of Land Management in the Spokane District. Four alternatives are described and analyzed in this document. These alternatives are as follows: Alternative A (Production Alternative) emphasizes production of commodities; Alternative B (the Proposed RMP) emphasizes a balance between production of commodities and enhancement of natural resources; Alternative C (Protection Alternative) emphasizes enhancement of natural resources; and Alternative D (No Action) emphasizes continuation of the existing land management program.

The Preferred Plan (Alternative B) proposes to implement harvesting of timber on 44,443 acres with a sustained yield of 3.98 million board feet (MM bd. ft.). Grazing management would continue on 232,970 acres (384 allotments) of public land with an expected long-term, slight increase in grazing use. It would provide for the protection of cultural, soil, water, botanical, wilderness, and recreational resources. Protection is also stressed for aquatic, riparian, big game, small game, and non-game habitats, and it provides for the orderly development of renewable and non-renewable resources.

3. The public review and protest period will be 30 days, ending September 16, 1985. The Draft RMP/EIS was made available to the Environmental Protection Agency (EPA) and the public on October 1, 1984.

4. For further information contact the following person:

Joseph Buesing, District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202
Telephone (509) 456-2570

Summary

Four multiple use alternatives for the management of public lands in the Spokane District have been developed and analyzed in accordance with the Bureau of Land Management's planning regulations issued under authority of the Federal Land Policy and Management Act of 1976 (FLPMA). The alternatives respond to four issues: Grazing Management, Land Tenure Adjustment, Access to Public Lands, and Recreation Management. These issues are identified through the planning process. The purpose of the proposed alternatives is to present and evaluate options for managing, protecting, and enhancing public resources.

Each alternative is a master plan that would provide a framework within which future, more site-specific decisions would be made, such as defining the intensity of management of various resources, developing activity plans (for instance, grazing allotment management plans and transportation plans), or issuing rights-of-way or leases.

The four alternatives considered are as follows:

Alternative A (Production)

This alternative would emphasize providing economic benefits to the local economy. Multiple use management would emphasize the production of goods and services on public lands within the Spokane RMP area to meet local and possibly regional demands.

This alternative would develop allotment management plans (AMPs) and/or coordinated resource management plans (CRMPs) for the improve (I) category allotments to establish livestock use levels, grazing systems, seasons of use, and range improvements to enhance livestock production. CRMPs for the public land outside of the I and maintain (M) allotments would be developed. Livestock grazing would be emphasized where conflicts with other major resource values are minimal. Authorized livestock use would be adjusted for the 16 I category allotments to achieve 70% utilization of key forage species.

There would be 46,076 acres of commercial forestland on which the sustainable timber harvest level is based. The sustainable harvest levels would be approximately 4.12 MM bd. ft. annually or 41.2 MM bd. ft. for the decade. The sale of minor forest products would be emphasized.

Alternative B Management Plan)

The proposed Resource Management Plan (RMP) emphasizes the management, production, and use of renewable resources on the majority of the public lands in the Spokane District. Management would be directed toward providing a flow of renewable resources from the public lands on a sustained yield basis. This alternative represents the Bureau's favored management approach.

Grazing leases would be authorized at the 1982 total preference level of 30,073 AUMs. There would be management systems developed, maintained, or revised for the 16 I category allotments.

This alternative would develop AMPs and/or CRMPs for the I allotments to establish livestock use levels, grazing systems, seasons of use, and range improvements to accomplish multiple use objectives of livestock forage production, wildlife habitat, and watershed needs. CRMPs for the public land outside the I and M allotments would be developed. A moderate level of livestock use to maintain or protect other resource values would be emphasized. Authorized livestock use would initially remain at currently authorized levels for the 16 I category allotments but would be adjusted through collection and analyses of monitoring data to achieve 50% utilization of key forage species.

There would be 44,443 acres of commercial forestland on which the sustained harvest level is based. The sustainable harvest level would be approximately 3.98 MM bd. ft. annually or 39.8 MM bd. ft. for a ten year period. Minor forest products would be sold where consistent with other resource values.

There would be approximately 23,000 acres identified for acquisition through land exchanges with the State of Washington and private parties over the next four years. There would be approximately 9,000 acres of public land offered to facilitate these exchanges. Exchanges and transfers to other federal agencies would take place when natural resource values would benefit.

Alternative C (Protection)

This alternative would emphasize protection, maintenance, and enhancement of the natural environment within the planning area. The enjoyment and use of the natural environment for present and future generations, both locally and nationally, would be emphasized.

This alternative would develop AMPs and/or CRMPs for the I allotments to establish livestock use levels, grazing systems, seasons of use, and range

improvements to accomplish wildlife, watershed, and other objectives related to enhancement of natural values. CRMPs for the public land outside the I and M allotments would be developed. A lower level of livestock use to enhance natural values would be emphasized. Authorized livestock use would be adjusted for the 16 I category allotments to achieve 30% utilization of key forage species.

There would be 37,247 acres of commercial forestland on which the sustainable timber harvest level is based. The sustainable harvest level would be 3.33 MM bd. ft. annually or 33.3 MM bd. ft. for the decade. Multiple use constraints on forest management activities and commercial forestland set-asides would be expanded. Important forest habitat values would be preserved. Sales of woodland products would be restricted to protect other resource values.

There would be an exchange of lands in scattered tracts to acquire land within Juniper Dune Wilderness (1.600 acres), area of critical environmental concern (ACEC) inholdings (5,120 acres), and land with special values in the other 11 management areas (5,000 acres).

Alternative D (No Action)

This alternative allows for the management and flow of outputs from the public lands and resources in the planning area at their present levels. The planning area is presently operating under Management Framework Plans (MFPs) that were developed from 1977 through 1981. Formal management direction is derived from these MFPs.

This alternative would continue ongoing implementation of AMPs and/or CRMPs for two I allotments and custodial management for the 14 remaining I allotments. Currently authorized use levels would be maintained except where adjustments are planned in existing activity plans.

There would be 44,707 acres of commercial forestlands on which the sustainable harvest level is based. The annual sustainable harvest level would be 4.0 MM bd. ft. annually or 40 MM bd. ft. for the decade. Woodland products would be offered for sale based upon demand.

Conclusion

Table S-I displays the priority in which the resource programs would be emphasized in the 13 management areas. For example, under Alterna-

Table S-I Program Emphasis by Management Area

	Manaaement Areas						
Alternatives	**Similkameen**	**Conconully**	**Jameson Lake**	**Douglas Creek**	**Saddle Mountains**	**Rattlesnake Hills**	**Badger Slope**
Alternative A (Production)	Grazing Recreation Forest	Grazing Recreation Forest	Grazing Recreation	Grazing Recreation	Grazing Minerals Recreation	Grazing Recreation	Grazing Recreation
Alternative B (Proposed RMP)	Grazing Recreation Forest Wildlife Habitat	Wildlife Habitat Grazing Recreation Forest	Wildlife Habitat Grazing Recreation	Recreation Wildlife Habitat Grazing Soil and Water	Minerals Grazing Recreation Wildlife Habitat Soil and Water	Grazing Recreation Wildlife Habitat	Grazing Recreation Wildlife Habitat
Alternative C (Protection)	Wildlife Habitat Grazing Recreation Forest	Wildlife Habitat Grazing Recreation Forest	Wildlife Habitat Cultural Resources Recreation	Wildlife Habitat Grazing Recreation	Soil and Water Grazing Recreation	Grazing Recreation	Wildlife Habitat Grazing Recreation
Alternative D (No Action)	Grazing Recreation Wildlife Habitat Forest	Grazing Recreation Wildlife Habitat Forest	Grazing Recreation Wildlife Habitat	Grazing Recreation Wildlife Habitat Soil and Water	Grazing Recreation Soil and Water Minerals	Grazing Recreation Wildlife Habitat	Grazing Recreation Wildlife Habitat

tive B in the Douglas Creek Management Area, grazing has top priority with recreation, wildlife habitat, and soil and water following in second, third, and fourth priorities respectively. Priorities reflect the order in which funds for the different resource management programs would be allocated in annual work plans. Table S-2 summarizes the long-term environmental consequences and resource allocations.

Table S-I (continuation)

	Management Areas					
Alternatives	**Rock Creek**	**North Ferry**	**North Stevens**	**Huckleberry Mountains**	**Juniper Forest**	**Scattered Tracts**
Alternative A (Production)	Recreation Wildlife Habitat Grazing Forest	Forest Grazing Recreation	Forest Grazing Recreation	Forest Recreation	Grazing Recreation	Lands Grazing Recreation Forest
Alternative B (Proposed RMP)	Recreation Wildlife Habitat Forest	Forest Wildlife Habitat Recreation	Forest Grazing Recreation	Forest Wildlife Habitat Recreation	Grazing Recreation	Lands Grazing Recreation Forest
Alternative C (Protection)	Wildlife Habitat Recreation	Wildlife Habitat Cultural Resources Recreation Forest	Wildlife Habitat Grazing Recreation Forest	Wildlife Habitat Cultural Resources Recreation Forest	Wildlife Habitat Grazing Recreation	Lands Grazing Recreation Forest
Alternative D (No Action)	Grazing Recreation Wildlife Habitat Soil and Water Forest	Forest Wildlife Habitat Recreation Grazing	Forest Grazing Recreation	Forest Wildlife Habitat Recreation	Grazing Recreation	Lands Grazing Recreation Forest

Table S-2 Summary of Long-term Environmental Consequences and Comparison of Alternative Allocations

	Unit of Measure	Existing Situation	Alternative A Production	Alternative B Proposed RMP	Alternative C Protection	Alternative D No Action
Soil						
Conservation (Erosion)	—	—	+L	-M	-M	+L
Water						
Quantity	—	—	NC	NC	NC	NC
Quality	—	—	-L	L	L	L
Vegetation						
Ecological Condition	Acres					
Climax	Acres	7,493	7,493	7,493	7,493	7,493
Late Seral	Acres	35,376	38,506	46,589	46,513	36,042
Mid Seral	Acres	40,725	40,497	29,962	29,970	39,733
Early Seral	Acres	59,556	56,654	58,227	59,171	59,883
Unclassified	Acres	106,324	106,324	106,324	108,324	106,324
Threatened, Endangered, or Sensitive Species	—	NC	NC	NC	NC	NC
Wildlife						
Upland Habitat	—	—	-L	+M	+M	+L
Riparian Habitat	—	—	-L	+L	+I	+L
Fish	—	—	NC	NC	NC	NC
Livestock Grazing						
Available Forage	AUMs	30,073	31,521	30,107	27,715	31,135
Recreation						
Visitor Use Levels	—	—	-L	NC	NC	NC
Off-Road Vehicle						
Limitation/Closure	Acres		50,686	77,103	307,603	50,686
Cultural Resources						
Protection of Values			NC	NC	NC	NC
Visual Resources						
Protection/Enhancement of Visual Quality	—	—	-L	+L	+L	NC
Special Management Areas	—	5	5	14	14	5
Forest Products						
Sustainable Harvest Level	MMbF	4.00	4.12	3.98	3.33	4.00
Energy & Minerals	Acres (closed)					
Leasable Minerals		7,220	NC	NC	NC	NC
Locatable Minerals		7,220	NC	NC	NC	NC
Economic Conditions						
Long-Term Loss or Gain in Value	($000)	—	+62	-33	-165	+42

+ Increase impact
— Decrease impact
NC No Change
L Low
M Moderate
H High

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Chapter 1
Purpose

Introduction

Planning Unit

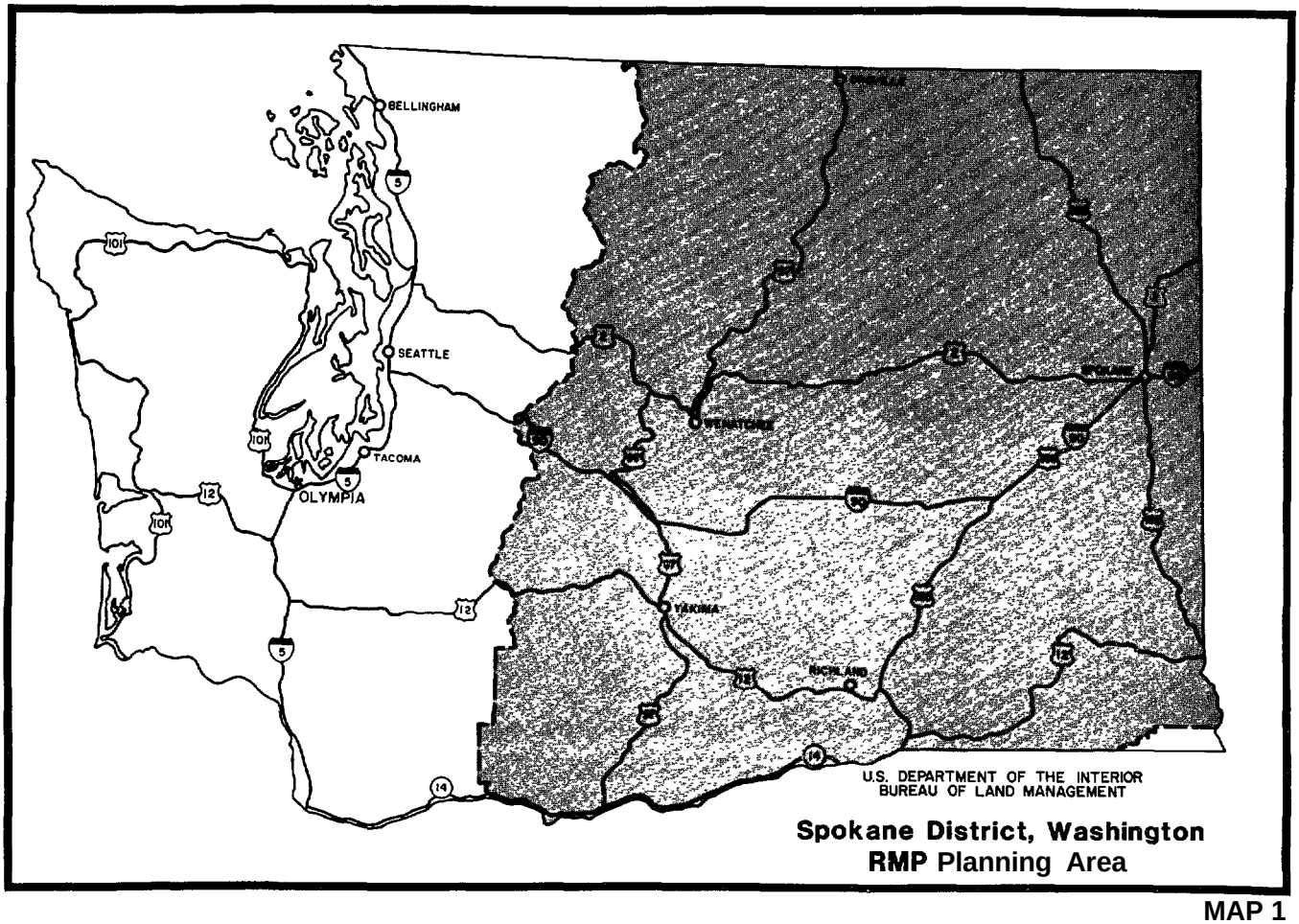
This Resource Management Plan/Environmental Impact Statement (RMP/EIS) will analyze the impacts associated with the management of 307,603 acres of public land in eastern Washington. This land is scattered throughout 19 of the 20 counties east of the Cascade Mountains. Spokane County is the only county in which the Bureau of Land Management (hereafter referred to as the BLM) does not manage any surface resource.

The RMP does not address the resource issues on 2,900 acres of BLM administered land in western Washington for the following reasons: None of this land is leased for grazing, approximately 370 acres are under long-term Recreation and Public Purposes Act leases, and 180 acres are located within the Skagit Wild and Scenic River Corridor. The remaining acreage is scattered throughout 19 counties; consequently, any coordinated management action involving these lands would be costly and complicated. Therefore, individual management plans for each parcel are developed as needed. Finally, any management actions regarding these lands are subject to separate environmental analyses.

The 10,000 acres of public land in Asotin County, Washington, are managed by the Baker Resource Area, Vale District, Baker, Oregon, and will be analyzed in the Baker Resource Management Plan/EIS which is scheduled to be completed by October of 1986.

The planning area is bordered by the Cascade Mountain Range to the west, the Canadian Border to the north, and the States of Oregon to the south and Idaho on the east. The BLM administers the public land in this area from the District and Area Offices in Spokane, Washington, and the Wenatchee Area Office in Wenatchee, Washington (see Map 1).

The Public lands in the Spokane District are



MAP 1

commonly intermingled with private lands and lands managed by state agencies, such as the Washington State Department of Natural Resources (WSDNR) and Washington State Department of Game (WSDG). Other lands are adjacent to or near Indian reservations, national forests, Bureau of Reclamation (BR) administered lands, or Nuclear Energy Regulatory Commission lands. This intermingling has led, in some cases, to cooperative management of the lands. The Spokane District manages 8,400 acres of adjacent Bureau of Reclamation land in Grant County. The Spokane District also has 16 cooperative agreements with the Washington State Department of Game, under which the state manages the BLM land in conjunction with their own lands. (See Appendix A.)

This ownership pattern, along with the extreme topographic and climatic differences, complicates the management of these lands. To facilitate analysis in the Resource Management Planning process, these lands have been grouped into 13 management areas that exhibit either similar resource values or public concerns. Their general locations and ownerships are depicted on Map 2 and Table 1-1 respectively.

Purpose and Need

The Spokane Resource Management Plan (RMP) is being prepared to provide a comprehensive framework for managing and allocating public land and resources in the Spokane District during the next 10 or more years. It will serve as a master plan that will provide a framework within which future, more site-specific decisions would be made regarding conditional or prohibited uses and activities in some sites. It will define the intensity of management of various resources, the development of activity plans such as grazing allotment management plans and habitat management plans, and the issuance of rights-of-way, leases, or permits. This approach is consistent with existing legislation, regulations, and the policy of management of public lands on the basis of multiple use and sustained yield.

This document has been developed under Federal Land Policy Management Act (FLPMA) requirements to use an interdisciplinary planning process to apply principles of multiple use and sustained yield. These principles were used to identify and resolve new issues that have arisen since the earlier

Table 1-1 Surface Landownership of Planning Area

	Acres	% of Total
Federal (BLM)	307,603	1.7
Federal (United States Forest Service)	5462,388	29.4
Federal (Bureau of Reclamation)	523,500	2.8
Federal (Yakima Firing Center)	261,000	1.4
Federal (Hanford Works-ACE)	364,800	1.9
Indian Reservations	2,334,325	12.6
State	1,452,280	7.8
Private	7,872,912	42.4
Total	**18,578,808**	**100.0**

Management Area (MA)	Administering Resource Area	Total Acres	BLM	% of Total
Similkameen	Wenatchee	200,960	28,900	14.4
Conconully	Wenatchee	141,440	11,500	8.1
Jameson Lake	Wenatchee	35,200	3,660	10.4
Douglas Creek	Wenatchee	183,680	22,000	11.9
Saddle Mountains	Wenatchee	147,200	24,300	16.5
Rattlesnake Hills	Wenatchee	193,920	24,725	12.8
Badger Slope	Wenatchee	48,630	7,720	15.9
Rock Creek	Wenatchee	36,560	6,427	17.6
North Ferry	Border	294,400	13,000	4.4
North Stevens	Border	376,200	13,205	3.5
Huckleberry Mountains	Border	168,960	11,269	6.7
Juniper Forest	Border	51,520	17,120	33.0
Scattered Tracts	Wenatchee & Border	16,640,298	123,777	.7
Total		**18,578,808**	307,603	1.7

management framework plans and environmental assessments were completed.

Each alternative identifies appropriate program constraints and general management practices needed to achieve the alternative goals and objectives, as well as any needs for more specific and detailed plans (for example, activity plans for different resources). Other components of the proposed plan include identification of support action, general implementation sequences, and intervals and standards for monitoring and evaluating the effectiveness of the plan.

During the period 1977 through 1981, the Spokane District prepared land use plans-called Management Framework Plans (MFPs)-for 146,404 acres of public land in Benton, Chelan, Douglas, Franklin, and Okanogan Counties. These MFPs will continue to be implemented to the extent that they are not in conflict with the direction proposed in this RMP. In addition to these MFPs, the draft "Chopaka Mountain Wilderness Study, Plan Amendment and Environmental Assessment" was prepared in December of 1982 to address a wilderness study area in Okanogan County. Also, an environmental assessment entitled "Proposed Federal Oil and Gas Leasing in Washington" which addresses potential issues concerning the development of federally owned oil and gas reserves in Washington State was prepared by the District in 1976, updated in 1979, and reviewed again in 1984. Issues addressed in these MFPs and environmental assessments are not readdressed in this RMP/EIS.

Planning Process Overview

The planning process is designed to enable the BLM to accommodate the uses the public wants to make of public lands while complying with the laws and policies established by the Congress and the executive branch of the federal government. The RMP process includes nine basic steps and emphasizes the role of public participation at several key stages (see Table I-2).

Table 1-2 Steps in the Resource Management Planning Process

1. Identification of Issues, Concerns, and Opportunities
2. Development of Planning Criteria
3. Inventory Data and Information Collection
4. Analysis of the Management Situation
5. Formulation of Alternatives
6. Estimation of Effects of Alternatives
7. Selection of Preferred Alternative
8. Selection of Resource Management Plan
9. Monitoring and Evaluation

Step 1. Identification of Issues

This step is intended to identify resource management problems or conflicts that can be resolved through the planning process.

Step 2. Development of Planning Criteria

During this step preliminary decisions are made regarding the kinds of information needed to clarify the issues, the kinds of alternatives to be developed, and the factors to be considered in evaluating alternatives and selecting a preferred resource management plan.

Step 3. Inventory Data and Information Collection

This step involves the collection of various kinds of issue related resource and environmental, social, economic, or institutional data needed for completion of the process.

Step 4. Management Situation Analysis

This step calls for an assessment of the current situation. It includes a description of current BLM management guidance, a discussion of existing problems and opportunities for solving them, and a consolidation of existing data that is needed to analyze and resolve the identified issues.

Step 5. Formulation of Alternatives

During this step several complete, reasonable resource management alternatives are prepared, including one for no action (continuation of present levels or systems of resource use) and several that strive to resolve the issues while placing emphasis either on environmental protection or resource production.

Step 6. Estimation of Effects of Alternatives

The physical, biological, economic, and social effects of implementing each alternative are estimated in order to allow for a comparative evaluation of impacts.

Step 7. Selection of the Preferred Alternative

Based on the information generated during Step 6, the District Manager identifies a preferred alternative. The draft RMP/EIS document is then prepared and distributed for public review.

Step 8. Selection of the Resource Management Plan

Based on the evaluation of public comments, the District Manager will select and recommend to the State Director a proposed resource management plan and final EIS. The State Director will review and publish the plan and file the EIS with the Environmental Protection Agency. A final decision will be made after a review by the Governor of Washington for inconsistencies with state or local plans, programs, or policies and a thirty-day protest period on the proposed plan. A protest may raise only those issues which were submitted for the record during the planning process.

Step 9. Monitoring and Evaluation

This step involves the collection and analysis of long-term resource condition and trend data to determine the effectiveness of the plan in resolving the identified issues and to assure that implementation of the plan is achieving the desired results. Monitoring continues from the time the RMP is adopted until changing conditions require a revision of the whole plan or any portion of it.

Issues and Criteria

In developing this plan, the Spokane District Office applied the principles of multiple use and sustained yield set forth in the FLPMA and the National Environmental Policy Act (NEPA) and other applicable laws. To assess the environmental consequences of this plan, a systematic, interdisciplinary approach was taken. This process achieved integrated consideration of the physical, biological, economic, and social sciences.

Public involvement in the RMP process, beginning with "scoping," was used to identify issues to be addressed and to determine the magnitude of those issues. An issue may be defined as an unresolved concern about use or management of public lands or resources. One of the major purposes of the Resource Management Planning process is to resolve or reduce the scope of issues through a conflict resolution process. This is done through formulation of a range of reasonable alternatives to be considered, based in part on those issues. Alternatives are then analyzed and compared in terms of their environmental consequences within the context of multiple use and sustained yield principles. For renewable resources, this means achieving and maintaining in perpetuity a high-level annual or regular periodic output of the various resources, consistent with multiple use.

Issues Addressed in the Spokane RMP

Four major issues are addressed in this document. These issues were identified based on the judgment of planning team members, interagency consultation, public input, and review by BLM managers.

Grazing Management

There is a perceived conflict of use between livestock grazing and other important resource uses. This perceived conflict concerns use of forage by livestock, wildlife, and non consumptive uses. Consequently, this RMP will address stocking levels, season of use, grazing systems, range improvement projects, and land treatments. Resolution of this issue must satisfy the requirements of the court ordered agreement between the BLM and the Natural Resources Defense Council.

Land Tenure Adjustment

The RMP identifies those portions of the District where landownership adjustments are needed to achieve more efficient management and utilization of public resources and to identify areas that should be under BLM management. These adjustments would include land exchanges, jurisdictional transfers with other agencies, and/or public land disposals.

Access to Public Lands

Additional physical and/or legal access to public land is needed because access for the public and the BLM's land management activities is not always readily available and in some cases is nonexistent. This situation is primarily due to the District's scattered land pattern.

Recreation Management

The RMP describes existing recreation uses and known and potential conflicts between existing and proposed recreation programs and other public land

uses. The RMP will also identify methods through which a balance of use can be achieved between recreation and other resource values. The management areas of particular interest are the Saddle Mountains, Juniper Forest, and the Similkameen Management Areas where recreation is a primary resource.

Planning Criteria

The planning criteria were developed and revised at several points during the planning process. Those criteria were used to guide resource inventories, to establish an outline for the management situation analysis, to aid in formulating alternatives, and to highlight factors to be considered in evaluating alternatives and selecting a preferred alternative.

Criteria Used for Formulating Alternatives

- All alternatives assume a continuation of oil and gas leasing as recommended in the Spokane District's environmental assessment (EA) entitled "Proposed Federal Oil and Gas Leasing in Washington." This document is available for review in the Spokane District Office and the Wenatchee Resource Area Office. (See Appendix B for a synopsis of this EA.)

- All alternatives consider habitat of state listed endangered, threatened, or sensitive species.

- All alternatives assume continuation of the 39 existing interagency cooperative agreements with the U.S. Forest Service, Bureau of Reclamation, Soil Conservation Service, and the Washington State Department of Game.

- All land use alternatives comply with federal laws, Executive Orders, regulations, and policies relating to land use and resource management. The application of these laws automatically determines some minimum land use allocations and management practices such as protection or enhancement of water quality.

- The decisions made on the issues and concerns identified in the management framework plans for Benton, Chelan, Douglas, Franklin, and Okanogan Counties and the draft "Chopaka Mountain Wilderness Study, Plan Amendment and Environmental Assessment" would only be readdressed if significant new developments or opportunities are revealed.

- For planning purposes the major planning effort was concentrated in 13 management areas. The 13 areas are as follows: Similkameen, Conconully, Jameson Lake, Douglas Creek, Saddle Mountains, Rattlesnake Hills, Badger Slope, Rock Creek, North Stevens, North Ferry, Huckleberry Mountains, Juniper Forest, and Scattered Tracts (see Maps 2 and 3).

- Public land located in the Scattered Tracts Management Area would be subject to custodial management. They could also be used to consolidate public land and management efforts in the twelve other management areas through the means of land exchanges, sales, or Cooperative Management Agreements (CMAs). An exception to this would be if the analyses of resource values dictate that other management options should be explored. Such exceptions would consist of the following:

1. Special designation needed to protect a specific resource value, such as Area of Critical Environmental Concern (ACEC), Outstanding Natural Area (ONA), Research Natural Area (RNA), or Area of Critical Mineral Potential (ACMP);

2. Public lands comprising an intricate part of critical or crucial wildlife habitat; or

3. Additional interagency management agreements.

- Considering the scattered nature of most of the public land in the District, only in those areas where the BLM can effect change in forage utilization will efforts be made to do so, such as in improve (I) grazing allotments.

- In those areas where the BLM cannot effect change, coordinated resource management planning will be pursued.

- No existing land uses will be eliminated except in sensitive environmental areas.

- Present recreation use patterns will be allowed to continue without any sophisticated facility development or management.

- New off-road vehicle (ORV) designations will be made in this RMP. Existing designations in Okanogan, Douglas, Chelan, Benton, and Franklin Counties will remain unchanged since significant adverse impacts have not been identified since the original designations. All other areas will be designated as open to ORV use unless monitoring indicates that such use is resulting in or would result in (1) unacceptable impacts, (2) safety problems, and/or (3) unacceptable conflicts among land users. In areas where open designation would result in attracting additional use due to latent ORV demand, which would result in unacceptable resource impacts/use conflicts, then designation to a more restrictive category (limited or closed) will be considered.

- The EIS identifies the effects of each alternative on the environment. The level of specificity in the analysis was tailored to the issues. Therefore, the analysis of some issues requires site-specific assessment of impacts while others require a more generic or general impact assessment.

- The public lands located outside the twelve management areas are addressed as follows:

1. A District records search was conducted to identify resource values existing on these lands. Public input during the previous comment periods was reviewed for site-specific problems, concerns, or potential issues which could be addressed in the RMP/EIS.

2. The analyses of alternatives for these lands considered the impacts to the significant or important resource values identified in 1. above.

3. Where no resource conflicts or significant/important resource values have been identified, the present use pattern would continue.

4. An intensive parcel by parcel inventory was not conducted on the public land located outside the 12 management areas since no issues were identified that required such an inventory. However, during the public comment period on the Draft RMP/EIS, four areas were recommended by the Nature Conservancy for consideration as ACECs. They are Earthquake Point, Catherine Creek and Rowland Lake Cliffs, Yakima River Cliffs and Umtanum Ridge, and Roosevelt Slope. These areas are described further in Table 3-3.

Interagency Coordination with State, Local, Tribal, and Other Federal Natural Resource Plans, Programs, and Policies

During the development of this RMP, all existing county plans within the planning area were reviewed to assure consistency with natural resource related goals. Meetings were held with the Washington State Department of Natural Resources and the Washington State Department of Game to verify that the BLM's land use objectives were consistent with their natural resource related objectives. In addition to these meetings, coordination efforts have been made with the United States Forest Service (USFS) to assure consistent objectives in the Colville, Okanogan, and Wenatchee National Forests. Meetings of this nature will continue to be held throughout the life of the RMP because they provide coordinated approaches to regional issues and projects or proposals that cross administrative lines.

BLM Planning and Resource Management Interrelationships

Interagency coordination between the Bureau and other federal agencies, state and local governments, and Indian tribes is required under Bureau planning regulations (43 CFR, Part 1610.3) and by several cooperative agreements or memoranda of understanding. The following discussion summarizes these relationships.

Federal Agencies

Portions of four national forests administered by the U.S. Forest Service (USFS) fall within the RMP area: Colville, Okanogan, Umatilla, and Wenatchee. Both agencies strive for similar resource management direction on adjoining BLM and USFS lands and coordination of livestock use where warranted. Many of the livestock operators presently using public land are also grazing livestock on USFS lands, typically during the summer. At the present time, the BLM and the USFS are proposing a land interchange that would transfer the public lands administered by the BLM in the state of Washington to the USFS. The land management decisions that are committed to in this RMP would continue to be implemented under USFS administration.

Cooperative Agreements are maintained with the U.S. Bureau of Reclamation to manage the surface resources on approximately 8,400 acres. The BLM cooperates with the U.S. Fish and Wildlife Service in reviewing of proposals that may affect threatened or endangered species. The BLM will also adhere to the guidelines of the U.S. Fish and Wildlife Service's "Pacific States Bald Eagle Recovery Plan."

The BLM maintains an Agreement and Memorandum of Understanding with the Department of Natural Resources for surface mining activity, whereby duplication of effort is avoided and surface protection efforts are coordinated between the BLM and the DNR.

Cooperative sale of timber and coordination of harvesting with the USFS and DNR has been done in the past and is expected to continue as opportunities become available.

The BLM has fire protection agreements with the

USFS covering 30,000 acres of BLM administered land adjacent to Colville, Okanogan, Wenatchee, and Umatilla National Forests.

State and Local Governments

The BLM will continue to cooperate with the Department of Natural Resources, Washington Natural Heritage Program, the Washington State Department of Game, and non-game programs in regard to the preservation and protection of unique natural resources. These resources are identified through the Natural Area Preservation Act (79.70 RCW) and rules for the Washington Register of Natural Area Preserves (332-60 WAC).

The BLM and the Washington State Department of Game (WSDG) have entered into cooperative agreements on lands in the Scattered Tracts Management Area. These agreements cover approximately 17,300 acres of public land. The WSDG is authorized to manage these lands for the purposes of recreation and conservation of wildlife. In addition, the BLM manages the WSDG lands in the Douglas Creek Management Area. Other leases, licenses, contracts, or permits would be issued only if the proposed use of the lands would not interfere with WSDG management objectives (see Appendix A).

Spokane District currently has fire protection agreements with the Washington State Department of Natural Resources to provide protection for 102,000 acres of public land. Local fire protection districts provide protection for another 110,000 acres (see Appendix C).

Individuals and Groups

There are approximately 7.8 million acres of private land within the boundaries of the RMP area. These lands constitute approximately 42% of the surface ownership (see Table l-l). BLM ownership comprises approximately 1.7%; therefore, a coordinated management approach is essential if management is to be achieved on these intermingled tracts of public lands. In areas where the Bureau has majority ownership, activity plans normally will suffice for coordination between the Bureau and landowner. However, on allotments with multiple ownerships or complicated resource problems, development of a Coordinated Resource Management Plan (CRMP) may bring better resolution to livestock management and other resource objectives. A CRMP may involve several agencies and various landowners, such as Soil Conservation Service (SCS), WSDG, BLM, grazing association, USFS, and private landowners.

The BLM assists and receives assistance from members of the Northwest Mining Association regarding minerals inventory and other types of minerals related information.

Volunteer groups provide assistance to the BLM by accomplishing many of its labor intensive implementation plans. The groups and individuals include 4-H clubs, sportsmen's clubs, and other organizations. Together they aid in litter removal, maintenance of facilities in recreation areas, placement and maintenance of wildlife developments, construction and removal of fences, and resource inventories. Without this assistance, many District programs would not be accomplished.

American Indian interests in the area include the protection of burial grounds and the perpetuation of certain traditional activities, particularly root-gathering and fishing. About half of the lands in the planning area were ceded to the United States by either the Yakima Treaty, Treaty, or the Nez Perce Treaty. These treaties, together with the Native American Religious Freedom Act of 1978, require the BLM to protect various tribal interests in or on non-reservation lands.

Nominations for Areas of Critical Environmental Concern

The Federal Land Policy and Management Act of 1976 provided that designation of Areas of Critical Environmental Concern (ACECs) be given priority in the development of land use plans. The Act defines these as follows:

"Places within the public lands where special management attention is needed (when such areas are developed or where no development is required) to protect and prevent irreparable damage to important historical, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes or to protect life and safety from natural hazards."

The ACEC designation process will accomplish the following:

1. consider present and potential uses of the public land area in question,

2. address the relative scarcity of the values involved,

3. consider alternatives that include means and locations that will allocate the resources to the combination of uses that best serves the public interest,

4. weigh long-term benefits to the public against short-term benefits,

5. consider views of the public and the overall expressions of public concern.

Nominations for potential ACECs in Spokane District were requested from the public and the District's resource specialists. Initially, a total of four nominations were received. As a result of comments received on the Draft RMP, six additional areas were nominated. The interdisciplinary team concluded that five of the nominated areas met the criteria to qualify as potential ACECs. Their designation as ACECs is recommended under the Proposed RMP, under the Protection Alternative only. Their recommended designation is not mentioned under the Production Alternative because such designation and ACEC management is believed to be incompatible with the stated goals and objectives of that alternative; furthermore, their recommended designation is also not mentioned under the No Action Alternative because it is inconsistent with the concept of no action. The four previously designated ACECs and one previously designated Research Natural Area (RNA) will continue to be managed under existing guidelines in all alternatives.

Brief descriptions of the characteristics and management needs for the proposed ACECs are as follows:

Colockum Creek, Rock Island Canyon, Yakima River Cliffs and Umtanum Ridge, Catherine Creek and Rowland Lake, McCoy Canyon, Earthquake Point, Roosevelt Slope, and Sentinel Slope have all been nominated for ACEC designation to protect federal candidate endangered, threatened, or sensitive plant species.

Protection measures include elimination of incompatible uses such as ORV use and grazing. The colockum Creek and Rock Island Canyon areas would require fencing of approximately 40 acres each to exclude cattle.

The Brewster Roost ACEC consists of approximately 200 acres of essential bald eagle winter habitat and golden eagle nesting habitat. The purpose would be to protect natural values for both species of eagles Management would include protection through the elimination of incompatible uses. It would also include habitat manipulation designed to maintain or enhance the habitat requirements of the two eagle species (see Map **2).** The U.S. **Fish and** Wildlife Service is being consulted on habitat management requirements in accordance with the Endangered Species Act. Their recommendations will be reflected in the Spokane RMP record of decision and the Brewster Bald Eagle ACEC management plan.

As the respective management plans for these areas are developed, additional protective measures may be proposed. In addition to these nine areas, the already designated Hot Lakes RNA will be further designated as an ACEC.

Areas of Critical Mineral Potential (ACMPs)

Due to longstanding concerns on' the part of the BLM and the public regarding the availability of public lands for mineral exploration and development, there was a call for nominations of Areas of Critical Mineral Potential (ACMP) in 1982 (National Materials and Minerals Policy, Research and Development Act of 1980). ACMPs are areas that were nominated by the public as having mineral potential that is important to the local, regional, or national economy or that could become important in the future. They are used by the BLM to reevaluate areas under existing or "de facto" withdrawls (from mineral location and leasing).

The ACMPs were nominated with regard to particular mineral commodities, althrough other minerals of less significance may be present. There have been six such nominations in the planning area. These areas were nominated for high potential occurrence of gold, lead, copper, zinc, and chromium (see Map 3).

Chapter 2
Affected Environment

Introduction

This Chapter describes BLM lands and resources as they are known to exist with emphasis on the environment that would be affected by this RMP. In most of the RMP/EISs, the chapter on affected environment follows the description of alternatives. It was decided, however, that it would be better to reverse the order of these two chapters (alternatives and affected environment) in this document because the interdisciplinary team believed that it was essential to first provide the reader with a background of the existing situation and a description of the resources that might be affected, should the RMP be implemented. This order would also provide the background necessary for understanding the different alternatives proposed in Chapter 3.

Since this RMP essentially covers eastern Washington, the description of the affected environment has been organized in a manner that would do two things: (1) provide a general description of the planning area as a whole, (2) provide a brief description of the 13 management areas stressing the important or more prominent land uses and/or resource values. This will be described in tabular format at the end of the chapter.

All of the information in this chapter is summarized from the Management Situation Analysis (MSA) and Management Framework Plans (MFPs) on file at the Spokane District Office. These documents are available for public examination during normal working hours.

History

Historically, the Bureau of Land Management in Washington State dates back 131 years to 1854 when the first district General Land Office was opened in Olympia. In 1883, the General Land Office (GLO) was established in Spokane. The GLO served as the administering office for 63 years. Then in 1946, by act of Congress, the GLO and the Grazing Service merged to form the Bureau of Land Management, thus resulting in the formation of the Spokane District.

The BLM currently administers approximately 320,000 acres of public land in the State of Washington. Most of this is managed by the Spokane District Office in Spokane and the Wenatchee Area Office in Wenatchee.

The public land administered by Spokane District provides for a wide variety of uses. These lands provide resources for the livestock, forest, and mineral industries. These lands also provide for a wide variety of wildlife habitats and numerous recreational uses including camping, sight-seeing, off-road vehicle riding, swimming, and hunting. In addition to the above, Spokane District manages 800,000 acres of subsurface minerals including the Bureau of Reclamation lands and provides guidance and technical expertise where requested to other federal agencies and Indian tribes on another 1,000,000 acres of federal mineral estate in Washington.

General Description

Soils

The soils that occur within the planning area are highly varied due to the geology, precipitation, land forms, and general environment. The general descriptions of the soils, which are discussed for each management area, are based on detailed soil surveys conducted by the U.S. Department of Agriculture, Soil Conservation Service. Counties for which soil surveys have been published are as follows: Douglas, Ferry, Okanogan, Stevens, Benton, Grant, Chelan, and Lincoln. Soil surveys for Kittitas, Yakima, Franklin, and Klickitat Counties are at various stages of completion.

Water

The planning area is drained primarily by the Columbia River and its major tributaries: the Snake, Spokane, Okanogan, Kettle, Pend Oreille, and Yakima Rivers. The Columbia originates in Canada and flows in a southwesterly direction across eastern Washington. The Snake River enters the state near Lewiston, Idaho, flowing westerly to its confluence with the Columbia at Pasco. The Yakima River has its headwaters in the central Cascades and flows eastwardly to its confluence with the Columbia River at Richland.

Existing records indicate there are 81 water developments, 1 reservoir, 45 spring developments, 4 wells, 31 guzzlers, and 15 miles of pipeline on BLM lands in the planning area. Water quality problems exist in many streams within the RMP area; however, opportunities for BLM to maintain and/or improve water quality are limited due to the scattered locations of BLM managed lands. At present there are no water quality or water quantity problems attributed to BLM management. Water quality and quantity standards as established by appropriate state and Federal laws are adhered to.

Municipal Watersheds

Municipal watershed boundaries and points of withdrawal have been identified by the Washington State Department of Social and Health Services. This inventory concerned only those areas that derived their water from surface sources. This inventory has been consolidated in a report entitled

"State of Washington Public Water Supply System Listing." In this report, 105 municipal water districts/water supply sources were identified which contain public land. The State of Washington Department of Natural Resources established and enforces appropriate protective stipulations that cover oil and gas operations, mining activities, and timber harvesting activities which are adhered to by the BLM. In addition, BLM regulations (43 CFR 3809.2-2) guide mineral resource exploration and development to reduce impacts attributed to surface disturbing activities. None of the BLM administered land in these watersheds are of a size large enough to be a significant factor.

Groundwater

Groundwater conditions within the state are generally being impacted by agricultural activity and (to a lesser degree) by groundwater contamination as a result of landfills. Groundwater levels are lowering in the southeast part of the state due to deep well irrigation, and a buildup of sodium is occurring in waters as they percolate though basalt in the central basin areas. Currently there are no problems of this nature affecting BLM groundwater sources.

Vegetation

The vegetation of the planning area is dramatically divided into two distinct types. To the east of the Cascade crest is a forest association, consisting primarily of a pine and Douglas-fir type. The lower ridges support parklike stands of ponderosa pine with grass understory zones with a transition at lower elevations to native and introduced grasses, sagebrush, and associated semidesert shrubs. The same type of transition occurs with decreasing elevation on all of the northern and eastern mountain areas, with the Okanogan Highlands being representative of an extensive transition zone.

Since the last quarter of the 19th Century, Eastern Washington generally has been subjected to the alteration of native vegetation. Where rainfall, soils, and topography were suitable, large areas of dry land grain farming have replaced the native grass and sagebrush cover. On sites primarily along stream courses, where irrigation water and good air drainage are present, the lands produce extensive fruit orchards. This is particularly true in central Washington along the Columbia, Methow, Okanogan, and Yakima Rivers. The Columbia Basin, which originally supported a semidesert type plant association, is now the site of the Bureau of Reclamation's Columbia Basin Project. The soils in this area have responded favorably to the introduction of irrigation water from Lake Roosevelt.

Endangered, Threatened, or Sensitive Plant Species

On public land administered by the BLM, 27 vascular plants listed as endangered, threatened, or and sensitive in Washington by the Department of Natural Resources, Washington Natural Heritage Program have been confirmed by the BLM personnel. Of these, nine species are candidates for federal listing (1980 Federal Register, Notice of Review and 1983 supplements. See Table 2-l).

Ecological Condition

Ecological condition is the present state of the vegetation of a range site in relation to the climax plant community for that site. It is an expression of how closely the present plant community resembles the original community in its highest state of ecological development (see Appendix D).

From 1975 to 1981, 149,156 acres of public land were surveyed for ecological condition as defined above. It was the intent of this survey to concentrate on the lands that were leased for livestock grazing.

Appendix E gives a breakdown of this survey by grazing allotment. The remaining 83,334 unsurveyed acres of public land are in small tracts scattered throughout the RMP area. These tracts were not surveyed because of the cost; however, surveys will be done on tracts identified as needing special attention on a case-by-case basis.

Livestock

All grazing is regulated under section 15 of the Taylor Grazing Act. In the RMP area, 30,073 Animal Unit Months (AUMs) of livestock use are presently authorized on 390 allotments which contain 232,809 acres of public land; 386 lessees graze livestock in these allotments. Appendix E displays the current livestock authorization and existing ecological condition for each allotment in the planning area. In the planning area, eight allotments are being grazed under Allotment Management Plans (AMPs) or Coordinated Resource Management Plans (CRMPs). (See Table 2-2.) These AMP/CRMP allotments account for 14 / of the leased acres and 12 / of the AUMs in the planning area.

Wildlife

There are 640 recognized species of birds, mammals, fishes, reptiles, and amphibians in Washington State. Of these, 536 species are classified as nongame or nonhunted species. There are nine species or subspecies classified as big game animals in the planning area: mule deer, white-tailed deer, pronghorn antelope, Rocky

Table 2-1 Proposed Endangered, Threatened, or Sensitive Vascular Plant Species

Management Area	Plant Name	State Status[1]	Federal Status*
Similkameen	None verified	•	•
Conconully	None verified	•	•
Jameson Lake	*Hackelia hispida var. disjuncta*	3	•
Douglas Creek	*Astragalus misellus var. pauper*	2	C
	Hackelia hispida var. disjuncta	3	•
	Iliamna longisepala	3	•
	Oenothera pygmaea	3	•
	Nicotiana attenuata	3	•
	Phacelia lenta	2	C
Saddle Mountains	*Cryptantha interrupta*	3	•
	Lomatium tuberosum	2	C
Rattlesnake Hills	*Astragalus columbianus*	2	C
	Erigeron piperianus	2	•
	Lomatium tuberosum	2	C
Badger Slope	*Astragalus hoodianus*	2	•
	Erigeron piperianus	3	•
Rock Creek	*Astragalus tweedyi*	3	•
North Ferry	None verified	•	•
North Stevens	None verified	•	•
Huckleberry Mountains	None verified	•	•
Juniper Forest	*Cryptantha leucophaea*	3	•
Scattered Tracts (by County)			
Benton	*Erigeron piperianus*	3	•
Chelan	*Astragalus sinuatus*	1	C
	Iliamna longisepala	3	•
	Petrophytum cinerascens	2	C
Douglas	*Allium douglasii var. constrictum*	1	C
	Hackelia hispida var. disjuncta	3	•
	Iliamna longisepala	3	•
	Phacelia lenta	2	C
	Teucrium canadense var. occidentale	3	•
Ferry	None verified		
Grant	*Hackelia hispida var. disjuncta*	3	•
	Teucrium canadense var. occidentale	3	•
Kittitas	*Lomatium tuberosum*	2	C
Klickitat	*Astragalus misellus var. pauper*	2	C
	Collinsia sparsiflora var. bruciae	3	•
	Cryptantha rostellata	3	•
	Dodecatheon poeticum	3	•
	Githopsis specularioides	3	•
	Lomatium laevigatum	3	C
	Machaerocarpus californicus	3	•
	Navarretia tagetina	2	•
	Penstemon barrettiae	2	C
	Spiranthes romanzoffiana var. porrifolia	3	•
Lincoln	None verified	•	•
Pend Oreille	*Dryas drummondii*	3	•
	Thalictrum dasycarpum	3	•
Yakima	*Erigeron basalticus*	2	C
	Lomatium tuberosum	2	C

[1] Endangered or Threatened and Sensitive Vascular Plants of Washington, WDNR, Washington Natural Heritage, June 1984, 29 p.
1. Endangered in Washington
2. Threatened in Washington
3. Sensitive in Washington

[2] BLM sensitive species: all plants in this table are classified as sensitive species (see Chapter 2, Definition and Glossary).
C. Candidate on the 1980 Federal Register Notice of Review (and 1983 supplements)
• No Federal Status

Monitor species have not been included in this list.

Mountain elk, black bear, cougar, mountain goat, bighorn sheep, and moose. The grizzly bear, wolf, and woodland caribou are classified as endangered by the State of Washington and are protected by federal and state law. Twenty-one species found in the planning area are regarded as upland game. They are as follows: blue grouse, ruffed grouse, spruce grouse, white-tailed ptarmigan, sage grouse, sharp-tailed grouse, ring-necked pheasant, valley quail, mountain quail, scaled quail, bobwhite quail, chukar partridge, Hungarian partridge, wild turkey, mourning dove, band-tailed pigeon, common snipe, cottontail rabbit, snowshoe hare, black-tailed jackrabbit, and white-tailed jackrabbit.

Furbearing animals are found throughout the planning area in almost every major habitat type. All species in this group have furs of commercial value. For planning purposes, furbearer species have been grouped into four general categories: (1) Terrestrial Furbearers: bobcat, lynx, long-tailed weasel, sharp-tailed weasel, badger, marten, Cascade red fox, and lowland red fox; (2) Aquatic: beaver, muskrat, river otter, mink, and raccoon; (3) Unclassified: coyote, striped skunk, spotted skunk, nutria, and opossum; and (4) Protected: wolf, fisher, and wolverine (WSDG 1982).

Fish habitat is found in 10 of the 13 management areas. The primary species that exist are brown trout, cutthroat trout, rainbow trout, eastern brook trout, largemouth bass, smallmouth bass, perch, and ling. Anadromous fish (kokanee and steelhead) inhabit 8 rivers in the planning area. These are the Columbia, Entiat, Klickitat, Methow, Okanogan, Snake, Wenatchee, and Yakima Rivers. Anadromous fish habitat occurring on public land are relatively small, scattered, and not feasible to manage.

Habitat Management Plans (HMP) have been prepared for the more unique or important wildlife habitats on the District. The purpose of these HMPs range from improving aquatic habitat to management of mule deer winter range and upland game habitat. These plans are available for review in the District and Area offices (see Table 2-3 and illustrations 1, 2, and 3).

Table 2-2 Allotments with Allotment Management Plans/Coordinated Resource Management Plans

Allotment No.	Authorized Use (AUMs)	Acres Public Land	Management Area
0806	**1,120**	9,558	Saddle Mountains
0825	**655**	**5,560**	Rattlesnake Hills
0788	**271**	**1,761**	Douglas Creek
0823	**231**	**1,720**	Rattlesnake Hills
0764	110	**2,386**	Scattered Tracts
0775	**480**	4,795	Douglas Creek
0518	**214**	1,068	North Ferry
0778	449	5,405	Douglas Creek
Total	**3,530**	**32,253**	

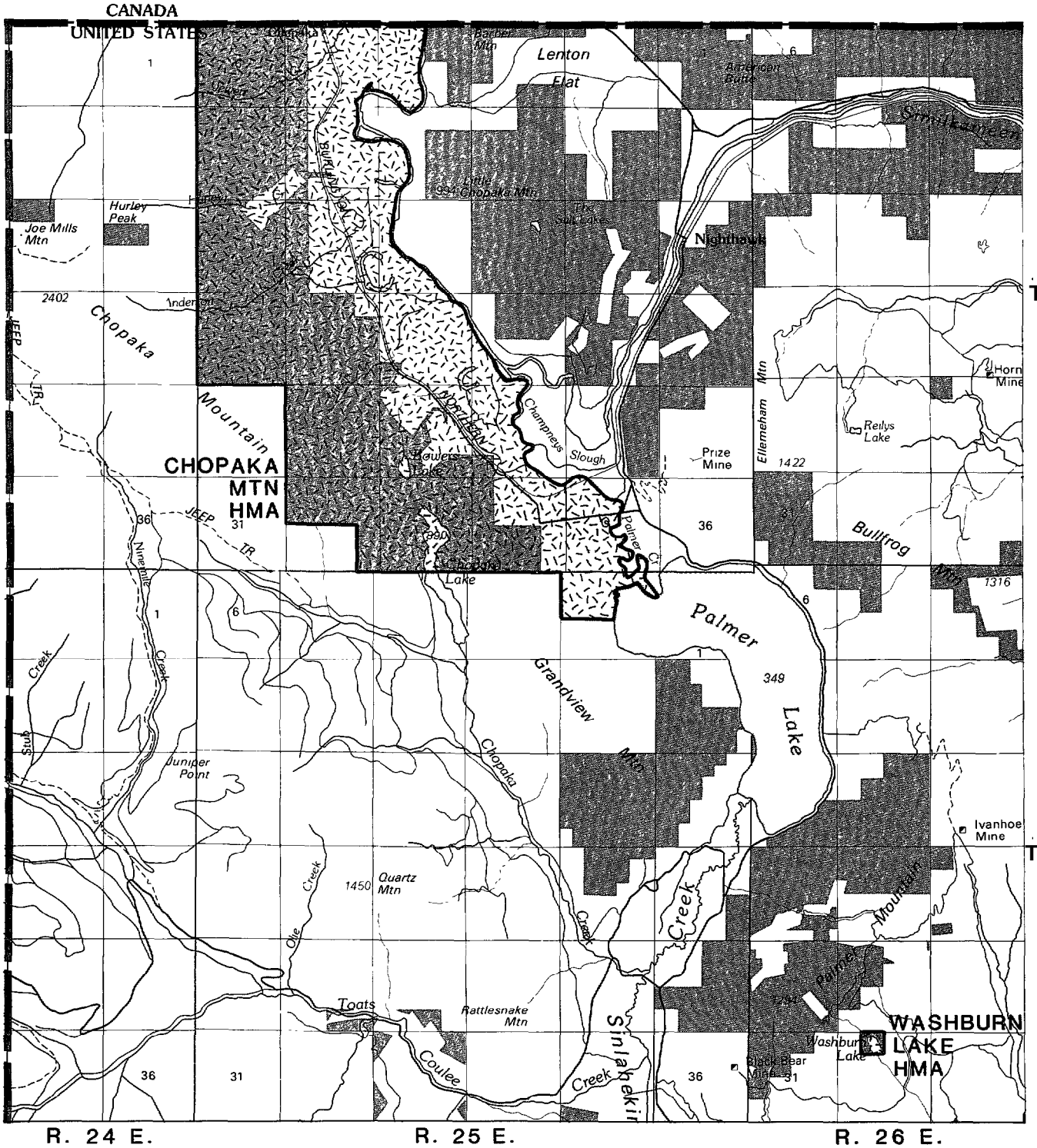
Endangered, Threatened, or Sensitive Animals

The bald eagle is the only federally listed animal known to regularly inhabit public land. Bald eagles winter along most of the major rivers in eastern Washington but are most abundant along the Columbia River. Largest concentrations of eagles occur along the river from Grand Coulee Dam to Wells Dam. The most important bald eagle winter roosting area on public land would be designated in the Proposed RMP as an ACEC. This area is identified on the enclosed map as the Brewster ACEC.

The woodland caribou and grizzly bear may occasionally use small parcels of BLM land in the mountainous areas of northeast Washington. BLM habitat acreage in these areas is very small and considered by BLM to be of little or no importance to these species.

Table 2-3 Habitat Management Plans

Plan Name	Date Completed	Management Area Location	Purpose
Chopaka Mountain	1973	Similkameen	Management of mountain goat and grouse habitat; soil and vegetation stabilization
Washburn Lake	1981	Similkameen	Protection and improvement of riparian habitat; deer winter range, waterfowl, upland game.
Douglas Creek	1974	Douglas Creek	Management of habitat for upland game, riparian habitat, aquatic habitat.
Douglas Creek II	1982	Douglas Creek	Habitat improvement projects; sharp-tail grouse habitat.
Juniper Forest	1972	Juniper Forest	Raptor nesting habitat; deer winter range, upland game habitat.



LEGEND

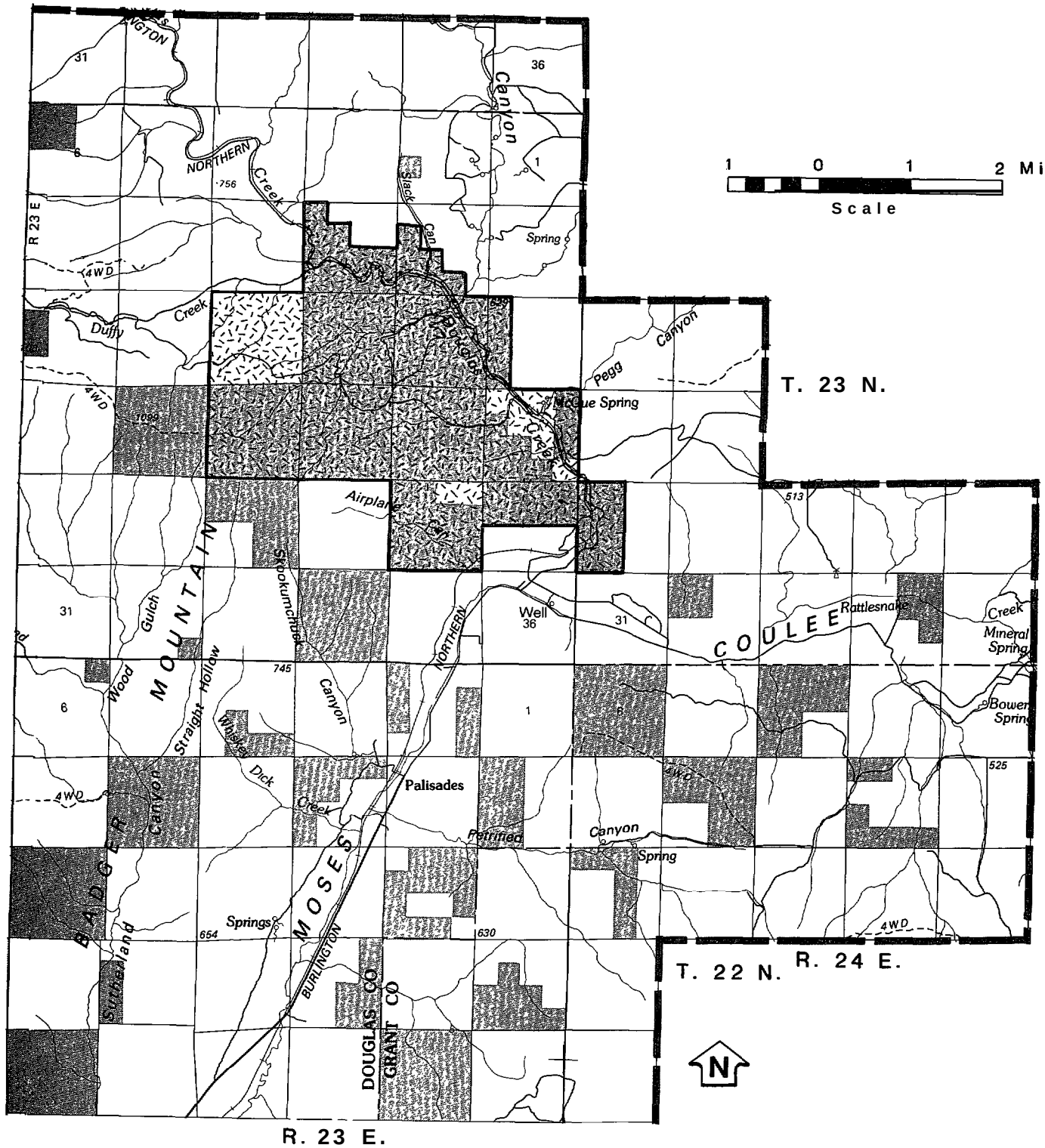
- Bureau of Land Management
- Management Area Boundary
- Habitat Management Plan

U S DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1985

SPOKANE DISTRICT

Chopaka Mtn. & Washburn Lake Habitat Management Plan

ILLUSTRATION 1



LEGEND

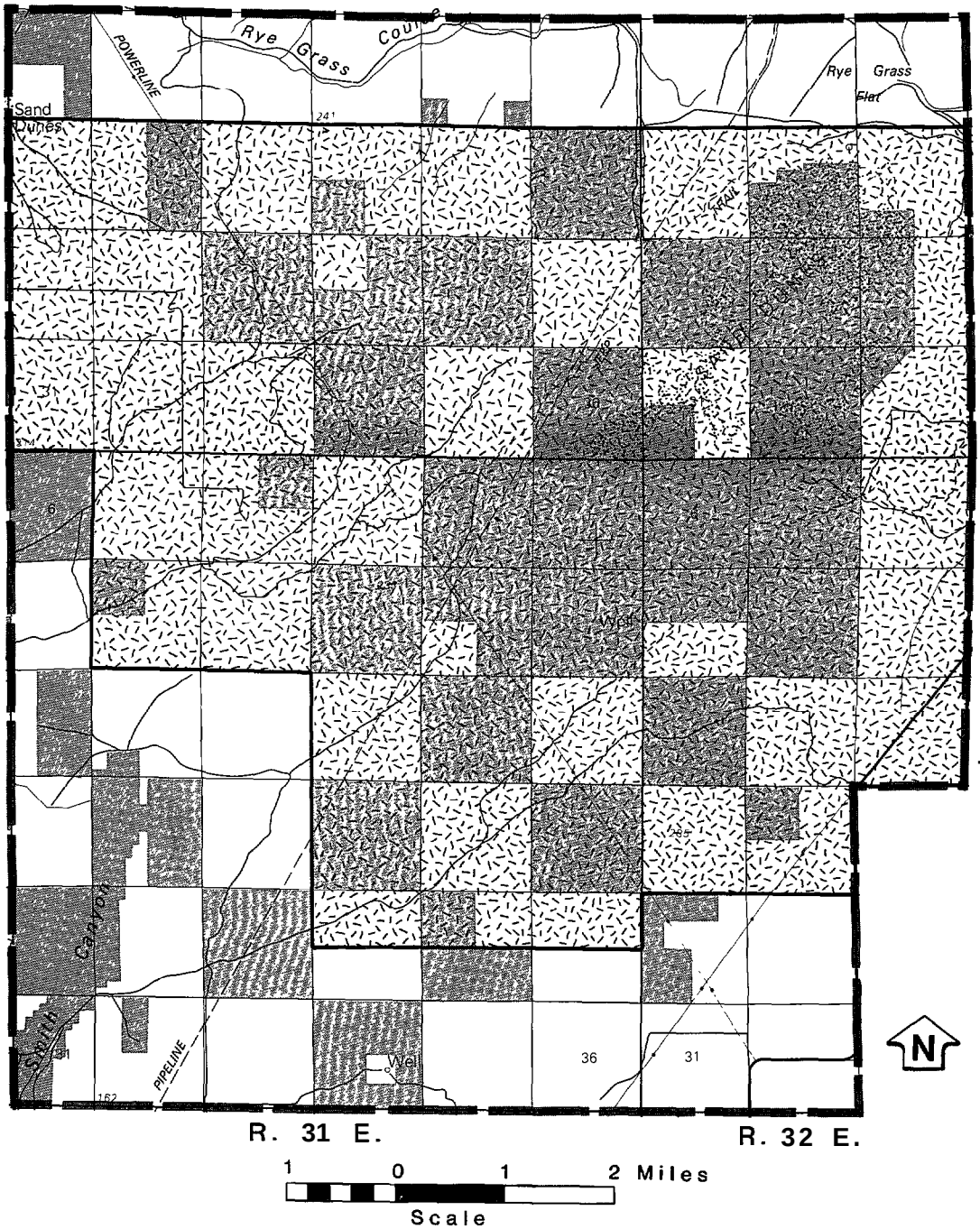
- Bureau of Land Management
- Management Area Boundary
- Habitat Management Plan

U S DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1985

SPOKANE DISTRICT

Douglas Creek
Habitat Management Plan

ILLUSTRATION 2



LEGEND

- **Bureau of Land Management**
- **Management Area Boundary**
- **Habitat Management Plan**

U S DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1985

SPOKANE DISTRICT

Juniper Forest
Habitat Management Plan

ILLUSTRATION 3

Other Sensitive or Unique Species

A number of other animals are of management concern because of their scarcity, limited habitat, or susceptibility to man's activities. Their occurrence on public lands is sporadic and not well defined in many cases. However, if any are identified, special consideration for their requirements would be undertaken. These include, but are not necessarily limited to the following: pygmy rabbit, ferruginous hawk, Swainson's hawk, lynx, long-billed curlew, wolverine, Columbian sharp-tailed grouse, burrowing owl, yellow warbler, western bluebird, Lewis' woodpecker, golden eagle, prairie falcon, white-tailed jackrabbit, and western spotted frog.

Table 2-4 indicates the species occurrence of animals of special interest and concern in each of the management areas.

Riparian Areas

Riparian habitats are especially important because they are a critical source of biological diversity. Degradation of riparian area values can adversely affect a wide range of wildlife values. While BLM knowledge of riparian habitat on public lands is incomplete, many problem areas have been identified and placed under protective BLM management to improve habitat. Riparian habitat quality, quantity, and type varies significantly among management areas. Inventory records indicate that there are approximately 91 miles of riparian habitat existing on the BLM lands.

Forestland

The Spokane District contains 54,757 acres of forestland which is now, or is capable of being, 10 / stocked by forest trees and is not currently developed for nontimber use. Most of these stands of timber are a mixture of several tree species. These stands are primarily categorized as being uneven aged. That is, the ages of these trees range from 1 to 200 years or more.

An Operations Inventory, which includes a Timber Production Capability Classification (TPCC) system, was completed in 1983. As a result of the TPCC process, 48,559 acres of forestland in the district were classified as being suitable for timber production. The remaining 6,198 inventoried acres of forestland include noncommercial forestland and commercial forestland which are unsuitable for timber production due to topography, reforestation problems, or fragile soils. (See Maps 4 and 5.) Locations and classification of these lands have been mapped and are available for review in the Spokane District Office. Table 2-5 shows total forestland by management area. The District

Vicotina attenuata

Coyote tobacco occurs in stony washes and sandy bottomlands. It is considered sensitive on the Nashington State Rare Plant list.

Table 2-4 Wildlife Species of Known Management Significance By Management Area[1]

1. Terrestrial	Similkameen	Conconully	Jameson Lake	Douglas Creek	Saddle Mtn.	Rattlesnake Hills	Badger Slope	Rock Creek	North Ferry	North Stevens	Huckleberry Mtns.	Juniper Forest	Scattered Tracts
Mule Deer	●	●	●	●	●	●	●	●	●	●	●	●	
White-tailed Deer	●	●							●	●	●		●
Mountain Goat	●												
Bighorn Sheep	●								●				
Ruffed Grouse	●	●		●				●	●	●	●		●
Blue Grouse	●	●						●	●	●			●
White-tailed Ptarmigan	●												
Sage Grouse			●	●	●	●							●
Sharp-tailed Grouse	●	●											●
Ring-necked Pheasant	●	●		●	●		●				●	●	●
California Quail	●	●	●	●	●	●	●				●	●	●
Chukar	●	●	●	●	●	●	●	●			●	●	●
Gray Partridge	●		●	●			●				●	●	●
Wild Turkey	●							●					
Mourning Dove	●	●	●	●	●	●			●	●	●	●	●
White-tailed Jackrabbit	●	●	●	●	●	●	●					●	●
Pygmy Rabbit			●		●								
Bald Eagle	●	●			●			●	●				●
Golden Eagle	●	●	●	●			●		●			●	●
Ferruginous Hawk					●		●					●	●
Swainson's Hawk					●	●	●					●	●
Prairie Falcon				●	●		●						●
Burrowing Owl			●	●	●	●	●					●	●
Long-billed Curlew	●	●			●	●						●	●
Pileated Woodpecker	●	●							●	●	●		●
Sage Sparrow	●	●	●	●	●	●	●					●	●
2. Aquatic													
Rainbow Trout	●	●	●	●	●			●	●	●	●		●
Cutthroat Trout	●								●				●
Brown Trout	●	●							●				●
E. Brook Trout	●	●									●		●
Kokanee	●												●
Largemouth Bass	●	●											●
Smallmouth Bass	●	●											●
Perch	●	●											●
Ling	●												
Brine Shrimp (Hot Lake)	●												

[1]Significance is defined as those species having identifiable values in 1 or more of the following categories: 1) economic, 2) legal, 3) emotional, 4) political, 5) sensitive.

Note: For purposes of review and comment, it should be noted that the public lands do not include significant habitat for the wolf, Columbian white-tailed deer, woodland caribou, and grizzly bear.

Anadromous fish habitat occurring on public land is relatively small, scattered, and not feasible to manage.

Table 2-5 Forestland by Management Area

Management Area	Total Forestland	Acres Unsuitable for Timber Production	Acres Suitable for Timber Production
Similkameen	a,353	2,245	6,108
Conconully	4,055	1,679	2,376
Jameson Lake	0	0	0
Douglas Creek	0	0	0
Saddle Mountains	0	0	0
Rattlesnake Hills	0	0	0
Badger Slope	748	0	0
Rock Creek		0	748
North Ferry	a,353	656	7,697
North Stevens	12,858	537	12,321
Huckleberry Mtns.	10,770	276	10,494
			0
Scattered Tracts	9,620	606	8,815
Total Forestland	54,757	6,198	48,559

PS7

Uuniper Forest Management Area contains several concentrations of juniper trees totaling approximately 400 acres that were evaluated as being unsuitable commercial timber. Therefore, these areas were not included in the timber production base.

currently offers approximately 4 million board feet (MM bd. ft.) of timber for sale annually.

Old Growth Timber Stand

An old growth stand is defined as being "a stand of trees that is past full maturity and showing signs of decadence, usually 200 year age class or older and has had very little, if any, influence from man's activities" (Society of American Foresters 1971). Most timber stands on the BLM lands in eastern Washington are a mixture of several tree species, are uneven aged, and are less than 200 years old. However, of the 48,559 acres of commercial forestland suitable for timber production, approximately 1,710 acres have not been cut or had a fire burn the stand in the last 150 years. These areas are scattered over three counties in 15 separate parcels and are identified in Table 2-6. In these timber stands and in some of the other stands in the remaining 46,849 acres of commercial forestland, there are some individual trees that are more than 200 years old. However, in no instance is there a large enough concentration of old growth trees to warrent classification as an "old growth forest" or old growth stand.

Recreation

Of the many uses of public lands in the district, recreation involves the largest number of people on a continuing basis. It is supported by a national BLM policy recognizing a public need and a regional increase in recreational opportunities. A primary objective of all planning activities, based upon BLM policy, is to designate public lands open for use unless there is an overriding reason to restrict or eliminate some uses. The diversity of lands managed by the Spokane District allows this unrestricted recreation use. Periodic inventories have been, and will continue to be undertaken to insure a minimum of conflicts with the least amount of restrictive management. Under this management approach extensive recreation activities that are ongoing on district lands include ORV riding, swimming, fishing, and hunting. Activities undertaken to a lesser degree include sight-seeing, boating, camping, hiking, hang gliding, and winter sports.

Table 2-6 Uncut Timber Stands (40 Acres in Size or Larger)

Management Area	Legal Description	Acres
Similkameen	T. 39 N., R. 27 E., sec. 17 SE¼SW¼	40
	T. 39 N., R. 26 E., sec. 30 E½E½	100
	T. 40 N., R. 25 E., sec. 32 E½NW¼, W½NE¼	70
North Stevens	T. 39 N., Ft. 40 E., sec. 21 E½E½	130
	sec. 22 S½N½, S½	400
	sec. 23 S½NW¼, SW¼	200
	sec. 24 NE¼	120
	sec. 26 N½NW¼, NE¼SW¼	100
	sec. 31 S½NW¼	80
	T. 40 N., R. 41 E., sec. 26 S½NW¼, N½SW¼	140
	sec. 29 E½SE¼	80
Scattered Tracts	T. 38 N., R. 43 E., sec. 18 SE¼NW¼	40
	T. 39 N., R. 43 E., sec. 2 E½NW¼	40
	sec. 21 S½NE¼	50
	T. 40 N., R. 43 E., sec. 26 NW¼	120
Total Acres		1,710

Hunting

Deer and upland game bird hunting are the major activities in all of the management areas, although the intensity varies from one to another depending upon the animal population size and the topography.

Swimming

Swimming occurs in the Douglas Creek Management Area, Similkameen Management Area, and the Yakima Canyon Cooperative Agreement Management Area. Although only a seasonal use, swimming draws a substantial number of participants per year. In the Douglas Creek Management Area, swimmers are drawn to Douglas Creek; in the Similkameen Management Area, they

come to Chopaka and Palmer Lakes, while the Yakima River recreation sites are managed through cooperative agreements with Washington State Department of Game. The District maintains primitive recreation sites at Chopaka and Palmer Lakes to facilitate swimming and other water sports.

Fishing

Although fishing occurs in four of the management areas, it is not considered to be a major recreational activity on public lands. Most of the fishing activities occur at Chopaka and Palmer Lakes, Douglas Creek, and the Yakima River. There is a boat launch facility at the BLM recreation site on Palmer Lake to enhance these activities and a primitive camping area at Chopaka Lake to accommodate users.

ORV Activities

Off-road vehicle (ORV) activities are one of the major recreational activities on the public lands in the District. The areas under extensive year-round use are Similkameen, Saddle Mountains, Badger Slope, and Juniper Forest Management Areas. To a lesser degree, the Rattlesnake Hills, North Ferry, North Stevens, and Huckleberry Mountains areas are also utilized. Table 2-7 summarizes the existing ORV designations.

Rock Collecting

Rock collecting, recreational prospecting, and dredging are other favorite activities taking place on the BLM managed lands. The management areas most frequented are in the southern portion where silicate rocks, particularly petrified wood, are eroding out of prominent sedimentary and igneous slopes. The Saddle Mountains Management Area draws rock collectors from many other states and Canada and should be considered of high national recreation value. The Rattlesnake Hills, another important area, is more popular with local and regional residents.

Table 2-7 Existing ORV Designations

Management Area	Acres Open	Acres Restricted: Seasonally to Designated Roads and Trails	Acres Restricted: Permanently Restricted to Designated Roads and Trails	Acres Restricted: Closed to ORV Use
Similkameen	16,204	1,270	5,826	5,598
Conconully	8,830	2,670		
Jameson Lake	800		2,860	
Douglas Creek	12,380	5,040	4,580	
Saddle Mountains	24,300			
Rattlesnake Hills	24,725			
Badger Slope			7.680	40
Rock Creek	6,427			
North Ferry	13,000			
North Stevens	14205			
Huckleberry Mtns.	11,269			
Juniper Forest	2.640		7,340	7,140
Scattered Tracts	123,137			640
Total	256,917	6,960	28,288	13,418

Special Recreation Areas

The Saddle Mountains, Rattlesnake Hills, Similkameen, Juniper Forest, and Douglas Creek support such a high level of recreation use that they are considered special recreation areas. With the exception of Douglas Creek, ORV riding is a common element of this use. To minimize conflicts with other resources and maximize recreational opportunities, the district has established visitor relations patrols, posted boundary markers, and provided access. In the recent past, the district issued permits to organized ORV functions which benefitted both recreationists, by providing an area to use, and local communities, who depend to some extent upon recreationists for economic support. Douglas Creek, where ORV activities are limited, is the site of intensive swimming, hunting, and fishing activities. Here the district maintains visitor contacts, funds law enforcement patrols, and participates in hazard reduction programs.

Recreation Sites

Recreation sites were built in areas where recreation use was extensive enough to require regulatory measures to maintain quality opportunities. In the district there are five such sites. They are the Roza Dam, Squaw Creek, Umtanum Creek, which are located along the Yakima River, Chopaka, and Split Rock sites, which are located at Chopaka Lake and Palmer Lake respectively. The Yakima River sites are managed in cooperation with the Washington State Department of Game. Self-contained or vault toilets and boat ramps were placed at each, garbage disposal facilities were made available, and picnic tables were located where necessary. Visitor patrols are maintained at each site.

Lands Program

Land Tenure Adjustments

The Spokane District has two pending state exchanges which should be completed by the end of fiscal year (FY) 1985, with another planned for FY 1986. Table 2-8 gives a summary overview of the state exchange, as well as eleven private exchanges proposed for completion prior to FY 1987. All of these exchanges have been based upon existing land use plans. During the subsequent environmental analysis on the exchange, no significant impacts were identified.

Table 2-8 Pending and Proposed Land Exchanges

(Note: The following acreage figures are approximate.)

A. Pending State (DNR) Exchanges

Fiscal Year	Number of Exchanges	Acres Offered (DNR)	Acres Selected (BLM)	Benefitting Management Areas
1985	**2**	**8,500**	**5,600**	**Juniper** Forest, Badger Slope, Conconully, Saddle Mountains Similkameen, Douglas Creek
1986	1 (westside)	1,000	1,000	San Juan ACEC

B. Proposed Private (Pvt.) Exchanges

Fiscal Year	Number of Exchanges	Acres Offered (PVT)	Acres Selected (BLM)	Benefitting Management Areas
1986	5	6,400	1,600	Juniper Forest, Saddle Mountains
1986	1	70	200	US Forest Service, Alpine Lakes, Wilderness Area
1987	5	7,000	1,600	Juniper Forest, Saddle Mountains, Douglas Creek
Total	**14**	**23,170**	**10,000**	

Selected-Public lands selected in exchange for state or private lands.
Offered-Lands (state or private) offered to BLM in the exchange.

Land Use Authorizations

The most common land use authorizations are rights-of-way for roads, highways, telephone lines, electric transmission and distribution lines, reservoir sites, pipelines, and hydroelectric projects. Another major type of authorization involves lease of sites for Recreation and Public Purposes (R & PP).

Utility and/or Transportation Corridors

The following major routes have been identified and designated as utility corridors (widths vary but are a minimum of 200 feet): Saddle Mountains Bonneville Power Administration (BPA) powerlines (4), Badger Slope BPA powerline. The Western Regional Corridor Study of May 1980 identified corridor needs through the year 2020. The corridor needs identified by this group follow these existing rights-of-way.

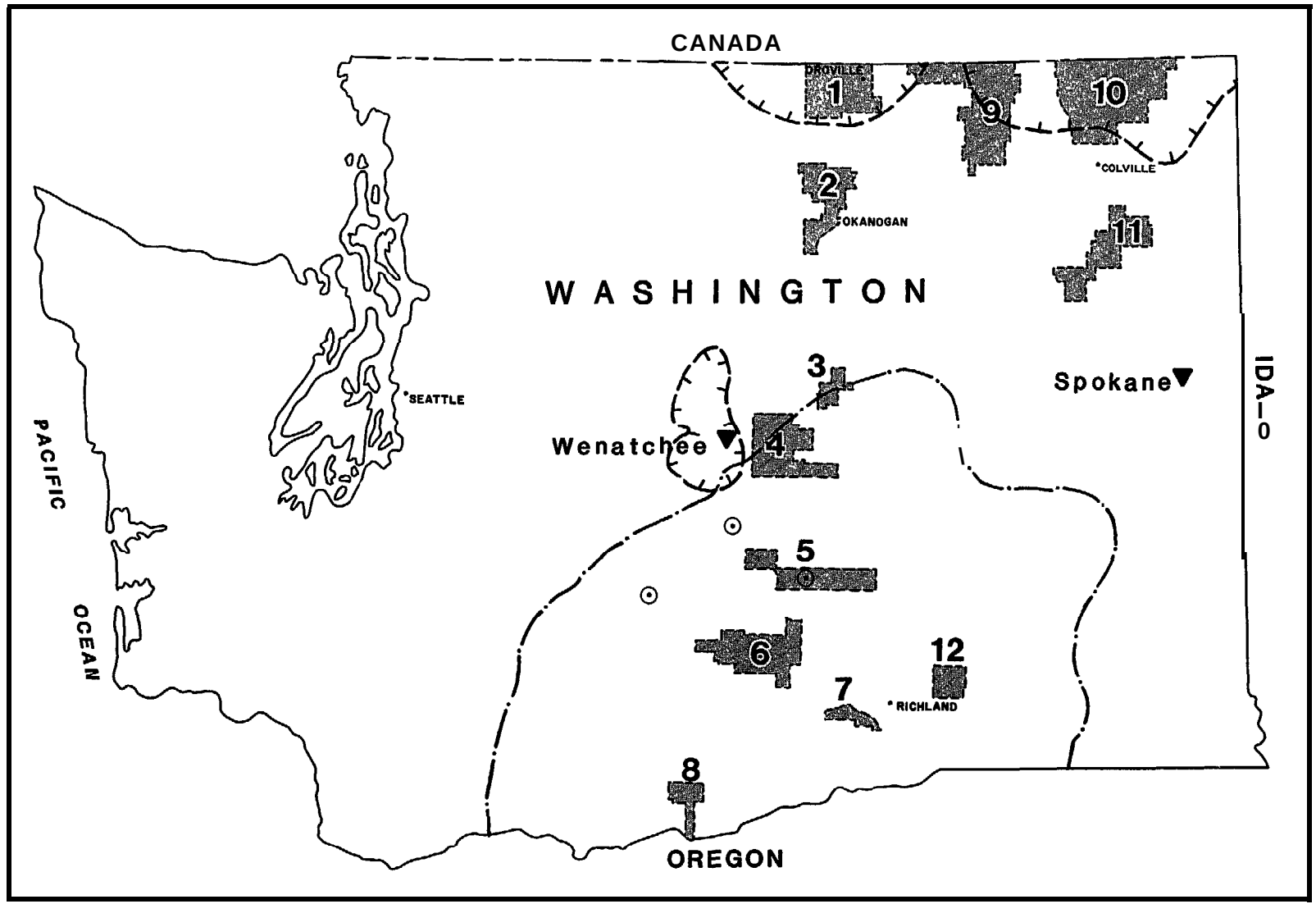
No formal transportation corridors exist through the public lands, but numerous rights-of-way providing access to and through public lands have been issued and will continue to be issued on a case-by-case basis when consistent with the approved RMP (see Map 2).

Mineral Resources

Washington can be categorized into seven natural regions. Four of these divide the planning area. The divisions are based on differences in physiographic rock types. Climatic variations and geographic position change these large-scale earth features into landscapes of endless variety.

The four areas that divide the planning unit are as follows:

(1) Cascade Mountains-This region consists of a complex mountain belt that extends throughout Washington from north to south **on the** west side of the planning area. This region is valuable for both locatable minerals which include but are not necessarily limited to gold, lead, and zinc, and geothermal resources;



Management Areas

1. Similkameen
2. Conconully
3. Jameson Lake
4. Douglas Creek
5. Saddle Mountains
8. Rattlesnake Hills
7. Badger Slope
8. Rock Creek
9. North Ferry
lo. North Stevens
11. Huckleberry Mountains
12. Juniper Forest

Area of Oil and Gas Activity

Drill Site

Area of Mining Activity

Mineral Resources

ILLUSTRATION 4

Table 2-9 Population Characteristics by County

	Adams	Benton	Chelan	Douglas	Ferry	Franklin	Grant
1960	9,929	62,070	40,744	14,890	3,889	23,342	46,477
1970	12,014	67,540	41,103	16,787	3,655	25,816	41,881
1980	13,267	109,444	45,061	22,144	5,811	35,025	48,522

Table 2-10 Employment by Source, 1981 Source: U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population.

	Adams	Benton	Chelan	Doualas	Ferrv	Franklin	Grant
Total [1]	7,772	56,874	**27,896**	8,109	1,672	17,221	22,687
Proprietor							
Farm	1,076	1,472	1,868	1,317	**229**	1,166	2,238
Non Farm	611	3,030	2,057	685	180	1,054	1,964
Wage and Salary							
Farm	1,605	3,336	**2,925**	1,920	44	1,810	4,131
Non Farm	4,480	49,036	20,504	4,187	1,219	13,191	14,354
Agricultural Services	160	ND [2]	947	472	**15**	ND	ND
Mining	**-0-**	ND	ND	L [3]	ND	ND	ND
Construction	179	8,828	642	164	ND	549	458
Manufacturing	600	8,260	2,232	156	220	1,241	2,028
Transportation & Public Utilities	180	1,000	738	149	13	1,198	552
Wholesale Trade	874	564	ND	197	ND	1,075	1,191
Retail Trade	732	7,176	3,658	1,000	142	2,526	2,385
Finance, Insurance & Real Estate	109	1,237	906	105	17	439	457
Services	471	13,088	4,401	651	148	2,299	1,860
Government							
Federal, Civilian	86	578	620	125	127	495	273
Federal, Military	124	1,102	439	219	55	353	481
State and Local	965	6,595	3,045	948	297	2,368	3,957
Per Capita Income (dollars)	**11,883.0**	**12,171.0**	**10,825.0**	8,147.0	**7,618.0**	**10,175.0**	9,572.0

'Consists of wage and salary jobs (full-& part-time) plus number of proprietors.
*Not shown to avoid disclosure of confidential data. Data are included in totals.
[3]**Less** than 10 jobs.

Source: Regional Economic Information System, Bureau of Economic Analysis, 1983.

Table 2-9 (continued)

	Kittitas	Klickitat	Okanogan	Pend Oreille	Stevens	Yakima	Washington
1960	20,467	13,455	25,520	6,914	17,884	145,112	2,853,214
1970	25,039	12,138	25,867	6,025	17,405	145,212	3,413,244
1980	24,877	15,822	30,639	8,580	28,979	172,508	4,132,156

Table 2-10 (continued)

	Kittitas	Klickitat	Okanogan	Pend Oreille	Stevens	Yakima	Washington
Total [1]	10,319	6,250	15.825	2,431	10.033	80,797	1,925,455
Proprietor							
Farm	916	718	1,737	310	1,477	6,251	44,539
Non Farm	1,003	614	1,365	436	1,184	6,575	153,988
Wage and Salary							
Farm	384	448	2,123	38	164	12,530	47,841
Non Farm	8,016	4,470	10,600	1,647	7,208	55,441	1,679,087
Agricultural Services	91	ND*	633	ND	28	2,023	15,984
Mining	20	L3	19	ND	368	53	2,867
Construction	152	62	214	41	306	1,793	73,442
Manufacturing	634	1,728	712	280	1,807	7,117	287,010
Transportation & Public Utilities	315	156	239	52	165	2,535	88,020
Wholesale Trade	383	ND	1,030	11	200	6,172	97,927
Retail Trade	1,668	429	1,504	195	1,050	10,083	279,370
Finance, Insurance & Real Estate	204	103	282	23	155	1,789	92,360
Services	1,287	441	2,577	245	1,323	13,151	334,762
Government							
Federal, Civilian	163	135	1,235	105	285	1,086	85,827
Federal, Military	241	152	290	'82	271	1,762	94,744
State and Local	2,858	1,103	1,865	595	1,250	7,877	246,774
Per Capita Income (dollars)	8,773.0	9,656.0	9,663.0	6,989.0	7,918.0	9,484.0	11,274-O

[1]Consists of wage and salary jobs (full- & part-time) plus number of proprietors.
[2]Not shown to avoid disclosure of confidential data. Data are included in totals.
[3]Less than 10 jobs.

Source: Regional Economic Information System, Bureau of Economic Analysis, 1983.

Economic Relationships

Minerals

Leasable minerals include oil and gas **and** geothermal resources. There are 685 oil and gas leases on 850,329 acres in eastern Washington including both surface and subsurface administration. These lands are currently leased at $1.00 per acre per year. There are no geothermal leases, and only a portion of one lease application for this planning area has been classified as prospectively valuable. Locatable minerals include but are not necessarily limited to gold, lead, silver, zinc, limestone, barite, and silica. The minerals actively mined from unpatented mining claims on BLM lands include lead, silver, gold, barite, limestone, and silica. Salable minerals include sand, gravel, and building stone. There is no information on income, deposits, or production from these mining operations on public lands. In eastern Washington, approximately 71,000 cubic yards of mineral material have been extracted from ten established gravel pits over the previous decade. The BLM's information indicates that there would not be any significant change in the sale of mineral materials in the near future.

Timber

Timber resources in the Spokane Resource Management Plan area cover 54,757 acres. The current planned harvest level is **4** MM bd. ft. per year. This harvest level amounts to less than 1% of the total annual harvest for eastern Washington. Timber harvest over the last five years averaged 3.4 MM bd. ft., which generated $900,000 in local personal income and 35 jobs on an annual basis. Estimates of local personal income and employment attributed to the resources in eastern Washington were developed by using an economic model for the area from the USFS IMPLAN System (see Appendix F).

Dependence of Livestock Lessees on Public Forage

There are 390 grazing allotments and 386 livestock operators authorized to use public forage in the planning area. At present, there are 30,073 AUMs of authorized use. Fifty percent of the grazing lease fees collected annually are distributed to the county in which they originated.

The dependence of ranch operations on BLM forage is determined by the amount of total required forage that public lands provide, the seasons when forage is available, and the availability of substitutes for the forage. The allotments in the RMP area consist mainly of scattered parcels of BLM land intermixed with private land. Available data is generally inadequate to determine ranch dependence in cases where there is only a small percentage of public land in the allotment. An analysis of dependence on BLM forage has been made for the 16 operators with authorized use in allotments for which alternative grazing management actions are being considered.

Table 2-11 presents the average dependence of these 16 operators according to herd size categories. The average ranch is about 13% dependent on BLM forage. This analysis is based on active use. For at least one month during the grazing season, one ranch in the smallest ranch size category is 100% dependent on BLM land.

The BLM does not recognize the right of the lessee to treat grazing leases as real property. However, effects on private asset valuation may occur. The Oregon State Office appraisal staff estimated that a BLM grazing lease contributes approximately $60 per AUM to the sale value of a ranch.

Special Management Areas

Areas of Critical Environmental Concern (ACEC)

The District has designated two ACECs within management areas. The largest, the Juniper Forest ACEC, totals approximately 11,600 acres within the Juniper Forest Management Area and includes the newly designated Juniper Dunes Wilderness and an Outstanding Natural Area. The ACEC designation was made to allow protection of an important wildlife area with many natural recreation values. The Webber Canyon ACEC totals approximately 160 acres within the Badger Slope Management Area. Within this area a number of Pleistocene mammal fossil remains have been noted for almost a decade. Some of this information is valuable scientific data.

Table 2-11 Lessee Dependence on BLM Forage by Herd Size

Herd Size Class	Number of Lessees in Class	Lessees by Level of Dependence 0-15%	16-30%	31-45%	46-80%	Average Dependence
0-399	13	5	6	2	—	14%
400-999	3	2	1	—	—	11%
Total	16	7	7	2	—	13%

Designated ACECs outside of the management areas but still considered within this RMP are the Yakima River Islands (6), and the Columbia River Islands (2), both groups of which are being protected because they contain important waterfowl habitat. These islands collectively cover an area of approximately 640 acres.

Research Natural Areas (RNA)

One RNA has been designated in the District: the Hot Lakes RNA in the Similkameen Management Area. This area, which contains the brine shrimp species Artemia salina and the surrounding land totaling 80 acres, has been withdrawn from mineral entry and designated as an RNA to protect the area from damage and to allow for scientific study and research. The area has been fenced to protect it from cattle grazing and other surface disturbing activities.

Wilderness

In July of 1984, a portion of the Juniper Forest Management Area, approximately 7,140 acres, was designated as the Juniper Dunes Wilderness Area. The area contains uncommon stands of Western Juniper trees scattered among large semi-stabilized sand dunes. It will provide a small area for recreationists who want a primitive and unconfined recreation experience in a natural setting. The Wilderness Management Plan for this wilderness will be prepared within two years of the establishing legislation.

Management Area Descriptions

The next several pages of Table 2-12 briefly describe the existing environmental conditions and land uses of the 13 management areas.

Table 2-12 Management Area Descriptions

Similkameen Management Area

Topography	The topography of this management area reaches approximately 6,900 feet. It typically consists of steep slopes, alpine summits, and wide valleys. Continental ice sheets covered most of the area, and the effects of the glaciers are evident everywhere.
Soils	The soils can be classified into three general groups: (1) shallow to deep, sandy loam to silt loam that formed in volcanic ash, glacial materials, and weathered granite schist and limestone; (2) moderately deep and deep loam, silt loam, and sandy loam that formed in alluvium, lake sediments, volcanic ash, and glacial outwash; (3) deep silt loam and loam that formed in volcanic ash and glacial till.
Water	The major water bodies that occur are the Similkameen River, Okanogan River, Osoyoos Lake, Palmer Lake, Chopaka Lake, Bowers Lake, and Hot Lakes. All of these water bodies are accessible from BLM lands except Osoyoos Lake. The annual precipitation ranges from 15 to 25 inches.
Vegetation	The lower elevations up to around 2,500 ft. are dominated by sagebrush-steppe communities with notable inclusions of bitterbrush. Riparian vegetation is common and found throughout the area. This community gradually changes to a ponderosa pine/Douglas-fir type as the elevation increases. The vegetative type changes once again to one dominated by subalpine fir and whitebark pine at about 4,000 ft.
Ecological Condition	There are 381 BLM acres in climax stage; 5,061 acres in late seral; 3,827 in middle seral; 6,318 in early seral; and 11,747 unclassified.
Livestock	There are 4,053 active AUMs authorized for livestock grazing on 27,476 acres of public land.
Wildlife Habitat	There are approximately 22,700 acres of crucial deer winter range: 4,800 acres are on BLM land. Other crucial big game habitat on BLM lands includes 2,070 acres of bighorn sheep range on Aeneas Mountain and Mount Hull and 5,100 acres of mountain goat habitat on the Chopaka-Grandview range. At least 16 golden eagle territories exist, and habitat for a variety of upland game species is good. Chukars and quail are abundant, and white-tailed ptarmigan occur on Chopaka Mountain.
Fish Habitat	This area has good to excellent populations of soft-rayed and spiney-rayed fish. Palmer Lake contains populations of bass, perch, crappie, rainbow trout, Kokanee, and some ling. The Similkameen contains rainbow trout, bass, perch, crappie, and whitefish. Chopaka Lake contains rainbow and cutthroat trout.
Riparian Habitat	There are 22.5 linear miles of riparian habitat. Four lakes, Hot Lakes, Washburn, Bowers, and the north end of Chopaka Lake, are protected from livestock by fence exclosures. These habitat conditions range from fair to good.
Forest Management	There are approximately 8,353 acres of BLM forest land. Of these acres, 5,598 are capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	Major uses are fishing, hunting, general sight-seeing, and camping. There are 5,598 acres closed to ORV use; ORV use on 5,828 acres is restricted to designated roads and trails; and ORV use on another 1,270 acres is restricted to designated roads and trails from November 15 to March 1.
Cultural Resources	Approximately 5% of this area was inventoried for existence of archaeological resources. These cultural sites include historic euroamerican sites closely related to mining activities of the 1890s and prehistoric and/or historic native American sites.
Minerals	The area is primarily valuable for locatable minerals. An Area of Critical Mineral Potential has been nominated due to the high probability of minerals such as silver, lead, gold, and zinc.

Conconully Management Area

Topography	This management area is a mountainous, highly timbered region with an overall relief of less than 4,700 feet.
Soils	The soils can be classified into two general groups: (1) shallow to deep, sandy loam to silt loam that formed in volcanic ash underlain by glacial materials; (2) moderately deep and deep loam, silt loam, and sandy loam that formed in alluvium, lake sediments, volcanic ash, and glacial outwash.
Water	The major water bodies that occur are as follows: Conconully Lake, Conconully Reservoir, the Okanogan River, Salmon Creek, and Creek. The annual precipitation ranges from 10 to 20 inches.
Vegetation	Similar to Similkameen Management Area.
Ecological Condition	There is no public land mapped in climax stage; however, there are 1,184 acres in late seral; 4,621 in middle seral; 696 in early seral; and 2,962 unclassified.
Livestock	There are 1,651 active AUMs authorized for livestock grazing on 9,463 acres of public land.
Wildlife Habitat	The management area contains approximately 31,500 acres of crucial deer winter range; 3,100 acres are located on BLM land. Most of this range is heavily browsed, and bitterbrush stands appear to be declining. Upland game is fairly abundant, and local sharp-tailed grouse populations are stable or increasing. The management area contains 26 golden eagle territories.
Fish Habitat	The Okanogan River and Salmon Creek provide the best fish habitat on or near BLM land in this management area. Salmon Creek is one of the best cold water streams in eastern Washington.
Riparian Habitat	There are nine miles of riparian habitat. Habitat conditions vary from poor to fair where livestock concentrate in the riparian zone and are good to excellent where livestock use is light or does not exist.
'Forest Management	There are approximately 4,055 acres of BLM forest land. Out of these acres, 2,163 are capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	Major uses consist of hunting, fishing, mineral collecting, and snowmobiling. ORV use on 2,670 acres is restricted to designated roads and trails from November 15 to March 1.
Cultural Resources	Approximately 8 / of this area was inventoried for the existence of archaeological resources. The sites that were found related to euroamerican sites closely related to mining activities of the 1890s.
Minerals	The area is primarily valuable for locatable minerals. An Area of Critical Mineral Potential has been nominated due to the high probability of minerals such as gold, lead, silver, and zinc.

Jameson Lake Management Area

Topography	**This** area is within the channeled scablands of the Columbia River Plateau. It has wide basalt terraces with very steep walls.
Soils	The soils in this area can be classified into two general groups: (1) moderately deep and deep loam that formed in alluvial lake sediments, volcanic ash, and glacial outwash; (2) shallow to deep silt loam that formed in wind laid silts and glacial outwash.
Water	The major water bodies are Jameson Lake, Grimes Lake, and Sulphur Spring. The annual precipitation ranges from 7 to 10 inches.
Vegetation	The big sagebrush-bluebunch wheatgrass habitat type dominates in this area.
Ecological Condition	There are 430 BLM acres in climax stage; 1,663 acres in late seral; 386 in middle seral; 338 in early seral; and 216 unclassified.
Livestock	There are 376 active AUMs authorized for livestock grazing on 3,033 acres of public land.
Wildlife Habitat	The management area contains 3,300 acres of public land that provide crucial habitat to sage grouse. These lands also provide important mule deer habitat and valuable hunting grounds for raptors.
Fish Habitat	There is no fish habitat on public lands. However, Jameson Lake, which is located in this management area, is one of the best trout producing lakes in the State. Habitat quality is considered excellent.
Riparian Habitat	There are four miles of riparian habitat in the area. Three miles are riparian draws along intermittent streams, and one mile is riparian habitat along a perennial stream in Sulfur Canyon. All riparian vegetation is heavily used by livestock.
Forest Management	None.
Recreation	Hunting for upland game birds is the primary recreational activity. Other uses include sight-seeing and some incidental ORV use. ORV use on 2,860 acres is restricted to designated roads and trails.
Cultural Resources	Approximately 11 /of this area was inventoried for the existence of archaeological/historical resources. This inventory revealed an historic euroamerican wagon road, the remains of an historic habitation area, and prehistoric native American lithic manufacturing, talus pit, and settlement area.
Minerals	This area is prospectively valuable for oil and gas. Nine leases have been issued.

Douglas Creek Management Area

Topography	The topography is similar to that of the Jameson Lake Management Area. The overall relief of the Douglas Creek Management Area is approximately 2,300 feet. It is located in the Columbia Plateau and is typified as an upland area dissected by the dominant drainages of Moses Coulee, Douglas Creek, and Rock Island Creek. Slopes range from nearly level uplands to steep canyon breaks.
Soils	The soils can be classified into one general group: moderately deep and deep silt loam, loam sandy loam, and sandy soils that formed in wind laid silts and glacial outwash.
Water	The major water bodies are the Columbia River and Douglas Creek. The annual precipitation ranges from 7 to 10 inches.
Vegetation	The upland habitat is dominated by the big sagebrush-bluebunch wheatgrass habitat type. Upland riparian communities associated with wet draws, springs, and seeps are common. Extensive riparian communities of cottonwood, water-birch, willow, and ryegrass exist in the Douglas Creek Canyon.
Ecological Condition	There are 1,628 acres of public land in climax stage; 5,331 acres in late seral; 6,264 in middle seral; 3,059 in early seral; and 3,890 unclassified.
Livestock	There are 3,360 active AUMs authorized for livestock grazing on 20,745 acres of public land.
Wildlife Habitat	Approximately 8,500 acres of BLM land is considered crucial mule deer winter range. Much of the area provides outstanding habitat for upland game birds and contains one sage grouse strutting ground and two nesting areas. Cliffs are important to cliff nesting raptors, particularly golden eagles and prairie falcons.
Fish Habitat	Both Douglas and Rock Island Creeks contain good populations of trout. Habitat quality is affected by runoff from surrounding agricultural lands and by heavy livestock use in some areas.
Riparian Habitat	There are 17 miles of riparian habitat on public land. Six miles occur along Douglas Creek and provide some of the most significant riparian habitat in the county. Habitat condition along Douglas Creek is considered excellent.
Forest Management	None.
Recreation	The more popular recreational activities that occur include swimming, fishing, hunting, sight-seeing, picnicking, camping, and, to a lesser extent, ORV use and horseback riding. ORV use on 4,580 acres is restricted to designated roads and trails year-long, and ORV use on another 5,040 acres is restricted to designated roads and trails from February 15 to June 1.
Cultural Resources	Approximately 9% has been inventoried for the existence of archaeological resources. This inventory revealed native American cultural sites such as rock shelters, temporary camp areas, burials, and historic sites such as remnants of dwellings, farm equipment, and Civilian Conservation Corps spring developments and reservoirs.
Minerals	This area is classified as being prospectively valuable for oil and gas. A total of 11 leases have been issued.

Saddle Mountains Management Area

Topography	The Saddle Mountains are one of the east-west trending anticlinal structures in the Columbia Basin. The main plateau consists of a rather sharp ridge rising about 1,600 feet higher than the surrounding plain. These mountains were subject to considerable faulting. They have a gentle southern slope in contrast to the precipitously bold relief of the north facing cliffs.
Soils	The soils can be classified into two general groups: (1) moderately deep and deep silt loam, loam sandy loam, and sandy soils that formed in wind laid silts, glacial outwash, and alluvium; (2) shallow to deep silt loam, much of which is stony or cobbly, that formed in wind laid silts and weathered basalt.
Water	The major water bodies that occur are the Columbia River, Johnson Creek, and Crab Creek. The annual precipitation ranges from 5 to 9 inches.
Vegetation	The dominant vegetative community is the big sagebrush-bluebunch wheatgrass habitat type with edaphic inclusions of winterfat and spiny hopsage types.
Ecological Condition	There are 314 acres of public land in climax stage: 7,620 acres in late seral; 6,002 in middle seral; 3,855 in early seral; and 2,490 unclassified.
Livestock	There are 2,670 active AUMs authorized for livestock grazing on 22,281 acres of public land.
Wildlife	Approximately 23,800 acres of the Johnson Creek area west of the Columbia River are considered crucial mule deer winter range; 4,800 acres of these are public land. Johnson Creek also supports good populations of upland game birds including about 200 sage grouse. The north slope of the Saddle Mountains east of the river is good chukar habitat. The entire area provides excellent hunting and nesting habitat for ten species of raptors. Bald eagles perch on the cliffs at the west end of the area during the winter.
Fish Habitat	Johnson Creek is the only perennial stream capable of supporting a fishery. Presently, the creek is heavily affected by livestock and supports limited riparian habitat.
Riparian Habitat	There are 4.5 miles of riparian habitat on public land. Johnson Creek is the only perennial stream crossing BLM land (1.5 miles). All riparian habitat is heavily grazed by livestock.
Forest Management	None.
Recreation	This area receives extensive year-round human recreational use. Most of these uses take place on the Saddle Mountains. The activities include rock collecting, hang gliding, hiking, camping, ORV riding, sight-seeing, hunting, and falconry. Most of the uses in the Johnson Creek area west of the Columbia River involve hunting rock collecting, and hiking.
Cultural Resources	Between 2 to 4 / of this area was inventoried for the existence of archaeological resources. This inventory revealed five sites. They included surface basalt cairns, subsurface pits, and a lithic scatter. Each site should be considered either prehistoric and/or historic native American.
Minerals	This area is prospectively valuable for oil and gas. Twenty-eight leases for oil and gas have been issued. There is currently an active oil and gas exploratory well being drilled by Shell and Atlantic Richfield Oil Companies.

Rattlesnake Hills Management Area

Topography	This area can be generally described as having slopes ranging from nearly level to rather steep with aspects in all four directions, but primarily south. The highest point is approximately 3,200 feet and the lowest point 1,200 feet.
Soils	The soils can be classified into two general soil groups: (1) deep silt loam, sandy loam, and sandy formed in wind laid silts and sands; (2) shallow to deep silt loam, much of which is stony or cobbly, formed in wind laid silts and weathered basalt.
Water	Other than developed springs, no surface water or perennial streams exist. The annual precipitation ranges from 5 to 9 inches.
Vegetation	The big sagebrush-bluebunch wheatgrass habitat type dominates on the deep soils; Sandberg bluegrass, buckwheat, and rigid sagebrush dominate on the shallow sites. Wildfires have virtually eliminated the big sagebrush component which has been replaced primarily by cheatgrass.
Ecological Condition	There are 2,459 acres of public land in climax stage; 2,532 acres in late seral; 3,450 in middle seral; 7,375 in early seral; and 7,230 unclassified.
Livestock	There are 3,311 active AUMs authorized for livestock grazing on 23,757 acres of public land.
Wildlife Habitat	Crucial deer winter range on public lands is limited to 320 acres in McCoy Canyon. Parts of the area support a small band of pronghorns and a few elk. Much of the area supports substantial numbers of chukars but relatively small numbers of other upland game birds. Raptors are common throughout, but only the cliffs in the northeast portion provide good nesting and hunting habitat.
Fish Habitat	None near public land.
Riparian Habitat	Public land supports very little riparian habitat. The quarter mile that exists lies along several draws and one intermittent pond.
Forest Management	None.
Recreation	The recreational activities that occur consist primarily of hunting for upland game in the west end and rock collecting for petrified wood which is currently limited to the east end. In addition to this, some ORV riding does occur, but because access limits recreational use, it is currently not a major use throughout this management area.
Cultural Resources	Approximately 6% of this area was inventoried for the existence of archaeological/historical resources. Nineteen native American and euroamerican sites were located during these inventories. These sites represent lithic tool manufacturing areas, seasonal habitation areas, burials, historic frame structures, and historic spring developments.
Minerals	The entire management area is prospectively valuable for oil and gas. A total of seven leases have been issued for oil and gas exploration and development that cover all 24,725 acres of public land.

Badger Slope Management Area

Topography	The topography of this area ranges from 2,046 feet to 650 feet. It consists primarily of a gently rounded summit with a relatively steep north facing mountain slope.
Soils	The soils can be classified into one general group. They are deep, silty loam and sandy soils formed in wind laid silts and sands over basalt.
Water	The major water bodies that occur are the Yakima River and the Kennewick Irrigation District canal. The annual precipitation ranges from 5 to 7 inches.
Vegetation	On the areas with moderate relief, the vegetative community consists primarily of sagebrush and cheatgrass. On the steeper slopes of the Badger Slope, bunchgrass and perennial forbs predominate. Riparian vegetation is limited.
Ecological Condition	There are 1,634 acres of public land in climax stage; 2,412 acres in late seral; 857 in middle seral; 465 in early seral; and 2,432 unclassified.
Livestock	There are 681 active **AUMs** authorized for livestock grazing on 7,800 acres of public land.
Wildlife Habitat	This area provides about 6,000 acres of good quality sagebrush-steppe and bunchgrass habitat in an area predominated by agricultural land. Upland game birds and relatively dense populations of raptors utilize the slope for feeding and nesting. There is a small, but locally important, herd of mule deer.
Fish Habitat	None near public land.
Riparian Habitat	Riparian habitat is limited to about three miles of wet draws and several seeps and springs. Conditions vary from pristine to very poor. An irrigation canal along the lower slope provides a strip of riparian grass habitat.
Forest Management	None.
Recreation	The primary recreational activities that occur are hunting for upland game, motorcycle riding, and general sight-seeing. ORV use is restricted to designated roads and trails on 7,720 acres.
Cultural Resource	Approximately 23% of this area was inventoried for the existence of archaeological/historical resources. This inventory revealed five historic and/or prehistoric rock alignments.
Minerals	This area is prospectively valuable for oil and gas. The six leases covering the entire management area have been issued for oil and gas exploration and development. However, a no surface occupancy stipulation has been added to the leases that cover the public land on Badger Slope and its skyline.

Rock Creek Management Area

Topography	The elevations range from 3,000 feet on the northern slopes to 600 feet at the southern end. The drainages are steep with numerous rock outcroppings and narrow bottoms. The benches are rolling and rocky with shallow soils.
Soils	The soils can be classified into three general groups: (1) shallow to deep sandy loam to silty loam formed in volcanic ash, glacial materials, and weathered basalt; (2) shallow to deep silt loam formed in wind laid silts; (3) shallow to moderately deep loam and silt loam formed in volcanic ash, pumice, alluvium, and weathered basalt.
Water	The major water bodies that occur are the west and middle forks of Rock Creek, Harrison Creek, and Squaw Creek. The annual precipitation ranges from 10 to 15 inches.
Vegetation	Oregon white oak dominates on the deeper soils throughout the planning area with Sandberg bluegrass, cheatgrass, and needle-and-thread grasses being found on the shallower sites. Riparian vegetation of the types associated with wet draws and springs as well as perennial streams are very common in the area.
Ecological Condition	There are no acres of public land in climax stage; however, there are 905 acres in late seral; 2,084 in middle seral; 1,988 in early seral; and 571 acres unclassified.
Livestock	There are 603 active AUMs authorized for livestock grazing on 5,548 acres of public land.
Wildlife Habitat	There are approximately 5,900 acres of crucial blacktail deer habitat. The area also provides summer range to a smaller number of deer and supports chukars, ruffed and blue grouse, and wild turkeys. Turkey habitat appears good, but the population remains relatively low.
Fish Habitat	Rock Creek provides the only fishery in the management area. Surface portions of the stream tend to dry up during the summer, thus limiting the productivity of the fishery.
Riparian Habitat	There are about 14 miles of riparian habitat. Habitat conditions data is lacking for this area.
Forest Management	There are approximately 748 acres of BLM forestland. Of these acres, 515 are capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	The primary recreational values are hunting and general sight-seeing and, to a lesser extent, rock collecting and fishing.
Cultural Resources	Approximately 11% of this management area has been inventoried for archaeological/historical resources. This inventory was undertaken in 1980 and 1981, and the results were the location of three historic sites and seven prehistoric sites.
Minerals	There are no known metallic minerals in the management area. Four leases covering 5,000 acres have been issued for the exploration and development of oil and gas. Due to the geology of the area (recent volcanism), there is a potential for geothermal energy resource development. At present, no leases for geothermal exploration or development have been issued.

North Ferry Management Area

Topography	This area is located in the Okanogan Highlands. It is characterized by hilly to mountainous topography and narrow stream valleys that generally run in a north-south direction. The overall relief is approximately 3,700 feet.
Soils	The soils can be classified into three general groups: (1) shallow to deep sandy loam to silt loam formed in volcanic ash underlain by glacial materials, andesite, basalt, and limestone; (2) deep, well-drained, and poorly drained silt loam, loam, and sandy soils formed in alluvial lake sediments, volcanic ash, and glacial outwash; (3) deep, silt loam, and loam formed in volcanic ash and glacial till underlain by granite, basalt, andesite, and limestone.
Water	The major water bodies are Curlew Lake, Kettle River, and Curlew River. The annual precipitation ranges from 15 to 30 inches.
Vegetation	This area is considered a mixed conifer zone. The plant associations found on the public lands include those of the Douglas-fir, grand fir, western red cedar, and subalpine fir habitat types. Additional tree species, occurring either as seral species or in uncommon climax associations, include Englemann spruce, western hemlock, and western white pine.
Ecological Condition	There are no acres of public land in climax stage; however, there are 1,815 acres in late seral; 636 in middle seral; 346 in early seral; and 7,719 unclassified.
Livestock	There are 1,527 active AUMs authorized for livestock grazing on 10,316 acres of public land.
Wildlife Habitat	There are 3,700 acres of deer winter range on BLM land; 920 of these are heavily used by mule deer and white-tailed deer. Bighorn sheep inhabit 600 acres of BLM land on Vulcan Mountain. Approximately 400 acres contain critical lambing areas. The management area supports a small resident population of golden eagles; several nest on BLM land.
Fish Habitat	Several small streams on BLM land contain good populations of rainbow trout. The Kettle River contains rainbow and brown trout and whitefish. No other data are available.
Riparian Habitat	The management area contains 13 miles of riparian habitat. Habitat conditions range from fair to excellent.
Forest Management	There are approximately 8,353 acres of BLM forest land. Of these acres, 7,473 are capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	The primary recreational activity is hunting for both big game and upland game animals. Other known uses, such as cross-country skiing and fishing, are limited.
Cultural Resources	Approximately 34% of this management area has been inventoried for presence of cultural values. The cultural sites located during these inventories are largely related to historic development prevalent during the 1890s to 1920s.
Minerals	This area is primarily valuable for locatable minerals which include but are not necessarily limited to gold, lead, silver, and zinc.

North Stevens Management Area

Topography	This area is located in the Okanogan Highlands and is similar in topography to North Ferry Management Area. The overall relief is approximately 4,000 feet.
Soils	The soils can be classified into two general groups: (1) shallow to deep sandy loam to silt loam formed in volcanic ash underlain by glacial materials, andesite, basalt, granite, and shale; (2) deep silt loam and sandy loam formed in lake sediments, wind laid silts, volcanic ash, and alluvium.
Water	The major water bodies are the Columbia River, the Kettle River, and Deep Lake. The annual precipitation ranges from 20 to 40 inches.
Vegetation	Similar to North Ferry Management Area.
Ecological Condition	There are no acres of public land mapped in climax stage; no acres mapped in late seral; no acres mapped in middle seral; 991 in early seral; and 4,085 acres unclassified.
Livestock	There are 666 active AUMs authorized for livestock grazing on 5,076 acres of public land.
Wildlife Habitat	Most of the public land is forested or is close to forest land. Mule deer and white-tailed deer use approximately 6,560 acres of public land for winter range; 160 acres are heavily used by mule deer; 1,670 acres are heavily used by white-tailed deer. The area also supports abundant populations of black bears and ruffed grouse.
Fish Habitat	There are no data on fish habitat on or near BLM land.
Riparian Habitat	North Stevens Management Area contains about 13 miles of riparian habitat. Habitat conditions are unknown.
Forest Management	There are approximately 12,858 acres of BLM forest land. Of these acres, 11,827 are capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	Similar to North Ferry Management Area.
Cultural Resources	Approximately 2% of the management area has been inventoried for cultural resources. The cultural properties that were revealed during these inventories are historic dwellings and associated outbuildings that appear to have been constructed in the middle 1930s.
Minerals	Similar to North Ferry Management Area.

Huckleberry Mountains Manaaement Area

Topography	This management area is located in the Huckleberry Mountains which is a lower extension of the Selkirk Mountain Range in the Okanogan Highlands. Overall relief is approximately 4,500 feet.
Soils	The soils can be classified into two groups: (1) shallow to deep well drained, and poorly drained silt loams, loam and sandy loam formed in alluvium, lake sediments, volcanic ash, and glacial outwash; (2) shallow to deep sandy loam to silt loam formed in volcanic ash underlain by glacial materials, andesite, basalt, granite, and shale.
Water	The major water bodies are the Colville River, Huckleberry Creek, and Hunters Creek. The annual precipitation ranges from 15 to 30 inches.
Vegetation	Plant associations found on the public lands include those of the Douglas-fir and grand fir habitat types. Seral tree species of the Douglas-fir habitat type include ponderosa pine, lodgepole pine, and western larch. The grand fir habitat type, which occurs on wetter sites, includes the same seral species with the addition of Douglas-fir and Englemann spruce as seral species.
Ecological Condition	None of the 4,104 acres of rangeland were classified in this management area.
Livestock	There are 501 active AUMs authorized for livestock grazing on 4,104 acres of public land.
Wildlife Habitat	Similar to North Stevens Management Area, except that mule and white-tailed deer use approximately 700 acres of public land for winter range.
Fish Habitat	Many of the streams on the public land contain small populations of rainbow and brook trout, but none are considered good fisheries due to the lack of rearing areas, shallow depths, and irregular flows.
Riparian Habit	There are 11 miles of riparian habitat in the management area. The dominant vegetation is very similar, whether annual or perennial, and includes species such as willow, aspen, alder, serviceberry, and sedges. Habitat conditions range from fair to excellent for this management area.
Forest Management	There are approximately 10,770 acres of BLM forest land. Of these, 10,065 acres are capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	Similar to North Ferry Management Area.
Cultural Resources	Approximately 13% has been inventoried for the presence of cultural resources. The cultural properties noted during project inventories included eleven historic euroamerican sites and one prehistoric/historic native American site.
Minerals	Similar to North Ferry Management Area.

Juniper Forest Management Area

Topography	The topography is characterized by flat or rolling relief caused by wind deposited sands and **silts.** The most dominant features of this area are the scattered sand dunes that are found throughout.
Soils	The soils can be classified into two general groups: (1) moderately deep and deep silt loam and sandy loam formed in wind laid silts and alluvium; (2) deep, sandy soils formed in wind laid sands.
Water	No surface waters exist. **The** annual precipitation ranges from 5 to 7 inches.
Vegetation	This management area is comprised of a mosaic of habitat types ranging from those dominated by big sagebrush and rabbitbrush to sagebrush-steppes with scattered junipers.
Ecological Condition	There are no acres of public land mapped in climax stage; no acres mapped in late seral; 78 in middle seral; 10,389 in early seral; and 1,262 unclassified.
Livestock	There are 1,131 AUMs authorized for livestock grazing on 11,729 acres of public land.
Wildlife Habitat	The area supports a high density of 12 raptor species and is considered crucial nesting habitat for ferruginous and Swainson's hawks. Approximately 20% of the State's ferruginous hawks nest in the Juniper Forest. Two unusual species of butterflies inhabit the area.
Fish Habitat	None.
Riparian Habitat	None.
Forest Management	It consists of scattered juniper trees with some concentrations covering approximately 400 acres. None of this land is capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	The primary recreational uses are ORV riding, day hiking, camping, and sight-seeing of botanical, zoological, and geomorphological features. ORV use on 7,340 acres is restricted to designated roads and trails. This area contains the Juniper Dunes Wilderness Area which is approximately 7,140 acres in size. Recreational ORV use in this area is prohibited.
Cultural Resources	Approximately 8% of this management area has been inventoried for cultural resources. During the course of these inventories, only one isolated prehistoric native American artifact was found.
Minerals	This area is prospectively valuable for oil and gas. Four leases have been issued for the exploration and development of oil and gas, including the Juniper Dunes Wilderness. The leasing in this wilderness area has a no surface occupancy stipulation to provide protection of the natural **resources.** These leases were issued prior to wilderness designation; therefore, they **would** only be reissued if the lessee demonstrates some form of diligent exploration. Unless this occurs, the leases would expire in 1987.

Scattered Tracts Management Area

Topography	The topography is characterized by high rugged mountains and deeply incised valleys on the west, north, east, and southeast portions of the planning area with the interior being relatively flat.
Soils	The soils that occur in these areas are extremely diverse and possess the characteristics that have been described for the preceding 12 management areas.
Water	Scattered tracts occur near most of the major water bodies. The annual precipitation ranges from 5 to 40 inches.
Vegetation	The vegetation on these parcels ranges from sparse sagebrush and annual grasses to old growth Douglas-fir and ponderosa pine.
Ecological Condition	There are 447 acres of public land in climax stage; 7,053 acres in late seral; 10,320 in middle seral; 5,936 in early seral; and 57,812 unclassified.
Livestock	On these scattered tracts, there are 10,511 AUMs authorized for livestock grazing on 81,546 acres of public land.
Wildlife Habitat	See General Description (Wildlife).
Fish Habitat	See General Description (Fish).
Riparian Habitat	See General Description (Riparian Areas).
Forest Management	There are approximately 9,620 acres of BLM forestland. Of these, 7,066 acres are capable of responding to intensive multiple use forest management practices on a sustained yield basis.
Recreation	See General Description (Recreation). Six hundred forty (640) acres are closed to ORV use.
Cultural Resources	Cultural resources consist of early prehistoric and historic native American habitation, food procurement, tool manufacturing, and ceremonial activity areas and historic euroamerican farming, ranching, mining, and timber harvesting sites. These results are from an inventory of approximately 16% of the BLM lands. The preservation of these sites is moderate due to the effects of natural deterioration and past use disturbance.
Minerals	See General Description (Geology and Mineral Resources).

Chapter 3
Description of Alternatives Including the Preferred RMP

Introduction

Both the National Environmental Policy Act (NEPA) regulations and the BLM resource management planning regulations require the formulation of alternatives. Each alternative represents a complete and reasonable plan to guide future management of public land and resources. One alternative must represent no action. This means a continuation of present levels or systems of resource use. The other alternatives are to provide a range of reasonable and practical choices from those favoring resource protection to those favoring resource production.

The basic goal in formulating RMP alternatives is to identify various combinations of public land uses and resource management practices that respond to the planning issues. Alternatives for the resolution of most planning issues were formulated by placing varying degrees of emphasis on resource protection or resource production.

Alternatives for the resolution of the landownership adjustment issue do not lend themselves to protection or production emphases but instead were formulated by applying the interdisciplinary criteria for land retention and disposal. These criteria were derived from applicable laws, regulations, BLM policy statements, and public comments on earlier planning documents.

Based on the preferred means of resolving all issues, the changes proposed affect lands, resources, and programs administered by the BLM. Those lands, resources, and programs not affected by the resolution of any issue will be managed essentially as they are at present. Future changes would be permitted based on case-by-case analyses and in accordance with applicable laws, regulations, and policies.

Alternatives/Issues Eliminated from Detailed Study

The following potential alternatives and issues identified during scoping the EIS were eliminated from detailed study in this EIS.

No Grazing Alternative

A no grazing livestock alternative encompassing all of the public lands was considered by the interdisciplinary planning team and dropped from further consideration. A no grazing alternative was not developed for the following reasons:

1. The condition of range resources including ecological condition (Appendix E) watershed, and wildlife habitat do not warrant considering a planning area wide prohibition of livestock grazing.

2. Public comments received during the issue identification, criteria development, alternative selection, and draft RMP/EIS steps indicate a general acceptance of livestock grazing on public land, provided that such grazing is properly managed.

3. The highly fragmented pattern of public landownership would necessitate extensive fence construction at great expense to exclude cattle from public lands. An estimated 4,000 miles of fence would be needed at an estimated initial construction cost of $12,000,000. Such fencing would cause major unacceptable impacts: established patterns of wildlife movement would be disrupted; livestock movement among private lands would be disrupted; public access would be impaired; and considerable soil and vegetation disturbance would occur during construction.

As a result of public comments on the Draft RMP/EIS, a detailed analysis of a no grazing option for the I category allotments was conducted. The following analysis of this option does not reveal any significant impacts.

Each Improve category allotment was subjected to an analysis of the miles of fence required to close the allotment to grazing and the expenses involved to build and maintain these fences. Also considered was the feasibility of closing the BLM lands to grazing in terms of its impact to the livestock operator. Where BLM lands are well blocked and easily fenced, eliminating grazing would be considered feasible. Where the BLM parcels in an allotment are greatly intermingled with non-BLM lands, eliminating grazing would not be considered feasible. Fencing of these intermingled parcels would be prohibitively expensive in terms of fence construction and maintenance costs. In addition, the extensive fencing required may interrupt big game migration routes. Finally, fencing intermingled parcels would often cause severe problems to the livestock operator. The fences would make it extremely difficult to move the livestock among parcels of non-BLM lands. In addition, the fences would often isolate non-BLM parcels from stockwater sources on BLM or other non-BLM parcels, thus making the non-BLM parcels unusable for grazing. Elimination of grazing was considered feasible in 12 of the 16 I category allotments. These 12 are listed in Table 3-1. Typical examples of how feasibility of eliminating grazing was determined are discussed below.

Allotment No. 0806 in the Saddle Mountains

Management Area contains 9,558 acres of BLM lands intermingled in a "checkerboard" fashion with about 22,000 acres of non-BLM lands. It would require 68 miles of new fence construction to fence 20 separate parcels of BLM lands. At an average cost of $3,000 per mile, it would cost about $204,000 to build the fences. If annual maintenance of 5% of initial construction costs is assumed, annual maintenance would cost $10,200. The fencing would isolate 5 separate non-BLM sections totalling 3,200 acres from any other non-BLM lands and from any livestock water source. In order to use these parcels for grazing, the livestock operator would have to develop water sources on each parcel and move stock separately from one parcel to another. For these reasons, eliminating grazing would not be feasible in this allotment.

Allotment No. 0701 in the Similkameen Management Area consists of an irregularly shaped continuous block of BLM lands totalling 1851 acres. Eleven miles of new fence construction would be requirad to fence the BLM lands at an initial construction cost of about $33,000. Annual fence maintenance costs would be about $1,650. Fencing would not severely interrupt livestock movement among non-BLM lands. Although water sources on BLM lands would no longer be accessible, other non-BLM water sources would still be available. For these reasons, eliminating grazing would be feasible in this allotment.

Environmental Consequences

The predicted long-term effects upon ecological condition of eliminating livestock grazing in the 12 allotments considered are shown in Table 3-1. About 23% of the acres in these allotments would advance in ecological condition. Early seral rangeland would be slow to advance in succession, since few perennial plants are present. On most of the early seral rangelands, cheatgrass competition would severely retard succession.

Elimination of grazing would adversely affect the economic condition of the livestock operators involved. Eliminating grazing would improve upland and riparian habitat conditions on most allotments. Plant community succession would advance and habitat diversity and stability would increase. Wildlife species that would benefit most would include sagebrush-steppe dependent birds and small mammals. Species that utilize riparian habitats would increase in six allotments (0701, 0704, 0704, 0735, 0737, and 0778) and greater amounts of browse would remain available to wintering mule deer in three allotments (0704, 0707, and 0735).

The increased amount of fencing would hinder big game movement on some steep slopes, but it would have relatively small impact elsewhere. In some allotments fences would provide elevated perches for passerine birds and raptors.

It would require 102.3 miles of new fence construction for the 12 Improve category allotments at an estimated initial construction cost of $306,900 (see Tables 3-1 and 3-2). Estimated annual cost for maintenance of the new fences would be $15,345. To build these fences, considerable soil disturbance would be expected from vehicle transportation of materials.

Conclusion

Whereas ecological condition would advance on some 5,786 acres under Alternative C, elimination of grazing in these 12 I allotments would lead to an advance in ecological condition on an additional 1,477 acres. Initial construction costs for range improvements on these allotments would total about $207,300. This would be $99,600 less than the initial construction costs that would be needed to eliminate grazing on these allotments. The environmental effects of eliminating grazing on these allotments compared to the effects of Alternative C would be minor and would not justify the added expense.

Wilderness Issue

Wilderness is not discussed in the RMP because wilderness designations were the subject of a separate study and environmental analysis process that has preceded development of this proposed RMP. One area was identified as requiring additional analysis. This was the Chopaka Mountain Wilderness Study Area. This wilderness study area (WSA) was addressed in the draft "Chopaka Mountain Wilderness Study Plan Amendment and Environmental Assessment" published in December 1983. The final decision concerning designation or non-designation of the area as wilderness rests with Congress. Therefore, until a decision is made, this area will be managed in accordance with the Bureau's Interim Management Policy for lands under wilderness review. This policy precludes any activity in the wilderness study area that could impair the area's wilderness qualities.

The Juniper Dunes Wilderness Area which includes 7,140 acres were designated by Public Law 98-339 as wilderness. For additional information, see Table 3-10 for the proposed management direction for the Juniper Forest Management Area.

Energy and Minerals Issue

The effects of leasing public lands for the purpose of exploration and development of oil and gas resources on BLM administered lands have been addressed in a previous environmental assessment

Table 3-1 Existing and Expected Long-Term Ecological Conditions Under No Livestock Grazing in Feasible Allotments (Acres)

Management Area	Allotment Number	Condition Class	Existing Situation	No Grazing	Miles of Fence	Fence Construction cost ($)	Annual Fence Maintenance cost ($)
Similkameen	0701	Climax	0	0	11.0	33,000	1,650
		Late Seral	0	0			
		Middle Seral	0	206			
		Early Seral	1,375	1,169			
		Unclassified	476	476			
	0704	Climax	170	287	11.0	33,000	1,650
		Late Seral	583	1,487			
		Middle Seral	1,359	597			
		Early Seral	1,729	1,470			
		Unclassified	766	766			
	0705	Climax	0	23	18.0	54,000	2,700
		Late Seral	114	1,176			
		Middle Seral	1,085	48			
		Early Seral	322	274			
		Unclassified	801	801			
Conconully	0735	Climax	0	10	10.0	30,000	1,500
		Late Seral	50	234			
		Middle Seral	608	414			
		Early Seral	0	0			
		Unclassified	62	62			
	0737	Climax	0	0	1.3	3,900	195
		Late Seral	0	28			
		Middle Seral	535	507			
		Early Seral	0	0			
		Unclassified	25	25			
Douglas Creek	0778	Climax	365	953	0.0	0	0
		Late Seral	2,941	3,232			
		Middle Seral	929	76			
		Early Seral	175	149			
		Unclassified	995	995			
Saddle Mountains	0808	Climax	86	186	19.0	57,000	2,850
		Late Seral	1,001	1,660			
		Middle Seral	926	181			
		Early Seral	282	268			
		Unclassified	2,208	2,208			
Badger Slope	0540	Climax	1,634	1,811	18.0	54,000	2,700
		Late Seral	1,771	2,260			
		Middle Seral	669	52			
		Early Seral	326	277			
		Unclassified	408	408			
	0544	Climax	0	55	2.0	6,000	300
		Late Seral	553	574			
		Middle Seral	76	2			
		Early Seral	34	32			
		Unclassified	29	29			
North Stevens	0683	Climax	0	0	2.0	6,000	300
		Late Seral	0	0			
		Middle Seral		101			
		Early Seral	67:	573			
		Unclassified	237	237			
Juniper Forest	0536	Climax	0	0	4.0	12,000	600
		Late Seral	0	0			
		Middle Seral	0	247			
		Early Seral	4,942	4,695			
		Unclassified	96	96			
Scattered Tracts	0721	Climax	0	0	6.0	18,000	900
		Late Seral	0	526			
		Middle Seral	559	40			
		Early Seral	49	42			
		Unclassified	80	80			

Table 3-2 No Grazing Impacts and Cost Summary

Allotment	Total Acres	Acres Advancing	Miles Fence	Construction cost ($)	Annual Maintenance cost ($)
0701					
0704	4,607 1,851	1,397 206	11.0 11.0	33,000 33,000	1,650 1,650
0705	2,322	1,156	18.0	54,000	2,700
0735	720	204	10.0	30,000	1,500
0778	560	28	1.3	3,900	195
0808	4,503 5,405	1,493 873	19.0 0	57,000 0	2,850 0
0540	4,808	892	12.0	54,000	2,700
0544	692	133	2.0	6,000	300
0683	911	101		6,000	300
0536	5,038	247	4.0	12,000	600
0721	688	533	6.0	18,000	900
Total	**32,105**	7,263	102.3	306,900	15,345

and resolved in a decision record. Decisions based on this document precluded surface disturbance, occupancy, or leasing on those or certain specific tracts of federal land where potential for significant impacts were identified. Consequently, no significant impacts resulting from oil and gas exploration and development have occurred or are anticipated. Therefore, this issue will not be readdressed in this RMP. A synopsis of the "Proposed Federal Oil and Gas in Washington Environmental Assessment" is included as Appendix B. The complete oil and gas environmental assessment is available for review in the Spokane District Office and the Wenatchee Resource Area Office.

Alternatives Addressed in this RMP

Within the context of multiple use, sustained yield land management, the four alternatives that are presented here were developed to address these issues and to present a range of land management proposals. Appendix G reiterates the description of the goals and general objectives of these land use alternatives that were published in the Spokane Resource Management Plan Proposed Land Use Alternatives brochure, April 1984.

The major emphasis of each alternative is as follows:

1. Alternative A (Production)-This alternative emphasizes production of consumable resources, such as timber, minerals, livestock forage, and so forth.

2. Alternative B (Proposed RMP)-This alternative emphasizes a balanced combination of resource use intermediate between extreme production/consumption and protection/enhancement.

3. Alternative C (Protection)-This alternative emphasizes protection and enhancement of resources, such as wildlife habitat and non motorized recreation.

4. Alternative D (No Action)-This alternative is a continuation of existing, ongoing, and projected BLM activities that were planned before the RMP was started. It is a No Action alternative only in the sense that no action is planned to change the current direction of land management on the Spokane District.

Management Guidance Common Alternatives

The following management guidance is applicable to, and thus constitutes a part of, all alternatives considered in detail. It is presented here to avoid repetition.

Delineation of Management Units

The Spokane District has been divided into 12 specific management areas: eight are located in the Wenatchee Resource Area and four in the Border Resource Area. A 13th management area consisting of scattered tracts of public land outside the 12 areas will also be addressed. These management areas are displayed on Maps 2 and 3. Each management area is described in detail in Chapter 2.

Management unit boundaries separate areas which, because of different resource values and/or

management opportunities or constraints, require different management guidance. The boundaries of the management areas are not absolutely fixed and may be adjusted in the future on the basis of land tenure adjustments or additional information gained during the formulation of activity plans.

Each management unit has one set of management guidelines for each alternative, although, for most units, some management guidelines may be identical for two or more alternatives. Management unit guidelines, along with the resource area wide guidance common to all alternatives, define what the total management direction is and how it would be implemented.

Soil, Water, and Air Program

Soil, water, and air resources will continue to be evaluated on a case-by-case basis as a part of project level planning. Such an evaluation would consider the significance of the proposed project and the sensitivity of soil, water, and air resources in the affected area.

Common stipulations that are attached to projects include seeding a variety of grasses for erosion control on disturbed areas including road construction, timber harvest, and any other land disturbing activities. These and other stipulations would be attached as appropriate to ensure compatibility of projects with soil, water, and air resource management. Water quality would be maintained or improved in accordance with state and federal standards, including consultation with state agencies on proposed projects that may significantly affect water quality. Management actions on public land would be designed to protect water quality and quantity.

Mineral Resources

Locatable Minerals

All locatable mineral operations on BLM administered lands are covered by 43 Code of Federal Regulations (CFR) 3809 and 3802 regulations. They provide for a minimum review period of 15 calendar days in which to review proposed mining operations. Depending on the amount of disturbance and identified environmental concerns, longer periods of review (up to 120 days or longer if the BLM has provided written justification) can be taken by the BLM. At the end of the review period, the BLM can establish mitigating measures for the operator to follow. Compliance checks are done periodically throughout the life of the operation. Notices of non-compliance would be issued where operations fail to prevent undue and unnecessary degradation of the environment. In such instances the BLM would require complete suspension of operations until compliance errors or violations are corrected.

Oil, Gas, and Geothermal Leasing

All energy leasable minerals (oil, gas, and geothermal) fall under regulations in 43 CFR 3100 and 3200. These are supplemented by Notices To Lessees (NTL) and Geothermal Resource Operational Orders (GRO). Notices of Intent for seismic operations are submitted prior to entry upon the land. These operations are covered under the District's oil and gas EA which has identified areas of environmental concern. (See Chapter 2 Mineral Resources.) Under these regulations, the BLM requires a cultural evaluation prior to entry. For major exploration, such as deep wells, an Application for Permit to Drill will be filed by the lessee and/or operator. The BLM has 120 days for review of the application. Upon completion of the review period, the BLM establishes the necessary mitigating measures as identified by a site-specific EA and, after consultation with the operator, may make them part of the permit. General stipulations (such as identifying cultural resource potential, endangered, threatened, or sensitive species clearance) are established at the time of lease issuance.

Salable Minerals

Salable minerals including common varieties of sand, gravel, stone, pumice, and clay would be sold under all alternatives. The salable mineral program involves numerous existing quarries where sources of rock are used for road surfacing material and various types of fill. New quarry sites may be developed as needed, consistent with protection of other sensitive resources.

There is an active interest in numerous recreational minerals. These are minerals collected for ornamental purposes, such as agate, petrified wood, and invertebrate fossils. All public lands are open to recreational mineral collection unless the specific minerals are subject to prior rights, such as mining claims.

Lands Program

Land Tenure Adjustments

The Land Tenure Adjustment planning criteria which is common to all alternatives in this RMP was primarily developed through a special internal study conducted by the BLM in 1982. This study focused

primarily on the management of public lands in the State of Washington. The criteria were also published in the various RMP documents for public review and comment.

These criteria involve a mixture of diverse resource program thrusts that will allow the Spokane District to focus attention in twelve management areas where maximum fiscal operational efficiencies and public benefits can be accomplished. These program thrusts are summarized and outlined as follows:

- Retain and manage the BLM administered public lands in twelve management areas. The nine areas are the Similkameen, Conconully, Jameson Lake, Douglas Creek, Saddle Mountains, Rattlesnake Hills, Badger Slope, Rock Creek, North Ferry, North Stevens, Huckleberry Mountains, and Juniper Forest Management Areas.

- Continue the existing land exchange program, with the goal of consolidating the BLM administered landownerships within the twelve management areas.

- Continue entering into any practical cooperative management agreements with other federal and state governmental agencies. The goal here is to manage the scattered and isolated parcels situated outside designated management areas in the most efficient manner.

- Continue to subject public land parcels outside the nine designated management areas upon which no unique or important resource values have been identified to exchange following site-specific environmental analysis of each parcel.

- Continue cooperating with other federal, state, and local governmental agencies, as well as appropriate private organizations, in development of needed recreation and other public purpose projects.

In addition to this policy guidance, additional criteria that will be used in categorizing this public land for either retention or disposal, as well as identifying acquisition opportunities and priorities, are summarized below. This list is not considered all-inclusive, but it represents the major factors that will be evaluated. The criteria that will be used include the following:

- public resource values that will benefit and enhance the range management, wildlife habitat, watershed, recreation, forestry, mineral, cultural resource, endangered, threatened, or sensitive plant and animal, and wilderness programs;

- legal as well as physical accessibility of the land for public use;

- amount of public monetary investments in facilities or improvements on the public land and the potential for recovering those investments;

- difficulty or costs in time and money in the effective managerial administration of the lands;

- suitability or desirability of the land for management by another governmental agency;

- significance of any subsequent land use decisions in stabilizing, enhancing, or hindering existing or potential businesses, social and economic conditions, and/or life-styles;

- need for future mineral development;

- encumbrances to the land, including, but not limited to, Recreation and Public Purposes and small tract leases and/or other leases and permits, rights-of-way, and withdrawals;

- consistency of the decision with cooperative agreements and plans or policies of other agencies;

- suitability and need for change in landownership or use for purposes including, but not limited to, community expansion or economic development, such as residential, commercial, industrial, or agricultural (other than grazing) development; and

- state and local governmental requests and recommendations for retention or disposal of BLM administered public land.

The following major land transfer actions are listed in their order of preference:

1. State Lieu and State Grant selections,

2. State Exchanges,

3. Private Exchanges,

4. Recreation and Public Purpose patents,

5. BLM/U.S. Forest Service jurisdictional transfers (These are minor jurisdictional transfers usually involving limited acreages; it does not refer to the proposed BLM/Forest Service interchange that is presently under consideration.),

6. Withdrawals to other federal agencies,

7. Public sales,

8. Indian allotments, or

9. Desert land entries.

Public land within the twelve management areas

(see maps 2 and 3) will remain in public ownership and continue to be administered by the Bureau of Land Management. Transfers to other agencies will continue to be considered where additional public benefits will be derived or where improved management efficiency will result. Any site-specific adjustment decisions will be based on the application of the criteria stated above, and each situation will be evaluated on its own merits.

Public land to be sold must meet the following criteria derived from Section 203 of the Federal Land Policy and Management Act: (1) such land must be difficult and uneconomic to manage as part of the public lands and must not be suitable for management by another federal department or agency; (2) such land must have been acquired for a specific purpose and must no longer be required for that or any other federal purpose; or (3) such land must be disposed to serve important public objectives that can only be achieved prudently or feasibly if the land is removed from public ownership and if these objectives outweigh other public objectives and values that would be served by maintaining such land in federal ownership.

Public land will only be sold when the following criteria are met: (1) it is required by national policy; (2) it is required to achieve disposal objectives on a timely basis and where disposal through exchange would cause unacceptable delays; (3) it is required that disposal through exchange is not feasible; or (4) it is required to facilitate title clearance.

The preferred method of selling public land would be by competitive sealed bidding by qualifying purchasers. However, modified competitive bidding or direct sale procedures may be used when necessary to avoid jeopardizing an existing use on adjacent land or to avoid dislocation of existing public land users. No land will be sold for a monetary amount less than fair market value, as determined by appraisal.

Trespass Abatement

Existing unauthorized uses of public land would be resolved either through termination, authorization by lease or permit, or sale. Decisions would be based on consideration of the following criteria: (1) the type and significance of improvements involved; (2) conflicts with other resource values and uses, including potential values and uses; and (3) unauthorized use being intentional or unintentional.

Most instances of unauthorized use would generally be terminated immediately. However, temporary permits may be issued to provide short-term authorization, unless the situation warrants immediate cessation of the use and restoration of the land. Highest priority will be given to abatement of the following unauthorized uses: (1) where prompt action can minimize damage to public resources and associated costs; (2) where delay may be detrimental to authorized users; (3) where special areas, sensitive ecosystems, and resources of national significance are involved; and (4) where malicious or criminal activities are involved. In most situations, the United States will collect back trespass damages for the unauthorized use period.

Withdrawal Review

Review of other agency withdrawals would be completed by 1991. These withdrawals would be continued, modified, or revoked. Upon revocation or modification, part or all of the withdrawn land may revert to BLM management. Current BLM policy is to minimize the acreage of public land withdrawn from mining and mineral leasing, and, where applicable, to replace existing withdrawals with rights-of-way, leases, permits, or cooperative agreements over the next six years. Approximately 140,000 acres of land administered by other federal agencies will be involved in this withdrawal review.

Utility and Transportation Corridors

All public land would be available and open for utility and transportation corridor development except the Hot Lakes RNA/ACEC, the Brewster Bald Eagle and Juniper Forest ACECs, the Chopaka Mountain WSA, and the Juniper Dunes Wilderness area. All existing corridors will be designated without further review. Corridor widths vary but are a minimum of 200 feet. Additional corridors would be considered on a case-by-case and site-specific basis. Applicants would be encouraged to locate new facilities within existing corridors to the extent possible.

The remaining ACECs would be designated as avoidance areas. Rights-of-way in those ACECs would only be permitted after all other alternative routes have been explored and if the corridor's development or existence would not result in any unmitigable impacts to the resources for which the designations were designed to protect. All known proposals, as identified by the Western Utility Group, have been reviewed, and no opportunities for corridor development have been overlooked.

Recreation Program

Special Management Areas

The ten areas nominated for ACEC designation in Chapter One would be designated upon adoption of this RMP. Management plans for these ACECs would be completed within two years after the RMP is adopted (see Table 3-3).

Table 3-3 Special Management Areas

Status	Area Name	Value	County Located	Nominee
Proposed for Designation	Hot Lakes	Merimictic Lake	Okanogan	BLM
	Brewster Roost	Bald Eagle Winter Roost	Douglas	BLM
	Colockum Creek	Fed. Cand. T or E & S species	Chelan	Nature Conservancy
	Rock Island Canyon	5 Fed. Cand. T or E & S species	Douglas	BLM
	Yakima River Cliffs & Umtanum Ridge	Fed. Cand. T or E & S species	Yakima, Kittitas	BLM, Nature Conservancy
	Catherine Creek & Rowland Lake	5 State Proposed Threatened or Sensitive Plants & 1 Federal Candidate Plant	Klickitat	Nature Conservancy
	McCoy Canyon	2 Federal Candidate Plants	Benton	BLM
	Earthquake Point	Federal Candidate Plant	Chelan	Nature Conservancy
	Roosevelt	Federal Candidate Plant	Klickitat	Nature Conservancy
	Sentinel Slope	Federal Candidate Plant	Grant	BLM

As additional areas are identified as needing protection, appropriate protection measures will be implemented until such a time when formal designation could be made in an RMP amendment.

Off-Road Vehicles (ORV)

It is the BLM Policy that all public lands should be open to ORV use unless a compelling reason is identified to restrict or eliminate ORV use. Public land within areas identified as open to vehicle use would generally remain available for such use without restrictions. Exceptions may be authorized and implemented at any time after consideration of the following criteria: (1) the need to promote user enjoyment and minimize use conflicts; (2) the need to minimize damage to soil, watershed, vegetation, or other resource values; (3) the need to minimize harassment of wildlife or significant degradation of wildlife habitat; and (4) and the need to promote user safety.

Public land within areas identified as restricted to vehicle use would generally receive priority attention during planning. Specific roads, trails, or portions of such areas may be closed seasonally or yearlong to all or specified types of vehicle use. Maps 4 and 5 delineate ORV designations (see Table 3-4).

Proposed Resource Management Plan ORV designations, Table 3-4, are shown on Maps 4 and 5 for all BLM lands in the 12 Management Units. The 640 acres of BLM land closed to ORVs in the Scattered Tracts Management Area are the existing

Table 3-4 Proposed Resource Management Plan ORV Designations

Management Area	Priority for Implementing ORV Designations	Acres Open	Acres Restricted Seasonally to Designated Roads and Trails	Acres Permanently Restricted to Designated Roads and Trails	Acres Closed to ORV Use
Similkameen	3	16,204	1,270	5,828	5,598[1]
Conconully	7	8,830	2,670		
Jameson Lake	6	800		2,860	
Douglas Creek	5	12,380	5,040	4,580	
Saddle Mountains	4	4,310		19,990	
Rattlesnake Hills	N.A.	24,735			
Badger Slope	2			7,680	40
Rock Creek	8			6,427	
North Ferry	N.A.	13,000			
North Stevens	N.A.	13,205			
Huckleberry Mountains	N:A:	11,269			
Juniper Forest	1	2,640		7,340	7,140[2]
Scattered Tracts	N.A.	123,137			640
Total		230,500	8,980	54,705	13,418

[1]Includes the 5,518 acre Chopaka Mountain Wilderness Study Area
*Includes the 7,140 acre Juniper Dunes Wilderness Area

designated Columbia River and Yakima River ACECs shown on Map 2.

Visual Resources

Visual resources would continue to be evaluated as a part of activity and project planning. Such evaluation would consider the significance of the proposed project and the visual sensitivity of the affected area. Stipulations would be attached as appropriate to assure compatibility of projects with management objectives for visual resources.

Cultural Resources

Management of cultural resources emphasizes protection and preservation. To meet these objectives, the Department of the Interior has issued instructions setting forth preservation and protection guidelines.

For existing cultural properties, a determination of significance would be made prior to any recommended project being implemented. In planning or project areas where resource knowledge is limited or unknown, both existing data and field inventories would be undertaken to identify the resources and evaluate the cultural value of each. Prior to any activity plan or project that may adversely affect these properties, the State Historic Preservation Office (SHPO) would be consulted in the determination of effect upon the property. For any site within the project area determined eligible for the National Register of Historic Places and determined to be adversely affected by the activity plan or project, mitigation measures would be undertaken. These may include the following:

1. adjusting of the project boundaries to avoid impacting the sites;

2. mapping, photo documenting, and drawing the cultural resource before proceeding with project implementation;

3. adopting methods or techniques that would minimize disturbance to the site and its environmental setting;

4. removing and relocating the cultural property (historic) to another appropriate location after documentation of the property and the development of a management plan to maintain the historic value of the property; or

5. excavating the archaeological properties with a goal of preserving the values of the properties.

The inventory or mitigation would be directed by in-house cultural resource specialists or through contracts with individuals or institutions meeting professional standards. Management plans would be developed for all valuable National Register properties and others determined to need comprehensive management.

Wildlife and Fish Habitat Management Program

General

Fish and wildlife habitat management would continue to be evaluated on a case-by-case basis as a part of project level planning (for example: timber sale plans, grazing management plans, recreation management plans, rights-of-way applications, and so forth). Evaluations would consider the significance of the proposed projects and the sensitivity of fish and wildlife habitats in the affected areas. Stipulations would be attached as appropriate to assure compatibility of projects with management objectives for fish and wildlife habitat. Protective riparian fences would be constructed, and other habitat improvement projects would be implemented where necessary to stabilize and/or improve unsatisfactory or declining wildlife habitat condition. Such projects would be identified through habitat management plans or coordinated resource management activity plans.

Riparian Habitat

Management actions within riparian habitat areas and flood plains would include measures to preserve, protect, and restore natural functions, as defined by Executive Orders 11988 and 11990. Management techniques would be used to minimize the degradation of stream banks and the loss of riparian vegetation. Bridges and culverts would be designed and installed to maintain adequate fish passage. Roads and other facilities would be designed to avoid riparian areas to the extent that it is practicable. Riparian habitat needs would be taken into consideration when developing livestock grazing systems and pasture designs.

A supplemental inventory evaluation of riparian habitat would be conducted on public lands within three (3) years from the time the RMP is adopted. Vegetation potential and current condition would be assessed for all areas, and management guidelines and objectives would be developed. All high value and high potential habitats in less than good condition would be managed through implementation of activity plans and projects (such as construction of protective fencing) to allow restoration of native vegetation, increase of plant vigor, and general habitat condition improvement.

Seasonal Restrictions

Seasonal restrictions would continue to be applied to mitigate the impacts of human activities on important seasonal wildlife habitat. Some of the major types of important seasonal wildlife habitat are crucial deer winter range, bighorn sheep winter range and lambing grounds, mountain goat winter range and kidding grounds, sage and sharptail grouse leks, and raptor nesting habitat (see Map 3).

Endangered, Threatened, or Sensitive Species Habitat

Prior to any vegetative or ground manipulation projects, the BLM requires a survey of the project site for plants and animals listed or proposed for listing as threatened or endangered, or its critical habitat.

For sensitive species, it is Bureau policy to ensure that the crucial/essential habitats of sensitive species will be considered (managed and/or conserved) in all management decisions to minimize the need for future listing by either federal or state governments. Sensitive species will be accorded the same management consideration as though they were officially listed pursuant to the Endangered Species Act of 1973, unless it is determined by the State Director, on a case-by-case basis, that verified data concerning a species is adequate to allow the planned action. It is our policy to maintain populations of sensitive species until such time as a final determination on the status of each species is made by the U.S. Fish and Wildlife Service (USFWS).

No activities would be permitted in habitat of endangered, threatened, or sensitive species that would jeopardize the continued existence of such species. Every effort would be made to modify, relocate, or abandon the activity in order to obtain "a no effect determination by USFWS." If the BLM determines that an activity cannot be altered or abandoned, consultation with the USFWS would be initiated (50 CFR 402; Endangered Species Act of 1973, as amended).

Whenever possible, management activities in habitat for endangered, threatened, or sensitive species would be designed specifically to benefit those species through habitat improvement.

The Washington State Department of Game (WSDG), Department of Natural Resources Washington Natural Heritage Program (DNR-WNHP), and the USFWS would be consulted prior to implementing projects that may affect habitat for state listed endangered, threatened, or sensitive species.

Terrestrial Wildlife Habitat

Sufficient forage and cover would be provided for wildlife on seasonal habitat to maintain existing population levels or target population levels as established by the WSDG. Forage and cover requirements would be incorporated into allotment management plans and would be specific to areas of primary wildlife use.

Range improvements generally would be designed to achieve both wildlife and range objectives. Existing fences may be modified, and new fences would be built to allow wildlife passage. Water developments generally would not be established for livestock where significant conflicts over vegetation would result. Water would be provided in allotments where possible during seasonal periods of need for wildlife.

Vegetative manipulation projects would be designed to minimize impact on wildlife habitat and to improve it whenever possible. The WSDG would have the opportunity to review all proposed action involving vegetation manipulation projects.

Management actions within riparian areas would include measures to preserve, protect, and, if necessary, restore their natural functions as mandated by Executive Orders 11988 and 11990. Management techniques would be used to minimize the degradation of stream banks and the loss of riparian vegetation. Bridges and culverts would be designed and installed to maintain adequate fish passage. Roads and other linear facilities would avoid riparian areas to the extent that it is practicable.

Riparian habitat needs would be taken into consideration in developing livestock grazing systems and pasture designs.

Wildlife reintroductions and fish stocking proposals would be evaluated, and recommendations would be made to the WSDG. The BLM policy requires that a Habitat Management Plan (HMP) be prepared prior to any wildlife reintroduction.

Range Program

Allotment Categorization

Through a process called Selective Management, all grazing allotments in the RMP area have been assigned to one of three management categories based on present resource conditions, potential for improvement of resource conditions, economic feasibility of investments in range improvements, resource conflicts, and the landownership pattern as it affects the BLM manageability.

Selective management is an ongoing process

whereby allotments are categorized into three basic groups. The purpose of the categorization process is to prioritize allotments so management efforts and funding could be directed to the areas of greatest need. The three categories are I (Improve), M (Maintain), and C (Custodial). The category name refers to the management objective. The objective for the I category is to improve unsatisfactory conditions; for the M category, to maintain satisfactory conditions; and for the C category, to manage in a custodial manner.

The following criteria pertain to the three identified categories, although allotments within each categhory would not have to meet all the criteria to be managed according to the category objectives:

Maintain Category Criteria

- Present range condition is satisfactory.
- Allotments have moderate or high resource production potential and are producing near their potential (or trend is moving in that direction).
- No serious resource use conflicts/controversies exist.
- Opportunities may exist for positive economic return from public investments.
- Present management appears satisfactory.

Improve Category Criteria

- Present range condition is unsatisfactory.
- Allotments have moderate to high resource production potential and are producing at low to moderate levels.
- Serious resource use conflicts/controversies exists.
- Opportunities exist for positive economic return from public investments.
- Present management appears unsatisfactory.
- Managability is high because public lands are the dominant acreage in the allotment, or cooperation of intermingled landowners in management has been obtained.

Custodial Category Criteria

- Present range condition is not a factor.
- Allotments have low resource production potential, and are producing near their potential.
- Limited resource use conflicts/controversies may exist.
- Opportunities for positive economic return on public investment do not exist or are constrained by technological or economic factors.
- Present management appears satisfactory or is the only logical practice under existing resource conditions.
- Managability is limited because public lands are intermingled with much larger acreages of non-public lands. Cooperation of intermingled landowners in management has not been obtained.

The I allotments are usually areas which have a potential for resource improvement where BLM controls enough land to implement changes. Other I allotments have ongoing intensive management planning efforts which are being cooperatively developed by all landowners in the allotment.

The M allotments are usually those where satisfactory management has already been achieved through conservation plans, coordinated resource management plans, or cooperative agreements with adjoining landowners.

Most of the C allotments are unfenced, small tracts which are intermingled with much larger acreages of non-BLM rangelands, thus limiting the BLM's management opportunities.

During the analysis of the management situation of these lands, it became evident that a portion of the Custodial Allotments has a potential for improved management to modify ecological conditions for livestock forage, wildlife habitat, and/or watershed protection. However, the costs of fencing these parcels and developing water so that they can be intensively managed for livestock forage are prohibitively high. These allotments do have a potential for more intensive management if cooperation with the grazing lessee and other landowners in the management of all lands in the allotment can be obtained or if BLM can gain sufficient manageability by acquiring land within the allotment through land exchanges. Once cooperation or manageability is attained, those respective allotments may move to the I category. Therefore, the Custodial category was further divided into Cl and C2 allotments. The Cl designation will allow, through increased cooperation or improved manageability through land acquisition, for improved management and BLM investment in range improvements. Allotments categorized as C2 would remain under custodial management. (See Table 3-5 for a summary of Allotment Categorization and Appendix E for Allotment Categories.)

Table 3-5 Summary of Allotment Categorization

Category	Number	Acres	Existing Authorized Use AUMs
Maintain	**36**	**31,312**	**4,267**
Improve	**16**	**50,385**	**5,691**
Custodial Cl	79	**88,776**	**11,728**
Custodial C2	259	**62,336**	**8,387**
Unallotted	0	74,794	0
Totals	**390**	**307,603**	**30,073**

Implementing Changes in Allotment Management

Activity plans are commonly used to present, in detail, the types of changes required in an allotment and to establish a schedule for implementation.

Range activity plans can be either Allotment Management Plans (AMPs) or Coordinated Resource Management Plans (CRMPs).

AMPs are developed to establish grazing systems which specify season of use, numbers of livestock, and range improvements and treatments designed to meet resource objectives. In some allotments, production increases may be realized only through improved grazing systems.

CRMPs are used in areas where there are multiple landowners (private, county, state, and federal) and/or where there may be concerns/problems for which an interdisciplinary (range, forestry, wildlife, watershed) approach would provide better technical assistance. Both of these types of management plans (AMPs and CRMPs) are used to document resource objectives and supply technical direction to achieve those objectives such as reducing soil erosion, improving deer winter range, increasing livestock forage, and so forth.

The Improve category allotments have the highest priority for AMPs or CRMPs and range improvements. These plans would be completed for the Improve category allotments within five years from the time the RMP is adopted. The associated range improvements would be made as funding permits. The proposed range improvements under the proposed RMP for each I category allotment have been subjected to an analysis of benefits and costs (see Appendix H). CRMPs would also be proposed for Maintain and Cl allotments where cooperation with intermingled landowners or improved management through land acquisition can be obtained. Other Custodial allotments would have low priority for public funding. Allotments having AMPs or CRMPs would incorporate various combinations of grazing treatments.

Actions set forth under the activity plans that affect the environment would be analyzed. During the analysis, the proposal may be altered or completely revamped to mitigate adverse impacts.

Livestock Use Adjustments

Livestock use adjustments are most often made by changing one or more of the following: the kind or class of livestock grazing an allotment, the season of use, the stocking rate, or the pattern of grazing. For each of the four alternatives presented in this RMP, target stocking rates have been set for each allotment in the Improve category (see Table 3-8). Stocking levels for the M and C category allotments would remain the same as existing authorized use under all alternatives. The Improve category allotments contain sufficient percentages of BLM administered lands to warrant consideration for investment in range improvements and management systems or currently have ongoing cooperative allotment management planning.

authorized use, ecological site mapping data, and Soil Conservation Service site guides have been analyzed to estimate the target stocking rates. Under all alternatives except Alternative D (shortand long-term) and Alternative B (short-term), target livestock stocking rates have been adjusted when necessary to provide forage to meet the requirements of Washington State Department of Game population targets for wintering deer on crucial deer winter ranges.

In reviewing the target stocking rate figures and other recommended changes, it is emphasized that the target AUM figures are not final stocking rates. Rather, all livestock use adjustments would be implemented through documented mutual agreement or by decision. When adjustments are made through mutual agreement, they may be implemented once the Rangeland Program Summary has been through a public review period. When livestock use adjustments are implemented by decision, the decision would be based on operator consultation, range survey data, and monitoring of resource conditions. Current BLM policy emphasizes the use of a systematic monitoring program to verify the need for livestock adjustments proposed on the basis of one-time inventory data.

In order to gain reliable livestock use level data, monitoring studies would be established on those Maintain and Improve allotments where none presently exist and in Cl allotments upon initiation

Table 3-6 Summary of Projected Grazing Use by Alternative' - I Allotments AUMs[2]

Management Area	Allotment Number	Alternative A Commodity Production		Alternative B Preferred		Alternataive C Protection		Alternative D No Action	
		Short-Term[3]	Long Term4	Short-Term	Long-Term	Short-Term	Long Term	Short-Term	Long-Term
Similkameen	0701	179	191	246	137	77	81	246	246
	0704	838	838	708	668	337	379	708	708
	0705	344	344	283	281	147	176	283	283
	0707	346	366	624	271	5	16	624	624
Subtotal		1,707	1,739	1,861	1,357	566	652	1,861	1,861
					73				
Conconully	0735	79	79	144	118	34	44	144	144
	0737	157	157	112		67	70	112	112
Subtotal		236	236	256	191	101	114	256	256
	0778	631	635	449	474	270	284	449	449
	0806	1,307	1,388	1,120	1,173	560	674	1,120	2,016
	0808	412	423	468	336	176	197	468	468
Subtotal		1,719	1,811	1,588	1,509	736	871	1,588	2,484
Badger Slope	0540	1,187	1,236	276	908	509	526	276	276
	0544	167	167	64	125	71	75	64	64
Subtotal		1,354	1,403	340	1,033	580	601	340	340
	0683	105	105	152	79	45	47	152	152
	0535	224	327	353	168	96	97	353	353
	0536	346	273	483	264	148	155	483	285
Subtotal		570	600	836	432	244	252	836	638
Scattered Tracts Okanogan Co.	0721	127	127	69	120	57	74	69	89
	0846	83	83	140	62	36	38	140	140
Subtotal		210	210	209	182	93	112	209	209
Grand Total		6,532	6,739	5,691	5,257	2,635	2,933	5,691	6,389

[1]These estimates are for analyses purposes only. Future changes in carrying capacity would only be implemented after monitoring.
[2]Estimated grazing capacities are displayed in Appendix B.
[3]Short-term is defined as the 10 year period needed to implement the Allotment Management Plans.
[4]Long-term is defined as beyond those 10 years.

of cooperative management (Appendices E and I). The allotment monitoring studies would be done in concert with the objectives of the individual allotment plans. If any adjustments should occur in livestock use, they would be accomplished within current regulatory guidelines.

Monitoring would also be used to measure the changes brought about by new livestock management practices and to evaluate the effectiveness of management changes in meeting stated objectives.

The federal regulations that govern changes in livestock use levels provide specific direction for livestock use adjustments implemented by decision (43 CFR 4110.3-1, 43 CFR 4110.3-2, and 43 CFR 4110.3-3). The regulations provide that permanent increases or decreases in livestock use shall be implemented by decision over a 5-year period unless a documented agreement can be reached to implement the change in less than 5 years. If data acceptable to the authorized officer to support an initial reduction are not available, additional data would be collected through monitoring. Adjustments based on the additional data shall be implemented by agreement or decision that would initiate the 5-year implementation period.

It is anticipated that five years of additional data collection through monitoring would be required to obtain sufficient information to initiate the five-year implementation period.

Livestock Management of M and C Category Allotments

Management would remain constant through all alternatives for custodial (C) category allotments. Nearly all C category allotments consist of one or more isolated small tracts ranging from 40 to 640 acres in size. These are intermingled and grazed in conjunction with much larger acreages of non-BLM lands. Very few of these tracts include livestock watering facilities. For most of these tracts, it would be necessary to fence them and develop a water source to implement intensive management without the cooperation of the adjoining landowners. One mile of fence would usually be required to fence a 40 acre tract. Initial construction costs would typically be $3,000 for a mile of fence and $10,000 to develop a livestock water well for a 40 acre tract. A 640 acre tract would usually require at least four (4) miles of fence at $12,000 and a water well at $10,000. Unless a critical resource value was imminently threatened by existing grazing practices, it would not be reasonable for the BLM to implement intensive livestock management at these costs. Available information have not identified critical resource values which are threatened by livestock grazing on C category allotments. Since management of the C category allotments is dependent upon the management of non-BLM lands, the BLM efforts to revise livestock management would have no significant impact under any alternative in these allotments. The BLM would, however, continue to actively seek improved management of the CI category allotments through Coordinated Resource Management Plans (CRMPs), Soil Conservation Service (SCS) Plans, and Cooperative Agreements with adjoining landholding agencies. The BLM and SCS have been providing and would continue to provide leadership for Washington State in development of CRMPs. In addition, the BLM would pursue land exchanges to block up lands within the nine designated Management Areas. As the BLM lands are blocked up and become more manageable, many of the C category allotments and adjoining newly acquired lands would be reclassified into the I (Improve) category. In addition, the BLM would monitor livestock use and trend in range condition prior to renewal of grazing leases for C category allotments. Such monitoring would identify potential for improved management and/or critical resource values which are being threatened by livestock grazing, causing the BLM to reclassify the allotment into the Improve category.

Management would also remain constant through all alternatives for Maintain (M) category allotments. Available information indicate that existing management through Soil Conservation Service Conservation Plans, Coordinated Resource Management Plans, or Cooperative Agreements with adjoining landholding agencies is satisfactory, and no critical resource values are threatened by livestock grazing. In a similar pattern to the C category allotments, M category allotments are intermingled with much larger acreages of non-BLM lands. Fencing and water development costs would make it unreasonable for the BLM to change livestock management in these allotments. Since management of the M category allotments is dependent upon the management of non-BLM lands, the BLM efforts to revise livestock management would have no significant impact under any alternative upon these allotments. The BLM would annually monitor livestock use of these allotments and monitor forage utilization and trend in range condition every third year as a minimum. The monitoring studies would allow the BLM to determine if livestock management is continuing to achieve objectives and would identify critical resource values being threatened by livestock grazing. If objectives are not being met, the BLM would take the lead in bringing the cooperating land managing entities together to revise livestock management, and the allotment would be recategorized to Improve category. If cooperation in

changing management could not be achieved where critical resource values are threatened, fencing to protect the BLM parcels may be required. Land exchanges to block up lands within the Management Areas would strengthen the BLM manageability for allotments in these Management Areas.

Following are descriptions of three typical M category allotments. Allotment 0815 contains 2,427 acres of public land comprising 13% of the allotment in 6 discontinuous pieces. The allotment is well managed under a Soil Conservation Service Conservation Plan and is mostly in climax and late seral ecological condition (see Appendix E). Allotment 0834 contains 1,680 acres of public land comprising 14% of the allotment in 6 discontinuous pieces. This allotment is also well managed under a Soil Conservation Service Conservation Plan and is mostly in climax and late seral ecological condition (see Appendix E). Chelan Butte Allotment 0760 contains 2,302 acres of public land comprising 35% of the allotment in 5 discontinuous pieces. The area is cooperatively managed with the Washington State Department of Game through a Cooperative Agreement for enhancement of upland game bird habitat.

Grazing Systems

Grazing systems would be implemented under all alternatives within I category allotments except under Alternative D, but the type of system would vary in accordance with the objectives of the Resource Management Plan. The type of system to be implemented would be based on consideration of the following factors: (1) resource characteristics, including vegetation potential and water availability; (2) operator needs; and (3) implementation costs.

Typical grazing systems available for consideration and the general effects of each are described in Appendix J.

Range Improvements and Land Treatments

Range improvements and/or land treatments would be implemented under all alternatives. The purposes of typical range improvements and treatments are described below. Typical design features and construction practices for range improvements and treatments are discussed in Appendix K. The estimated extent of such practices are summarized by management alternative in Table 3-7, and Appendix K shows the estimates by I allotments. The final extent, location, and timing of implementation would be based on the allotment-specific management objectives adopted through the resource management planning process, interdisciplinary development and review of proposed actions, operator contributions, and BLM funding capability.

Table 3-7 Summary of Proposed Range Improvements for I Category Allotments

	Alternatives			
	A	B	C	D
		Proposed		
Improvement	Production	RMP	Protection	No Action[1]
Seeding (acres)	4,701	944	0	0
Brush Control (acres)	228	167	0	
Fence (miles)	32	32	25	7.5
Springs (No.)	15	15	14	
Pipeline (miles)	8	8	8	1.5
Catchments (No.)	3	3	3	0
Cattleguards (No.)	6	6	6	0
Stock Tanks (No.)	31	25	24	4
Wells (No.)	4	1	1	0
Initial Estimated Cost ($000)	424	287	236	42

[1] The projects planned under the No Action Alternative are limited to those identified under existing approved AMPs or CRMPs.

All allotments in which range improvements funds are to be spent would be subjected to an economic analysis. The analysis would be used to develop a final priority ranking of allotments for the commitment of the range improvement funds that are needed to implement activity plans. The highest priority for implementation generally would be assigned to those improvements for which the total anticipated benefits exceed costs.

Fencing

Intensive and effective management of rangelands is dependent upon adequate fencing. Fencing would improve livestock distribution and permit grazing systems which would allow deferment, rest, or exclusion of grazing from rangelands.

Water developments may lengthen the season of use, achieve a more even distribution of livestock grazing, make available more rangeland for grazing, and permit grazing systems which would allow periods of rest or deferment of livestock grazing. Water developments would include, but would not be limited to, wells, reservoirs, springs, and pipelines.

Land Treatments

Two types of land treatments are proposed: brush control and seeding. Placement of land treatments would be constrained by wildlife needs, visual resources, cultural resources, and threatened or endangered species. Land treatments are used to achieve vegetation related objectives, for example, increased livestock forage, improved wildlife habitat, and increased vegetation cover to control soil erosion, where management practices alone cannot achieve these objectives within the target time frames. No land treatments are proposed within the Juniper Dunes Wilderness Area.

Noxious

Infestations of noxious weeds are known to occur on some of the BLM lands. The most common noxious weeds are diffuse knapweed, spotted knapweed, Russian knapweed, and yellow star thistle. Methods of controlling would be proposed and subjected to site-specific environmental analyses. Control methods would not be considered unless the weeds are confined to the BLM lands or efforts are coordinated with adjoining infested, non-BLM lands. Proper grazing management will be emphasized after control to minimize possible reinfestation of weeds from neighboring lands.

The BLM has been prohibited from using herbicides for control of brush, weeds, and competing vegetation on federal lands in Oregon, and by administrative management decision BLM stopped using herbicides in Washington. Consequently, a multistate BLM Environmental Impact Statement on noxious weed control is being prepared for Oregon, Washington, Idaho, Montana, and Wyoming. Copies of the Draft EIS were made available for a 60 day comment period on May 31, 1985.

Unleased Tracts

Unleased tracts generally would remain available for further consideration for authorized grazing, as provided for in the BLM grazing regulations (43 CFR 4110 and 4130). However, all islands not currently authorized for grazing use would remain unleased. These islands total approximately 1,000 acres and are located in the Columbia, Okanogan, and Yakima Rivers. Grazing use applications for tracts which are currently unleased would generate site-specific analyses to determine if grazing use would be allowed and, if so, the kind and amount of grazing use allowed.

Grazing Management Guidance for Each Alternative Common to all Management Areas

Alternative A—Production

Objectives

Develop AMPs and/or CRMPs for the I Category allotments to establish livestock use levels, grazing systems, seasons of use, and range improvements to enhance livestock production. Develop CRMPs for C-I category allotments where cooperation with intermingled landowners can be obtained. Emphasize maximization of livestock grazing where conflicts with other major resource values are minimal.

Livestock Use Adjustments

Initial livestock authorization would be the same as existing authorized use. After five years of monitoring, authorized livestock use would be adjusted, if necessary, for the 16 I category allotments to achieve 70% utilization of key forage species (see Table 3-6).

Alternative B—Proposed Resource Management Plan

Objectives

Develop AMPs and/or CRMPs for the I allotments to establish livestock use levels, grazing systems, seasons of use, and range improvements to accomplish multiple use objectives of livestock forage production, wildlife habitat, and watershed needs. Develop CRMPs for C-I category allotments where cooperation with intermingled landowners can be obtained. Upon initiation of coordinated resource management planning, the C category allotments would be recategorized to I allotments. Emphasize a moderate level of livestock use to maintain or protect other resource values.

Livestock Use Adjustments

Authorized livestock use would initially remain at currently authorized levels for the 16 I category allotments but would be adjusted through collection and analyses of monitoring data to achieve 50% utilization of key forage species (see Table 3-6).

Alternative C—Protection

Objectives

Develop AMPs and/or CRMPs for the I allotments to establish livestock use levels, grazing systems, seasons of use, and range improvements to accomplish wildlife, watershed, and other objectives

related to enhancement of natural values. Develop CRMPs for the C-I category allotments where cooperation with intermingled landowners can be obtained. Upon initiation of coordinated resource management planning, the C category allotments would be recategorized to I allotments. Emphasize a light level of livestock use to enhance natural values.

Livestock Use Adjustments

Authorized livestock use would be adjusted for the 16 I category allotments to achieve 30% utilization of key forage species (see Table 3-6).

Alternative D—No Action

Objectives

Continue ongoing implementation of AMPs and/or CRMPs for two I allotments. Continue existing management for the 14 remaining I allotments.

Livestock Use Adjustments

Maintain currently authorized use levels except where adjustments are planned in existing activity plans (see Table 3-6).

Forestry Program

General

The 1,710 acres of uncut forestland, identified in Table 2-6, would not be subject to any timber

Table 3-8 Derivation of Timber Production Base Acreage by Alternative

Alternative A	Management Areas						
	Similkameen	Conconully	Rock Creek	North Ferry	North Stevens	Huckleberry Mountains	Scattered Tracts
Total Forestland Acres	8,353	4,055	748	8,353	12,858	10,770	9,620
No. Harvest (acres)							
Non Commercial Forestland	371	951	0	5	289	63	805
Non Operable	1,874	728	0	651	248	213	0
Multiple Use Set Aside							
Riparian	39	17	22	14	28	28	132
Wildlife Habitat	153	66	72	55	109	98	526
ACEC	0	0	0	0	0	0	161
Low Intensity Timber Production	134	58	77	48	96	86	461
Full Timber Production Base	**5,782**	**2,235**	**571**	**7,580**	**12,088**	**10,285**	**7,535**
Alternative B							
Total Forestland Acres	8,353	4,055	748	8,353	12,858	10,770	9,620
No. Harvest (acres)							
Non Commercial Forestlands	371	951	0	5	289	63	805
Non Operable	1,874	728	0	651	248	213	0
Multiple Use Set Aside							
Riparian	58	25	33	20	42	38	200
Wildlife Habitat	230	99	108	82	165	147	788
ACEC	0	0	0	0	0	0	161
Low Intensity Timber Production	268	115	154	96	192	173	922
Full Timber Production Base	**5,552**	**2,137**	**453**	**7,499**	**11,922**	**10,136**	**3,744**

harvesting activities until an interdisciplinary team of BLM natural resource specialists have had the opportunity to evaluate the attributes of these parcels. Then, those areas that are identified as possessing unique or important natural resource values would be set aside, and appropriate protective measures would be undertaken. This evaluation would be made within five years from the time the RMP is adopted. Table 3-8 briefly illustrates in tabular form how the forestry program differs by alternative and management area.

Forest Management Treatments and Design Elements

Table 3-9 displays, in typical sequence, the types and levels of treatments for each alternative. Following harvest, these treatments are used to achieve prompt reforestation and to increase subsequent growth of commercial coniferous species. The following discussion of treatments will be in the same order as listed in Table 3-9.

Not every treatment listed would be applied to every acre. A number of treatment combinations are

Table 3-8 Derivation of Timber Production Base Acreage by Alternative (continued)

Alternative C

	Management Areas						
	Similkameen	Conconully	Rock Creek	North Ferry	North Stevens	Huckleberry Mountains	Scattered Tracts
Total Forestland Acres	8,353	4,055	748	8,353	12,858	10,770	9,620
No. Planned Timber Harvest (acres)							
Non Commercial Forestlands	371	951	0	5	289	63	805
Non Operable	1,874	728	0	651	248	213	0
Multiple Use Set Aside							
Riparian	103	40	3	113	300	255	110
Wildlife	766	328	361	274	547	493	2631
ACEC	0	0	0	0	0	0	161
Low Intensity Timber Production	672	288	384	240	480	432	2,304
Full Timber Production Base	4,567	1,720	0	7,070	10,994	9,314	3,609

Alternative D

Total Forestland Acres	8,353	4,055	748	8,353	12,858	10,770	9,620
No. Planned Timber Harvest (acres)							
Non Commercial Forestlands	371	951	0	5	289	63	805
Non Operable	1,874	728	0	651	248	213	0
Multiple Use Set Aside							
Riparian	68	23	2	65	178	145	73
Wildlife Habitat	207	89	97	74	148	133	709
ACEC	0	0	0	0	0	0	161
Low Intensity Timber Production	235	101	134	85	168	151	806
Full Timber Production Base	5,598	2,163	515	7,473	11,827	10,065	7,066

Table 3-9 Forest Management Treatment by Alternative — First Decade

	A Production	B Proposed RMP	C Protection	D No Action
Intensive Timber Production Base (acres)	46,076	44,443	37,274	44,707
Annual Harvest				
Total Million bd. ft.	4.12	3.98	3.33	4.00
Total Million cu. ft.	.68	.65	.55	.66
Treatments				
Transportation System (miles/acres)				
New Construction	40/78	39/76	32/63	39/76
Reconstruction	38/74	37/72	31/60	37/72
Timber Harvest (acres)[1]	6,351	6,125	5,130	6,162
Timber Harvesting Methods (acres)				
Cable	3,391	3,275	2,742	3,291
Tractor	2,960	2,850	2,388	2,871
Site Preparation (acres)				
Slash Disposal				
Broadcast Burn	158	152	127	152
Pile and Burn	973	958	803	965
Lop and Scatter	5,220	5,015	4,200	5,045

Note These figures are estimates based upon the current B-year timber sale plan. These estimates were made to facilitate impact analysis highlighting differences between alternatives. Although actual acreages may vary with implementation the relationship between alternatives is expected to remain unchanged,

'Includes both partial cut and clearcut areas. Clearcut acreages are primarily for roads, landings, blowdown salvage, etc. and usually average less than 10 of total harvest acres.

possible and could be employed. The purpose of this section is to elaborate on what each treatment entails and quantify the magnitude of the action. For those actions required in timber sale contracts, the final determination of treatment needs would be made during timber sale planning.

Contracts, usually awarded on a competitive basis, are the means of accomplishing all timber harvest and many forest development practices. The standard and special provisions (which include mitigating measures) in a contract set forth the performance standards to be followed by the contractor in carrying out the action in accordance with applicable laws, regulations, and policies. In contract preparation, selection of special provisions is governed by the scope of the action to be undertaken and the physical characteristics of the specific site. The standard provisions of the basic timber sale contract, Bureau Form 5450-3, are applicable for all timber sales. Limitations on timber harvesting and related activities, as identified in the Church Report (U.S. Congress, Senate 1972) and analyzed in the BLM Timber Management-Final Programmatic EIS 1975, have been adopted by BLM. Bureau manuals and manual supplements provide a variety of approved special provisions for use, as appropriate, in individual contracts. The combination of selected special provisions constitutes Section 41 of the timber sale contract (Form 5450-3).

Transportation System

Oregon Manual Supplement, Release 5-115 of April 10, 1975, would be used in preparing road construction requirements for timber sale contracts. Engineering terminology and types of construction equipment are defined in the manual supplement, and specifications for all aspects of construction, reconstruction, and surfacing are provided.

Methods of slope protection are provided to avoid collapse of cut and fill embankments. Specifications

for rock pits and quarries include provisions for minimum visual intrusion, drainage and control of runoff, and restoration following use.

One section of the manual supplement provides design features to control and minimize erosion during road construction and throughout the design life of the road. Another section addresses soil stabilization practices, including planting, seeding, mulching, and fertilizing for establishment of soil binding vegetation.

Road reconstruction for timber harvesting activities is proposed for all alternatives. The miles of road to be reconstructed during the next decade range from 31 miles under the Protection Alternative to 38 miles under the Production alternative. Similarly, the miles of new road to be constructed during the decade would range from 32 miles under the Protection Alternative to 40 miles under the Production Alternative. Construction standards, such as stream crossing, subgrade width, ditch, cut and fill slope requirements, and type of surfacing, would be determined during the annual timber sale planning process. Basic construction operations as well as a brief history of transportation systems are described in detail in the programmatic environmental impact statement BLM prepared on timber management in the western United States (USDI, BLM 1975), hereafter referred to as the BLM Timber Management FEIS.

Where significant impacts to wildlife are occurring or are likely to occur as a result of uncontrolled vehicle access, road closures would be implemented. The decisions to close roads would be based on the environmental analysis of the timber management activities.

Timber Harvest

The primary timber harvest method to be employed during the next lo-year period would be partial cutting. An estimated 91% of the proposed final harvest would be accomplished by partial cutting. Of the final harvest, 53% would be accomplished with cable yarding systems and 47% accomplished by tractor yarding.

Site Preparation

Site preparation procedures are primarily used to prepare harvested areas for the natural regeneration of trees. Site preparation treatments include lop and scatter, broadcast burning, and mechanical treatment of slash.

The main site preparation treatment would be lop and scatter to reduce slash build up. Burning would occur when necessary to reduce slash build-ups only when approved by the local Washington Department of Natural Resources which administers the Smoke Management portion of the state's Air Quality Implementation Plan.

Mechanical site preparation would consist of scarification and piling or windrowing of slash, brush, and unmerchantable stems. Bulldozers equipped with a brush blade would normally be used. However, this type of equipment would be restricted to areas with slopes less than 35%, low soil moisture conditions, and suitable soil types.

Cadastral Survey Program

Cadastral surveys would continue to be conducted in support of resource management programs. Survey requirements and priorities would be determined on a yearly basis as a part of the annual work planning process.

Road Construction and Maintenance Program

Road construction and maintenance would continue to be conducted in support of resource management objectives. Construction and maintenance requirements and priorities would be determined on a yearly basis as a part of the annual work planning process.

Investment of public funds for road construction generally would be permitted only on land identified for retention in public ownership. Exceptions may be allowed where investment costs can be recovered as a part of land disposal actions.

Specific road construction standards would be determined based on consideration of the following criteria: (1) resource management needs; (2) user safety; and (3) impacts to environmental values, including but not limited to wildlife and fish habitat, soil stability, recreation, scenery, construction, and maintenance costs.

Fire Program

The BLM is concerned about two basic types of fires: wildfire and prescribed fire. All four land use alternatives place emphasis on wildfire control. The degree of fire suppression would depend on the priority of the resource values threatened and available equipment and personnel. All four alternatives introduce prescribed fires into the management system, but the method and frequency of use would depend on the management goal of each alternative.

Requirements for Further Environmental Analyses

More detailed site-specific environmental analysis will be performed as specific resource management activities are planned and implemented under annual work plans. Documentation will usually be in categorical exclusions or environmental assessments and findings of no significant impact. If an environmental assessment indicates potential for significant impacts not already described in an existing EIS, a supplement to an existing EIS or a new EIS may be required. Interdisciplinary impact analysis will be tiered within the framework of this and other applicable EISs.

Monitoring the Spokane District Resource Management Plan

The implementation of the Spokane District RMP will be monitored during the life of the plan to ensure that management actions are meeting their intended purposes. Specific management actions arising from proposed activity plan decisions will be compared with the RMP objectives to ensure consistency with the intent of the plan. Formal plan evaluations will take place at intervals not to exceed 5 years. These evaluations will assess the progress of plan implementation and determine the following:

1. if management actions are resulting in satisfactory progress toward achieving objectives;

2. if actions are consistent with current policy;

3. if original assumptions were correctly applied and impacts correctly predicted;

4. if mitigation measures are satisfactory;

5. if it is still consistent with the plans and policies of state and local government, other federal agencies, and Indian tribes;

6. if new data are available that would require alteration of the plan.

As part of the plan evaluation, the government entities mentioned above will be requested to review the plan and advise the District Manager of its continued consistency with their officially approved resource management related plans, programs, and policies. Advisory groups will also be consulted during the evaluation in order to secure their input.

Upon completion of a periodic evaluation or in the event that modifying the plan becomes necessary, the Spokane District Manager will determine what, if any, changes are necessary to ensure that the management actions of the plan are consistent with its objectives. If the District Manager finds that a plan amendment is necessary, an environmental analysis of the proposed change will be conducted, and a recommendation on the amendment will be made to the State Director. If the amendment is approved, it may be implemented 30 days after public notice.

Potential minor changes, refinements, or clarifications in the plan may take the form of maintenance actions. Maintenance actions respond to minor data changes and incorporation of activity plans. Such maintenance is limited to further refining or documenting a previously approved decision incorporated in the plan. Plan maintenance will not result in expansion in the scope of resource uses or restrictions or change the terms, conditions, and decisions of the approved RMP Maintenance actions are not considered a plan amendment and do not require the formal public involvement and interagency coordination process undertaken for plan amendments. A plan amendment may be initiated because of the need to consider monitoring findings, new data, new or revised policy, a change in circumstances, or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan.

Activity Plan Monitoring

On-site inspection of activity plans (AMPs, HMPs timber sale proposals) and associated projects would be made periodically to determine if the objectives of the activity plans or projects are being achieved and that no unacceptable or unanticipated impacts are occurring.

A key indicator concept of monitoring would be utilized to determine what change agents of each action or plan are to be monitored. An interdisciplinary team of resource specialists would identify the change agents to be monitored and the required inspection frequency.

A district-wide implementation record of all ongoing activities and associated monitoring activities would be maintained in the Spokane District Office and Wenatchee Resource Area Office. This record would be utilized to determine month to month monitoring obligations and annual work plan commitments.

Water quality monitoring is usually carried out in accordance with executive orders, specific laws, and BLM Manuals. Monitoring systems for these and other resource management programs (such as wildlife habitat, visual, cultural, or recreational) outlined in the final RMP/EIS would be developed and implemented as committed in the record of decision.

Area Prescriptions

Introduction

Table 3-10 describes the alternatives in detail and allows comparison of each alternative by management area. The Preferred Alternative (Alternative B) is highlighted across management areas. Under each alternative in Table 3-10, resource management programs are described according to priority. For example, in the Douglas Creek Management Area, under Alternative B which is the Proposed Resource Management Plan, grazing has top priority, with recreation, wildlife habitat, and soil and water following in second, third, and fourth priorities, respectively. Priorities reflect the order in which funds for the different resource management programs would be allocated in annual work plans.

Table 3-10 Management Area Prescriptions

Similkameen Management Area

Alternative A (Production)	Grazing Management: Propose range improvements for the I allotments of 124 acres to be seeded, 7 miles of fence, 8 spring developments, 3 water catchments, 6 cattleguards, and 8 stock water tanks. Recreation Management: Designate 5,598 acres closed to ORV use. Forest Management: Manage a timber production base of 5,782 acres. Acquire temporary access on Palmer Mountain to facilitate sales of forest products.
Alternative B (Proposed RMP)	Grazing Management: Propose range improvements for the I alfotments of 94 acres to be seeded, 7 miles of fence, 8 spring developments, 3 catchments, 6 cattleguards, and 8 stock water tanks. Recreation Management: Maintain Hot Lakes RNA; obtain legal access to public lands to improve hunting opportunities; develop a Recreation Management Plan for the Chopaka Lake RV camping area to improve facilities benefiting hunting and fishing activities: acquire non-agricultural lands along the Similkameen River and lands adjacent to the Split Rock Recreation Site at Pafmer Lake to improve fishing access; implement ORV closures on public lands extending from the Oroville to Nighthawk highway north to a distance of one half mile; keep all other areas open to ORV use except those with special designations. Close 5,598 acres to ORV use; restrict ORV use to 5,828 acres of designated roads and trails; restrict ORV use on another 1,270 acres to designated roads and trails from November 15 to March 1. Obtain access for recreation activities through land exchanges or easement acquisition as opportunities arise. Forest Management: Manage a timber production base of 5,552 acres. Acquire permanent access to Palmer Mountain, with rights for the public, to facilitate management. Pursue minor adjustment of land pattern by exchange to reduce cost of property line determination. Wildlife Habitat Management: Develop a CRMP on Palmer Mountain to improve or maintain crucial mule deer winter range. Protect 6½ miles of high value riparian habitats on Palmer Mountain, Little Chopaka Mountain, Ellemeham Mountain, American Butte, Kruger Mountain, and the shore lines of Chopaka Lake and Simitkameen River.
Alternative C (Protection)	Wildlife Habitat Management: Similar to Alternative B, except incorporate livestock grazing management into the HMP in order to aid in achieving wildlife habitat management objectives. This may include reducing forage use by livestock or eliminating grazing in key species concentration areas. Acquire crucial mule deer winter range through land exchanges as opportunities arise. Grazing Management: Propose range improvements of 7 miles of fence, 8 spring developments, 3 catchments, 6 cattleguards, and 8 stock water tanks. Recreation Management: Designate 5,598 acres closed to ORVs and restrict ORV use on another 23,302 acres to designated roads and trails. Forest Management: Manage a timber production base of 4,567 acres. Acquire temporary access to the forested public land on Palmer Mountain.
Alternative D (No Action)	Grazing Management: Propose no new range improvements. Recreation Management: Same as Alternative B. Wildlife Habitat Management: Same as Alternative B. Forest Management: Manage a timber production base of 5,598 acres. Acquire permanent access to the forested public land on Palmer Mountain.

Conconully Management Area

Alternative A

Grazing Management: Propose range improvements for the I allotments of 2 miles of fence, 1 spring development, and 1 stock water tank.

Forest Management: Manage a timber production base of 2,335 acres. Adjust land pattern by exchange to reduce cost of survey, property line determination, and access needs.

Alternative B

Wildlife Habitat wildlife habitat by coordinating range management activities to minimize conflicts between livestock grazing and mule deer winter range requirements; conduct inventories to determine management objectives in problem areas identified through public input and issues analyses. Acquire identified key parcels of deer winter range to facilitate management. Identify and protect high value riparian habitats along 2% miles of Salmon Creek and 1 mile in Dry Coulee.

Grazing Management: Propose range improvements for the I allotments of 2 miles of fence, 1 spring development, and 1 stock water tank.

Recreation Management: Restrict ORV use on 2,670 acres to designated roads and trails from November 15 to March 1. Obtain access for recreation activities through land exchanges or easement acquisition as opportunities arise.

Forest Management: Manage a timber production base of 2,137 acres. Pursue minor adjustments of land pattern by exchange to reduce cost of property fine determination.

Alternative C

Wildlife Habitat Management: Same as Alternative B, except eliminate all surface disturbing activities in key species concentration areas that have been identified through public input and issues analyses. Acquire crucial mule deer winter range through exchanges as opportunities arise.

Grazing Management: Propose the same range improvements proposed in Alternative B.

Recreation Management: Restrict ORV use on 11,500 acres to designated roads and trails.

Forest Management: Manage a timber production base of 1,720 acres.

Alternative D

Grazing Management: Propose no new range improvements.

Recreation Management: Same as Alternative B.

Wildlife Habitat Management: Same as Alternative B.

Forest Management: Manage a timber production base of 2,163 acres. Pursue minor adjustment of land pattern by exchange to reduce cost of property line determination, especially in the Ruby Hill and Peacock Mountain areas.

Jameson Lake Management Area

Alternative A

Grazing Management: Since there are no I allotments in this management area, propose development of CRMPs to emphasize maximization of forage for livestock grazing where conflicts with other major resource values are minimal.

Alternative B

Wildlife Habitat Management: Develop an HMP and acquire approximately 1,200 acres of non-agricultural lands for the purpose of maintaining or improving upland game nesting and wintering habitat. Protect riparian habitat in Sulphur Canyon.

Grazing Management: Since there are no I allotments in this management area, propose development of CRMPs to emphasize accomplishment of multiple use objectives.

Recreation Management: Restrict ORV use in Sulphur Canyon to existing roads and trails. Manage the visual resources to maintain the existing visual quality standards. Restrict ORV use on 2,860 acres to designated roads and trails. Acquire public access through easement purchase or land exchange to the Sulphur Canyon area to allow recreation use of the management unit.

Alternative C

Wildlife Habitat Management: Same as Alternative B, except expand the scope of the HMP to incorporate livestock grazing management in order to aid in achieving wildlife habitat management objectives. This may include reduction of forage allocations to livestock or elimination of grazing from key species concentration areas.

Cultural Resources Management: Develop a cultural resources management plan for Sulphur Canyon stipulating that all archaeological/historical sites would be protected.

Recreation Management: Restrict ORV use on 3,660 acres to designated roads and trails.

Alternative D

Grazing Management: Propose no new range improvements. Maintain existing authorized livestock use levels.

Recreation Management: Same as Alternative B.

Wildlife Habitat Management: Same as Alternative B.

Douglas Creek Management Area

Alternative A	Grazing Management: Propose range improvements for the I allotment of 61 acres of brush control, 5 miles of fence, 1 spring development, 1 mile of pipeline, and 2 stock water tanks. To increase production of forage, pursue acquisition of high potential grazing land that presently controls or inhibits establishment of grazing systems by virtue of its non-Federal ownership.
Alternative B	Recreation Management: Prepare a recreation management plan for Douglas Creek Area with an emphasis on protecting the existing values rather than development. Restrict ORV use to designated roads and trails in the Douglas Creek cattle enclosure. Keep the remaining public lands in the management area open to ORV use and manage visual resources to maintain existing visual quality standards. Restrict ORV use on 4,560 acres to designated roads and traifs, and restrict ORV use on another 5,040 acres to designated roads and trails from February 15 to June 1. Acquire access (either by exchange or through easements) to the Rock Island Creek land parcels to enhance recreation. Consolidate ownership to enhance recreation opportunities. Wildlife Habitat Management: Expand existing HMP to cover the entire Douglas Creek Management Area. Improve wildlife habitat in the Douglas Creek riparian area by management of the vegetative cover through the existing Wabitat Management Plan which includes planting of shrubs and grasses, control of noxious weeds, and exclusion of cattle grazing from specific areas. Protect and improve the condition of high value riparian habitat along Rock Island Creek (1[miles), Sutherland Canyon (3 miles), Skookumchuck Creek (1 mile), and Rattlesnake Creek ([mile). Grazing Management: Propose range improvements for the I allotment of 5 miles of fence, 1 spring development, 1 mile of pipeline, and 2 stock water tanks. Acquire all State grazing land in the I and C allotments to enhance management and certain private high potential grazing land where present ownership is inhibiting establishment of grazing systems that would increase forage production and enhance multiple use values. Soil and Water Management: Maintain or improve watershed conditions through elimination or reduction of cattle grazing and restriction of surface disturbance activities, such as ORV use in the Douglas Creek drainage.
Alternative C	Wildlife Habitat Management: Same as Alternative B except expand the existing HMP to incorporate livestock grazing management in order to aid in achieving wildlife habitat management objectives. This may include reduction of forage allocations to livestock or elimination of grazing from key species concentration areas. Grazing Management: Propose the same range improvements as proposed in Alternative B. Recreation Management: Restrict ORV use on 22,000 acres to designated roads and trails.
Alternative D	Grazing Management: Propose range improvements in accordance with the existing activity plan consisting of 5 miles of fence, 1 spring, 1 mile of pipeline, and 2 stock water tanks. Maintain forage productivity by pursuing acquisition of State and private parcels that are the key to better management. Recreation Management: Same as Alternative B. Wildlife Habitat Management: Same as Alternative B. Soil and Water Management: Same as Alternative B.

Saddle Mountains Management Area

Alternative A	Minerals Management: Emphasize the exploration, development, and production of oil and gas resources through the Federal Oil and Gas Leasing System. Manage other resource activities in a manner to minimize conflicts with oil and gas operations.
	Grazing Management: Propose range improvements for the I allotments of 692 acres to be seeded, 167 acres of brush control, 7.5 miles of fence, 3.5 miles of pipeline, and 6 stock water tanks.
	Pursue acquisition of high potential grazing land that presently controls or inhibits establishment of grazing systems by virtue of its non-Federal ownership.
	Recreation Management: Emphasize rock collecting and ORV use through development of Recreation Management Plans. This would include efforts to acquire 3,200 acres of private lands and establish an intensive use area for ORVs. Permit an unlimited number of organized ORV events.
Alternative B	Minerals Management: Emphasize the exploration, development, oil and gas resources through the Federal Oil and Gas Leasing System. Manage other resource activities in a manner to minimize conflicts with oil and gas operations.
	Grazing Management: Develop a coordinated Resource Management Plan that would place equal emphasis on these programs. This plan would include, but would not be limited to the following: establishing livestock use levels, wildlife management, managing ORV use and rock collecting, and updating/revising the cooperative watershed management plan with the Bureau of Reclamation.
	Propose range improvements for the I allotments of 593 acres to be seeded, 167 acres of brush control, 7.5 miles of fence, 3.5 miles of pipeline, and installation of 4 stock water tanks.
	Acquire 1,500 acres of State grazing land in the I and Cl allotments to enhance management and 13,000 acres of Burlington Northern land to enhance grazing management and multiple use of the management area.
	Recreation Management: Restrict ORV use on 19,990 acres to designated roads and trails. Acquire 3,200 acres of private land to enhance recreational activities. Designate a casual use ORV area on the west end of Saddle Mountain and limit ORV use in other areas to designated roads and trails. Permit a maximum of 3 races per calendar year. Acquire access through easement acquisition or land exchange to key parcels for recreational rockhounding on Saddle Mountain and in the Johnson Creek area.
	Wildlife Habitat Management: Protect and improve high value riparian habitat along Johnson Creek (1 mile) and six (6) miles of it's tributaries.
	Soil and Water Management: Minimize surface disturbing activities in favor of watershed values.
Alternative C	Soil and Water Management: Minimize or eliminate surface disturbing activities in favor of watershed and wildlife values (for instance, restrict or prohibit ORV use and rock collecting activities, reduce forage allocations to livestock, restrict oil and gas exploration/development activities, and so on). Restrict all vehicles (including recreation ORVs) except emergency vehicles to designated roads and trails.
	Grazing Management: Propose range improvements for the I allotments of 7.5 miles of fence, 3.5 miles of pipeline, and 4 stock water tanks.
	Recreation Management: Restrict ORV use on 24,300 acres to designated roads and trails.
	Wildlife Habitat Management: Same as Alternative B.
Alternative D	Grazing Management: Propose range improvements in accordance with the existing CRMP: 2.5 miles of fence, 0.5 miles of pipeline, and 2 stock water tanks.
	Acquire 13,000 acres of Burlington Northern land and 1,200 acres of State land to enhance grazing management.
	Recreation Management: Limit ORV restrictions to small designated high problem areas.
	Soil Management: Continue the agreement with the Bureau of Reclamation with current emphasis on protection of watershed values.
	Minerals Management: Emphasize Oil and Gas exploration, development and production through the Federal Oil and Gas Leasing System.

Rattlesnake Hills Management Area

Alternative A	Grazing Management: Since there are no I allotments in the management area, propose development of CRMPs that would emphasize maximization of livestock grazing where conflicts with other major resource values are minimal. Pursue a land exchange program to consolidate public lands to enhance grazing management. Recreation Management: Designate special rock collecting areas from which to conduct material sales. Acquire public access to the public land in T. 11 N., R. 22 E.
Alternative B	Grazing Management: Pursue a land exchange program to consolidate public lands to enhance grazing management. Recreation Management: Develop an activity plan to enhance rock collecting, ORV use, and hunting. Acquire access by pursuing land exchanges to consolidate public land in order to facilitate recreation management objectives. Acquire access with rights to the public if land exchanges do not provide public access by 1988. Wildlife Habitat Management: Devefop an HMP to maintain or improve key species concentration areas. Identify and protect high value riparian habitat in Washout Canyon (1 mile).
Alternative C	Grazing Management: Develop a CRMP to enhance watershed and wildlife values. This plan would incorporate stipulations in all activity plans prepared for this area to minimize and/or eliminate disturbance from ORV use, rock collecting, grazing, and oil and gas operations from certain key areas on the south slope in T. 11 N, R. 22 E. Recreation Management: Restrict ORV use on 24,725 acres to designated roads and trails. Wildlife Habitat Management: Same as Alternative B.
Alternative D	Grazing Management: Propose no new range improvements. Maintain existing authorized use levels. Recreation Management: Same as Alternative B. Wildlife Habitat Management: Same as Alternative B.

Badger Slope Management Area

Alternative A

Grazing Management: Propose range improvements for the I allotments of 287 acres to be seeded, 7 miles of fence, 3 spring developments, 3 miles of pipeline, 8 stock water tanks, and 2 wells.

In order to increase production of forage, pursue acquisition of high potential grazing land that presently controls or inhibits establishment of grazing systems by virtue of its non-Federal ownership.

Recreation Management: Restrict ORV use on 160 acres to designated roads and trails.

Alternative B

Grazing Management: Propose range improvements for the I allotments of 257 acres to be seeded, 7 miles of fence, 3 spring developments, 3 miles of pipeline, and the installation of 4 stock water tanks.

Acquire privately owned grazing land in the I allotments where present ownership is inhibiting the establishment of grazing systems that would increase forage production.

Recreation Management: Restrict ORV use to designated roads and trails on 7,680 acres and close 40 acres to ORVs. Consolidate ownership through exchanges as opportunities arise.

Wildlife Habitat Management: Develop a CRMP for this area with provisions to improve and protect raptor and upland game habitat. Acquire lands to improve management for the purpose of improving waterfowl and upland game habitat. Develop an HMP on 1,000 acres of the area for the purpose of improving upland game habitat. Protect riparian habitat in Webber Canyon (2[miles) and protect and improve riparian habitat in Sec. 30, T. 9 N., R. 26 E.

Alternative C

Wildlife Habitat Management: Develop an HMP to emphasize maintenance or improvement of raptor and upland game habitat and acquire lands near the rim of Badger Slope and Horse Heaven Hills. Protect riparian habitat in Webber Canyon (2[miles) and protect and improve riparian habitat in Sec. 30, T. 9 N., R. 26 E.

Grazing Management: Propose range improvements for the I allotments of 2 spring developments, 3 miles of pipeline, and 3 stock water tanks.

Recreation Management: Same as Alternative B.

Alternative D

Grazing Management: Propose no new range improvements.

To maintain forage productivity, pursue the acquisition of private land in the I allotments.

Recreation Management: Same as Alternative B.

Wildlife Habitat Management: Same as Alternative B.

Rock Creek Management Area

Alternative A

Recreation Management: Emphasize enhancement of the hunting and rock collecting opportunities for the general public through the development of a recreation management plan. Acquire public access to all public lands to enhance recreational opportunities.

Wildlife Habitat Management: Emphasize enhancement of game species habitat through the development of an HMP.

Grazing Management: Since there are no I allotments in the management area, propose development of CRMPs to emphasize maximization of livestock grazing where conflicts with other major resource values are minimal.

Forest Management: Manage a timber production base of 571 acres.

Alternative B

Wildlife Habitat Management: Develop an HMP to emphasize enhancement of game species habitat. Pursue land exchanges to acquire key riparian habitat areas as opportunities arise. Protect and improve riparian habitat along Squaw Creek (1½ miles) Rock Creek (5 miles) and riparian areas acquired through land exchanges.

Recreation Management: Emphasize enhancement of the hunting and rock collection opportunities for the general public through the development of a recreation management plan. Pursue land exchanges and acquire access to enhance recreational management opportunities. Restrict ORV use on 6,427 acres to designated roads and trails.

Forest Management: Manage a timber production base of 453 acres.

Alternative C

Wildlife Habitat Management: Same as Alternative B.

Recreation Management: Restrict ORV use on 6,427 acres to designated roads and trails.

Alternative D

Grazing Management: Continue custodial management practices. Propose no range improvements or changes in livestock use levels.

Recreation Management: Same as Alternative B.

Wildlife Habitat Management: Same as Alternative B.

Soil and Water Management: Same as Alternative B.

Forest Management: Manage a timber production base of 515 acres.

North Ferry Management Area

Alternative A

Forest Management: Manage a timber production base of 7,580 acres. Adjust land patterns by exchange to reduce cost of survey and property line determination. Acquire temporary access to enhance sale of forest products.

Grazing Management: Since there are no I allotments in the management area, propose development of CRMPs to emphasize maximization of livestock grazing where conflicts with other major resource values are minimal.

Alternative B

Forest Management: Manage a timber production base of 7,499 acres. Adjust land patterns by exchange to reduce cost of survey and property line determination. Acquire permanent access to all public lands to enhance forest management and multiple use.

Wildlife Habitat Management: Emphasize maintenance or improvement of key species habitat areas identified through previous planning, public input, and/or issues analyses. This may include land exchanges to facilitate protection of these areas and development of HMPs. Protect and improve riparian habitat on BLM administered land along 7 miles of perennial streams and the Kettle River.

Recreation Management: Emphasize maintenance or improvement of recreation opportunities in key areas as identified through previous planning, public input, and/or issues analyses. This may include land exchanges and development of recreation management plans for identified areas. Designate 13,000 acres open to ORV use.

Alternative C

Wildlife Habitat Management: Same as Alternative B, except eliminate all surface disturbing activities in key species concentration areas.

Cultural Resources Management: Develop a cultural resources management plan for the area stipulating that all archaeological/historical sites would be protected.

Recreation Management: Restrict ORV use on 13,000 acres to designated roads and trails.

Forest Management: Manage a timber production base of 7,070 acres. Acquire temporary access for forest management purposes only.

Alternative D

Forest Management: Manage a timber production base of 7,473 acres.

Wildlife Habitat Management: Same as Alternative B, except land exchanges to facilitate management would not be pursued.

Recreation Management: Same as Alternative B.

Grazing Management: Maintain existing CRMPs and revise as necessary to determine livestock use levels, grazing systems, seasons of use, and range improvements.

North Stevens Management Area

Alternative A

Forest Management: Manage a timber production base of 12,088 acres. Adjust land pattern by exchange to reduce cost of survey and property line determination. Acquire temporary access to enhance sales of forest products.

Grazing Management: Propose range improvements for the I allotment of 1 mile of fence, 1 spring development, and 1 stock water tank.

Alternative B

Forest Management: Manage a timber production base of 11,922 acres. Adjust land pattern by exchange to reduce cost of survey and property line determination. Acquire permanent access to all forested public lands to enhance management and multiple use.

Grazing Management: Propose range improvements for the I allotment of 1 mile of fence, 1 spring development, and 1 stock water tank.

Wildlife Habitat Management: Protect and improve 4[miles of riparian habitat along perennial streams and the Columbia and Kettle Rivers.

Alternative C

Wildlife Habitat Management: Develop an HMP to enhance and/or protect wildlife habitat in key areas as identified through public comments, previous planning and/or issues analyses. This may involve withdrawing key areas from mineral entry and adjusting livestock stocking rates to the point of deferring or excluding livestock grazing from key habitat areas. Protect and improve 4½ miles of riparian habitat along perennial streams and the Columbia and Kettle Rivers.

Grazing Management: Propose the same range improvements as proposed in Alternative B.

Recreation Management: Restrict ORV use to 13,205 acres of designated roads and trails.

Forest Management: Manage a timber production base of 10,994 acres.

Alternative D

Forest Management: Manage a timber production base of 11,827 acres. Pursue land tenure adjustments and easements to facilitate timber production.

Grazing Management: Propose no new range improvements.

Recreation Management: Same as Alternative B.

Huckleberry Mountains Management Area

Alternative A

Forest Management: Manage a timber production base of 10,285 acres. Acquire access or intermingled lands to facilitate timber production.

Recreation Management: Emphasize recreation opportunities, such as hunting and winter sports, through the development of a recreation management plan.

Alternative B

Forest Management: Manage a timber production base of 10,136 acres. Work with intermingled landowners to consolidate landownership into manageable blocks which emphasize reduction of property line determination, easement needs, and public use.

Wildlife Habitat Management: Emphasize maintenance or improvement of key wildlife habitat areas, such as critical deer winter range, identified through previous planning, public input, and/or issues analyses. This may include land exchanges to facilitate protection of these areas and development of HMPs. Protect and improve the 3$_2$ miles of riparian habitat along perennial streams that cross public land.

Recreation Management: Emphasize maintenance or improvement of recreation opportunities in key areas identified through previous planning, public input, and/or issues analyses. This may include land exchanges and development of recreation management plans for identified areas.

Alternative C

Wildlife Habitat Management: Same as Alternative B, except eliminate all surface disturbing activities in key species concentration areas.

Cultural Resources Management: Develop a cultural resources management plan for the area, stipulating that all archaeological/historical sites would be protected.

Recreation Management: Restrict ORV use on 11,269 acres to designated roads and trails.

Forest Management: Manage a timber production base of 9,314 acres. Pursue temporary easements to facilitate forest management.

Alternative D

Forest Management: Same as Alternative B, except manage a timber production base of 10,065 acres.

Wildlife Habitat Management: Same as Alternative B.

Recreation Management: Same as Alternative B.

Juniper Forest Management Area

Alternative A	Grazing Management: Propose range improvements for the I allotment of 3,598 acres to be seeded, 0.5 miles of fence, the installation of 2 stock water tanks, and 2 wells. Acquire 5,120 acres of private land to enhance grazing management. Exclude livestock grazing from the 2,640 acre Off-Road Vehicle Area. Recreation Management: Maintain the existing ACEC. Acquire permanent access with rights for the public.
Alternative B	Recreation Management: Maintain the existing 14,480 acre ACEC. Maintain the 4,980 acre Outstanding Natural Area within the ACEC and Juniper Dunes Wilderness to facilitate protection of the existing natural, scientific, and cultural values; acquire the private land within the Juniper Dunes Wilderness Area and the existing ACEC to provide protection for the natural values of the area. Acquire private land areas that are adjacent to the ACEC and Wilderness to facilitate management and enhance recreational use. Pence the Juniper Dunes Wilderness boundary and monitor recreationaf use of the adjacent public lands to determine if additional restrictions are necessary to protect the wilderness values. Restrict ORV use to designated roads and trails on 7,340 acres that remain outside the wilderness in the ACEC. ORV use is prohibited, by law, on the 7,140 acres in the Juniper Dunes Wilderness. Continue the study of ORV activities and raptor use of the area and devefop a Recreational Management plan in FY 88 that provides for the long-term ORV management in the area and ensures protection of the wilderness and ACEC objectives. Acquire public access with rights for the public to the management area. Wildlife Habitat Management: Develop an HMP to emphasize maintenance or improvement of raptor and upland game habitat. Allocate forage to livestock to the extent that grazing does not conflict with wildlife habitat management objectives. Grazing Management: Propose range improvements for the I allotments of 0.5 miles of fence construction, installation of 2 stock watering tanks, and 1 well. Acquire 5,120 acres of private land to enhance grazing management and other multiple use opportunities.
Alternative C	Wildlife Habitat Management: Develop an HMP to emphasize maintenance or improvement of raptor and upland game habitat. Allocate forage to livestock to the extent that grazing does not conflict with wildlife habitat management objectives. Grazing Management: Propose the same range improvements as proposed in Alternative B. Recreation Management: Restrict ORV use to designated roads and trails on 9,980 acres. Acquire 5,120 acres of private land in the established ACEC area to provide protection for the natural values of the area.
Alternative D	Grazing Management: Propose no new range improvements. Exclude livestock grazing from the 2,640 acre ORV intensive use area. Recreation Management: Same as Alternative B except designate the 2,640 acres open to ORVs as an intensive ORV use area.

Scattered Tracts Management Area

Alternative A

Lands Management: Adjust land tenure as necessary to enhance commodity production. Dispose of or lease lands with the potential to meet such needs as intensive agricultural production, recreational development, and mineral material sales. Emphasize exchanges to consolidate BLM holdings and access within the 12 management areas for the purpose of increasing production on grazing and timber lands. Acquire easements as necessary to meet forest management objectives.

Grazing Management: Propose range improvements in the 2 I allotments of 2 miles of fence, 1 spring development, 0.5 miles of pipeline, and 3 stock water tanks.

Recreation Management: Designate 640 acres (the Yakima River and Columbia River Islands) closed to ORV use.

-Forest Management: production base of 7,535 acres.

Alternative B

Lands Management: Conserve the potential of rangeland, wildlife and fishing habitat, woodlands, and recreation opportunities. Implement this management emphasis through land tenure adjustments such as exchanges, Interagency Agreements, special area designations, withdrawals, easements, and leases. Limit sales to adjust land tenure where no special resource values require protection to solve specific use problems. Enter into interagency agreements to enhance management efficiency on 11,000 acres over a 5-year period with the WSDG, WSDNR, or USFS.

Grazing Management: Propose range improvements for the I allotments of 2 miles of fence, 1 spring development, 0.5 miles of pipeline, and 3 stock water tanks.

Recreation Management: Designate 126,947 acres open and 640 acres closed to ORV use.

Forest Management: Manage a timber production base of 6,744 acres.

Wildlife Habitat Management: Identify and protect valuable wildlife habitat through management of livestock, ORVs, and other resource uses. Protect and improve high potential riparian habitats in McLoughlin Canyon and Foster Coulee. Inventory small acreages for high value riparian habitats.

Alternative C

Lands Management: Continue land sales at a reduced rate only where no special resource values are found after a site examination. Implement land tenure adjustments by exchanges, withdrawals, or CMAs to acquire specific resource values to provide protection from exploitation/destruction, or by withdrawals and CMAs to transfer land with special values to another agency for protection. Require no special resource protection on over 4,000 acres of scattered parcels which were site examined from 1982 to 1984. Exchange lands in scattered tracts to acquire land within Juniper Dune Wilderness (1,600 acres), ACEC inholdings (5,120 acres), and land with special values in the other 11 management areas (5,000 acres).

Limit easements to manage the access to scenic and/or forest management.

Grazing Management: Propose the same range improvements proposed under Alternative B.

Recreation Management: Designate 640 acres closed to ORV use and restrict ORV use on 126,947 acres to designated roads and trails.

Forest Management: Manage a timber production base of 3,609 acres.

Alternative D

Lands Management: Continue custodial management emphasis on the scattered parcels, unless specific user needs or situations are identified. At the present time there are several proposed State and private exchanges involving over 16,000 acres. The land proposed to leave BLM administration is generally in this Scattered Tract Management Area. Lands to be acquired by BLM are in the 12 management areas. Special area designations, CMPs, and agency transfers have been used to protect sensitive species, reduce management cost, and provide better public service. Acquire easements for recreation and forest management uses.

Grazing Management: Propose no new range improvements.

Recreation Management: Same as Alternative B.

Forest Management: Manage a timber production base of 7,066 acres.

Chapter 4
Environmental Consequences

Introduction

This chapter describes the significant environmental consequences that would result from implementing each of the alternatives. These environmental consequences (impacts) are compared to the existing situation, as described in Chapter 2. Analysis and public/interagency comments, including the scoping process, indicates that there would be no significant impact upon air quality, energy use, municipal watersheds, groundwater, and previously designated Areas of Critical Environmental Concern and the Research Natural Area. Additionally, no significant impacts from landownership adjustments would occur to any resource. With the exception of impacts to mineral resources (see discussion on mineral resources in this chapter), there would not be any irreversible or irretrievable commitments of resources resulting from implementation of the Proposed Resource Management Plan.

During the course of this analysis of impacts, it was realized that no impacts of regional significance would result from implementing any of the alternatives. The environmental consequences identified in this analysis are only of "local significance." That is, the impacts discussed are important within specific locales of a management area; however, they are not significant to the management area.

Knowledge of the area and professional judgment, based on observation and analysis of conditions and responses in similar areas, have been used to infer environmental impacts where data is limited.

General Methodology

Methods used to analyze impacts are described in detail in Appendix L. The methodology facilitates systematic, objective analyses that link environmental impacts to their suspected causes. Land management actions that cause changes are called change agents. Change agents produce environmental impacts, which are changes in certain resources or resource values known as indicators. Environmental impacts are described in terms of increases or decreases of certain units of measurement for an indicator.

The nature and extent of impacts will be defined as follows:

Impact: Impact is defined as spatial or temporal change in the human environment caused by man. The change should be (1) perceptible, (2) measurable, and (3) relatable through a change agent to a management activity or alternative.

Short-Term: Short-term is defined as the lo-year period needed to implement the Resource Management Plan and resulting activity plans, such as Allotment Management Plans, Timber Management Plans, and so forth.

Long-Term: Long-term is defined as beyond those 10 years.

When impacts were analyzed, efforts were made to quantify them whenever possible. Where quantitative data were lacking, specialists exercised professional judgment and substantiated these estimates with appropriate references to the methodologies used.

Common impacts are first presented by resource. This discussion is followed by specific impacts which vary between alternatives. Impacts applicable to specific management areas are identified within the general discussions or in tables.

Discussion of significant impacts from grazing management under all alternatives is limited to the I category allotments. Since no change is expected from the existing situation on the M and C category allotments, they are not discussed in detail.

Assumptions for Analysis

Certain types of activities, such as grazing management and wildlife habitat management, have been under way for decades and have resulted in environmental impacts. Other types of activities may be new to a specific area. In order to assess environmental consequences of the land use allocations, certain assumptions were made about how the permitted activities are being or would be carried out. These assumptions are as follows:

1. Funding and personnel would be sufficient to implement the Preferred Alternative or any alternative as described herein.

2. Monitoring studies would be completed and followed as indicated, and adjustments or revisions would be made as needed.

3. Common management guidance would be followed.

4. Appropriate maintenance would be carried out to maintain the functional capability of all improvements.

5. For analysis purposes, all long-term forage increases above WSDG population target forage requirements would be made available to livestock.

Impacts to Soils

The major impacts on soils are soil compaction and soil erosion. Each of these results in reduced soil productivity.

Grazing livestock affect soil resources mainly by removing protective plant materials and compacting the soil surface. Both of these actions tend to reduce soil infiltration rates and, concurrently, to increase surface runoff rates (Leithead 1959; Rauzi and Hanson 1966). The result is greater surface soil losses during major precipitation events.

In grazing systems that tend to cause a change (decrease) in ecological conditions from climax to an earlier stage, soil erosion would generally increase; conversely, in those systems that cause a change (increase) in ecological conditions from an early toward climax stage, soil erosion would decrease (Gifford and Hawkins 1977). (See Appendix M.)

Over the long-term, surface soil loss and compaction would reduce soil productivity and vegetative growth. Well managed grazing of livestock can minimize the effect on soils (Council for Agricultural Science and Technology 1974). Grazing systems that incorporate deferment tend to cause less impact than annual, season long use. Grazing systems that allow only a brief period of deferment tend to have moderate impacts on soil productivity; grazing systems that utilize a longer rest period tend to have less impact on the soil resource.

The effects of timber management pertain to the Similkameen, Conconully, Rock Creek, North Ferry, North Stevens, Huckleberry Mountains, and Scattered Tract Management Areas (see Table 3-8 and 3-9).

The major impacts of timber management on soils would be compaction, landsliding, and topsoil displacement resulting from road construction and timber harvesting operations.

Soil compaction from yarding systems results primarily from the weight and shearing forces involved in yarding operations. Tractor yarding systems would have a greater impact on soil productivity than cable yarding systems, since compacted soil surfaces are very susceptible to rilling and gullying. When compaction occurs, the attendant effect of reduced infiltration capacity has been found to persist as long as 55 years in some soils.

Road construction contributes more to losses in soil productivity than any other timber management activity. Excavation of soil from its natural position alters the natural drainage of slope and exposes soil to elements on steeper slopes: a cut at a critical point can trigger landslides. Road fills add weight to the underlying soil mass, and on steep hillsides they can trigger landslides or slip failures.

Impacts on soils from road construction and tractor logging would be unavoidable under all the alternatives, but they would be in proportion to the number of acres harvested. From 5 to 15% of the areas harvested would be affected in this manner. Thus, impacts would be least under the Protection Alternative (C) and greatest under the Production Alternative (A), and slightly less under the Proposed RMP (B), and No Action (D) Alternatives. There would be no substantial differences in impacts between the latter three alternatives.

The major impacts to soils from recreation activities come from ORV use. The areas most affected by ORV use are the Similkameen, Saddle Mountains, and Juniper Forest Management Areas. The major impacts are the result of surface disturbance and soil compaction. These effects tend to increase soil erosion. Under the Proposed RMP and Alternatives A, and D, ORV use would have local impacts and would significantly affect the soil resources in proposed ORV use areas in the Saddle Mountains and Juniper Forest Management Areas. Under Alternative C, the impacts would be minimal.

Impacts from any mineral operations would occur mainly from road construction and other related surface disturbing activities, such as construction of drilling pads and excavation associated with placer mining. Under all the alternatives, these activities would have local impacts and would not significantly affect soil resources. These impacts are likely to occur in any of the management areas. Historical use throughout the planning area has indicated that an average of 20 acres per year could be expected to be disturbed in this manner.

Impacts to Water Resources

Water yield is expected to increase primarily from compacted soils and roads. These increases, under any of the alternatives, are not expected to significantly affect the stream flow of creeks or rivers within any of the management areas.

Impacts on water quality, in terms of increased sediment loads, could be expected in streams adjacent to pastures receiving heavy grazing pressure. Trampling and removal of vegetation by livestock compact soil surfaces and increase sediment yields. Grazing systems which incorporate rest and allow ground cover to increase have been found to decrease sediment yields (Aldon 1964).

Under Alternative A, in those allotments where livestock grazing of stream/riparian areas occur, there would be reduced water quality through increases of soil erosion and coliform bacteria. The reduction or removal of stream bank vegetation by cattle can substantially increase water temperatures (Claire and Storch 1977; Brown and Krygier 1967). Sloughing and collapse of stream banks which result in increased suspended sediments of the streams can also occur as an indirect result of livestock grazing (Platts 1981). There would not be any measurable effect to water quality under Alternatives B, C, or D.

Sediment deposition could be expected from those areas identified in Alternatives A and B in the short-term where seedings are proposed. The sediment increase would be in response to exposed soil as a result of seedbed preparation. This increase would be in excess of the soil loss tolerance (see Glossary) between the time of seedbed preparation and seedling establishment. Because of the improved grazing systems, land treatments, and design features proposed, surface water quality generally is expected to improve, under all alternatives except in Alternative D, under which it would remain essentially unchanged. The improvement in water quality would be greatest under Alternative C and least under Alternative A. Consequently, no significant impacts are anticipated.

The major forest management activities that would impact water quality occur in the Similkameen, Conconully, North Ferry, North Stevens, Huckleberry, and Scattered Tract Management Areas (see Table 3-8). The activities that would affect the water resource are primarily road construction and timber harvesting. The type of yarding system and seasonal timing used in timber harvesting influences sediment concentrations in nearby streams. Tractor logging typically produces high sediment concentrations (Reinhart and Eschner 1962) due to the high percentage of the soil surface that is disturbed. Utilization of cable or aerial systems impacts water resources much less, and, in some studies, sediment yields showed no increase after harvesting with these techniques (Brown 1978).

Road construction far overshadows logging as a cause of increased sediment loads in stream systems. Researchers report increases of as much as 250 times to 320 times normal sediment production from construction of roads in forested areas. After construction, sediment originating from the barren road surfaces can contribute to high suspended sediment loads for more than five years (Megahan and Kidd 1972).

Localized short-term increases in suspended sediment loads would be unavoidable from road construction and tractor logging under all the alternatives. Impacts would be in proportion to the number of acres of timber harvested and amount of road constructed. Thus, impacts would be least under Alternative C and greater under Alternatives A, B, or D. There would be no substantial difference in impacts between the latter three alternatives, nor are any of these actions anticipated to result in any significant impacts.

Impacts on water quality from mineral exploration or development would be the same under all alternatives and would be mainly in the form of short-term increases in sediment loads from road surfaces and other related surface disturbing activities, such as seismographic exploration. The effects of the increased sediment loads on streams and to municipal watersheds are not expected to be significant.

None of the land use allocations or resource management directions in this RMP are expected to have a significant effect on the quantity, quality, or availability of groundwater or surface water in streams or municipal watersheds.

Impacts to Vegetation

Management actions impact vegetation by changing the species composition in the long-term and the structure and production in the short-term. Permanent changes occur when the topsoil is excavated or severely displaced.

Rangeland Vegetation

By continuing the existing management situation on the M and C category allotments, no significant environmental impacts are anticipated. Because no change is expected from the existing situation on the M and C category allotments, these areas are not discussed further.

Changes in vegetative characteristics such as range condition and forage production are dependent upon changes in plant species composition. A summary of the long-term impacts of grazing management to vegetation is shown in Table 4-1. Appendix M provides allotment specific impacts.

The following analysis identifies the general changes in composition of the key species that are expected to result from the components of each alternative, such as forage use, grazing systems, and vegetation manipulation projects. Because significant composition changes usually take several years, the following analysis discusses only long-term impacts unless otherwise specified.

For the purposes of analysis, light utilization is

Table 4-1 Existing and Expected Long-Term Ecological Conditions by Management Area (Allotment Acres)[1]

Management Area	Condition Class	Existing Situation	Alternatives A Production	B Preferred	C Protection	D No Action
Similkameen	Climax	381	381	381	381	381
	Late Seral	718	842	3,218	3,124	682
	Middle Seral	2,646	2,646	333	333	2,552
	Early Seral	4,336	4,212	4,149	4,243	4,466
	Unclassified	4,441	4,441	4,441	4,441	4,441
	Forage Production (Livestock AUMs)	1,861	1,739	1,357	652	1,861
Conconully	Climax	0	0	0	0	0
	Late Seral	50	50	272	272	47
	Middle Seral	1,143	1,143	921	921	1,089
	Early Seral	0	0	0	0	57
	Unclassified	87	87	87	87	87
	Forage Production (Lifestock AUMs)	256	236	191	114	256
Douglas Creek	Climax	365	365	365	365	365
	Late Seral	2,941	3,002	3,820	3,820	3,820
	Middle Seral	929	868	50	50	50
	Early Seral	175	175	175	175	175
	Unclassified	995	995	995	995	995
	Forage Production (Livestock AUMs)	449	635	474	284	449
Saddle Mountains	Climax	155	155	155	155	155
	Late Seral	2,468	3,327	9,366	8,765	2,418
	Middle Seral	6,363	6,196	58	66	6,367
	Early Seral	2,724	2,032	2,131	2,724	2,770
	Unclassified	2,351	2,351	2,351	2,351	2,351
	Forage Production (Lifestock AUMs)	1.588	1,811	1,509	871	2,484
Badger Slope	Climax	1,634	1,634	1,634	1,634	1,634
	Late Seral	2,324	2,611	3,323	3,066	2,207
	Middle Seral	745	745	3	3	823
	Early Seral	360	73	103	360	399
	Unclassified	437	437	437	437	437
	Forage Production Livestock AUMS)	340	1,403	1,033	601	340
North Stevens	Climax	0	0	0	0	0
	Late Seral	0	0	0	0	0
	Middle Seral	0	0	45	45	0
	Early Seral	674	674	629	629	674
	Unclassified	237	237	237	237	237
	Forage Production (Livestock AUMs)	152	105	79	47	152

Table 4-1 Existing and Expected Long-Term Ecological Conditions by Management Area (Allotment Acres)[1] (continued)

Management Area	Condition Class	Existing Situation	Alternatives A Production	B Preferred	C Protection	D No Action
Juniper Forest	Climax	0	0	0	0	0
	Late Seral	0	1,799	50	50	0
	Middle Seral	50	50	247	247	47
	Early Seral	7,863	6,064	7,616	7,616	7,866
	Unclassified	110	110	110	110	110
	Forage Production (Livestock AUMs)	836	600	432	252	638
Scattered Tracts	Climax	0	0			0
	Late Seral	130	130	67:	67:	123
	Middle Seral	1,039	1,039	495	495	994
	Early Seral	246	246	246	246	298
	Unclassified	250	250	250	250	250
	Forage Production (Livestock AUMs)	209	210	Ia2	112	209

[1] Livestock AUM estimates are for analysis purposes only. Future changes in carrying capacity would only be implemented after monitoring.

defined as 30% use of the current year's growth of key forage species, moderate utilization as 50%, and heavy utilization as 70%. Generally, light and moderate utilization levels increase or sustain the vigor of key species, while heavy utilization reduces photosynthesis below levels needed to maintain root reserves, diminishing the vigor of key species. However, under most grazing systems, the timing of grazing use is the most important factor affecting key species composition. For example, during the critical part of the growing season, normally April 1 to July 15, depending on aspect and elevation, plants are drawing on stored carbohydrates to develop flower stalks and vegetative growth. In most native key species, carbohydrate reserves are replenished during the later stages of this period prior to seed ripe. The critical period of growth ends when the plant has replenished its carbohydrate reserves and has produced seed. Moderate utilization during the period of critical growth may result in reduced vigor, evidenced by fewer seed stalks, lower vegetative production, and a smaller crown size, while continued heavy grazing during this period for several years can completely deplete plant reserves, eventually killing the key species and allowing a corresponding increase in less palatable plants. Moderate or heavy grazing after the critical growing period would not significantly reduce plant vigor. See Appendix J for description and effects of available grazing systems.

Range improvements other than brush control or seeding would not cause significant long-term disturbance of vegetation and, therefore, are not discussed.

Brush control (control of big sagebrush) would convert middle seral vegetation with heavy cover of big sagebrush to late seral. Middle seral range contains adequate populations of perennial grasses to respond to removal of the big sagebrush overstory.

Seedings have been proposed only for early seral vegetation communities, since they contain insufficient populations of perennial grasses to respond to less expensive grazing management or brush control. Seedings would convert early seral vegetation to late seral through direct conversion of annual vegetation communities to vegetation communities dominated by perennial grasses. Only suitable sites in terms of soil depth, slope, and surface soil texture have been proposed for seeding.

Under Alternative A, the analyses of ecological conditions show that heavy (70%) utilization would cause ecological succession to decline toward earlier seral stages. However, the effects of heavy utilization would be negated by the effects of proper grazing systems which would cause ecological succession to advance toward later seral stages. The net result would be no change in ecological conditions from grazing management. Predicted long-term changes in ecological condition (see Table 4-1) under Alternative A would result from brush control and seeding projects (see Table 3-7). Seeding projects are proposed for the Similkameen, Saddle Mountains, Badger Slope and Juniper Forest Management Areas (see Appendix K). Predicted livestock forage increases from short- to long-term as a result of these projects are shown

in Table 3-6. The AUM and ecological condition changes for Juniper Forest are based on only 50% seeding success, since the sites are very harsh because of sandy soils and very hot, dry summers.

Brush control projects are planned only for the Douglas Creek and Saddle Mountains Management Areas (see Appendix K).

Under the Proposed RMP, the analyses of ecological conditions show that grazing management (moderate [50%] utilization and proper grazing systems) would cause middle seral vegetation communities to progress to late seral in the long-term. Middle seral communities include sufficient populations of perennial grasses to respond to grazing management. However, most early seral communities have insufficient populations of perennial grasses to allow significant response to management in the long-term as defined in this document. Late seral and climax communities would be maintained under these grazing management activities. Significant ecological condition changes from shortto long-term for each alternative are displayed in Table 4-1. Vegetation manipulation projects (seeding and brush control) would be proposed under the Proposed RMP for some management areas (see Table 3-7 and Appendix K).

Under Alternative C, ecological conditions would change for all management areas in response to light (30%) utilization and proper grazing management in the same manner and acreages as explained under the Proposed RMP (see Table 4-l). All long-term livestock forage increases as shown on Table 3-6 are a result of these changes in ecological condition.

No vegetation manipulation projects (seeding or brush control) would be proposed under Alternative C. These vegetation manipulations would not be considered compatible with the goal of enhancement of natural values since they drastically alter vegetation communities in a manner other than ecological succession.

Predicted effects of Alternative D are shown in Table 4-1 and Appendix M. For all allotments, except No. 0806 and No. 0778, analyses of ecological conditions estimate that 5% of existing late seral acreage would decline to middle seral, and 5% of existing middle seral acreage would decline to early seral with continuous season long use without rotational grazing systems. Analysis indicates that the rotational grazing system being implemented for Allotment No. 0806 would maintain ecological condition under the target stocking rates (see Table 3-6). Existing middle seral condition vegetation communities would advance to late seral in the long-term for allotment No. 0778 with continued implementation of a rotational grazing system and moderate livestock utilization.

No seeding or brush control projects are currently planned under existing activity plans.

The ORV use area proposed for the Saddle Mountains Management Area under Alternatives A and B, the Proposed RMP, would impact livestock grazing. Livestock weight gains would be expected to decrease, and livestock death losses would be expected to increase due to disturbance and harassment of livestock. Vegetation communities directly disturbed by ORV activity would be expected to decline to early seral condition.

Riparian and Wetland Vegetation

Response to grazing management would occur primarily in the streamside riparian areas which are accessible to livestock and are currently in poor or fair condition. Good condition areas are generally inaccessible to livestock because of dense shrub cover, existing fences, or steep, rocky topography and would not be impacted by any of the alternatives.

Most of the riparian areas in poor and fair condition are currently under spring/summer or season long grazing management. These areas would have significant increases in riparian vegetation under the Proposed RMP and Alternative> A and C, where livestock utilization would be reduced to less than 50%.

Whenever protective fences are constructed, riparian conditions would improve within the exclosures, but nearly all vegetation would be removed from the livestock water gaps. Other impacts to riparian vegetation are discussed in the wildlife and fish sections.

Forest Vegetation

All vegetation in areas scheduled for timber management would be directly affected by road building, timber harvest, and vegetation manipulation. The degree to which existing and future vegetation would be affected depends on the intensity of each management action. The impacts to riparian vegetation are expected to be insignificant due to buffer strip provisions and acreage withdrawals from the timber production base under all alternatives (see Tables 4-2 and 3-8). Areas within draws and adjacent to minor streams (non perennial} would be harvested under all alternatives, but harvesting would include stipulations to mitigate the impacts. However, these activities would temporarily alter the structural characteristic of the riparian vegetation.

Table 4-2 Determination of Sustainable Harvest Level bv Alternative'

	Alternatives (Acres)			
	A	B	C	D
No Planned Timber Harvest (acres)[2]				
Noncommercial Forestlands	2,484	2,484	2,484	2,484
Nonoperable[3]	3,714	3,714	3,714	3,714
Multiple Use Set Aside[4]				
Riparian (equivalent acres[5])	277	418	924	554
Wildlife Habitat (equivalent acres[5])	1,079	1,619	5,400	1,457
ACEC (actual acres)	161	161	161	161
Subtotal	7,721	8,394	12,758	8,370
Low Intensity Timber Production (equivalent acres[5])	960	1,920	4,800	1,680
Full Timber Production Base*	46,076	44,443	37,274	44,707
Total Forestland	54,757	54,757	54,757	54,757
Approximate Annual Timber Sale Program (MM bd. ft.)[6]	4.12	3.98	3.33	4.00

'Minor forest products (firewood, posts, poles) not included.

[2]A breakdown of acres by management area is displayed in Table 3-8.

[3]These acres have been removed from the timber production base due to fragile site condition and reforestation problems.

[4]These acres are commercial forestland which would be withdrawn from timber production to protect other resources. Also shown on Table 3-8.

[5]Although actual acres have not been identified, it is assumed that mitigation measures to reduce site-specific adverse effects would result in productivity losses equivalent to these acres.

[6]A sustainable harvest level for the Spokane District is being calculated (an assumption for the purposes of analysis is that the annual timber sale program would use an average of 89.5 board feet per acre for full production).

Harvesting alters existing forestland vegetation and affects future plant communities. Overstory removal and soil disturbance are the major habitat modifications. Pioneer species may colonize disturbed ground, initiating secondary succession within the stand. Timber harvesting results in conversion of overmature, mature, and second growth conifers to early successional stages. Acres that would be affected by harvest over the next 10 years range from approximately 8,300 acres under Alternative C to approximately 10,300 acres under Alternative A.

Continuation of intensive timber management would not allow future forest stands within the intensive timber production base to achieve overmature status. Some plant species associated with older age timber stands could be permanently excluded from intensively managed forestlands. In addition, younger age classes exhibit simpler structure. They contain fewer species and less variety in height, age, and distribution of plants.

Natural regeneration would be relied on to restock the cutover areas. Occasionally, reforestation is accomplished artificially by mechanical seeding or hand planting. Nursery grown conifer seedling are usually planted the first or second year following harvest. After 10 to 15 years, the planted trees usually dominate other vegetation, accelerating natural plant succession.

Endangered, Threatened or Sensitive Plants

Unidentified populations of state or federally listed plant species in previously undisturbed areas could be susceptible to disturbance. Since information is lacking about the response to grazing, the impact of proposed changes in grazing management cannot be predicted. Impacts due to vegetation manipulation, range improvement construction, and timber management activities could reduce unidentified populations of endangered, threatened or sensitive species. Therefore, intensive plant inventories of the project areas would be conducted, and the projects would be modified, if necessary, to protect endangered, threatened or sensitive species.

Conclusions

Long-term impacts to ecological condition of vegetation from livestock grazing would advance range condition under Alternatives B and C. Of the acres in I category allotments, roughly 25% would advance in ecological condition under the Proposed RMP and 23% under Alternative C. Under Alternative D, about 1% of the I category allotment acreage would decline in ecological condition, and about 2% would advance in ecological condition due to grazing management. No changes in ecological conditions are anticipated from grazing under Alternative A.

Vegetation manipulation projects would advance ecological condition on about 6% of the I allotment acreage under Alternative A and on about 2% under the Proposed RMP.

Forage production would increase under Alternative B as compared to forage production based on 50% utilization of key forage species under existing vegetation conditions due to grazing systems that improve plant vigor and advance ecological succession and due to vegetation manipulation of high potential/low production sites that would have little or no opportunity to advance successionally in a reasonable length of time under other management schemes.

Forage production would increase from short-to long-term under Alternative A due to vegetation manipulation projects.

Forage production would increase from shortto long-term under Alternative C due to light utilization of key forage species and grazing systems that improve plant vigor and advance ecological succession.

Alterations to the structure and development of forest plant communities would be the most long-term and widespread impact of the timber management program. Under intensive timber management, existing older forest communities scheduled for timber harvest would be converted to earlier successional stage communities. These impacts would be the greatest under Alternative A followed by the Proposed RMP and Alternatives C and D, respectively. However, differences between all alternatives are insignificant. Impacts as identified above would occur in all management areas containing commercial forestland (see Table 3-8).

Short-term use of commercial forestlands for timber harvest would increase long-term production of wood fiber as older, slow growing stands are replaced by young, fast growing stands managed for optimum wood production. In the long-term, as the area approaches a balance of age classes, maximum growth of commercial conifers would be achieved. Intensive timber management practices (such as thinning, slash disposal, and planting) would favor survival of conifers and would suppress, but not eliminate, shrubs and herbaceous plants. Diversity and complexity of plant communities would diminish as maximum growth of commercial conifers is emphasized.

Impacts to Wildlife

Wildlife forage and cover would increase in grazing allotments where livestock stocking rates are reduced. Conversely, forage and cover would decrease where stocking rates increase. (Estimated livestock grazing use by management area are displayed in Table 3-6; the base line for changes is the short-term use under Alternative D.) Where stocking rate increases are substantial, as they are for the Badger Slope Management Area under Alternative A, populations of small mammals and upland game birds would decline. Crucial deer winter range would not be affected by livestock grazing under the Proposed RMP or Alternatives A and C.

Riparian habitat would improve whenever livestock utilization and pressure would be reduced through management or eliminated by construction of protective fencing.

Forest management activities which include (1) road construction, (2) logging operations, and (3) site preparation would affect wildlife in the Similkameen, Conconully, Rock Creek, North Ferry, North Stevens, and Huckleberry Mountains Management Areas. Road building and logging operations would displace wildlife from the activity area, but the effect would be short-term. Newly constructed roads left open after logging operations would indirectly result in increased disturbance to wildlife species that utilize areas such as crucial winter range, lambing areas, and fawning areas. The greatest effects of forest management on wildlife habitat and populations would result from changes in overstory structure and tree species composition.

Under Alternatives A and B, ORV activity would increase in the designated intensive use area in the Saddle Mountains Management Area. All wildlife within or adjacent to these areas would be adversely affected.

Mineral operations would affect wildlife under all alternatives. The greatest impacts would result from exploration and site development for both mining and oil and gas operations and from production of mining operations. Impacts which include wildlife displacement and degradation of habitat which could cause localized population losses would be relatively brief for oil and gas activities. Impacts from mining operations could be long-term in the Similkameen, Conconully, North Ferry, North Stevens, and Huckleberry Mountains Management Areas but are not expected to result in cumulative disturbances of more than 100 acres per year.

Impacts to Fish

Anadromous fish would not be significantly affected by any activity under the four alternatives.

Riparian fencing would improve fish habitat in Alternatives A, B, and C. Streams that would be affected most are Salmon Creek in the Conconully Management Area, Johnson Creek in the Saddle Mountains Management Area, and Rock Creek in the Rock Creek Management Area. Changes in grazing management on I allotments would have little impact on fish because of the small amount of fish habitat in the allotments.

Forest management activities would have localized but relatively small effects on fish habitats in the Similkameen, Conconully, Rock Creek, North Ferry, North Stevens, and Huckleberry Mountains Management Areas. Impacts would be least under Alternative C, which has 924 acres of riparian habitat protected from logging and greatest under Alternative A, which has 277 protected acres.

Impacts to Recreation Resources

The only identified impact from grazing management was fence building which impedes access and degrades site integrity.

Analysis of impacts resulting from forest management practices was applied to the Similkameen, Conconully, Rock Creek, North Ferry, North Stevens, Huckleberry Mountains, and Scattered Tracts Management Areas. Long-term visitor use would increase as a result of roads built for logging operations. The most noticeable effect would be on ORV use. Other visitor use would increase over the long-term after reforestation of harvested areas.

ORV recreation use occurs in all of the management areas. In the known ORV use areas, there has been an increase in visitor use, mainly by motorcyclists. This trend is expected to continue under Alternatives A and D. In the Proposed RMP, Alternative B, there would be a reduction in ORV use due to the proposed restrictions. This reduction would be greater under Alternative C since ORV use on all of the public lands would be restricted or closed to ORVs.

All mineral operations, specifically oil and gas production, would reduce visitor use under all alternatives. Surface disturbing activities, such as road construction, exploratory well sites, and mining operations, remove acreage from recreation use while simultaneously concentrating use in nearby undisturbed areas. The combination of the two would cause recreationists to seek recreation elsewhere.

Table 4-3 displays the type of activities affecting recreation resources.

Table 4-3 Proposed by Alternatives

Management Areas	Alternatives ABCD Grazing	ABCD Forest Management	ABCD Recreation	ABCD Minerals
Similkameen	- - - -	t t t t	+ + - +	- - - -
Conconully	- - - -	t t t t	+ + - +	- - - -
Jameson Lake	0000	0000	+ + - +	- - - -
Douglas Creek	- - - -	0000	+ + - +	- - - -
Saddle Mountains	- - - -	0000	+ + - +	- - - -
Rattlesnake Hills	0000	0000	+ + - +	- - - -
Badger Slope	- - - -	0000	+ + - +	- - - -
Rock Creek	0000	t t t t	+ + - +	- - - -
North Ferry	0000	+ + + +	+ + - +	- - - -
North Stevens	- - - -	+ + + +	+ + - +	- - - -
Huckleberry Mountains	0000	t t t t	+ + - +	- - - -
Juniper Forest	- - - -	0000	+ + - +	- - - -
Scattered Tracts	- - - -	t t t t	+ + - +	- - - -

+ = Increase
- = Decrease
0 = No Change

Impacts to Visual Resources

Under all alternatives, no significant impacts to visual resources are expected. Under the Preferred and Production Alternatives, grazing systems have the potential to create contrast between grazed and rested pastures in some localized areas. Some improvements and vegetative manipulation projects would add visually acceptable variety in an otherwise monotonous landscape. Certain portions of the RMP Area may experience slight degradation of visual quality. Range improvements for livestock and pipeline fence construction, which have the potential to create visual impacts, would be the most numerous under the Production Alternative followed by the Preferred, No Action, and Protection Alternatives. Project design features, as well as visual resource management (VRM) program procedures and constraints, would minimize landform and vegetative contrast. In the long-term, visual quality would improve as range condition improves.

ORV activities normally leave roads and trails crisscrossing vast expanses. Most of these trails are visible for decades. This impact would be greater under Alternatives A and D where the majority of the public land (256,917 acres) is essentially open to ORV use. Under Alternative B, this impact would be less since ORV use on an additional 26,417 acres would be restricted to roads and trails. Under Alternative C, the impact would be least since restrictions would be placed on all ORV activities.

Exposed well heads, pumps, pipelines, and the extensive road systems servicing them affect visual quality in oil and gas production areas. While in production, this equipment is visible for miles. After production, most equipment is removed, but road systems remain.

Table 4-4 displays the type of activities affecting the visual resources.

Table 4-4
Proposed Alternatives

Management Areas	Alternatives ABCD Grazing	ABCD Forest Management	ABCD Recreation	ABCD Minerals
Similkameen	0000	t t t t	- - + -	- - - -
Conconully	0000	t t t t	- + -	- - - -
Jameson Lake	0000	0000	..0000	- - - -
Douglas Creek	0000	0000	0000	- - - -
Saddle Mountains	- - + -	0000	- - + -	- - - -
Rattlesnake Hills	0000	0000	-- + -	1111
Badger Slope	- - + -	0000	- - + -	- - - -
Rock Creek	0000	t t t t	- - + -	- - - -
North Ferry	0000	t t t t	- - + -	- - - -
North Stevens	0000	t t t t	- - + -	- - - -
Huckleberry Mountains	0000	t t t t	+ -	- - - -
Juniper Forest	0000	0000	- - + -	- - - -
Scattered Tracts	- - - -	t t t t	+ + - +	- - - -

+ = Increase in visual quality
- = Decrease in visual quality
0 = No Change

Impacts to Cultural Resources

In accordance with the National Historic Preservation Act of 1966, as amended, Executive Order 11593, and Bureau policy, appropriate measures would be taken to identify and protect cultural sites prior to ground disturbing activities. These regulations, policies, and legislation are common to all management areas in all alternatives. As a result of this guidance, the effects of activities that would normally reduce cultural resource values would be mitigated. Although some of the activities involved in implementation of the various management programs could affect cultural resource values, no impacts are expected to affect known cultural sites of significance.

Wilderness

The impacts to the Juniper Dunes Wilderness consist primarily of outside sights and sounds. The area most affected would be the western portion of the wilderness that is adjacent to the 2,640 acres that are open to ORV use. These impacts would occur primarily during the early spring and fall high use periods. This impact is not expected to be significant under any of the alternatives. However, the impacts associated with Alternative C could be less since ORVs would be restricted to designated roads and trails throughout the remaining public lands in the management area. This restriction may curtail some ORV use. Consequently, the level of outside sights and sounds heard within the wilderness could diminish, therefore, lessening the impact on solitude.

Acquisition of public access is not expected to result in an increase in visitor use or the associated impacts since physical access to the public land in the manage area is currently provided by the adjacent private landowners.

Impacts to Mineral Resources

Impacts on mineral resources resulting from shallow surface disturbances, such as reservoir or road construction activities, would be insignificant. None of the alternatives involve any new withdrawals of lands from uses authorized under the mining and mineral leasing laws; therefore, impacts under all alternatives would be insignificant. However, site-specific environmental analyses of individual mineral proposals would likely identify special operating stipulations for some mineral developments. In areas where development occurs, there would be a permanent loss of the extracted minerals to the area affected. These losses would be considered irreversible and irretrievable.

An additional 26,417 acres of public land in the Saddle Mountains and Rock Creek Management Areas would have ORVs permanently restricted to designated roads and trails. There are an estimated 57 miles of such roads and trails in these two areas. Since these ORV restrictions apply to mineral exploration vehicles, there would be some reduction in access. The 26,417 acres do remain open to mineral entry, and new roads or trails to mining claims, mineral leases, or common material sale sites would be permitted on a case-by-case basis.

Impacts to Economic Conditions

The impacts are expressed in terms of the effects on dependence on public forage, ranch property values, and local income and employment from grazing, timber, and construction of range improvements. As stated in the affected environment section, only the 16 lessees of allotments in the Improve category are included in the analysis.

It is assumed that land identified for disposal which is currently subject to a grazing lease would be used as rangeland regardless of ownership. The major potential impact to the operator would be the possible change in the lease rate.

The alternatives would not significantly alter the impacts from energy and mineral development.

Effect of Dependence on Public Forage

Table 4-5 shows ... ar forage requirements of lessees would be affected by the alternatives, The table shows the number of oaerators in each herd size class, classified by whether they would have a loss, no change, or a gain in public forage (forage from BLM administered lands) in terms of their annual forage requirements. Also shown in the table is the average change in public forage as a percent of annual requirements.

In the short-term, a loss of more than 10% of annual requirements would be experienced by five

Table 4-5 Number of Lessees Affected by Change in Public Forage*

Change in Forage as Percent of Annual Requirements	Herd Size Group			Herd Size Group		
	Under 400	400-999	Total	Under 400	400-999	Total
Production Alternative A						
	Short-Term			**Long-Term**		
Loss over 10.0%	3	2	5	2		2
Loss under 10.0%	4		4	5	2	7
No change						-
Gain under 10.0%	3	1	4	3	1	4
Gain 10.0% to 19.9%	1		1	1		1
Gain 20.0% or more	2		2	2		2
Average Change	+ 2%	0%	+ 2%	+ 3%	0%	+ 2%
Proposed RMP Alternative B						
Loss over 10.0%	-	-		4		4
Loss under 10.0%	-	1	1	5	2	7
No change	13	1	14		-	-
Gain under 10.0%	-	1	1	1	1	2
Gain 10.0% to 19.9%	-	-		3	-	3
Gain 20.0% or more	-	-			-	
Average Change	0%	-1%	0%	-1%	-2%	-1%
Protection Alternative C						
Loss over 10.0%	7	1	8	6	1	7
Loss under 10.0%	4	1	5	4	1	5
No change	-	-			-	
Gain under 10.0%	2	1	3	3	1	4
Gain 10.0% to 19.9%	-					
Gain 20.0% or more	-					
Average Change	-8%	-6%	-7%	-7%	-6%	-6%
No Action Alternative D						
Loss over 10.0%						
Loss under 10.0%		1	1		1	1
No change	13	1	14	13		13
Gain under 10.0%		I	1		2	2
Gain 10.0% to 19.9%					-	
Gain 20.0% or more						
Average Change	0%	-1%	0%	0%	+ 3%	+ 1%

*Change from active use.

lessees, and four lessees would have smaller losses under Alternative A. Under the Proposed RMP and Alternative D, **a loss of less than 10% would be experienced by one lessee. Under** Alternative C, **a loss of more than 10% would be experienced by eight lessees, and five would have smaller losses.**

Some lessees would experience gains in forage as shown in Table 4-5. Others would not be affected by any alternative.

In **the long-term, a loss of more than 10% of annual** requirements would be experienced by two lessees, and six would have smaller losses under Alternative A. Under the Proposed RMP, a loss of more than **10% would be experienced by four lessees, and** seven would have smaller losses. Under Alternative C, a loss of more than 10% would be experienced by seven, and five would have smaller losses.

Under Alternative D, one lessee would experience a loss of less than 10%.

Effect on Ranch Property Values

Table 4-6 shows the effect on ranch property **values. Under Alternative A, eight lessees would have** a short-term gain in ranch value, and eight would have a short-term loss in ranch value. In the short-term, under the Proposed RMP and Alternative D, ranch values would not be affected. **Under Alternative C, two lessees would have a gain in ranch property value, and 14** would have the value of their property reduced. In the long-term, there would be a gain in ranch value for eight lessees **and a loss in ranch value for eight lessees** under Alternative A. Six lessees would have a gain in ranch property value, and 10 would have the

Table 4-6 Number of Lessees with Loss or Gain in Ranch Value*

	Herd Size Group			Herd Size Group		
	Under 400	400-999	Total	Under 400	400-999	Total
Production Alternative A						
	Short-Term			Long-Term		
Lessees with Losses	8	-8	8	7	1	8
Total Losses ($000)	-42		-50	-33	13	-46
Lessees with Gain	6	2	8	6	2	8
Total Gains ($000)	+78	+22	+100	+81	+27	+108
Net Change ($000)	+36	+14	+50	+48	+14	+62
Proposed RMP Alternative B						
Lessees with Losses				9	1	10
Total Losses ($000)	-	-		-63	-20	-83
Lessees with Gain				4	2	4
Total Gains ($000)	-	-	-	+45	+5	+50
Net Change ($000)				-18	-15	-33
Protection Alternative C						
Lessees with Losses	11	3	14	10	3	13
Total Losses ($000)	-133	-64	-197	-125	-56	-181
Lessees with Gain	2	-	2	3	-	3
Total Gains ($000)	t14		t14	-16	-	t16
Net Change ($000)	-119	-64	-183	-109	-56	-165
No Action Alternative D						
Lessees with Losses					1	1
Total Losses ($000)		-		-	-12	-12
Lessees with Gain					1	1
Total Gains ($000)	-		-	-	t54	t54
Net Change ($000)				-	+42	+42

*Change calculated at $60 per AUM active preference. No changes in ranch value would occur under the Preferred or No Action Alternatives in the short-term.

value of their property reduced in the long-term under the Proposed RMP. Three lessees would have a gain in ranch value, and 13 lessees would have the value of their property reduced under Alternative C. Under Alternative D, one lessee would have a gain in ranch property value in the long-term, and one lessee would have the value of the property reduced.

Effects of Changes in Public Forage Use on Income and Employment

The effects of the alternatives on personal income and employment are shown in Table 4-7. The changes in local personal income and jobs were estimated from changes in livestock sales, which were assumed to vary proportionately with changes in AUMs. These changes may be overestimated if the lessees in the RMP area are not able to utilize the forage on public lands during the period it is offered.

In the short-term under the Proposed RMP and Alternatives C and D, local personal income and employment would be reduced. Under Alternative A, local personal income and employment would be increased, assuming that all authorized use was utilized.

In the long-term, local personal income and employment would be increased under Alternatives A and D and reduced under the Proposed RMP Alternative C. The construction of range improvements would generate local income and employment in the short-term.

Effects of Timber Harvest

Effects of changes in the annual timber sales volume for each alternative on local personal income and employment are shown in Table 4%

In determining the effect of changes in timber harvest, the annual timber sales volume for each alternative was subtracted from the 1979-83 average timber harvest. It should be noted that these annual timber sale volumes are estimates based on proposed land use allocations (see Footnote 8 on Table 4-2).

Under Alternative A, there would be a gain of $189,300 in local personal income and gain of seven jobs from the historical average. Under the Proposed RMP, there would be a gain of $152,400 in local personal income and an increase of six jobs. Under Alternative C, the losses in local personal income and employment would amount to $18,700 and one job. The gains under Alternative D would amount to $157,700 and 6 jobs.

Favorable prospects for mineral production exist as described in Chapter 2, but available information is inadequate to permit their quantification.

Conclusion

The effects on local personal income and employment are summarized in Table 4% In the shortand long-term, local personal income and employment would increase under Alternatives A, B, and D. Under Alternative C, income and employment would decrease.

In the short-term, there would be a net increase in ranch value under Alternative A, a net decrease in ranch value under Alternative C, and no change under Alternatives B and D.

In the long-term, there would be a net increase in ranch value under Alternatives A and D and a net decrease in ranch value under Alternatives B and C.

Table 4-7 Effects on Local Personal Income and Employment (Short-term/Long-term Changes in Thousands of 1982 Dollars and in Jobs)

Activity	Change in Personal Income	Change in No. Jobs	Change in Personal Income	Change in No. Jobs
	Production Alternative A		**Proposed RMP Alternative B**	
Public Forage	+7.1/+12.1	010	-1.5/-6.1	010
Construction of Range Improvements1	+ 36.610	+2/0	+ 24.810	+1/0
Timber Harvest*	+189.3/+189.3	+7/+7	+152.4/+152.4	+6/+6
Total Change	+233.0/+201.4	+9/$7	+175.7/+146.3	+7/+6
	Protection Alternative C		**No Action Alternative D**	
Public Forage	-33.0/-23.8	-I/-I	-1.5/+7.7	o/o
Construction of Range Improvements1	+ *20.410*	+1/0	+3.6/0	010
Timber Harvest*	-18.7/-18.7	-1/-1	+157.7/+157.7	+6/+6
Total Change	-31.3/-42.5	-1/-2	+159.8/+165.4	+6/+6

'Construction effects are distributed as average annual amounts over an assumed lo-year construction period. No long-term impacts due to construction are expected,

*These figures are displayed for illustration only.

Chapter 5
Consultation and Distribution

Phacelia lenta

Sticky Phacelia is an endemic of the Columbia river which occurs on BLM lands in Douglas county. It grows in crevices on basalt cliffs. It is a Federal Candidate for listing as threatened or endangered.

Introduction

This Resource Management Plan (RMP) was prepared by an interdisciplinary team of specialists from the Spokane District Office. Writing of the RMP began in May 1984; however, a complex process that began in May 1983 preceded the writing phase. This process included resource inventory, public participation, interagency coordination, and preparation of a management situation analysis (on file at the Spokane District Office). Consultation and coordination with agencies, organizations, and individuals occurred in a variety of ways throughout the planning process.

Public Participation

On July 1983, a notice was published in the Federal Register and local news media to announce the formal start of the RMP planning process. At that time a planning report was sent to the public to request further definition of major issues within the planning area. It also provided an opportunity to comment on proposed criteria for the formulation of alternatives.

On April 27, 1984, a notice of document availability was published in the Federal Register and subsequently in the local news media for the "Spokane Resource Management Plan Proposed Land Use Alternatives" brochure. This document provided an outline of proposed alternatives, listed major issues, and revised planning criteria. Three alternatives portrayed various resource programs showing an arrangement from emphasis on production of commodities to emphasis on enhancement of natural values with a middle ground alternative attempting to establish a point between the two. The fourth (No Action) alternative portrays the existing situation. On October 1, 1984, a Federal Register notice announced availability of the Draft Spokane Resource Management Plan and Environmental Impact Statement and provided the addresses for obtaining copies and for submitting written comments. The Draft stated that the public comment period would begin October 1 and end on December 31, 1984. No public meetings were scheduled during the comment period. However, the Spokane District personnel did meet with four different groups at their request to clarify partisan concerns with the RMP.

Consistency Review

Prior to approval of the proposed RMP, the State Director will submit the plan to the Governor of Washington and identify any known inconsistencies with state or local plans, policies, or programs. The Governor will have 80 days in which to identify inconsistencies and provide recommendations in writing to the State Director. The consistency of the plan with the resource related plans, programs, and policies of other federal agencies, state and local government, and Indian tribes will be reevaluated in the future as part of the formal monitoring and periodic evaluations of the plan.

Comment Procedures

Persons wishing to make comments for the District Manager's consideration in the development of the decision should submit comments by September 15, 1985, to the District Manager, Spokane District Office. The plan decisions will be based on the analysis contained in the EIS, additional data available, public opinion, management feasibility, policy, and legal constraints.Any person who participated in the planning process and has an interest that is or may be adversely affected by approval of the proposed RMP may file a written protest with the Director of the BLM within 30 days of the date the EPA publishes the notice of receipt of the proposed RMP and final EIS in the Federal Register. Protests should be sent to the Director, Bureau of Land Management, 18th and C Streets NW, Washington D.C. 20240 by September 15, 1985. The protest shall contain the name, mailing address, telephone number, and interest of the person filing the protest; a statement of the issues being protested (raising only those issues that were submitted for the record during the planning process); a statement of the parts of the plan being protested; copies of all documents addressing the issues submitted during the planning process by the party, or an indication of the date the issues were discussed for the record; and a concise statement explaining why the State Director's decision is believed to be wrong.

The Director shall render a prompt written decision on the protest, setting forth the reasons for the decision. The decision shall be sent to the protesting party by certified mail and shall be the final decision of the Department of the Interior.

Advisory Council

The Bureau's Spokane District Advisory Council participated in a review of the preliminary draft of the Preferred Alternative and scoping analysis. Their review and subsequent feedback was helpful in formulation of the Preferred Alternative. The Advisory Council also reviewed the Draft RMP/EIS and provided comments on the adequacy of the document.

Agencies and

The P team consulted with and/or received input from the following organizations during the development of the RMP.

Federal Agencies

U.S. Forest Service
U.S. Bureau of Reclamation
U.S. Soil Conservation Services
U.S. Fish and Wildlife Service

State and Local Governments

Washington State Department of Game
Washington State Department of Natural Resources
Grant County Commissioners
Franklin County Planning Department

The following is a list of officials, agencies, and organizations to whom copies of the RMP/EIS have been sent:

1. Governmental Agencies

Federal

U.S. Army Corps of Engineers
U.S. Bureau of Indian Affairs
U.S. Environmental Protection Agency
U.S. Department of Energy
U.S. Fish and Wildlife Service
U.S. National Park Service
U.S. Forest Service
U.S. Soil Conservation Service
U.S. Bureau of Mines
U.S. Geological Survey
U.S. Bureau of Reclamation
U.S. Agricultural Stabilization and Conservation Service

State

Office of the Governor
Office of the Secretary of State Washington
State Library Washington
State Conservation Commission
Washington State Superintendant of Public Instruction
Washington State Department of Natural Resources
Washington State Parks and Recreation Commission
Washington State Treasurer
Washington State Department of Ecology
Washington State Department of Agriculture
Washington State Department of Game
Washington State Department of Fisheries
Washington State Farm Bureau
Washington State Division of Geology and Earth Resources
Washington State Department of Transportation
Washington State Commissioner of Public Lands

County

Following is a list of the Planning Departments and/or County Commissioners:

Adams County
Asotin County
Benton County
Chelan County
Columbia County
Douglas County
Ferry County
Franklin County
Garfield County
Grant County
Kittitas County
Klickitat County
Lewis County
Lincoln County
Okanogan County
Pend Oreille County
Spokane County
Stevens County
County
Whitman County

2. Congressional

U.S. Senator Daniel Evans
U.S. Senator Slade Gorton
U.S. Representative Thomas Foley
U.S. Representative Sid Morrison
U.S. Representative Allan B. Swift

U.S. Representative Norman 0. Dicks
U.S. Representative Don L. Bonker

3.

Senator Alex Deccio
Senator Frank Hansen
Senator George Sellar

4.

Ministry of Lands, Parks and Housing, British Columbia
International Boundary Commission Canadian Section

5.

ASARCO
Ace of Clubs
Ahtanum-Moxes Conservation District
Apollo Exploration Inc.
Association of N.W. Steelheaders

North Central Washington Audubon Society
Palouse Audubon Society
Blue Mountain Audubon Society
Lower Columbia Basin Audubon Society
North Cascades Audubon Society
Spokane Audubon Society
Yakima Valley Audubon Society

Burlington Northern Timber Lands Inc.
Backcountry Horsemen of Washington
Colorkum Livestock Association
Cascade 4 x 4's
Cascade Tall Inc.
Caveman 4 Wheelers
Columbia Basin Sand Commandos
Columbia Basin Rock Hound Club
Columbia Basin Fisheries Alliance
Mountaineers
Desert Rats
Entiat Stockmen's Association
Eastern Oregon Mining Association
Eastern Washington State Historical Society
Eastern Washington State University
Ephrata Sportsmen Association
Federation of Outdoor Clubs
Friends of the Earth
Frontier Mining and Oil Corporation
Geothermal Resources Council
Half-Fast Motorcycle Club
Hill and Gully Motorcycle Club
Inter-Mountain Alpine Club
League of Women Voters
Mid-Columbia Archaeological Society
National Wildlife Federation
Natural Resources Defense Council
Nature Conservancy
Nevada Outdoor Recreation Association
Northwest Federation of Mineralogical Societies
Northwest Mineral Prospectors Club
Northwest Mining Association
Northwest Petroleum Association
Northwest Pine
P.N.W. 4-Wheel Drive Association
Pacific N.W. Trail Association
Sierra Club, Spokane
Society for Range Management
Spokane Action Committee, Wash. Env. Council
Spokane Mountaineers
Stump Jumpers, Motorcycles Club
Timber Line 4 Wheelers
Tri-City Peak Putters
U and I, Inc.
Wildlife Management Institute
Wilderness Society
Wahluke Slope Businessmen's Association
Washington Beef Commission
Washington Cattlemen's Association
Washington Environmental Council
Washington Natural Heritage Program
Washington Wilderness Coalition
Washington Rockhound
Western Oil and Gas Association
Whatever 4 Wheelers

In addition to these officials, agencies, and organizations, this RMP/EIS has been sent to 831 individuals who have expressed an interest in the use and management of the BLM administered land in eastern Washington.

Copies of this (Final) RMP/EIS will be available for public inspection at the following BLM offices and local libraries.

BLM Washington D.C. Office of Public Affairs
BLM Oregon State Office, Public Affairs Staff
BLM Spokane District Office
BLM Wenatchee Resource Area Office
Spokane Public Library
Wenatchee Public Library
Pasco Public Library
Richland Public Library
Public Library
Okanogan Public Library

Comment Analysis

The comment letters received concerning the Draft RMP/EIS are reprinted in the following section. Changes or additions to the draft arising from public comments are incorporated in the appropriate section, chapter, appendix, or map of this Proposed RMP and Final EIS. Several reviewers made various resource management recommendations. These recommendations, as well as all public input, will be considered in the development of subsequent site-specific or program specific activity plans, such as the Management Plan for the Juniper Dunes Wilderness Area or annual Timber Sale Plan.

The letters which were received have been reproduced in this document with each substantive comment identified and numbered. BLM responses immediately follow each of the letters. Comments which expressed a preference for a particular alternative or emphasis of a particular program were considered by management while preparing the Proposed Plan.

Since this document completely replaces the Draft RMP/EIS, many changes, additions, or corrections were made in the body of the document which results in relatively brief comment responses. The most significant changes in the plan are in those areas where the comments provided site-specific information or suggestions. The RMP was not expanded to describe minute details or site-specific project proposals that are more appropriately analyzed in activity plan and related environmental analysis documents.

No formal public meetings were requested or held. The BLM staff did meet with individual users or groups upon request to explain details of the proposed plan and the planning process and to encourage formal comment letters. The District Advisory Council reviewed and discussed the plan. They made informal comments to the District but elected not to prepare any formal resolutions or motions on the Plan.

The following list contains the names of all the Agency(ies), Organization(s), or Individuals(s) who commented on the Draft RMP/EIS. The numbering indicates the order in which the comments were received.

1. State of Washington, Office of Archaeology and Historic Preservation
2. U. S. Borax
3. Public Utility District of Grant County
4. Mr. R. A. Hensel
5. Leonard Steiner
6. Southern California Edison Company
7. Washington State Department of Natural Resources
8. Michael E. Boyd, M.D.
9. Atlantic Richfield Company
10. South Douglas Conservation District
11. Foster Creek Conservation District
12. Cranz Nichols, Ill
13. Victor E. Robert
14. Two Bar A Ranch
15. Two BAR A Ranch
16. Friends of the Columbia Gorge
17. Washington State Department of Natural Resources
18. Inland Empire Big Game Council
19. U.S.D.I. Bureau of Reclamation
20. Rich Jali
21. Washington Native Plant Society
22. Gary Maughn
23. Douglas Morton
24. Eastern Washington Dirt Riders Association
25. John R. Swanson
26. Michael A. Deason
27. Washington Native Plant Society
28. Columbia Gorge Coalition
29. The Nature Conservancy
30. U.S.D.A. Soil Conservation Service
31. U.S. Environmental Protection Agency Region X
32. Simon J. Martinez
33. Pam Martinez
34. Washington Wilderness Coalition
35. Lower Columbia Basin Audubon Society
36. Edith J. Taylor and Lynn A. Taylor
37. DNR, Washington Natural Heritage Program
38. Joyce Walker-Conbere
39. The Wilderness Society
40. Greg Babcock
41. Washington Cattlemen's Association, Inc.
42. Ann R. Conn
43. State of Washington Department of Game

1

JOHN SPELLMAN
Governor

JACOB THOMAS
Director

STATE OF WASHINGTON
OFFICE OF ARCHAEOLOGY AND
111 West Twenty-First Avenue, KL-11 • Olympia, Washington 98504 • (206) 753-4011

October 16, 1984

Mr. Joseph K. Buesing
District Manager
Bureau of Land Management
East 4217 Main Avenue
Spokane, WA 99202

Log Reference: 574-F-BLM-06

Re: Spokane Resource Management Plan/EIS

Dear Mr. Buesing:

A staff review has been completed of your draft plan and environmental impact statement. The document considers cultural resources and potential impacts to them in a general sense and acknowledges that identification, evaluation of significance, and determination of effect will be made prior to the implementation of any recommended project.

1-1 Given the lack of project specific impacts at this date, we would suggest you consider the development of a Programmatic Memorandum of Agreement (PMOA) to cover the cultural resources aspect of your proposed program. The PMOA may serve as an appropriate means to implement and coordinate the management plans you propose to develop for all National Register properties.

Thank you for this opportunity to comment.

Sincerely,

Robert G Whitlam, Ph.D
State Archaeologist
(206) 753-4405

dw

ID 1884A (Diskette 1010A(2))

RMP Comment Responses

1-1 A programmatic memorandum of understanding will be developed and proposed to the State Archaeologist within six months of publication of the RMP Record of Decision.

2

E. 5603 Third
Spokane, WA 99212

TECHNICAL DEPARTMENT

U.S.BORAX
A MEMBER OF THE RTZ GROUP

October 22, 1984

Joseph Buesing
District Manager
Bureau of Land Management
Spokane District Office
E. 4217 Main Avenue
Spokane, WA 99202

Dear Mr. Buesing:

We have identified the following as being our major issues for the Spokane Resource Area Management Plan. We feel they should be specifically identified as issues during the planning process because the area involved may contain potential for a variety of mineral and energy resources.

2-1 * In what way will the agency insure that the federal management objectives to provide for mineral entry and reclamation stated in regulations (43 CFR 3809) be fostered?

* In what way will the agency gather information in order to adequately evaluate the energy and mineral resource potential within the planning area?

2-2 * In areas where there is potential for deposits of minerals, how is the agency going to develop land use allocations which will be compatible with possible access to, exploration for, and development of these resources?

Thank you for the consideration of our views. Please place us on any mailing list to keep us current with the land use planning efforts.

Sincerely,

Steve Goss
Land Agent

SG/11

UNITED STATES BORAX & CHEMICAL CORPORATION 3075 WILSHIRE BOULEVARD LOS ANGELES CALIFORNIA 90010 (213) 381-5511
MAIL ADDRESS: P O BOX 73128 SANFORD STATION LOS ANGELES CALIFORNIA 90073

2-1 Mineral activity was not identified as a major issue by the public or by the Interdisciplinary Planning Team during the scoping process for this RMP. This was due primarily to the very low or limited activity regarding the development of minerals. There has been an increase in the exploration for oil and gas in the Columbia Basin area; however, the impacts associated with this activity were addressed independently in a previous environmental assessment for oil and gas leasing in Washington State. The findings of this EA did not indicate any significant impacts.

2-2 The minerals section of Chapter 2 has been amended to include a further description of the mineral potential in the planning area. A synopsis of the oil and gas EA has been included as Appendix B. See also Chapter 2, "History."

3

R. A. HENSEL
ATTORNEY
P O BOX 308
TELEPHONE (509) 745-8493
WATERVILLE, WASHINGTON 98858

October 29, 1984

Mr. Joseph K. Buesing, District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

RE: Resource Management Plan/EIS for Washington Federal Lands

Dear Mr. Buesing:

I received you booklet dated October 1, 1984, regarding the resource management plan. and think you have done a very good job. I have been on your list in a dual capacity, one is my association with the North Central Washington Audubon society in Wenatchee and the other as an adjacent land owner to the Douglas Creek management area.

In both capacities I am vitally interested in who gets the privilege of trying to help you carry out the objectives of the plan. I assume that it won't be our best known poachers of fish and game. Please check out the applicants carefully with the Washington State Game Department.

Very truly yours,

R. A. HENSEL

RAH:pb

4

PUBLIC UTILITY DISTRICT OF GRANT COUNTY
P O BOX 878 • EPHRATA, WASHINGTON 98823 • 509/754-3541

October 23, 1984

Mr. Joseph Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, WA 99202

Dear Mr. Buesing:

I am writing in response to the October 1, 1984, draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the Spokane District.

The Environmentrl Department of Grant County Public Utility District No. 2 has reviewed the draft EIS on your Resource Management Plan and has no concerns regarding your proposed measures as outlined.

Some confusion does exist, however, over the specific location of and plans for portions of your proposal as it applies to the Columbia River particularly the areas around the District's Priest Rapids and Wanapum Reservoirs. I would like to request additional information pertaining to these areas particularly on land exchanges, mineral leasing, grazing and recreational use of these scattered holdings of BLM land. Once this department nas had an opportunity to review this material any resulting comments or concerns will be forwarded to your office. 4-1

Thank you for the opportunity to review and comment on this document.

Very truly yours,

Don Zeigler

Don Zeigler
Environmental Supervisor

4-1 The information requested was mailed to Mr. Zeigler on April 2, 1985.

November 8, 1984

Joseph K. Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, WA 99202

RE: Draft, Spokane Resource Management P'an

Dear Mr. Buesing:

We are very concerned over the choice of Alternative (8) as the preferred use of BLM Lands under the management of the Spokane District Office for Washington State. It appears this alternative is heavily weighted towards resource extraction from the land. That is, trees for logging, grass for grazing and minerals for extracting. In addition to very damaging effects of ORV use on fragile lands.

The majority of these lands support a diversity of wildlife species and many of them are unique to the ecological conditions that are present in Eastern Washington.

5-1 Many species of wildlife require dead tres retained in clumps or stands of old growth. This issue is not addressed in your timber harvest program. Alloted acreages need to be set aside for wildlife so that a certain amount of every timber stand has a percentage of old growth present. This should also include clumps that contain dead trees. This requires on the ground in entories.

Since these are public lands, domestic stock which primarily benefits the rancher should never be allowed to utilize more than 30 percent of available forage. The rest should be available for wildlife. Many species of rodents and small mammals need grass lands in addition to deer. These creatures are then the prey species for larger creatures such as hawks, owls, weasels, badger and coyote. Again, domestic grazing on public land should be much more restricted than it has in the past. A quick drive through Eastern Washington will soon point out how rapidly these wildlands are disappearing to agricultural development. Many more acres must be considered as prime wildlife habitat so that future generations will be able to enjoy these assets. These lands support a major wintering population of raptors that also need to be considered.

5-2 ORV use, we feel, must be confined to existing roads. The damage that is caused by off road vehicle use may never be repaired or recover to its' original condition. ORV use must also be restricted during the nesting season for all ground nesting birds and areas where birds of prey are nesting.

5-3 Management units 1(Similkameen), 2(Concully), 3(Jameson Lake), 4(Douglas Creek), and 9(North Ferry) are excellent habitat areas and known nesting areas for golden eagles. These birds do not like intrusion by humans during the nesting season and should not be developed for increased human recreation activities. These birds will only survive if we plan for their habitat needs.

5-4 The east end of the Saddle Mountain area also supports numerous hawks and is used by long billed curlews at different times of the year. ORV use of this land must be confined to the west end. Again this may be hard to control.

We believe the Juniper Forest is so unique and fragile, in addition to supporting rare numbers of Swaisons Hawks that ORV's should not be allowed in most of this area.

These BLM lands are not overused and represent a haven for wildlife in their present condition. For these reasons we believe they should continue to be managed for passive human use and resources should be used with wildlife considerations as part of every decision. We believe that a modified plan (c) should be preferrred with the aforementioned considerations taken into account.

Thank you for the opportunity to comment on your Draft E.I.S.

Sincerely,

Leonard Steiner

Leonard Steiner
Conservation Chairman
East Lake Washington
Audobon Society

5-1 The current wildlife tree management policy is to provide needed snags for cavity dependent wildlife in a manner that will not cause safety or fire hazards. Both snag and old growth habitat needs are analyzed on a site-specific basis using approved field inventory techniques.

Most of the timber stands on BLM lands in eastern Washington are a mixture of several tree species (such as Douglas-fir, western larch, lodgepole pine, ponderosa pine). These trees range in age from 1 to 200 years.

Most of these stands are uneven aged. However, there are some trees in these stands that could be considered old growth trees. Based on the timber production capability classification inventory, there are approximately 48,560 acres of commercial forestland suitable for timber production. Commercial forestlands are shown on maps 4 and 5. Of these, approximately 1,710 acres have not been cutover or had a fire burn the stand in the last 150 years. These areas are scattered over three counties in 15 separate parcels (see Table 2-5). Significant opportunities for management of old growth are therefore limited. Of the cutover acres, most have been partial cut. It is the nature of partial cutting to periodically remove trees, particularly large and mature trees, individually or in small groups, from an uneven aged forest in order to realize the yield and establish a new crop of irregular age and size. The improvement of the forest is a primary consideration.

The 1,710 acres discussed above will be inventoried for the unique or important resource values that they may provide. If any important values are identified as a result of this inventory, they would be managed accordingly. The text has been amended to include more information on this subject. See Chapters 2 and 3, "Forestry Program "

5-2 In areas where conflicts between ORV use and critical wildlife needs have been identified, restrictions on ORV use have been considered. Since 1969, restrictions on ORV use have been implemented on 53,000 acres of public land in the State of Washington. The proposed plan would restrict ORV use on an additional 26,417 acres. After implementation, a total of 13,418 acres would be closed to ORV use and another 54,705 acres restricted. In all, this would constitute 22 % of the public lands managed by the BLM. These restrictions range from seasonal closures to year-round closures. The District is continually revising management direction through in-house inventory and public input and appreciates specific public concerns particularly when considering critical wildlife needs.

5-3 The District currently manages public land containing known golden eagle nests or habitat, following regulations and policy established in the Act for the "Protection of Bald and Golden Eagles" (16 USC 668-668d). Inventories for both nests and habitat have been undertaken and updated since 1979. Recreation activities disruptive to golden eagle nesting will not be permitted. Evidence of such disruptive activities in the past has provided a basis for imposing seasonal restrictions including ORV closures. This is a process that the BLM will continue to follow.

5-4 Significant raptor populations and habitat conditions are monitored on a seasonal basis in cooperation with the WSDG. Habitat needs for birds of prey are considered as important resource values in all management units, and impacts of conflicting uses are closely evaluated to prevent decrease of habitat quality or quantity in both the Saddle Mountains and Juniper Forest Management Areas. Most nesting locations are outside of the areas open to ORV use. Inventories in the Juniper Forest Management Area indicate no significant population changes over the past six years. Data from surveys, nesting success, and other studies are used to analyze and evaluate management practices on a continuing basis. In the past, when information indicated that ORVs or other activities were affecting raptor nesting areas, restrictions on the allowable land uses have been made.

Southern California Edison Company

P O BOX 410
100 LONG BEACH BOULEVARD
LONG BEACH CALIFORNIA 90801

R J JULIFF
MANAGER
OF
REAL PROPERTIES DEPARTMENT

Mr. Joseph K. Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

November 20, 1984

Dear Mr. Buesing:

SUBJECT: Resource Management Plan
Environmental Impact Statement (RMP/EIS)
Spokane Resource Area

Southern California Edison Company appreciates the opportunity to comment on the above subject RMP/EIS.

Based on our review and our current information, we have the following comments and recommendations for your consideration.

6-1 The Southern California Edison Company and the Western Utility Group (WUG) have identified the existing and future need for planned utility corridors, that will meet future energy demands of the eleven Western States through the year 2020. We believe that corridor designation is an important and critical element of land use planning and is an important planning tool for both land managers and the utility industry.

Identification and designation of corridors in the land management planning process will assure maximum public participation insuring that all resource values are identified and considered in their selection. Designated corridors should be of sufficient width to provide the necessary routing flexibility to avoid or mitigate adverse impacts to environmentally sensitive areas located within the corridor.

While Southern California Edison Company has not identified any specific corridor requirement that would affect the Spokane Resource Area, we do recommend that corridors be designated in the locations shown by the WUG study to be included in all land use planning.

6-1 Nearly all existing utility corridors will be officially designated upon completion of the final Record of Decision on this RMP. Any additional corridors or rights-of-way will have to be considered on a site-specific basis. See Chapter 3, "Common Management Guidance, Utility and Transportation Corridors" in the Final RMP/EIS for further clarification on this subject. The Western Utility Group corridor study was used to identify and analyze potential corridor needs across public lands.

Thank you for inviting our comments, we hope you will give them your full consideration in the preparation of the final RMP. If further details are needed, please contact Mr. J. R. Wilson at (213) 491-2992.

Very truly yours,

R. J. Juliff

JWilson/fedpermt/1268/gr

7

Department of Natural Resources
OLYMPIA, WASHINGTON
98504

BRIAN BOYLE
Commissioner of Public Lands

November 14, 1984

Mr. Joseph K. Buesing
District Manager
USDI Bureau of Land Management
E. 4217 Main Ave.
Spokane, WA 99202

Dear Joe:

7-1 In reviewing the Draft Spokane Resource Management Plan/EIS I noted that the seeding of grass for erosion control, wildlife and livestock forage on logged areas was not addressed.

In some habitat types grass seeding may tend to restrict timber regeneration but in most of Eastern Washington this may not be true.

In my opinion, the grass seeding of the disturbed areas such as skid trails, landings and roadsides, on a logged area will assist reproduction spacing, weed invasion and soil erosion.

The Alternative B (preferred) seems to be the best alternative considering the legislative and policy direction that must be followed.

Thank you for the opportunity to review and comment on this Draft EIS.

Sincerely,

Kenneth E. Solt
Division Manager
Lands Division

KS:kh112

Equal Opportunity/Affirmative Action Employer

7-1 The BLM routinely requires seeding and fertilizing of disturbed soil resulting from road, landing construction, and some skid trail disturbance. See Chapter 3, "Forestry Program, Transportation Systems."

8

8429 S.E. 63rd Street
Mercer Island,
November 21, 1984

Joseph Buesing,
Bureau Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Dear Mr. Buesing:

8-1 I have reviewed your Spokane Resource Management Plan/EIS and find it inadequate. Site-specific management plans to resolve conflicting resource uses -- such recreational hiking -- cannot be found anywhere in the text. The possibility even on site-specific i considered by you. should be rewritten with more what is planned within each area rather than with generalities about broad strategies for these sites.

Sincereley,

Michael E. Boyd, M.D.

8-1 Site-specific management plans (Activity Plans) are based on a Resource Management Plan. These plans may require restrictions on certain land use in the various Management Areas. Site-specific activity plans may require exclusion of livestock grazing from localized areas such as the Douglas Creek Habitat Management Plan currently does. Page 34 of the Draft RMP/EIS and Chapter 3 of this document explain why no grazing is not considered a reasonable alternative. Inventories and public comments have not identified specific areas requiring total exclusion of livestock. It is expected that livestock would be excluded from some riparian areas to achieve riparian objectives. This would only be done as inventories of riparian areas are completed and when specific needs for closures have been identified.

9

AtlanticRichfieldCompany Public Affairs
555 Seventeenth Street
Denver, Colorado 80202
Telephone 303 293 7570

Peter B. Briggs
Consultant, Public Lands
Rocky Mountain Region

November 26, 1984

Mr. Joseph Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Dear Mr. Buesing:

Atlantic Richfield Company appreciates the opportunity to comment on the draft Spokane Resource Management Plan/Environmental Impact Statement. We offer the following comments as a user of public lands and because of the interest that we have for both energy and minerals in the Spokane Resource Area.

We imagine this plan was difficult to write because of the scattered nature of the Bureau's acreage. Nevertheless, we believe the plan should have been more attentive to minerals and energy resources.

9-1 Page 19 of the plan discusses geology and mineral resources but only in a very limited sense. The four natural areas that divide the planning areas are historic mining areas and are still undergoing exploration by various companies and individuals. The existence of at least 4,500 unpatented mining claims indicates high interest in the resource area. We believe the plan should have dealt more with the mineral potential.

9-2 The plan states on page 35 that all of the lands are open to mineral entry unless previously withdrawn; but the plan does not present a conflict resolution process for seemingly competing interests, nor does the plan discuss tradeoff analyses with other resource values as required under NEPA. Also the long and short term benefits of mineral exploration and development are not examined as required by NEPA regulations.

9-3 However, the plan does take advantage of the NEPA regulations by incorporating a 1976 EAR for oil and gas leasing. The inclusion of the EAR may be appropriate but we believe that the plan should have been updated to reflect the status of oil and gas leasing and planning criteria in 1984. For example, the new fluid mineral leasing guidelines should be utilized by the Bureau in order to delineate potentially high areas for oil and gas discovery from low potential areas and once those areas have been delineated, then management prescriptions should be developed appropriate to the potential. Further, the lease forms and applications of stipulations have changed since 1976. These changes should be reflected in the plan.

It is encumbent on the BLM to write as thorough and concise a document as possible for the management of such a rich natural resource area as the Spokane Resource Area.

The effort should be made to investigate the management areas more thoroughly than is evident from the draft plan.

Sincerely,

Peter B. Briggs

9-1 The Mineral Resources sections of Chapter 2 and 3 have been amended to include additional information on mineral resources.

9-2 During the preliminary scoping and analysis of alternatives, no significant impacts as a result of mineral exploration were found to be occurring, and none were expected under the proposed plan. The text has been amended to more fully define long- and short-term benefits of exploration and production. No additional mineral withdrawals are proposed in the RMP. Proposed additional constraints to protect fragile soils and new ACECs are considered necessary to protect sensitive resource values.

9-3 The 1976 environmental assessment entitled "Proposed Federal Oil and Gas Leasing in Washington" was reviewed during the development of the Upper Columbia and Southeast Planning Area URA-MFP land use plans in 1981. Public meetings were held to discuss these plans. Notices of these meetings were sent out to interested parties and published in the local news media. The oil and gas leasing program was analyzed again during the development of this RMP/EIS. The affects of this program were analyzed, no significant impacts were revealed, and no new issues were revealed by any of the commenting public, including the Atlantic Richfield Company. A synopsis of the 1976 oil and gas assessment has been added to the text.

10

South Douglas Conservation District
Box 428 - Waterville Washington 98858 - Phone (509) 745-8362

December 3, 1984

To: Joseph Buesing, District Manager
Bureau of Land Management, Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202
(509) 456-2570

Subject: Spokane Resource Management Plan and Environmental Impact Draft Statement

We have reviewed the Spokane Resource Management Plan & Environmental Impact Draft Statement, and the following are our comments:

We are concerned about one management area in Douglas County, Washington; namely, Douglas Creek. Of concern are the following:

10-1 1. Chapter 2, Wildlife, Table 2-3
Douglas Creek does not have a dot applicable to ruffed grouse. Douglas Creek and many of its finger draws support a good population of ruffed grouse. Upland bird hunters have been observed with them in their possession while hunting this area.

10-2 2. Chapter 3, Range Program, and Appendix C
Are the Animal Unit Month (AUM) numbers calculated for these units based on A) total available AUM's, or B) total utilizable AUM's (with existing facilities used for livestock distribution to achieve proper grazing use)?

For example: If fencing or water is needed as a management tool to effectively utilize properly the forage resources available, are those unreachable AUM's excluded from each of your alternatives if not installed?

An operator should not be assessed charges for unusable AUM's until facilitative practices can better distribute and help achieve proper grazing use over entire unit(s). If an operator is assessed charges for total AUM's and they are not all available, he may over use leased ground to try and make his lease pay off. This is an unwanted trap that may cause degradation to the plant and soil resources.

Sincerely,

Glenn Ludeman
Chairman

GL/jls

CONSERVATION DEVELOPMENT SELF GOVERNMENT

10-1 Table 2-3 was prepared in consultation with the WSDG. While ruffed grouse do occur in the Douglas Creek Area, it was not believed to have significant management implications for the BLM. This information has been added to Table 2-4.

10-2 The short-term Preferred Alternative and the short- and long-term No Action Alternative stocking rates are based upon existing authorized use. The one exception is the long-term No Action stocking rate for Allotment No. 0806, where an existing CRMP contains objectives to reach the long-term No Action stocking rate displayed in the Draft RMP/EIS. This objective for Allotment No. 0806 does consider usability of livestock forage. The livestock operator will not be charged for forage (AUMs) unless it is available.

All other stocking estimates reflect a determination of usable forage with (long-term) or without (short-term) the proposed range developments. Future adjustments in stocking through monitoring would also incorporate usability of forage by livestock.

11

Foster Creek Conservation District
Box 428 - Waterville, Washington 98858 - Phone (509) 745-8362

December 4, 1984

To: Joseph Buesing, District Manager
Bureau of Land Management, Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Subject: Spokane Resource Management Plan and Environmental Impact Draft Statement

We have reviewed the Spokane Resource Management Plan and Environmental Draft Statement, and the following are our comments:

We are concerned about one management area in Douglas County, Washington; namely Jameson Lake. Our concerns are as follows:

11-1 1. Chapter 2, Wildlife, Table 2-3
Jameson Lake does not have a dot applicable to morning dove. Witnessed on several occasions have been flocks and singles of morning doves migrating southward and using this area. Also observed are hunters trying to fill their bag limits during the fall migration period.

11-2 2. Chapter 3, Range Program, and Appendix C
Are the Animal Unit Month (AUM) numbers calculated for these units based on A) total available AUM's, or B) total utilizable AUM's (with existing facilities used for livestock distribution to achieve proper grazing use)?

For example: If fencing or water is needed as a management tool to effectively utilize the forage resources available properly, are those unreachable AUM's excluded from each of your alternatives if not installed?

An operator should not be assessed charges for unusable AUM's until facilitative practices can better distribute and help achieve proper grazing use over entire unit(s). If an operator is assessed charges for total AUM's and they are not all available, he may over use leased ground to try and make his lease pay off. This is an unwanted trap that may cause degradation to the plant and soil resources.

Sincerely,

Martin MacIntyre
Chairman

MM/jls

CONSERVATION DEVELOPMENT SELF GOVERNMENT

11-1 This information has been added to Table 2-4

11-2 See response 10-2.

12

Dec 5, 1984

Joseph Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Ave.
Spokane, WA 99202

Dear Mr. Buesing:

I would like to comment on your resource management plan for the Spokane District.

12-1 1. I would like to see a collection of new data, especially on current rangeland conditions and recreational use (i.e., hunting, fishing, hiking, camping).

12-2 2. I would like to see a range of alternatives which provide details and which examine all issues and programs instead of numerous statements listed "same as preferred."

12-3 3. I would like to see specific management decisions that resolve resource conflicts — for example, the Juniper Dunes Wilderness and the Juniper Forest Management Area — and that do not rely upon later Environmental Assessments for details.

Finally, let me say that your agency must operate in the public trust. The value of that, as well as the resources of our lands, cannot be overemphasized. Because I feel management of the Juniper Dunes Wilderness must be maintained to the highest intent of Congress when it enacted the Wilderness Act, I would like to be included on your mailing list.

Sincerely,

Cranz Nichols III

Cranz Nichols III
1103 E. Alder
Walla Walla,
WA 99362
509-522-0975

COPIES OF THIS LETTER TO:
U.S. REP. TOM FOLEY
U.S. SEN. DAN EVANS
U.S. SEN. SLADE GORTON
WILLIAM LEAVALL

12-1 The BLM used the most current information available, some of which was compiled during the preparation of the Draft RMP. The information regarding hunting and fishing was compiled from annual reports compiled by the Washington State Department of Game. The most recent information available on range condition was compiled in the spring of 1982.

12-2 The alternatives and issues that are addressed in this plan resulted from meetings with user groups, interested parties, and the BLM's interdisciplinary planning team. In addition to these meetings, approximately 1,000 newsletters were sent out on three separate occasions along with notices appearing in the Federal Register and local news media requesting public involvement in the identification of opinions on the issues and formulation of alternatives. Consequently, the BLM believes it addressed all the issues of major concern affecting public land and has arrived at a reasonable and appropriate array of alternatives.

12-3 The Juniper Forest Management Area prescriptions for the Preferred Alternative in Chapter 3, Table 3-11, have been modified to reflect the widespread concern about potential resource management conflicts in the area. These prescriptions now indicate that a wilderness management plan for the Juniper Dunes Wilderness will be completed by July 1986 and a revised ACEC recreation management plan would be prepared by the end of FY 1987.

13

December 6, 1984

Joseph Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Re: RMP/EIS Rattlesnake Hills

Dear Mr. Buesing:

We have several concerns regarding your proposal.

Our basic concern is the lack of segregation within the recreational use category and not adequately addressing the environmental impact of each of these activities.

13-1 There seems to be no provision for management of recreational use by the B.L.M. or grazing permit holder. The grazing permit holder has a vested interest in maintaining the quality of the environment. The grazing permit holder is accountable to the B.L.M.; however, there seems to be a lack of accountability to anyone by the recreational user.

At the current levels of public access and use we find, as majority land owners, problems maintaining private property. Within the past calendar year we have experienced large amounts of property and livestock theft, numerous acts of vandalism, the spread of noxious weeds on off-road-vehicle trails, and massive soil erosion on existing roads caused from off-road-vehicle travel during the wet season.

With the proposed general public access, we can only foresee an increase in the existing problems. The financial burden of coping with these problems apparently continues to rest with the lessee.

Bureaua of Land Management

Page 2

insurmountable off-road-vehicles
is as grazing.

use by off-road-vehicles is manage-
ment of users as they relate to

13-2
1. Access by potential users.
2. Damage to livestock property.
3. Litter control.
4. Fire control.
5. Erosion
6. property.
7.
8. nesting.
9. Environmental impact on traction.
10. Accountability of users destructive actions.

is evaluate and
problem we
as presented.

Sincerely yours,
Robert & Sons
by Dieter E Robert

Dec 6, 1984

Dear Sir;
As a neighboring rancher, I have seen what off-road vehicles do to the land, take a good look at Horsethief point where there has been some use, the land still scared after 10 years passing. We as rancher have tried to increase the grass & vegetation on the land, we can manage the livestock, but there is no directing the off road vehicles that would swarm over an area, they like to follow one another, rather than spreading out - a more [illegible] impact

14

A RANCH
98938

December 6, 1984

District Manager
Bureau of
Spokane District Office

Re:

Dear Mr. Buesing:

proposal.
is of segregation within
impact
activities.

14-1
be no provision of
or holder.
vested the
is accountable to however, there
seems to user.

access we find,
problems maintaining private property. past
we property
on off-road-vehicle trails, and massive soil existing roads
travel wet season.
we can increase
problems. coping
problems apparently continues to lessee.

13-1 Where recreation use has resulted in unacceptable conflicts with other land users or unacceptable environmental impacts, restrictions on such uses have been implemented. These restrictions are then enforceable by BLM authorities. Penalties for violating these restrictions range from fines up to $1,000 and/or 12 months' imprisonment. Therefore, such recurring activities should be reported to the BLM in order that the proper action can be taken.

13-2 Due to the limited access to the Rattlesnake Hills Management Area, no management conflicts between off-road vehicles were identified during the RMP scoping process. The BLM and public monitoring of ORV use will relate to the 10 factors cited by Robert and Sons.

Land Management

Page 2

by and
problems; however, use by off-road-vehicles
is as grazing.

be use by off-road-vehicles is manage-
as following:

14-2
1. potential users.
2. Damage to on
3. Litter control.
4. Fire control.
5. Erosion of roadways
6. to property.
7. property and livestock.
8. on wildlife nesting.
9. Environmental weight
10. careless, illegal or destructive actions.

is needed to
problem we
as presented.

Sincerely yours,
A. R. Spaulding Jr.
linda north

14-1 See response 13-1.

14-2 See response 13-2.

A RANCH

OUTLOOK, WASHINGTON 98938

ADDENDUM TO LETTER DATED DECEMBER 6, 1984

The following items are a more specific explanation of Two Bar A's range management policies and problems:

We view our deeded and BLM leased sections of range land as a whole providing us with a breed and raise cattle. In a cattle ranch, we to support our herd. not treat BLM land land. spot noxious weeds, them up. not in. When a in a it to burn we put but we land. we return with mates to raise "intermittent pond" (which is now lines and all improvements. to the plant ranch to youth groups and schools. bird watching groups, rock hounds, horse riding groups, hikers and hunters.

tax gas sold is given to fund ORV parks lo- cated approximately one-half miles park. land was purchased, the Commissioners and Association the the BLM be opened to use

15-1 lions to their exclusive use? serve the public by allowingpublic access during times We spend time and acres is access is appropriate.

15-2 Acquiring access to public land through Section 34 of T. 12 N, R 23 E, would require a road. That section is located in a deep loam area adjacent to private property supporting wheat. The section is steep with a 15° - 45° slopes.

Acquiring access to public lands through Section 22 of T. 12 N, R 20 E is impossible. The existing road is the Two Bar A Ranch headquarters driveway. It is currently paved and in need of resurfacing. The road which leaves the driveway and did provide access to the range has been abandoned. It has eroded to bed rock and continual winter use by trespassers has caused such erosion that it is economically unfeasible to repair.

1984, we asked permission) compound. We would the general corrals.

The general public is new orchard, hay- stacks We road would

only we have experienced in the past year. and were stolen. We have installed a at because of last two portable pump up to be replaced

Currently, the BLM sections along the perimeter of the Two Bar A fence lines have sustained contual damage by the public. Fence lines are cut even though there are unlocked gates providing access.

of fence 14, 21 caused in- numerable horses in and 1983. and land corn. through cut up to a for brand inspection. It cost us $275 to back. line must be from April

we to pick up litter left by the This takes time and money and proeprty from this sojourn. We collect 2 - 3 truck loads and wine cars, tires, etc..

We have large recurring wild fires. We thank BLM for their help especially in the 1981 fire that burned over 17,000 acres of grazing land. BLM is aware that 6,000 acres of that blaze was deliberately set by two men in an ORV. Range conditions are extremely volatile in the summer months. An ORV stopped in the grasses, even momentarily, can start a fire.

is land. Without it as a ranch. not acreage to a wildfire. we within to lost a money. - September, depending fire hazard. Opening public access a not willing to

The general public is of they cause Driving in the wet winter season ruts the roads and results - 4 foot trenches during spring The vary from clay, deep loam or there is not enough soil the be abandoned. is used to the 1 - 2 weeks each road erosion. We do season. we horses adverse conditions. use Every year we must assist two used adverse to

We are still looking at the ORV tracks left after the 1981 fire. The ruts have filled in with noxious weeds or nothing at all. These tracks are visible from the County roads 8 miles away. In short, two access roads have been abandoned due to last year's damage.

we by allowing limited access to and same.

A A Spaulding Jr.

Linda North

15-1 The nature of access to be acquired is not necessarily for ORV use alone, but it also is for hiking, hunting, and other general uses. Affected landowners will be consulted prior to any BLM initiated actions regarding access. The multiple use management of the public lands, mandated by the FLPMA, includes provisions for access to these lands for public use. The BLM will request ioput from the users of public land and the adjacent landowners to determine when and where public access is most appropriate.

15-2 Site-specific locations required for public access to the Rattlesnake Hills Management Area will be identified later as part of an area recreation management plan. The Bureau's policy is to develop such plans through coordination and negotiation with adjacent private landowners. The BLM's preliminary studies of this area indicated that the public land in T. 12 N., R. 20 E., section 22 and T. 12 N., R. 23 E., section 34 were the primary areas where the general public has expressed a need for access.

FRIENDS OF THE COLUMBIA GORGE

16

December 17, 1984

Joseph E. Buesing, District Manager
Spokane District Office
E. 4217 Main Avenue
Spokane, WA 99202

Dear Mr. Buesing:

We have studied the draft EIS for the Spokane District. As we understand it, the lands to be chosen for disposal by sale, exchange, or otherwise under the preferred alternative would be selected from the Scattered Tracts Management Area.

16-1 Our particular concern is with the parcels of BLM land (scattered tracts) which lie within the boundary of the proposed Columbia Gorge National Scenic Area. Enclosed is a map showing the boundary of the easternmost portion of the proposed NSA.

The BLM lands within the Gorge have inherent scenic value. Some, especially those which are prominently visible from main travel routes, have critical scenic value, but all these lands have scenic value which could be affected by inappropriate development.

16-2 In addition, some of the BLM parcels inside the proposed NSA boundary are known to have special natural values. The 40-acre parcel (T3N, R12E, Sec 30, SW¼ of SW¼) contains a number of plants listed as threatened or sensitive by the Washington Natural Heritage Program.

Another 40-acre parcel (T2N,R14E, Sec 18, SW¼ of SW¼) contains at least one plant listed as sensitive by the WNHP. There is a nice population of Machaerocarpus californicus at one of the vernal ponds on this tract.

A third parcel of BLM land (T2N, R14D, Sec 17, NW¼ of SE¼) contains Lomatium laevigatum, which is listed as sensitive by WNHP and has also been proposed for listing by the US Fish & Wildlife Service. It is possible that further study on our part will lead to identification of special natural values on some of the other BLM parcels in the proposed National Scenic Area.

16-3 Finally, at least one BLM parcel in the proposed NSA is known to have special cultural (archeological) value. The 40-acre parcel (T3N, R11E, Sec 25, NW¼ of SW¼) containes a portion of a so-called "indian pits" area. The rest is on

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Seattle — Pioneer Building • 600 First Avenue Seattle WA 98104 • (206) 622-4590

adjacent private land. Emory Strong, author of "Stone Age on the Columbia", considered this particular area a probable "Vision Quest" site.

16-4 Friends of the Columbia Gorge would be opposed to disposal of any of the BLM lands within the boundary of the proposed National Scenic Area. We recommend, instead, that all these parcels be included in a separate management area, designated as the Columbia River Gorge Management Area, with its management directed toward protection of scenic, natural, and cultural values.

Sincerely,

Bowen Blair, Jr.
Executive Director

cc: Russ Jolley

BB/pag

16-1 The BLM manages 2,000 acres of land in 20 separate parcels along the Columbia River in Klickitat County. The BLM is aware of the high level of interest and controversy surrounding the management of the Columbia Gorge. Therefore, future site-specific management activities involving any of these lands would follow BLM regulations on scenic/visual resources with regard to the specific impact on the entire Columbia Gorge.

16-2 Table 2-1 and accompanying text have been revised to reflect current confirmed locations of sensitive species on public land. District plant lists will be continually updated as individual parcels of public land are surveyed for the presence of sensitive plant species and their existence verified. The BLM appreciates the additional information. The District botanist will survey these parcels and update the Bureau's plant lists accordingly.

Refer to Chapter 3, "Management Guidance Common to All Alternatives, Endangered, Threatened, or Sensitive Species Habitat," for Bureau policy statement on sensitive plant species.

16-3 Management of cultural resources is described in detail in Chapter 3, "Management Guidance Common to all Alternatives, Cultural Resources." In general, any public land containing artifacts would be managed for protection of such resources and would not be subject to sale, exchange, or any disruptive activities without first conducting mitigation measures and only after consultation with the State of Washington's Office of Archaeology and Historic Preservation.

16-4 The interdisciplinary planning team did not believe it was necessary to create a new management area for the Columbia Gorge since the concerns expressed by the Friends of the Columbia Gorge will be considered on a case-by-case basis when evaluating any actions that would be proposed for the public lands along the Columbia River in Klickitat and Benton Counties.

17

Department of Natural Resources
OLYMPIA, WASHINGTON
98504

BRIAN BOYLE
Commissioner of Public Lands

December 19, 1984

Mr. Joseph Buesing
District Manager
Bureau of Land Management
East 4217 Main Avenue
Spokane, WA 99202

Dear Mr. Buesing:

The Draft Resource Management Plan/Environmental Impact Statement (FMP/EIS) for the Spokane district has been reviewed by department staff.

Based on the BLM plan, we do not forsee significant impact on the department and concur with the BLM's preferred recommendation.

17-1 Further definition of the Range Program categories: Improve (I); Maintain (M); and Custodial (C) would be helpful.

Marsha Hixson, Environmental Coordinator, with Management Services Division, can be contacted if you have questions. Her telephone number is (206)753-1262.

We appreciate the opportunity to comment on the Draft Resource Management Plan EIS. We hope you find our comments helpful.

Sincerely,

William R. Landberg

Mary Jo Lavin, Ph.D.
Deputy Supervisor, Services

cc: Ryder Chronic, NE
Don Pless, SE

Equal Opportunity/Affirmative Action Employer

17-1 Improve (I) category allotments would receive the highest priority for more intensive grazing management and investment of improvement funds since they have the highest potential for improvement. Since satisfactory management has been achieved in Maintain (M) category allotments, they would receive lower priority for more intensive management and expenditure of improvement funds. M category allotments would be monitored for achievement of objectives to assure that management and/or resource conditions remain satisfactory. An M category allotment may be reclassified to I category if objectives are not being met. The predominance of non-BLM lands in Custodial (C) category allotments makes management extremely difficult unless other landowners cooperate in their management. C category allotments would receive the lowest priority for more intensive management and expenditure of improvement funds but may be reclassified to I category if the resource or management situation changes. Through this selective management process, the BLM would direct limited management resources to areas which have the greatest potential for improvement. See the expanded text in Chapter 3.

18

INLAND EMPIRE
BIG GAME COUNCIL

ARTHUR SOLOMON, JR Executive Director

December 19, 1984

Joseph Buesing, District Manager
Spokane District Office
E. 4217 Main
Spokane, Washington 99202

Dear Mr Buesing

18-1 The Inland Empire Big Game Council has reviewed the draft of the Spokane Resource Management Plan/EIS. In our opinion this draft EIS is so narrow in scope relative to the individual options as to render it practically useless. There are few options to choose from. It looks more like a canned product, using some of the same information and rearranging it to arrive at a pre-selected goal

As a result, our response can only follow the same generic pattern. If we are to be allowed any valuable input based on a selection determined on different approaches, we can find no way to respond in that fashion. It would be our suggestion that your office re-evaluate your product before making any decision. We very much are concerned over this EIS and it's limited scope and would hope to see some meaningful input

Sincerely,

Arthur Solomon, Jr
Executive Director

ASJ/ss

xc: President Jim Prudente, I.E.B.G.C.
Past President Dan Stark, I.E.B.G.C.
Administrator Bruce Smith, Region 1, WDG
Ted Grunwald, Region 1, WDG

18-1 See response 12-2.

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United States Department of the Interior

BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
FEDERAL BUILDING & U.S. COURTHOUSE
BOX 043-550 WEST FORT STREET
BOISE, IDAHO 83724

IN REPLY REFER TO: PN 150
120.1

DEC 19 1984

Memorandum

To: District Manager, Bureau of Land Management, Spokane District, Spokane, Washington

From: Regional Director, Bureau of Reclamation, Boise, Idaho

Subject: Review of Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS), Spokane District, Washington

The subject draft RMP/EIS provided by your letter of October 1, 1984, has been reviewed by appropriate offices within the region. The following comments are provided for your information and incorporation in the final RMP/EIS for the Spokane District.

Saddle Mountain Area

Table 3-6 "Management Area Prescriptions" (page 53), the preferred Alternative B calls for updating/revising the cooperative watershed management plan with the Bureau of Reclamation. The February 16, 1966, agreement between the Bureau of Land Management and the Bureau of Reclamation states in number 6 (page 3) that "Land Management will follow plans to be prepared jointly by Reclamation and Land Management, such plans upon approval by the two agencies shall become a part of this agreement, provided that, the plans will be subject to review and appropriate revision by the two agencies annually or at other times as mutually agreed upon. . . ." Therefore, Reclamation will continue to work and cooperate with BLM on updating/revising the management of Reclamation lands within the Saddle Mountain Management Area.

However, the management plan desired by Reclamation is more singular in nature and not under the multiple use concept desired by BLM. The interest Reclamation has for management of these lands calls for plans such as to provide for conservation of soil and moisture resources so as to reduce flood and erosion damage to irrigation works and settlement lands.

19-1 Possible areas of conflict between Reclamation purposes and the preferred Alternative B are off-road vehicle (ORV) and livestock use levels. Reclamation lands are closed to ORV use, except for an area or trail specifically opened to the use of ORV's. BLM lands are open to ORV use unless significant adverse impacts are experienced. To leave 4,310 acres to ORV use and restrict 19,990 acres to designated roads and trails would require careful planning and continuous monitoring and enforcement. In access areas such as the Saddle Mountains, where the land ownership is checkerboard, access limited, and ecological conditions fragile, ORV use is likely to impact more than the designated ORV use area.

19-2 Appendix D, which tabulates present grazing conditions, has "BLM AUMs Authorized Use" exceeding the "Estimated Carrying Capacity AUMs." Alternative B indicates that stocking rates will continue to exceed the present carrying capacity. Improvements to range conditions will be through seeding, brush control, fencing, and improved watering patterns, rather than reduced stocking rates. Although implementation of any alternative would be closely monitored, as discussed in Appendix F, improved conditions depend on the accuracy of determining the existing ecological conditions and the success of improvements. We suggest BLM reduce stocking rates at least to the present carrying capacity until improvements are implemented and evaluated.

Reclamation has a strong interest in maintaining the south slope watersheds in good condition, because heavy runoff and high silt loads could cause damage to the irrigation system and irrigated lands.

For these reasons, the Reclamation lands contained within the Saddle Mountain Management Area would best be served by Alternative C.

Juniper Forest Area

The Juniper Forest Management Area contains project-acquired lands managed by the Columbia Basin Project. Although no project lands are in the Outstanding Natural Area (ONA) or the Areas of Critical Environmental Concern (ACEC), we do manage lands within the management area boundary delineated by BLM.

The main management problem we have is ORV abuse. The lack of access and boundaries to BLM's ORV areas is contributing to increased ORV use on all lands in the surrounding area. We therefore strongly support that portion of Alternative B which calls for the acquisition of access for the public to enter the ORV area and to fence the ORV intensive use area.

19-3 We suggest BLM clearly mark ORV areas to designate intensive or nonintensive use zones as there can be limited or no multiple use associated with ORV activities. Therefore, delineation of ORV boundaries, placement of physical barriers, and enforcement of regulations are imperative to protect the ONA, ACEC, and adjacent lands. Even implementation of the above restraints may not be enough to save the surrounding area.

Thank you for the opportunity to review this document. If you desire further information concerning our comments, please contact Craig Conley (FTS 446-4265) at our Columbia Basin Project Office in Ephrata, Washington.

Harry D. Mergel

19-1 The BLM agrees with the concern expressed by the Bureau of Reclamation. Because of the past extensive recreation use, ORV activity is monitored on a continuing basis. The District will develop a recreation management plan for the Saddle Mountains Management Area, including the regulation of ORV use in the area, within two years of publication of the Resource Management Plan/Record of Decision. At the present time, enforcement is contracted through the Grant County Sheriff's Department.

19-2 The estimated carrying capacity figures are based on a one-time inventory of rangeland conditions. As explained in Chapter 3, "Range Program, Livestock Use Adjustments," current policy emphasizes collection of rangeland monitoring data to verify the need for livestock use adjustments proposed on the basis of one-time inventory data prior to initiating reductions. It is anticipated that about five years of collecting data on actual livestock use, climate, forage utilization, and trend in range condition would provide the BLM with sufficient data to adjust livestock levels to achieve the 50 % utilization objectives for key species in the I category allotments. Anticipated long-term effects upon range conditions assume achievement of 50 % utilization levels, in addition to implementation of the developments mentioned by the BR.

19-3 The Spokane District published a Southeast Area Management Plan summary in 1981. In this summary, the District designated all lands in the southeast area open to ORV activities except where restrictions had been applied. In addition, there was a statement that an intensive-use ORV area would be designated next to the ACEC area. As a result of user conflicts and public input during the draft RMP review stage, the District is revising this management statement by removing the proposed designation of an intensive use area. The designation of the area as open to ORV use will remain due to continued public interest in maintaining a viable ORV use area. Both restricted (ACEC and Wilderness) and unrestricted use areas are being delineated with boundary markers. In addition, contacts with the public have been increased through on-site patrols to minimize future conflicts. Statements in the Draft RMP have been changed to reflect this policy.

20

9418 48th Ave W, #6
Mukilteo, WA 98275
20 December 1984

Mr. Joseph Buesing, Manager
Bureau of Land Management Spokane District Office
E. 4217 Main Ave
Spokane, WA 99202

Dear Mr. Buesing:

I am writing to you concerning the draft Environmental Impact Statement/Resource management Plan for the BLM lands in Washington, and especially with regard to the Similkeen Management Area which includes the Chopaka Mountain Wilderness Study Area.

The DEIS/RMP states that the BLM Spokane District wishes to make land tenure adjustments, or land trades, to dispose of scattered holdings elsewhere and to block up present holdings in certain Management Areas such as the Similkeen. This presents an excellent oportunity to improve the Chopaka Mauntain WSA.

20-1 The present boundaries of the Chopaka Mountain WSA are as shown on the map enclosed. In the two sections just west of these boundaries and just north of Chopaka Mountain are two parcels of BLM land, also shown on the map. These two whole sections, numbers 13 and 14, should be acquired by trade as well as the two sections, numbers 23 and 24, which are to their immediate south and which include the summit of Chopaka Mountain.

Acquiring these four sections will greatly improve the Chopaka Mountain WSA, as they will include the summit with its fine views and rare plant species, and the headwaters of Anderson Creek which drains much of the WSA. The aesthetic and recreational attractiveness of this area will be greatly improved by these additions. Resource conflicts resulting from this are minimal, as these sections are not very attractive for grazing and there are no mineral leases. I would think that Washington State would be eager to trade these lands for ones with higher economic potential.

I appreciate the opportunity to comment on the DEIS/RMP and hope that the BLM will seriously consider acquiring these four sections to enhance the attractiveness of the Chopaka Mountain wilderness.

Yours truly,

Rick Jali

cc: Mr. Brian Boyle

20-1 The BLM has approached the Washington State Department of Natural Resources on the subject of exchanging lands in the Chopaka Mountain Area on several occasions. However, the Bureau was informed that it would not be in the state's best interest to divest of land in the area since they, too, are attempting to block up lands in order to enhance management efficiency.

21

Washington Native Plant Society
"Preserve and Flora!"

19 December 1984

Mr. Joseph Buesing, Manager
Bureau of Land Management
Spokane Dist. Office
E. 4217 Main Ave.
Spokane, WA 99202

Re: Chopaka Mtn. Wilderness Study Area

Dear Mr. Buesing:

The Washington Native Plant Society (over 600 members) has had a sustained interest in the protection and preservation of the summit areas of Chopaka Mtn and the adjacent Joe Mills/Hurley Peaks. We have over the years compiled an impressive list of the plant life in these summit areas. The alpine and subalpine flora here is a unique blend of Cascadian and Rocky Mtn plants, uncommon in its composition in Washington state.

Further, we have examined BLM's draft EIS-Research Management Plan, a good first crack at evaluating the wilderness value of the Chopake Mtn. country. In the past, we have written your office expressing our concern over the adequate protection of the Chopaka country.

21-1 During the review period, we have urged both BLM and the State Dept of Natural Resources to provide appropriate protection of the summit areas in question Yet, it appears that the fate of these choice near-wilderness habitats still hangs in the balance

Part of the problem seems to be the mixed ownership - BLM and DNR. It now appears that the Wilderness Society (Northwest Region) has come up with a proposal for a land trade that merits your serious consideration. The W.N.P.S. supports the scheme whereby the Spokane District BLM acquire by trade with DNR the four sections adjacent to BLM's 160 acres in the Chopaka Mtn. summit area. This would consolidate as one unit this superb alpine-subalpine country. We urge that the two agencies conclude a negotiated land trade to consolidate the Chopaka summit holdings under BLM and that BLM confer wilderness status to the unified Chopaka Mtn. summit area - including Chopaka Mtn., Joe Mills Peak and Hurley Peak.

We would be happy to provide more botanical information when needed.

Sincerely yours,

A. R. Kruckeberg, Past President
and member of the board, WNPS
Professor of Botany, Univ of Washington

cc.
Brian Boyle, DNR

21-1 See response 20-1.

22

P.O. Box 926
Mattawa, Wa. 99344
Dec. 27, 1984

Mr. Joseph Buesing, District Manager
Bureau of Land Management, Spokane District Office
Spokane, Wash.

Dear Mr. Buesing,

This letter is to comment on the draft (RMP, EIS) plan as it is presented, primarily on its effects on the Saddle Mountains where I live and work in the livestock business.

22-1 All four alternatives are unacceptable to me, however alternative #4 is the least objectionable. They all are based on the BLM acquiring more lands before any of your recommendations for recreation or soil and water management can be implemented. The recreation use on Saddle Mountain is greatly overestimated as to its use since the Burlington Northern Co., myself and the Bureau of Reclamation have restricted them on our lands.

Neither does the RMP, EIS properly address the potential oil and gas exploration. Last fall a federal drilling unit was proposed to me by one oil company and another is interested in this proposal at the present.

Because of the land ownership pattern here, we will await further action on your part as regards the RMP, EIS and then if needed to protect our interests here, we will organize and protest your decisions if they adversely affect us. We would like to have seen an alternative that recommended the BLM selling off the lands that are landlocked, reassigning their excess personnel to areas of actual need, and turning administration of the present CRMP over to the Soil Conservation Service or another party in the CRMP. There are qualified range conservationists and others who duplicate the work your people have done here. The lands you open to the ORV's and rock diggers should be monitered for the spreading of knapweed, and those people should be made to account for the damage they do.

It appears to me that a lot of time and money has been spent on the study when only 14% of the land is within the BLM's control in this area, less in other areas and much of that is land locked. All of your proposals expand your role in the area and spend a lot of money. I think you could have at least one alternative that reflects your present land position here and advocates less spending.

Sincerely yours,

Gary Maughan

Gary Maughan

c.c. Lynn Hall, Burlington Northern
Allen Wattrap, Bureau of Reclamation

22-1 Recreation use estimates are based upon observed use up to the time when the Draft RMP/EIS was written. Although recreation on adjacent private lands has recently been restricted to recreationists (including rockhounders and ORV enthusiasts), elected officials have all expressed a high interest for recreational use of the area.

23

Douglas Morton
104 Newell
Walla Walla, Wa.. 99362

Lee Larson

U.S. Dept. of the Interior
Bureau of Land Management
Spokane District Office
East 4217 Main
Spokane, Wa. 99202

Dear Lee,

We were pleased to have you visit in our home and meet some of the members of the Friends of the Juniper Forest and the Blue Mountain Audubon Society to discuss the management policy for the newly created Juniper Dunes Wilderness..Much of the policy is ingrained in law, but the specifics leave much latitude.,We enjoyed meeting you and are pleased to be asked for our ideas in these specifics.

The Friends of the Juniper Forest went through a great deal of soul searching before deciding to to support a legislative push for wilderness designation. The pluses for the designation included the fact that it would take an act of Congress to remove these restrictions. The negatives include the added publicity that this designation brings, increasing the chances of a significant increase in the volume of people visiting the area.

We are in no way trying to reserve the Dunes for our private use. We are however, concerned that an arid desert clime cannot withstand the traffic that say an Eagle Cap wilderness can. There has been a significant increase in visitors to these last remnants of our original natural environment. All projections are for greater use of these areas whose numbers and size cannot be added to.

Our first concern is for the Juniper Dunes. Our second concern is for people's rights to enjoy the area..If the choice becomes one of people's right to use the area or the need for the area to survive, the Friends of the Juniper Forest will choose to protect the area.

However, the situation is not that way now. If we respect this small patch of wilderness and are logical in our policies, our children will enjoy it as much as we do now.

This area now has three designations of varying levels of restrictions. Obviously, Congress and the BLM intend to see the area protected. How this is to be accomplished is the question. The problem is complex, made that way the area's fragile nature, it's unique wildlife and its proximity to a relatively large metropolitan area.

We are particularly concerned about the potential for continued illegal entry of the enclosure by off-road vehicles. These intrusions have left many scars in the past. The potential for further intrusions is great as there is projected to be more ORV's purchased. The fence presently in place has not and will not contain these illegal entries. It is not necessary to document the destructiveness of ORV's on public lands. Needless to say it is contrary to the intent of the Wilderness Act.

I am far less concerned with the BLM's ability to control the volume of hikers, campers, hunters and researchers than I am the BLM's ability to control the one "multiple use" that precludes all the other uses..The lack of authority to cite violators, let alone the almost impossible task of even catching one indicates the seriousness of this problem.

It therefore becomes necessary to address not only the wilderness management policy of the Juniper Dunes but the entire Resource Management Plan for the whole area. We are dealing with

23-1

--2--

a relatively small area to begin with. The Juniper Dunes Wilderness is not much larger than the minimum allowable size. No buffers are mandated for wilderness areas. However, what occurs outside the Juniper Dunes when it can easily affect the Dunes must be of primary consideration. Overgrazing or ORV entry into the wilderness threaten the resource. The Friends of the Juniper Forest cannot support the "Preferred Alternative" proposed because it will diminish the Dunes. Alternative C (The choice supposedly for habitat and wildlife enhancement) encourages more deleterious use than presently seen.

With this information, especially the proposal for the development of an intensive ORV area, shows that despite the Bureau's inability to provide enforcement, its belief in the special values of the areas evidenced by the two protective designations of ACEC and RNA , that it is trying to please all interests by giving everyone a piece of the pie. The attempt to place an intensive use ORV area within the surrounding ACEC is ludicrous. On paper it is unbelievable. In reality it results only in an intensive ORV use area at the expense of the natural area.

If there is to be ORV activity allowed here, and we feel that that is still not a realistic thing to do, there must be a fence erected that will keep ORV's out, and one that will keep cattle and ORV's apart. This fence must be of sufficient size and strength that it will work. A chain link fence of 8 to 10 feet in height would probably work. Until such a fence is in place, we cannot see any reason to allow any ORV activity in any part of the Juniper Forest. No legal access now exists. No adjacent landowners are supportive of these ORV's. So, you can serve those with the historical rights (landowners) and the best interests of the wilderness by closing the area to all ORV's. That is easier to enforce than entry only into the wilderness and should be the first management decision taken. Later, if funds become available, proper fencing will, we hope, do its job, and ORV activity can resume ,--provided, of course, that the legal access has been secured.

23-2 We are concerned about the legal access to the wilderness. At the present Mr. Loeber's property has been our most frequently used access. That is a private road now and its use is subject to the owner's permission. Should the use become too heavy or the users too destructive and disruptive, the access can easily be lost. The problem becomes even more complex when considering that legal access may be purchased for the ORV area. How can ORV's be allowed access via a new road, but excluded from the wilderness while allowing non motorized access to the wilderness?

23-3 As for the specifics of the wilderness management policy, the Friends of the Juniper Forest recommend the following:

1. Fire suppression with hand tools if only there is threat to private property.
2. Prefer day use only with no open fires ..
3. Overnight camping by permit only.
4. Limit the number of visitors if there are signs of degradation
5. Build perimeter fence to designate area.
6. No trails shall be developed and traffic shall be encouraged in other directions when trails do occur.

This little area needs our attention. The BLM has the opportunity to be proud of its unique wilderness. We are pretty sure that the Juniper Dunes is only the second BLM land to be specifically set aside as wilderness. The Friends of the Juniper Forest looks forward to continuting to work in concert with the BLM to protect and enhance the natural area. Thank you for allowing us to share our concerns and our suggestions for the best

management policy for this area.

With only 12 million acres of Federal land in Washington State, we must work especially hard to protect the only BLM wilderness in Washington. With over 296 thousand acres in this state and 5.77million acres in Oregon,not so designated, it seems we are asking so little to have less than 20,000 acres left undisturbed.

Sincerely,

Doug Horton
Chairman
Friends of the Juniper Forest
204 Newell
Walla Walla, Wa. 99362

23-1 Over the past 15 years, numerous meetings were held to define the management options for the Juniper Forest area. These meetings revealed that there was as much interest from local organizations, individuals, and governmental agencies to provide for ORV use as there was for excluding them entirely. These user preferences have not changed, even with the designation of the Juniper Dunes Wilderness.

Since 1969, 14,000 acres of the Juniper Forest Management Area have been either closed entirely to ORV use or have a seasonal or other permanent type of restriction.

There has been an increase in visitor contact and monitoring by BLM personnel in the area. This was done for the purpose of educating recreationists about the permitted uses and to enforce the ORV restrictions.

The District has maintained the fence around the ACEC/ONA since it was built in 1971. This, in addition to continual monitoring, has helped reduce impacts to the area. The recently designated wilderness has been posted, and on-site monitoring has been increased because of the lack of physical barriers. The principal area where unauthorized use has occurred in the past is along the southwest boundary of the Wilderness. Since on-site monitoring and patrols have been increased, violations have nearly been eliminated. See Chapter 4, "Impacts to Wilderness."

23-2 The type of access that would be pursued for the Juniper Forest Management Area would be for multiple use management and the general public. At the present time, there is no legal access for the public or for management purposes. The access that is being pursued is via existing roads. There are no plans for road improvement or construction to facilitate access to the management area.

23-3 The Friends of the Juniper Forest's recommendations concerning the Juniper Dunes Wilderness Area will be considered in the Wilderness Management Plan. The Draft Plan is scheduled for completion in the fall of 1985.

24

E.W. DIRT RIDERS Association P O Box 5681, Kennewick, WA 99336

U. S. Department of the Interior
Bureau of Land Management
Spokane District Office
Joseph Buesing District Manager

Dear Mr. Buesing,

24-1 This letter is in regards to the Spokane district (RMP/EIS). Specifically on the Juniper Forest area. We are deeply interested in the aquisition of private parcels of land by the B.L.M. for access into the O.R.V. area of the Juniper Forest, we believe the parcels we would like the B.L.M. to aquire are T11N R31E Sec 35 T11N R32E Sec 25, T10N R31E Sec 15, Sec 11 SW¼, Sec 16 East ½

24-2 Although we understand the need for ACEC we believe since a large portion of Juniper Forest was designated wilderness this year by congress that it would be fitting to open up more land designated for O.R.V. use. There is an ever growing number of O.R.V. users and an ever tightning of O.R.V. land.

24-3 We would also like to ask for your observation of the nesting habits of the Swainson and Ferrugiround hawks. It is our understanding that these hawks have multiplied and are thriving and O.R.V. use in this area has little or no effect on them. If we can be of any help or assistance please don't hesitate to call.

Sincerely,

George Frank

George Frank
President
Eastern Washington Dirt Riders

E.W. DIRT RIDERS Association P O Box 5681, Kennewick, WA 99336

Signed the Membership of E W Dirt Riders Assoc

Nancy LaBar
J. Michael Trout
Gary Siegfried
Van Eck
Jim Timmons
Michael R Suckel
Robert Kyrsh
Jack Stewart
Carol Stewart
R.G. Sullivan
Henry Puckett
Lee Paet
Char Frank

24-1 The Spokane District is actively pursuing acquisition of the parcels which the Dirt Riders Association has indicated to consolidate public land holdings in the area and to ensure access to this area for management purposes and recreational use.

24-2 The District recognizes the requirement for fulfilling increased recreation demands. With an increase in restrictive designation, however, there is also an apparent increase in conflicts between users. The BLM is committed to providing an area for ORV use. The historic use patterns and desires of individuals, groups, and governmental agencies have substantiated this commitment. However, along with the need for an ORV use area, there is also a similar interest in ensuring protection of the ACEC and Juniper Dunes Wilderness.

24-3 BLM records indicate no appreciable increase or decrease in nesting success of the Swainson's or ferruginous hawks in the Juniper Forest Management Area. The Swainson's hawks are state listed sensitive species, and the ferruginous hawks are candidate species for federal listing. In both cases the BLM will continue to monitor the espective populations.

25

JOHN R SWANSON
P O Box 972
Berkeley CA 94701

December 21, 1984.

Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Dear Sirs,

Please accept my comments, as follows, concerning —
Spokane District Draft Resource Management Plan - Environmental Impact Statement.

I am acquainted with areas managed by the Bureau of Land Management in the State of Washington, and fully agree that such areas contain outstanding Wilderness, scenic, wildlife, fish, botanic and cultural resources of [illegible] National significance — areas that provide a vital and as all Americans hope, a lasting refuge for Man, and for all life, on this endangered planet — areas, then, that fully benefit Man and fully benefit all life on this damaged Earth. So that we Americans may save our Federal Public Lands including the areas managed by the Bureau of Land Management we must establish each unit of such Federal Public Lands into a permanent Preserve. With the purpose of the Federal Public Lands' agencies to permanently preserve the Wilderness [illegible] Wildlife [illegible] — all Biological Resources — and Cultural Resources located on such Federal Public Lands within them. Each such Preserve to protect ecosystems, preserve watersheds, save and enhance wildlife and fish habitat and all Biological Resources with the protection and promotion of biological diversity, to restore — recover all such damaged areas to their natural environmental condition and to preserve, protect, strengthen and expand Wilderness.

With Wilderness the foundation of all Land and Water Resources and the purpose of all Land and Water Resources Planning - Management to preserve, protect, strengthen and expand Wilderness.

To establish a worthy Bureau of Land Management Wilderness System in the State of Washington So, then. Add the following areas - acres of Bureau of Land Management units in Washington State to our National Wilderness Preservation System as fully and permanently protected Wilderness:

25-1
- Chopaka Mountain 6975
- Little Patos Island 245 (Patos Island [illegible] in the [illegible] in Washington State
- Cache Creek Ranch 3160 (including Oregon)
- Juniper Dunes - Wilderness additions, only - 5595

▲ Plus additional areas of about 57,400 acres, to establish a total of about 73,375 acres comprised of Bureau of Land Management areas in Washington State to be included in our National Wilderness Preservation System as fully classified Wilderness.

▲ To select as the permanent planning - management alternative for the Spokane District; Alternative = Preservation - Wilderness - Wildlife Biological Species Resources

To permanently ban all forms of surface and sub-surface development on all current proposed & classified Wilderness, including Wilderness Study areas

With no Release of any Roadless areas

To acquire all inholdings on all Public Lands with no disposal of any Public Lands

For when we save our Natural Lands and Waters, including Wilderness, we save Washington State, America and the World!

Sincerely,

D. R. Swanson.

25-1 In November of 1980, the BLM concluded the wilderness inventory phase of the wilderness review process. The outcome of this phase designated Little Patos Island and Chopaka Mountain as wilderness study areas. During the course of the study, records research revealed that Little Patos Island was under the jurisdiction of the U.S. Coast Guard. Consequently, the wilderness study phase on this island was terminated. Any public concerns regarding Little Patos Island should be addressed to the U.S. Coast Guard. The wilderness study of Chopaka Mountain is in its final stage. (See also response to 27-7.)

26

Joseph Buesing — Dec. 26, 1984
District Manager, Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane Wa, 99202

Mr. Buesing.

I am writing to express my feelings about the Spokane Management Plan/EIS. I am listing the alternatives for the areas I am familiar with.

Jameson Lake - Alt B.
Douglas Creek - Alt. A
Saddle Mountains - Alt A
Juniper Forest - Alt. B.

Thank you for reading my choices
Michael A. Dawson
837 Sunkist Dr.
Moses Lake, Wa 98837

27

WASHINGTON NATIVE PLANT SOCIETY
c/o 7044 - 38th Avenue N.E
Seattle, Washington 98115

26 December 1984

Joseph Buesing, Dist. Mgr.
Bureau of Land Mgmt.
Spokane District Office
East 4217 Main Ave.
Spokane, WA 99202

Dear Mr. Buesing,

I am writing to you on behalf of the Washington Native Plant Society, an organization of over 600 professional and amateur botanists from all parts of the state who share an active interest in the preservation and appreciation of the native flora of the entire northwest region As Conservation Chairman for the Society, I have prepared the following as our comment on the draft Spokane Resource Management Plan and Environmental Impact Statement

After a careful review of the RMP document and accompanying maps we have, unfortunately, found a number of weaknesses, inconsistencies, and problems, often stemming from an inadequate collection and presentation of data We also have some serious problems with the preferred alternative and the way in which it is presented. These areas of concern to us are outlined below, along with some suggested ways for improving this draft document

27-1 1. The RMP clearly does not consider a full range of management alternatives In terms of both land use allocations and resource outputs there are very few significant differences between the Preferred Alternative (PA) and alternatives A and D The RMP should have considered an alternative that represented a no grazing/no cutting management plan Reasons stated for not considering such an alternative are weak, especially considering prior court mandates for such an alternative While your choice of words in calling the PA "balanced" can only be justified by employing such a stacked set of alternatives, it is clear, upon careful analysis, that Alt C ("Protection") is the only one displayed which represents anything even approaching a true balanced, multiple use management plan The PA is little more than a benign scheme for a public cattle ranch and tree farm We urge the adoption of a strengthened Alt C as the final PA

27-2 2. We feel that not enough management issues were addressed in the RMP Those issues which were addressed are often not dealt with in enough detail For instance, the grazing management issue should address directly and in detail the impact of various levels of grazing activity on native plant and animal communities

27-3 3. The two maps provided are entirely inadequate You should provide detailed maps for all four alternatives, clearly showing the various resource allocations In addition, all proposed roading, road closures, and lands proposed for sale or trade should be indicated Location and date of timber harvest activity should also be indicated

continued

Joseph Buesing, Dist. Mgr.
Bureau of Land Mgmt

4. Too often, the RMP is seriously lacking in clear guidelines or proposals for resolving resource use conflicts, such as ORV activity in relation to wildlife and native plant populations. This is especially true in such management areas as the Juniper Dunes and Douglas Creek.

27-4 5. The RMP is in need of new, tighter data on range conditions and the impact of ORV use levels on the environment Very little new information was generated Visual inspection of many BLM lands indicates widespread overgrazing and severe ORV-related degredation. Clearly defined remedies for such problems should be proposed

27- 6. Levels of ORV activity and acres so allocated in the PA are far too high. We believe that ORV activity should be much more restricted and regulated. Instead of providing islands of protection from ORV use, the situation should be reversed ORV's should be confined to clearly delimited activity areas. Public lands should be managed to benefit natural resources, not as mechanized playgrounds

27- 7 We strongly object to the proposed required sale of 300 acres of public lands per year. We feel that this proposal is in violation of the spirit and letter of the FLPMA The RMP does not even indicate which parcels will be sold or when such sales will occur We object to any sale or trade of public lands, except where there is a clear, documented, environmentally- justified need, such as to "block-up" habitat in sensitive areas, and should not result in a net loss for the public land trust A required yearly liquidation, as proposed, is absurd and is clearly not in the public interest

27-7 8. We support management of the Chopaka Mountain W S A as a roadless, non-motorized recreation area This area contains much important and unique wildlife and native plant habitat and should be managed in a pristine condition

9 We believe that the RMP should clearly address the management of the Juniper Dunes W.A. in terms of preserving the wilderness recreation values of the Juniper Dunes Wilderness Area There should be a clearly delineated buffer zone around the wilderness, within which such non-compatable uses as ORV activity, utility development, and gas and oil exploration are prohibited Wilderness borders should be well-fenced against ORV's and cattle, and such fences should be frequently maintained.

27-8 10 While we strongly support the four proposed areas of Critical Environmental Concern, we feel that there is a need for additional ACEC's and RNA's We suggest that all remaining tracts of native schrub-steppe habitat substantially unaffected by agricultural development be preserved as ACEC's or RNA's Such ecosystems are rare in our state and deserve full protection In addition, we suggest the management of ACEC's as exclusionary areas, rather than as avoidance areas

continued

27-9 11 Your list of wildlife species "of known management concern" is incomplete and inadaquate, and consideration given to these species should be much greater Some specifics nowhere do you mention any primary cavity excavators (E.G Pileated Woodpecker, White-headed Woodpecker, Black-backed Woodpecker, Three-toed Woodpecker), no consideration is given to such old-growth dependent species as the Goshawk, the Peregrine Falcon, a federally endangered species, is not mentioned, thought it surely occurs on B L M lands, occurrence of wintering populations of the Gyrsfalcon, clearly a species of concern, is not mentioned, Sage Sparrow dependence on mature stands of Artemesia tridentata is not discussed or considered, and the effects of "brush control" proposals on this species are not indicated, though many ornithologists have expressed concern for its survival in Washington

27-10 12 Your lists of threatened, endangered, and sensitive plant species are incomplete and indicate an inadaquated census of your lands for the presence of such species. For instance, Delphinium xantholeucum occurs in Corbaley Canyon (an area outside the 12 management areas), and there is a strong likelihood that additional rare species of Allium, Astragalus, and Lomatium occur on your lands Preservation of cacti species should also be of concern to you

27-11 13 Many areas of environmental concern occur outside the designated M.A.'s. We feel that these areas should be carefully evaluated and censused before any actions are taken in their regard Examples of areas of concern to us are Corbaley Canyon, Munson Prairie, parcels in the KlicKatat River drainage, the Wishram hills area, Buckhorn Mountain, Swakane Canyon, and Clemon Mountain.

27-12 14 Grazing is proposed on too much land Fully 76% of your lands will be grazed under the PA. Effects of grazing should be more carefully evaluated and monitored Ranchers' "dependence" on public lands does not, in itself, justify granting of grazing rights, especially in areas that are overgrazed Cattle should be kept out of as much riparian habitat as is legally possible

27-13 15 Hunting of predators should be prohibited, especially of lynx, bobcat, and cougar

27-14 16. Timber harvest levels are too high, no justification is given for increasing harvest levels. No cost/benefit analysis of proposed harvest levels is given. No protection of representative old growth forest ecosystems is provided. No consideration is given to old-growth dependent wildlife and plant species.

27-15 17 Under the "capable' forested land designation, the definition of "10% stocked" is not indicated. What does this mean?

ıtinued

27-16 18 In the economic impact of the RMP on local communities, there is no indication that amenity-type recreation activities were considered For example, management of lands for wilderness and wildlife values will increase tourism-related benefits to local economies and may offset losses in the commodity sector due to such designations.

27-17 19 No discussion of herbicide/pesticide use is indicated Which chemicals will you use? When, where and in what dosages will they be applied? NCAP vs Block mandates worst-case environmental impact analysis for the use of many such chemicals

27-18 20. Details of enforcement programs and monitoring systems are sketchy, expecially in regard to ORV and grazing activities Many environmental impacts of ORV, grazing, and timber-cutting activities are listed without indicating *MITIGATING measures to be taken.*

27-19 21 Proposed roading activities in unroaded areas should be clearly indicated and should be justified in detail by careful cost-benefit analysis, including impact on wildlife and native plants Existing roads should be closed to benefit wildlife wherever possible.

In conclusion, the W N P S urges you to drastically revise the draft RMP and EIS or to withdraw the entire document and prepare a new program based on a true multiple-use regime. The existing draft is far too commodity-oriented and is clearly inadaquate in its consideration of non-market resource values

Thank you for this opportunity to provide citizen input to your planning process and for your careful consideration of the points we have mentioned in this letter.

Sincerely,

Mark Egger

Mark Egger, for the W.N.P.S

ME gt

27-1 See the expanded text in Chapter 3, "Alternatives/Issues Eliminated from Detailed Study, No Grazing Alternative," for further discussion of no grazing. A no grazing alternative is not required by any federal law or court order affecting public lands in the Spokane District. The comments that were received during the scoping phase of the RMP did not reveal a need for a no grazing or no timber harvest alternative.

27-2 The impacts of various levels of livestock grazing activities upon native plant and animal communities are addressed in Chapter 4 of the Draft and Final RMP/EISs. More site-specific objectives would be developed in activity plans to achieve the objectives of the RMP. The impacts of the activity plans would be monitored for progress toward objectives, and activity plans would be modified as necessary to achieve objectives. Chapter 3 has been modified to indicate proposed sequences/dates for preparation of activity plans. These are also reflected in Management Area Prescription Table 3-11.

27-3 Larger scale maps have been included in the Final. RMP/EIS to clarify this concern. The road closures and construction activities are primarily associated with the timber harvest program. (See page 46 of the Draft RMP/EIS.) Specific timber harvest activities are a part of project level planning which is not a function of the RMP. Instead, the RMP is to serve as a master plan to guide Bureau management and to tell others how the lands and resources in the planning area would be managed. Chapter 3 and Maps 2 and 3 display the land tenure adjustment program. Maps 4 and 5 display the ORV restriction and closure proposals.

27-4 Site-specific data on range conditions from on the ground surveys are presented on 149,156 acres of public lands in Appendix E of the Draft RMP/EIS. New data on 119,407 of these acres were gathered between 1979 and 1982. Each mapped soil unit was visited and rated for ecological range condition. Over the next 5 years following adoption of the RMP, data will be collected on actual livestock use, climate, forage utilization, and trend in range condition. This information will be used to verify the need for livestock use adjustments.

27-5 Off-road vehicle activity is a legitimate use of public lands and is included as one of the resources managed under multiple use management systems. Nevertheless, ORV activity must be monitored, and, when resource values are threatened, corrective measures must be taken. In accordance with this policy, the Spokane District has either closed or restricted ORV use on over 50,686 acres of public land over the past 15 years.

27-6 Public lands are identified for disposal through BLM land use plans, through local government review, and through public comment. Before any parcel of public land is disposed of, an intensive field examination is conducted to determine if significant public or resource values exist. Lands with significant resource values are retained in federal ownership. Exchanges are proposed if they would enhance management or result in the protection of important resource values. The 300 acre per year figure of public lands to be sold was a sample, not a fixed minimum or target. Public land sales are permitted by the Federal Lands Policy and Management Act of 1976. The parameters for sales of public land are described in section 203 of this Act. Also see Chapter 3, "Lands Program."

27-7 The Bureau's draft wilderness report and recommended management for the Chopaka Mountain Area is for the establishment of a 520 acre Research Natural Area to protect native plant species habitat and for the establishment of a 4,468 acre ACEC to protect and enhance mountain goat habitat.

All the concerns expressed by the Washington Native Plant Society will be addressed in the Juniper Dunes Wilderness Management Plan which should be made available for public comment in the fall of 1985. The Washington State Wilderness Act specifically states that protection perimeters or buffer zones not be established around each wilderness area.

27-8 The ACEC section of the RMP/EIS has been revised. See the respective ACEC sections in Chapters 1, 2, and 3. There are currently four ACECs in the area of this RMP, and ten more will be designated upon approval of this RMP. The sites, values, and locations are described in Chapter 3. A blanket designation of certain habitat types as ACECs is feasible only if the values present warrant such designation. There is no evidence at this time that all remaining BLM managed tracts of native shrub-steppe habitat qualify as ACECs. As the respective management plans are developed for these ACECs, some land uses may be excluded However, any determination of this nature must be based on a specific need that is identified during the development of these plans.

27-9 The pileated woodpecker is utilized as an indicator species and is given priority consideration when evaluating a BLM action that could affect known habitat (refer to response 5-1). The pileated woodpecker has been added to Table 2-4 as a representative of a cavity nesting species. The sage sparrow has been added as one of several species that require big sagebrush as an important component of their habitat.

Table 2-4 lists wildlife species of known management "significance." Significant species are those that have been of public, federal, or state interest in the past. Many other species are of concern and are considered in the development of site-specific activity plans. Prior to any major brush control project, the Washington State Department of Game would be consulted.

27-10 The BLM appreciates receiving information on sitings of endangered, threatened, or sensitive plants on public land. Reported sitings and occurrences will be noted for further investigation and confirmation by BLM personnel. Also, see response 16-2

27-11 Prior to any new actions occurring on or to the lands outside the management area, site-specific analyses would be conducted. (See Chapter 3, "Lands Program" and "Requirements for Further Environmental Analyses.")

27-12 See response to comment 8-1. The Federal Land Policy and Management Act lists livestock grazing as one of the legal multiple uses of public lands. Monitoring of grazing effects will be vigorously pursued (see response 27-1).

Riparian management objectives and activities would be included and would receive high priority in all activity plans for rangeland which includes riparian habitat. Impacts to riparian habitat would be closely monitored, and activity plans would be modified if monitoring indicates that riparian objectives are not being met. It is anticipated that fencing of more riparian habitat to exclude livestock may often be necessary to achieve objectives; many riparian areas have already been fenced.

27-13 Hunting of predators is regulated by the Washington State Department of Game.

27-14 Timber harvest levels are based on an extensive forest inventory which is developed from strata obtained from a Timber Production Capability Classes (TPCC) inventory. Both of these inventories are conducted on a 10-year cycle. See Glossary for definition of TPCC.

The BLM has and will continue to cooperate with the Department of Natural Resources Natural Heritage program in regard to the identification and protection of unique natural resources. See responses 5-1, 5-2, and 30-23.

27-15 Stocking is defined as a measure of the proportion of the area actually occupied by trees; therefore, 10 % stocked indicated that only 10 % of a given area is occupied by trees.

27-16 Monitoring studies are lacking at the present time to determine changes in types of recreation use (other than fishing) under each alternative. Because of this, they were not included in the economic analysis.

27-17 Under current Director policy, no herbicides will be used until an EIS has been completed analyzing the effects of such use. The Draft Northwest Area Noxious Weed Control Program EIS, currently under public review, addresses such use for one program.

27-18 The BLM will not tolerate any unauthorized use, willful destruction, or degradation of government property. The means of dealing with unauthorized actions that could cause unnecessary or undue degradation to public land are described in Chapter 3, "Lands Program, Trespass Abatement."

Mitigation measures are included as design features of the RMP. These design features are covered in Chapter 3 under the heading of "Management Guidance Common to All Alternatives." More site-specific mitigation is proposed during the preparation of the respective activity plans and the associated environmental assessment.

27-19 Road construction is part of most timber sales, but very little new construction is required or anticipated as shown on Table 3-9. The scattered land pattern usually requires short road extensions from existing roads. It is standard procedure to close roads if it is determined that they are not required for other on-site activities or if site-specific environmental analysis indicates that there is a need to do so in order to protect wildlife.

28-1 See response 16-1.

28

Columbia Gorge Coalition

P.O. Box 155 • 98672
P.O. Box 266 • 97031
(509) 493-2737

Dec. 26, 1984

Bureau of Land Management
Spokane District
East 4217 Main Avenue
Spokane, WA 99202
AttN: Joseph Buesing, District Manager

Dear Sir:

28-1 Our organization is actively working for federal legislation to protect the Columbia River Gorge and its tributaries, and such legislation now appears likely to be enacted by Congress this year. Therefore, we strongly oppose the sale or transfer of any BLM lands in the Columbia Gorge or along the Klickitat River.

Best regards,

Chuck Williams

29

The Nature Conservancy

Washington Field Office
1601 Second Avenue, Suite 910, Seattle, Washington 98101
(206) 624-9623

TO: Joseph Buesing, District Manager, Bureau of Land Management

FROM: Laura Smith, Field Representative, The Nature Conservancy

DATE: December 29, 1984 Laura Smith

SUBJECT: Spokane Resource Management Plan/Draft EIS

I have reviewed the Draft EIS of the Spokane Resource Mangement Plan and appreciate the opportunity to comment. My comments will focus on the areas of Interagency Coordination, Endangered and Threatened Species, and Special Mangement Area Designations.

BACKGROUND

The Nature Conservancy (TNC) is a private, non-profit, membership organization dedicated to the identification and protection of the nation's most ecologically significant natural areas. The Nature Conservancy established the Washington Natural Heritage Program in 1977 with the cooperation of four state agencies In 1981, amendments to the Washington Natural Area Preserves Act (79 70 RCW) transferred the Washington Natural Heritage Program (WNHP) from TNC to the Washington Department of Natural Resources (DNR).

In 1983 the Legislature reviewed and accepted the Washington Natural Heritage Plan developed by the DNR. The Plan outlines the direction and procedures the State will follow to protect Washington's natural diversity. The Plan identifies the components of Washington's natural diversity, the priorities for protection, the methods of protection, and the criteria for selecting and approving natural areas. The Plan also identifies the roles of various agencies and groups in the protection of natural areas.

The Conservancy and the DNR continue to work closely toward protection of the state's natural heritage. Among other efforts, TNC is implementing the DNR's Washington Register of Natural Areas Program (Registry Program) through a cooperative agreement. The Registry Program is designed to enlist the voluntary cooperation of landowners, both public and private, in the protection of high-priority natural areas identified by the DNR-WNHP and the Washington Department of Game-Nongame Program (WDG-Nongame Program). Registration is a method of protection that is integral to successful implementation of the Washington Natural Heritage Plan.

Western Regional Office
156 Second Street, San Francisco, California 94105
(415) 777-0541

National Office
1800 North Kent Street, Arlington Virginia 22209
(703) 841-5300

INTERAGENCY COORDINATION (Draft, page 7)

29-1 The Draft EIS includes a statement that meetings have been and will continue to be held with the DNR and WDG to verify that the BLM's land use objectives are consistent with the natural resource related objectives of the State. Because the authorities and objectives of these two state agencies are so broad, it is important to clarify in writing that "natural resource" includes natural heritage.

This section should include specific reference to coordination with the DNR Washington Natural Heritage Program and the WDG Nongame Program to verify that BLM objectives are consistent with the State's natural heritage protection objectives as outlined in the Washington Natural Area Preserves Act and the Washington Natural Heritage Plan.

It is not clear in the Draft that such meetings have been and will continue to be held. Clarification will assist in Step 8 of the Planning Process (page 5). The Governor of Washington will be able to evaluate whether the RMP is, in this area, consistent with State plans, programs, and policies.

MANAGEMENT GUIDANCE COMMON TO ALL ALTERNATIVES (Draft, page 46)

29-2 The section on Threatened or Endangered Species should include a commitment to consult with appropriate State and Federal agencies. The statement should be similar to that included for Wildlife and Fish, Threatened or Endangered and Sensitive Species Habitat (page 39). It should state that the Washington State Department of Natural Resources Washington Natural Heritage Program (DNR-WNHP) and the U.S Fish and Wildlife Service (USFWS) would be consulted prior to implementing projects that may affect habitat for threatened or endangered and sensitive species.

It would also seem better from an organizational standpoint to place this section of the plan dealing with vegetation (now on page 46) just following the section of the plan dealing with fish and wildlife (now on page 39). This would improve continuity for readers interested in the treatment of all Endangered, Threatened and Sensitive Species.

NOMINATIONS FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN (Draft, pages 8-9)

29-3 In 1983 eight sites were recommended by the DNR-WNHP for voluntary protection through the Washington Register of Natural Areas Program Over the past two years I have communicated with you and your staff regarding the protection of these high-priority areas. Please refer to my letter to Al Martin dated August 12, 1983 for a list of the sites Site maps and descriptions of ecological significance are also on file in the Spokane District Office.

29-4 As a result of this contact, three of the eight sites were reviewed and nominated as Areas of Critical Environmental Concern (ACEC). These are listed in the Draft (page 9). I support the nomination of these three areas known as Colockum Creek, Rock Island Canyon, and Yakima River Cliffs at Selah Butte.

In addition, I would like the BLM to review the following five sites for ACEC designation. These sites are known as: Earthquake Point, Rowland Lake Cliffs, Catherine Creek, Wilson Creek, and Yakima River Cliffs. Should you need more information than the site maps and descriptions already on file in your office, please let me know.

All eight sites support plants that are endangered or threatened in Washington and that are candidates for Federal listing. These sites meet the ACEC criteria of having more-than-local significance and of needing special management attention to protect important natural systems.

PLAN ALTERNATIVES IN RELATION TO ACEC NOMINATION (Draft, pages 9 and 50)

The Draft states that designation of the nominated ACECs is recommended under all alternatives except the Production Alternative because such designation and ACEC management is believed to be incompatible with the stated goals and objectives of that alternative. I disagree.

All alternatives should be consistent with general BLM policy. The BLM's ACEC Policy and Procedures Guidelines (June 1980, page 19) states:

> "If the decision is to allocate such an identified resource, in whole or in part, to another use which would result in damage or loss to such resource, the District Manager must first find that there is an overriding public need for such other use; that the public need for such other use outweigh the public benefits of use appropriate with ACEC designation, and that such other use will best meet the present and future needs of the American people."

This and other policy statements indicate that ACEC designations should be considered on a case by case basis and should not be dismissed across the board with the selection of a management alternative.

29-5 A related statement occurs at the bottom of the chart on page 50. It states that, "The proposed land use allocations would not affect minerals, cultural resources, threatened or endangered plant or animal species, or fish habitat to any measurable degree, therefore, these resources/activities are not included in this table." This statement is not true if the Production Alternative will exclude recommendation of new ACECs that are recommended under the other three Alternatives.

PARTICIPATION IN THE WASHINGTON REGISTER OF NATURAL AREAS PROGRAM

29-6 The Washington Register of Natural Areas Program provides the BLM with a means of futher demonstrating its commitment to cooperate with the State toward common objectives. The Plan should recognize the Washington Register of Natural Areas as a method of protection for certain high-priority natural areas approved by the BLM following recommendation by the DNR-WNHP or the WDG-Nongame Program. Participation in the Registry Program is voluntary and non-binding. All management authority and responsibility would remain with the landowner. Registration recognizes outstanding sites that the State of Washington identifies as needing protection, monitoring, and interagency communication beyond that which they might normally receive.

29-7 The eight sites recommended for ACEC designation should be considered for Washington Register of Natural Area status whether or not they are ultimately selected for ACEC designation. The designations of ACEC and Registered Natural Area are mutually compatible.

29-8 Participation in the Washington Register of Natural Areas Program is consistent with BLM policy. The ACEC Policy and Procedures Guidelines discuss the relationship of ACECs to recognition designations similar to the Washington Register of Natural Areas. It states on page 23 that "ACEC designations may, in whole or in part, be considered for recognition through such programs. For example, all or part of an ACEC also may be a National Natural Landmark if its values are found to be of national significance as defined by that landmarks program. Conversely, an area of the public lands which has been given recognition through such a program will be considered for ACEC designation."

ENDANGERED, THREATENED AND SENSITIVE PLANT SPECIES (Draft, pages 12-13)

This section should be completely rewritten. The text and table are incomplete and misleading All figures and names should be verified with the DNR-WNHP. The exact references for information should be clarified and documented in the References Cited list. My specific suggestions follow

Table 2-1
Obtain current and complete information from the Washington Natural Heritage Program and reorganize the presentation. The table should be one list rather than two, but should have more columns. In the Draft, the first column is titled, "Federal Threatened or Endangered Plant Species." The title is incorrect and misleading because, at this time, there are no plant species in this category. If the intended reference is to candidates for Federal listing, there are more than the four species listed. Because the Federal candidate species are actually a subset of the State listed species, it would be most clear to organize the Table as follows:

Table 2-1

ENDANGERED, THREATENED AND SENSITIVE VASCULAR PLANTS

Management Area	Plant Name	State Status[1]	Federal Status [1]
Similkameen	*Agrostis borealis*	3	--
	Carex atrata var. atrosquama	3	--
	Potentilla nivea	3	--
	Dodecatheon pulchellus var. watsonii	3	--
	Gentiana glauca	3	--
Douglas Creek	*Astragalus miscellus var. pauper*	2	C
	Iliamna longisepala	2	C
	Nicotiana attenuata	3	--
	Oenothera pygmaea	3	--
	Phacelia lenta	2	C
Scattered Tracts (by County)			
Chelan	*Astragalus sinuatus*	1	C
	Iliamna longisepala	2	C

include a complete listing

1. Endangered, Washington Natural Vascular p. WDNR

State Status
1. Endangered in Washington
2. Threatened in Washington
3. Sensitive in Washington

Federal Status
C. Candidate on the 1980 Federal Register, Notice of Review (and 1983 supplements)
-- No federal status

The Draft Table also includes a column headed "Category" that is referenced with footnotes This column and reference is not relevant to planning decisions at this level and should be eliminated for the sake of simplicity.

Text
Once the Table 2-1 is correct, the text can be accurately rewritten. It would be more clear to state:

> On BLM lands there are ____ vascular plant species known to occur that are listed as endangered, threatened or sensitive in Washington by the Department of Natural Resources Washington Natural Heritage Program. Of these, ____ species are Candidates for Federal listing (1980 Federal Register, Notice of Review and 1983 supplements).

It might be appropriate to mention in this section that information on plants is not static and that the District Office will maintain a District Plant List. The list will document the status, occurrence, populations and distribution of plants found on the BLM lands or on adjacent private lands that could be impacted by BLM actions.

In addition, the BLM should consult on a regular basis with the DNR Washington Natural Heritage Program to obtain and exchange data and coordinate protection objectives regarding special plants and natural systems. Similar exchages should occur with the WDG Nongame Program. This effort, in combination with other operating procedures outlined in the Draft (pages 39, 46, and 66) will work to assure that the BLM becomes in any land natural areas special management.

29-8 MAP 2

The location of Nominated ACEC #3, Yakima River Cliffs at Selah Butte, is shown incorrectly on the map. It should be placed over the SE¼ of Section 4, Township 14 North, Range 19 East WM. On the Draft Map it is shown in Township 15 North, Range 19 East WM.

SUMMARY

Each of the above recommendations should strengthen, support, and clarify the Bureau of Land Management's existing policies, procedures and programs regarding endangered, threatened and sensitive species. They will assist in the implementation of the BLM State Director's Sensitive Plant Policy Statement (Instruction Memorandum No. OR-85-109 dated November 20, 1984) which, in part, states:

> "It is Bureau policy to ensure that the crucial/essential habitats of sensitive plants will be considered (managed and/or conserved) in all management decisions to minimize the need for future listing by either Federal or State governments. Sensitive species will be accorded the same management consideration as though they were officially listed pursuant to the Endangered Species Act of 1973, unless it is determined by the State Director, on a case-by-case basis, that verified data concerning a species is adequate to allow the planned action."

LIST OF SUMMARIZED RECOMMENDATIONS

1. Clarify the between the BLM and Washington Natural the WDG identification and protection of Washington's natural heritage.
2. Define a commitment to assure that BLM objectives and activities are consistent with the State of Washington's natural heritage protection objectives as outlined in the Washington Natural Area Preserves Act and the State of Washington Natural Heritage Plan.
3. Approve ACEC nominations listed in the Draft.
4. Review for ACEC designation the sites known as Earthquake Point, Rowland Lake Cliffs, Catherine Creek, Wilson Creek, and Yakima River Cliffs
5. Under the individual be evaluated.
6. Participate in the State of Washington, Washington Register of Natural Areas Program by agreeing to register areas as consistent with BLM policy.
9. Review for registration on the State of Washington, Washington Register of Natural Areas the following sites: Colockum Creek, Rock Island Canyon, Yakima River Cliffs at Selah Butte, Earthquake Point, Rowland Lake Cliffs, Catherine Creek, Wilson Creek, and Yakima River Cliffs.
10. Reorganize and rewrite the section on Endangered, Threatened and Sensitive Plant Species in Chapter 2, Affected Environment. Obtain correct and current information from the State of Washington Department of Natural Resources Washington Natural Heritage Program. Present the information in a manner that is clear and not misleading. List the reference on the Table and in the References Cited List.
11. Correct Map 2 to show the correct location of Nominated ACEC #3.

REFERENCES ENCLOSED

1. State of Washington Natural Heritage Plan, 1983. State of Washington Department of Natural Resources.
2. Endangered, Threatened & Sensitve Vascular Plants of Washington, 1984. State of Washington Department of Natural Resources Washington Natural Heritage Program.

REFERENCES ENCLOSED (continued)

3. Washington Natural Area Preserves Act (79.70 RCW)
4. Totem, November 1984. Washington State Department of Natural Resources. Natural Heritage Issue.
5. Washington Register of Natural Areas. Brochure. A Cooperative Program of the State of Washington Department of Natural Resources, the State of Washington Department of Game and The Nature Conservancy.

Management a
history These
comments and recommendations as a positive contribution
to in Washington. As you
work to prepare Plan/EIS, I
provide as to discuss
with you in

Again, thank you for the opportunity to comment.

END OF MEMORANDUM

cc: Mark Sheehan, Manager, State of Washington Department of Natural Resources, Washington Natural Heritage Program
Tom Juelson, Manager, State of Washington Department of Game, Nongame Program

Enclosures

29-1 The text has been amended to include this information.

29-2 The U.S. Fish and Wildlife Service is being consulted on habitat management requirements for the proposed Brewster Bald Eagle ACEC as is required by the Endangered Species Act and in coordination with the Draft Pacific States Bald Eagle Recovery Plan. See response 16-2.

29-3 The text has been amended. See Chapters 2 and 3, "Special Management Areas."

29-4 The proposed RMP has been revised to include the areas The Nature Conservancy has nominated for ACEC designation.

29-5 Management of minerals, cultural resources, endangered, threatened, or sensitive species, and fish habitat is directed by legislated regulation and, therefore, protects each under all alternatives. ACEC policy requires protection of resources that meet the criteria if the decision is made to designate.

29-6 Upon designation as an ACEC, each area would be evaluated to determine if registry in the Washington Register of Natural Areas would contribute to the protection of the site. When it is determined that registration would contribute to the protection of the site, an area would be registered.

29-7 The proposed plan has been revised to include the designation of 10 additional ACECs. These areas have been evaluated by the Interdisciplinary Planning Team as meeting the criteria for ACEC designation. Designation as ACECs for all those areas proposed in the RMP will be completed upon adoption of this RMP.

29-8 The text has been amended.

29-9 Map 2 has been corrected.

30

THE WILDERNESS SOCIETY

FOUNDED IN 1935

December 31, 1984

Joseph Buesing, District Manager
Bureau of Land Management
E. 4217 Main Ave.
Spokane, WA 99202

Dear Joe:

Thank you for this opportunity to comment on the Draft Spokane District Resource Management Plan Environmental Impact Statement.

30-1 Unfortunately this Resource Management Plan does not seem to adequately meet the requirements of the Federal Land Policy and Management Act. I believe this RMP does not "achieve integrated consideration of physical, biological, economic and other sciences." It does not "adequately consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for the realization of those values." It does not meet several other requirements of Section 202.

Instead of a comprehensive, integrated plan for resource management it is a presentation of some good information, with some major gaps in information, in a format that purports to be a plan but too frequently is a statement that planning is postponed until some specific project (which will only be covered by an environmental analysis, rather than a full EIS). Specific projects do need more detailed plans and analysis of consequences. But to fail to consider in the RMP the impacts on all resources by management decisions is to evade the purpose of section 202 of FLPMA.

A resource management plan that really covered interrelated impacts on 300,000 scattered acres in only 73 pages of text would be a miracle. That miracle has not happened here.

30-2 This RMP document is inadequate because it excludes the issues of oil/gas leasing and wilderness and because of certain data inadequacies. As an EIS it is inadequate in the narrowness of the range of alternatives considered. It postpones too many management decisions. As a management plan, it is

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RECYCLED

unrealistic in not dealing with "fall back" positions if assumptions prove wrong. As a document for public communication it has some unfortunate failures to communicate. Each of these concerns is developed below, followed by some specific comments.

I. OMISSION OF WILDERNESS AND OIL/GAS LEASING

1. Chopaka Mountain.

30-3 You rationalize not studying the Chopaka Mountain WSA in this RMP by saying it had been studied in a specific EA issued in December 1983. But that document was woefully incomplete and thus its preferred alternative is based on wrong conclusions, as pointed out at that time by The Wilderness Society and Fish and Wildlife Service comments (both enclosed) and by others. The BLM has issued no decision document on Chopaka Mountain. This RMP would have been an appropriate opportunity to make up deficiencies in the Chopaka Mountain EA.

30-4 The acquisition of adjacent lands is an important issue that should be considered in this RMP. We strongly urge that the BLM acquire through trade or outright purchase Sections 13, 14, 23 and 24, T40N, R24E, in their entirety from the Washington State Department of Natural Resources (DNR). This land transfer would considerably enhance a Chopaka Mountain Wilderness.

Furthermore it would fulfil many of your criteria for Land Tenure Adjustments. (pp. 36 - 37.) The land would be in the Similkameen retention area and would provide access to two isolated BLM holdings of 80 acres each in Sections 13 and 14. The summit of Chopaka Mountain, on Sections 23 and 24, affords sweeping views in all directions. The Washington Native Plant Society has studied the land around the summit of Mt. Chopaka, and found it to contain a very unusual plant assemblage. These sections also contain the headwaters of Anderson Creek and Hurley Creek, which flow through the Chopaka Mountain WSA. Acquisition of these headwaters would help protect the integrity of the proposed Anderson Creek Research Natural Area. These four sections deserve protection; the BLM should provide it.

2. Juniper Dunes.

30-5 Management of the Juniper Dunes Wilderness, you have told me, will be planned in a separate document, but that intent is not even mentioned in this RMP. The few mentions of Juniper Dunes are extremely brief--in the proposed management alter-

30-6 native less than one sentence, which speaks of it as a subcategory of recreation. Some major concerns for management of the Juniper Dunes Wilderness involve impacts on the wilderness from activity outside its boundaries. The most notable

example is ORV use, which should be kept far distant from the wilderness. If most hawk nests are outside the wilderness boundary, that should affect the decision on ORV access. Such issues are far more appropriate to handle in an RMP than in a wilderness management plan.

30-7 Despite your p. 34 statement, "wilderness will not be discussed in the RMP,", you imply on p. 56 a preferred decision as to wilderness management that is illegal. Your alternative C, in contrast to alternative B, would allow no vehicular activity in the wilderness area. This is required to be an element in all alternatives. Section 4(c) of the Wilderness Act specifically prohibits all use of motorized vehicles in wilderness, except under very unusual, rare circumstances.

30-8 The expiration date given for oil and gas leases in this wilderness is not the same as I have been previously informed. Oil and gas leases should be terminated or bought out if necessary. Even though there are non-surface disturbance clauses in some leases, activity on the periphery of the wilderness area should be assessed for its potential to disturb wildlife.

3. Oil and gas leasing.

30-9 According to your paragraph on p. 35, column 1, this RMP did not discuss oil and gas exploration and development because of an earlier EA and decision record on the subject. (An EA only available in Spokane or Wenatchee BLM offices does not much help the public.) Geothermal leasing is identified in a paragraph in column 2 on p. 35 but never discussed. But if an RMP is to be comprehensive and integrated, mineral leasing is an issue that must be included. As in the case of wilderness, an EA is not as analytic as an EIS. Even if the assumption is made in the RMP to continue the direction of the earlier decision, new data or decisions on other management issues could call for a new look at previous direction. In that case all elements should be available and displayed for consideration.

4. Previous MFPs.

The same objection applies to your p. 6 statement that previous MFPs will not be examined. Unless all issues are included planning is not comprehensive or integrated.

II. INADEQUATE DATA

30-10 It is understood that decisions must sometimes be made despite gaps in information, and it is hoped that the BLM will always be gathering more data and adjusting decisions accordingly. What is of concern is that Chapter 2 indicates some major gaps

that should have been filled in order for comprehensive planning to take place. Archeological resources (Table 2-9), have been inventoried on only very small percentages of BLM lands. Current use of BLM lands by Native Americans is required (p. 8) but is not identified at all.

Most rangeland has been surveyed for ecological condition, but some of those surveys are 10 years old. Those 149,000 acres surveyed make up only half of the BLM land. What is the condition of natural communities on the other half?

III. INADEQUATE RANGE OF ALTERNATIVES

The range of management alternatives is narrow, which appears to reflect a lack of creative approaches. Table S-1 on page vi-vii shows that the difference in emphasis between alternative B (preferred) and Alternative D is very slight: one reversal of priorites for the Similkameen Management Area (of which more later), minor improvements in emphasis on wildlife habitat in three other management areas, plus dropping of "Grazing" in another. Most of the preferred alternative seems to be simply a restatement of present management intent.

Although there is no explicit statement of when the next round of comprehensive resource management planning will occur, it is implied that this document will govern decisions for at least the next ten years. Yet little evidence is shown of long term creative approaches to potential issues. Here are some specific examples.

1. Grazing.

30-11 No alternative addresses grazing decisions in any but the 16 allotments now categorized as "Improve". Are the "Maintain" allotments all in such excellent condition that your staff can conceive of no action, even nine years hence, to improve the condition of the range? Is it necessary to be so fatalistic as to the impossibility of slightly improving any "Custodial" rangeland? Having recognized in the text that some Custodial land might be changed to Improve, why not analyze in one alternative the percent chance of doing so? Your statement (p.42) that "available data is insufficient" should be the reason for expanding rather than limiting your spectrum of possible responses. The fact that only eight allotments out of 390 now have Allotment Management Plans or Coordinated Resource Plans should leave major opportunities for improvement.

30-12 The analysis of a No Grazing Alternative I had understood to be required by court-ordered agreement between BLM and NRDC,

page 5. Such an a "bench [illegible] and environmental; of grazing on public lands. If such an analysis is too difficult on scattered tracts, it could at least be done on the more consolidated pastures. Under alternative B, you propose to decrease AUMs after 10 years on 62% of the "Improve" allotments, in some cases quite drastically (p.41). Under no alternative would the ecological condition of the range improve on more than 23% of the acreage of these I allotments (pp.49-50). Good management should require an analysis of decreasing these AUMs much sooner, and of other means of improving more of the range land now in unsatisfactory condition.

2. Riparian.

30-13 In each alternative you propose to improve 47 miles of riparian habitat, yet in the text (p.39) on "management common to all alternatives" you only state that fences or other projects will be done when identified through more specific plans. If you know definitely the number of miles, that should mean you definitely know where they are. If so, you should say so. Otherwise there should be a range of alternative miles of riparian protection.

3. Recreation.

30-14 Recreation management remains constant in all your alternatives except for some variation in ORV restrictions. No explanation of what is constant is provided in the text, however, apparently due to an editing error, since a "Recreation Program" heading occurs on p. 38 in the middle of the text on rights-of-way.

But ORVs are only one aspect of recreation. Quite a range of alternative recreation programs should be analyzed, including different restrictions for different kinds of ORVs. The plan should differentiate between ORV use which is primarily transportion (e.g. jeep travel to a remote location for rockhounding) and that which is an end in itself (e.g. motorcycling on sand dunes.) The former is probably less destructive than the [illegible] and if so greater latitude

ORV use and all other recreational demand are good examples of FLPMA's charge to adequately consider "...the availability of alternative means...and sites for the realization of those values."

4. Conclusion.

Many other examples could be given. If this RMP is to govern management for longer than ten years, then it is all the more essential that you do long-range imaginative analysis of a true range of alternatives.

Naming one alternative "Balanced" prejudices the choice of which will be selected. The alternative you name "Protection" shows No Change in seven instances and a decrease in visual quality from forest management (p. 50). An alternative providing far more protection should have been analyzed.

IV. TOO MANY DECISIONS DEFERRED

30-15 A Resource Management Plan is the comprehensive plan that analyzes impacts of management for multiple uses. That analysis cannot be done if most management decisions are postponed to Habitat Management Plans, Recreation Management Plans, annual timber sale planning, annual road planning, cadastral survey annual planning and so on. It is inexcusable for the major planning document of the decade for management of lands belonging to all Americans to simply state that under all alternatives "Fish and wildlife habitat management would continue to be evaluated on a case by case basis as part of project level planning" (p.38). Each of the specific management plans and EAs must be based on much more complete information and analysis in the RMP.

V. ADJUSTMENTS IF ASSUMPTIONS PROVE WRONG

1. Budget and appropriations.

On page 60, the assumption is made that "funding and personnel would be sufficient to implement the preferred alternative or any alternative as described herein." I believe it is unrealistic to not show the budgetary consequences of the various alternatives in this time of governmental austerity. It is not good planning to simply imply that activities "would be adjusted accordingly." This RMP is supposed to be a comprehensive document.

2. Monitoring.

30-16 There is no monitoring plan in this RMP nor is there mention of a separate monitoring plan for the district. Monitoring is the means by which to check whether an action does have the environmental consequences expected. Monitoring should be done not only for logging or grazing effects and ORV damage, but for all consequences. Particularly since in so many cases the BLM has inadequate data, the need for monitoring is central. And tied to monitoring should be a specific plan to change management when its environmental consequences are worse than anticipated. This RMP is sorely deficient in that none of these essential elements is spelled out; everything is deferred until the record of decision.

VI. FAILURES TO COMMUNICATE TO GENERAL PUBLIC

This RMP is weak not only for the information it fails to address. In several ways it also fails to communicate well that material which you do address.

1. Maps.

30-17 There should be larger scale maps of all resource values an each of the twelve management some cases with numerous resource as the Similkameen, color-coded maps or overlays might he necessary.

On page 35 you state that eight management areas are in the Wenatchee Resource Area and four in the Border Resource Area, but there is no further explanation of which is where.

There should be information and a map identifying all allotments, not only the "improve" allotments. A map of ORV areas should be in this document, and not just available on request. Habitat of numerous kinds of wildlife should be mapped.

2. Definitions.

BLM vocabulary and jargon needs better translation, sometimes in the text, sometimes in the glossary. The phrase "public lands" to the general public means all lands managed by any governmental agency, local, state or federal. You do give its specific BLM definition in the glossary but most readers, believing they already knew its meaning, probably would not look it up.

On the other hand, the glossary definition of "Lieu" is not an understandable explanation and should be illustrated with an example.

30-18 Other words having specific BLM meanings are not explained, e.g."utilize" which a general reader would consider to mean all uses including bird nesting locations but means "eaten by livestock" to the BLM. Explanations given at one point in the text (such as allotment categories M, I, and C) should be repeated or referenced in the glossary.

3. Other problems.

The narrative sections of the first four Chapters are somewhat confusing because of the type size of the paragraph headings. There should be clearer distinction between paragraph headings and section headings--either by underlining or much greater difference in size or style of type.

30-19 Table 3-5, which is started on page 49 and continued on page 50, should repeat the headings for the columns on page 50.

The charts an each management area give some useful information, but the tiny print size uninviting to a reader.

30-20 The index is so sketchy as to be nearly useless. Bow does one find all the for instance, when it is net listed? is I covered in many more places than just page 17. And so an.

The section on land tenure adjustment (p. 36) explains retention areas and criteria and says that other lands are trading stock. But nowhere is there an explanation of the term in the third paragraph of p.37, "further study areas."

4. Typos.

Typographic and editing errors interfere with communication. The apparent commission of a Recreation section in Chapter 3 I have mentioned.

In addition to numerous misspellings, there are at least three instances Of incorrect word being used: on page 6, second column, number 2 "public lands comprising an intricate part...", you probably mea" "integral part"; o" page 64, Table 4-1, first column "Scattered tracks"should be 'scattered tracts"; 129, second column, number 9, last line, "...preventative recreation activities" shou" be "primitive recreation activities." (Or maybe we do need preventative recreation--"ho knows?)

VII. SPECIFIC COMMENTS

There is some excellent information included in this RMP, and some commendable decisions have been made. There are also problems.

1. ACEC nominations.

30-21 Three nominations of Areas of Critical Environmental Concern for protection of candidate threatened or endangered plants and one ACEC nomination for eagel nesting habitat are all valuable. They should all be given permanent ACEC status.

2. Economics.

30-22 Although there is an analysis in Appendix E of the economic effects of livestock production and rangeland improvments, there is no estimate of the net gain or loss to the Federal Government. The cost of range improvements to the Federal treasury must be calculated and compared with the low fees received for use of the land. Then the public can make a better judgement of the true value of increasing the number of AUMs with the aid of range improvements. A most telling

comment is on p. 43: "The highest priority for implementation generally would be assigned to those improvements for which the total anticipated benefits exceed costs." Why only "generally"? Why spend any money, in fact, if anticipated benefits do not exceed costs? Perhaps there are more efficient methods to boost the economy of Eastern Washington.

3. Forestry.

30-23 The Draft RMP/EIS contains no economic analysis of the cost to the BLM of selling timber, therefore, as for grazing, it is difficult for the public to make a judgement of the economic efficiency of maintaining an annual timber sale of 3.98 MM bd. ft., as recommended in the preferred alternative. The costs of loss of riparian and other wildlife habitat and the costs of increased soil erosion must be factored in as consequences of logging.

4. Land Tenure Adjustments.

30-24 The criteria for evaluating land retention or disposal include public resource values, which certainly would include wildlife. Lands in Rock Creek, North Ferry, and North Stevens Management Areas, should be retained in public ownership where there is crucial deer winter range in each of these areas (Map 3). Exchange of some of these lands, or conveyance to an agency such as the Washington State Department of Game could be appropriate as long as the habitats are protected.

30-25 No explanation is given for choosing 300 acres as the target amount for sale and an agricultural land for lease. Why is targeted to be 2000 is no targets may be reasonable but there a reader to judge whether the BLM has information these targets or whether they are numbers picked out of the air.

5. Grazing vs. Wildlife.

30-26 In one management unit after another, wildlife needs have been subordinated to grazing. On privately owned ranch lands this priority can be appropriate, but not on public lands. The declaration of policy in FLPMA in section 102(a)(8) lists fish and wildlife before domestic animals.

30-27 Livestock grazing management should be incorporated into wildlife habitat management plans, and much more detail of the wildlife plans provided in this RMP. This is true for the entire BLM District.

30-28 A most dramatic example is on Allotment 707 in the Similkameen Management Unit. Under your alternative C livestock would be

reduced from the present 624 AUMs to 5 AUMs for the coming decade and to 16 AUMs thereafter. As far as a reader can determine this dramatic reduction is for protection of the crucial deer winter range. If this dramatic reduction is needed to protect the deer, it is unacceptable to plan to keep the livestock use at 624 AUMs for the next ten years, as does your preferred alternative.

Though other I allotments show less drastic differences, the principle remains the same. Raptor habitat should be included in the preferred management plan for Badger Slope. Wildlife habitat management must take precedence over grazing in the Juniper Forest.

6. Good information and presentation.

I am sorry so much of my commentary must be so critical. There is some very good information presented, particularly in Chapter 2 and 3 and in some of the Appendices, for which you are to be commended.

Most of the typographic layout and the drawings and photographs improve the readability of the document, which is an important consideration in communicating to the public.

VIII. CONCLUSION

In summary, a great should be done on this Draft Plan. It should either be done over again, or a supplemental version should be resubmitted

A wider range of alternatives should be analyzed, including a truly protective management plan. Previous EAs and plans should be described and opened for any necessary adjustment. Planning and resource conflict resolution should really be done in the RMP, based on more complete information.

I look forward to your improved edition.

Sincerely yours,

Jean C. Durning
Regional Director

Enclosures: 2

EA

30-1 A Resource Management Plan/Environmental Impact Statement is designed to propose land use allocations in response to issues and concerns that were expressed by the public, BLM staff, and other federal and state agencies during the scoping stages. RMPs are developed to establish broad guidelines on which activities are to be permitted, conditionally permitted, or prohibited, based on resource conflicts and issues.

It is not the intent of an RMP/EIS to propose site-specific actions or to provide an analysis of site-specific impacts of such actions. Site-specificity is reserved for the more detailed activity planning stages. Activity planning and site-specific planning is authorized and anticipated by the BLM regulations for land use planning which were developed to implement section 202 of FLPMA.

30-2 Wilderness was addressed in another document entitled "Chopaka Mountain Wilderness Study Plan Amendment and Environmental Assessment." No significant wilderness issues were identified in this document, and no new issues were identified during the scoping phase of this RMP; consequently, wilderness was not addressed. See response 2-1, 2-2, and 30-9 for issues concerning mineral resources.

30-3 The Secretary will issue a Record of Decision on the Chopaka Mountain Wilderness Study Plan Amendment upon completion of the Environmental Assessment and Wilderness Study Report.

30-4 The BLM has explored the possibilities of acquiring lands in the Chopaka Mountain Wilderness Study Area on several occasions. The most recent attempt was in early December of 1984. Each time, the BLM was informed that the Washington State DNR does not consider such an exchange to be in the state's best interest. (See response 20-1.)

30-5 The text of the RMP/EIS has been amended to discuss the preparation of a wilderness management plan for the Juniper Dunes Wilderness.

30-6 See responses to comments 12-3, 24-2, and 24-3.

30-7 All of the alternatives proposed for the Juniper Forest Management Area are in strict conformance with the Bureau's Wilderness Management Policy. Management of motorized vehicles within the Juniper Dunes will follow guidelines established in the BLM Wilderness Management Policy (1981). This policy was established following the Wilderness Act (1964). The policy prohibits use of motorized vehicles except in certain limited, unusual circumstances. Both the Preferred Alternative (B) and the Protection Alternative (C) refer to recreation use rather than administrative use.

30-8 Oil and gas leases validly issued may not be cancelled unilaterally by the BLM. However, if these leases terminate, the BLM would not issue new ones. If and when oil and gas exploration is proposed on the periphery of the wilderness area, the potential impacts on all resource values will be analyzed.

30-9 The Environmental Assessment concerning federal oil and gas leasing in Washington State was reviewed during the development of the Upper Columbia and Southeast Planning Area URA-MFPs. Public meetings were held to discuss these plans. Notices of these meetings were sent out to interested parties and published in the local news media. The oil and gas leasing program was analyzed again during the development of this RMP. The effects of this program were analyzed, no significant impacts were revealed, and no new issues were revealed by any of the commenting public. See Appendix B for a brief summary of this EA.

Geothermal leasing is not discussed because there has been very little public interest in geothermal leasing, except for the lease development of a unique geothermal source within the city limits of Ephrata, Washington.

30-10 Inventories for cultural resources are conducted before all proposed surface disturbing activities. There were not any concerns expressed by tribal leaders during either the scoping phase of this RMP or during the public comment period; however, the BLM is required by law and treaty to protect tribal interests in or on non-reservation lands. See also response 20-4 concerning inventories of ecological range condition.

30-11 The Maintain category allotments are currently being managed in a satisfactory manner. Ongoing monitoring may indicate a need to adjust management in the future if objectives of existing plans are not being achieved. Need for such a change in management would cause the allotment to change to an Improve category. The BLM is concentrating limited management resources upon areas which have the highest potential for improvement. As explained in Chapter 3, "Range Program, Livestock Management of M and C Category Allotments," improvement of most Custodial category allotments is dependent upon the cooperation of the predominant landowners in the allotments. With the cooperation of the Soil Conservation Service, the BLM is stressing development of Coordinated Resource Management Plans for all M and C allotments.

30-12 See response to 8-1 concerning a no grazing alternative. Also, see response 19-2 concerning adjustments in livestock grazing levels.

30-13 The text has been revised to respond to The Wilderness Society's concern. See "Wildlife, Riparian Habitat" in Chapters 2 and 3.

30-14 The discussion of ORV use has been amended. See Chapter 3, "Management Guidance Common to All Alternatives, Recreation, Off-Road Vehicle Use."

30-15 See response 30-1.

30-16 Monitoring systems for the resource programs will be proposed for all resource activities affecting public land. This section in the RMP has been revised to clarify the nature of the monitoring program to be followed. A monitoring plan that will outline the procedures to be followed by all resources will be completed within 12 months following adoption of the RMP. (See Chapter 3 "Monitoring.")

30-17 The Proposed RMP has been revised to include larger scale maps indicating primary resource values. Due to the high cost and time delays in color printing, the BLM has used more maps and larger scale to depict resource values. The 12 management areas are cross-referenced on Table 1-1 by Resource Areas; however, this has no direct relationship to the content or direction of the RMP. ORV restrictions for the 12 management areas are now mapped. Some wildlife habitat is provided on Map 3.

30-18 "Percent utilization" is defined as the percentage of air-dry annual production of key forage species consumed by all species of animals.

30-19 Table 3-5 has been revised and relocated in the Final RMP/EIS. See Table S-2.

30-20 The term "further study areas" refers to parcels that are located in the Scattered Tracts Management Area and have been nominated for special designations such as ACEC, RNA, or ONA. Consequently, further study of these areas is required before a decision can be made regarding retention or disposal.

30-21 The four original ACECs and an additional six ACECs will be designated upon adoption of the RMP.

30-22 The BLM's grazing fees are set in accordance with a formula legislated by the United States Congress. Most range improvements would be financed by grazing fee collection and contributions from range users. Fifty percent of grazing fee receipts are returned to our office to fund range improvements, and fifty percent are returned to the state government. An RMP/EIS is not intended to provide economic efficiency analyses on the various resource programs; therefore, no discussion of this nature was included in this document. However, a benefit/cost analyses was conducted to develop alternative range improvement proposals and to assist the BLM in priority ranking of allotment improvement proposals. These analyses would be only one of the criteria used to determine investment priorities. Other non-commodity values that would be considered include visual resources, water quality, endangered, threatened, or sensitive species habitat, important wildlife habitat, soil conservation, resource use conflicts, and other important resource values. User contributions to range improvements would also be considered. See Appendix M for results of the initial benefit/cost analyses. Subsequent analyses will be conducted as more specific activity planning (AMPs, CRMPs) is completed.

30-23 Since an environmental impact statement is not intended as an economic efficiency analysis, as is explained earlier in response 30-22, no economic efficiency results for the forestry program are included in this document. The environmental effects upon riparian and other wildlife habitat and soils are considered in the EIS and are shown in non-monetary terms.

30-24 Prior to disposal of any parcel of public land, an intensive field examination is conducted to determine if significant public or resource values exist. If any are identified, these lands would be retained. The criteria used to make this evaluation are outlined in Chapter 3, "Land Tenure Adjustments."

30-25 The "target" acreages for sales, leases, and exchanges per year under the Preferred Alternative represent the District's best estimates, based on previous land use planning and preliminary review of the public lands in the state. The figures are a reasonable projection of the magnitude of the RMP Land Tenure Adjustment Program.

30-26 The stocking levels for livestock are based on the available forage left after wildlife and watershed needs have been satisfied. The declaration of policy in FLPMA in section 102(a)(8) does list fish and wildlife before domestic animals. However, it does not infer a priority ranking as The Wilderness Society indicates. The exact citation of section 102(a)(8) is as follows:

> the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.

30-27 Habitat Management Plans (HMPs) are prepared on specific areas in close cooperation with the Washington State Department of Game. Some of these plans do include provisions for the grazing of cattle. The "Wildlife" section of Chapter 2 has been amended to provide additional discussions of the HMPs in the RMP planning area.

30-28 See responses 19-2 and 43-21.

31 Dec. 30, 1984

Mr Buesing,

I have recently reviewed the draft RMP/EIS for the Spokane District

I felt that the alternatives chosen were sometimes inadequate and that "balanced" land use meant a way of assuaging public discord.

31-1 The purpose of the RMP is to assess the the best uses for B.L.M lands and separate resource conflicts. I felt that in many areas these alternatives did little to separate these conflicts and In an area such as the Juniper Forest where oil and gas leases, O.R.V use, grazing and recreational wilderness enjoyment are all entermingled the B.L.M's preferred plan cannot possibly be speaking for those who prefer a wilderness experience.

I wonder at the botanical expertise of those who inventoried these lands which may not be reinventoried for the rest of the century or until someone happens to complain loud enough.

I feel that these lands should be frequently inventoried and a more comprehensive list of alternatives be considered this to me would bring the B.L.M closer to Comprehensive land use Management.

Sincerely,
Joyce Walker-Conhere
2500 George Washington Way #21
Richland, WA 99352

Chairman of the Conservation Committee
Central Chapter of the Washington
State Native Plant Society

31-1 The purpose of the RMP is to resolve land use allocation and resource management conflicts. In many instances it is possible to minimize conflicts through appropriate mitigation measures or changes in management (such as timing of grazing to avoid primary recreation use). Resource issues do not require separate alternatives provided the issue is resolved. Some potential conflicts will be addressed when more site-specific proposals are made by outside entities (such as permits to drill on oil and gas leases, right-of-way permits, and so on). Also see response 23-1.

32

Department of Natural Resources
Washington Natural Heritage Program
Division of Private Forestry and Recreation
Mail Stop: EX-12
Olympia, Washington 98504

Commissioner of Public Lands

December 28, 1984

Joseph Buesing, District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Dear Mr. Buesing:

We have reviewed the draft Spokane Resource Management Plan/EIS and have the following comments:

32-1 Page 12: Threatened or Endangered and Sensitive Plant Species - The heading is awkward, eliminate the "or". The text indicates that there are 12 known candidate species on public lands, yet Table 2-1 (p. 13) only lists four. Also the number of sensitive species indicated in the text and the actual number listed in Table 2-1 do not match.

Page 13: Table 2-1 is confusing and the headings misleading. There are no federally listed endangered or threatened plants in Washington as the heading implies. The plants listed under this heading are state endangered or threatened species and federal candidate species. The plants listed as state threatened or endangered are actually state sensitive plants.

This separation of state and federal designations is confusing. All of the federal candidate species are on the Washington State rare plant list: Endangered, threatened, and sensitive vascular plants of Washington. We suggest that you retitle Table 2-1 "Endangered, Threatened and Sensitive Plant Species" and reference the DNR-WNHP list. The federal status should be a category within the table. We suggest that you drop the Category 1 or 2 designation because, as you indicate, they are subject to change and provide little useful information to document users.

Equal Opportunity, Affirmative Action Employer

December 28, 1984
Page 2

There are a number of plant species known to occur on BLM land that have been omitted from Table 2-1. There are also several misspellings of species names (i.e., Erigeron piperianus, Dodecatheon poeticum). I would like to offer our assistance to your staff in the revision of Table 2-1 for the final plan.

We are pleased to see that several ACECs have been nominated for the protection of rare plant species (p. 9). This action may help to forestall further population declines of these species and may delay or eliminate the need to list these species under the Endangered Species Act.

Several other species present on BLM land could be protected by ACEC designation. We would like to cooperate with your staff in identifying and nominating these areas.

32-2 There is one minor correction on the map: the point for the Yakima River Cliffs ACEC is too far to the north.

Thank you for the opportunity to review the plan.

Sincerely,

Mark Sheehan
Program Manager

MS:sk
cc: Don Pless, DNR Southeast Area Manager
Ryder Chronic, DNR Northeast Area Manager
Marsha Hixon, DNR, Analysis and Planning
Cleve Pinnix, DNR, Deputy Supervisor-Governmental

32-1 The text has been amended.

32-2 This correction has been made.

33

December 6, 1984

Joseph Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Re: Hills

Dear Mr. Buesing:

We have several proposal.

33-1 ur basic concern is recreational use environmental impact of each

provision of the B.L.M. holder. The grazing permit holder in maintaining the environment. The is accountable to seems a lack by the recreational user.

At the current levels of public access and use we find, as majority land owners, problems maintaining private property. Within the past calendar year we have experienced large amounts of property and livestock theft, numerous acts of vandalism, the spread of noxious weeds on off-road-vehicle trails, and massive soil erosion on existing roads caused from off-road-vehicle travel during the wet season.

we in problems. problems to rest with the lessee.

Joseph Buesing, District Manager
Bureaua of Land Management

Page 2

use by hikers, hunters and insurmountable problems; however, off-road-vehicles is

The areas be use by off-road-vehicles is managed as the following:

33-2
1. Access by potential users.
2. Damage to property.
3. Litter control.
4.
5. Erosion of roadways
6. Trespass and
7.
8. Environmental impact on
9. caused traction.
10. Accountability of users for careless, illegal or destructive actions.

that is needed to properly evaluate and problem areas alternatives as presented.

Sincerely yours,

Edith J. Taylor

Lynn A. Taylor

33-1 See response 13-1.

33-2 See response 13-2.

34-1 The Saddle Mountains, Rattlesnake Hills, Badger Slope, and Juniper Forest are the areas of greatest potential conflict between ORV activity and other management activities. The ORV section of Chapter 3, "Recreation," has been expanded to define the respective ORV management proposals. Maps 4 and 5 display areas restricted or closed to ORV within the 12 management areas.

Lower Columbia Basin Audubon Society

A BRANCH OF THE NATIONAL AUDUBON SOCIETY
9517 W. Richardson
Pasco, Wa. 99301

December 30, 1984

Joseph Buesing, District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Dear Mr. Buesing:

I am writting to comment on your draft Spokane Resource Management Plan/EIS.

We recommend that Alternative C be adopted particularly in the arid areas of the Columbia Basin. The Columbia Basin has drastically changed over the past forty years as a result of the Columbia Basin Irrigation project. The area affected by the project will very probably expand dramatically in the near future. The changes wrought by irrigation have not all been bad for wildlife but they have been detrimental to our desert species. We feel that these arid areas which your agency manages in this increasingly wet environment be preserved for the hard pressed desert species.

34-1 We are primarily interested in the Saddle Mountains, Rattlesnake Hills, Badger Slope and Juniper Forest Management Areas. We are concerned that the preferred alternative places too much emphasis on ORV use. We are particularly opposed to the unrestricted use of ORV's in these areas. As you well know ORV's, while being very enjoyable, can be extremely destructive to wildlife, soils and plantlife. We believe the preferred alternative should restrict ORV's to existing roads and trails.

I believe most ORV users share our love for and desire to protect the outdoors but do not realize how destructive their equipment can be. We would like to see your agency conduct an educational program through interpretive signs, pamphlets, lectures and media announcements on the proper use of ORV's and the effects of their misuse. Something on the order of Smokey the Bear, Woodsey Owl or Ranger Rick could help the environment and lessen the conflict between ORV's and other recreational uses.

Thank you for your time and consideration.

Sincerely,

Richard J. Leaumont
Chairman,
Conservation Committee

DEDICATED TO CONSERVATION OF WILDLIFE, PLANTS, SOIL AND WATER IN RELATION TO HUMAN PROGRESS

Washington Wilderness Coalition

P.O. BOX 45187, Seattle, WA 98145-0187 (206) 633.1992

December 31, 1984

Joseph Buesing, District Manager
Bureau of Land Management
East 4217 Main Ave.
Spokane, WA 99202

Dear Sir:

This letter is intended to comment on the draft Environmental Impact Statement (DEIS) for the Spokane District Resource Management Plan (RMP) released last October by your office. A statewide coalition of 30 groups and 1000 individual members, the Washington Wilderness Coalition (WWC) appreciates this opportunity to comment on this proposed BLM action, which, if adopted, would have a large impact on areas of concern to us in eastern Washington State.

The WWC urges you to withdraw the draft RMP, and to rework the document substantially before issuing a new draft. The DEIS released on October 1 suffers from several inadequacies:

- -- Insufficient and/or old data,
- -- Improper decisions, including the omission of a "no grazing" alternative, failure to study any new ACECs, and the setting of targets for land disposals,
- -- Lack of specificity in management decisions,
- -- Failure to resolve resource conflicts, and
- -- Improperly constructed array of alternatives.

The WWC notes that there are precedents for withdrawing a DEIS and substantially reworking it before re-issue. For example, the draft RMP for the Buffalo, Wyoming Resource Area underwent exactly such a process during 1983 and 1984.

35-1 Insufficient and/or old data: On page 14, the DEIS admits that 83,334 acres have not been surveyed for ecological condition. The survey did occur for some 150,000 acres from 1975 to 1981. However, appendix D does not indicate the dates when data was collected at each site. And in any case, data as old as 1975 should be updated for the RMP.

35-2 The only information which appears to be reasonably up-to-date would be the survey on timber (p. 17), but the results of that

survey have not been marked on a map. Otherwise, information either does not exist, or does not appear in the DEIS. For example, the DEIS does not provide any data on recreation, type or quantity. The need under NEPA to obtain and provide accurate data is a well-established fact of federal law.

35-3 The most telling problem with this draft RMP is its lack of maps. The only data which appears on a map are: 1) the location of BLM lands and administrative designations such as ACECs, and 2) winter range for some wildlife species. Failure to represent data on maps makes it practically impossible for the public to evaluate the RMP and/or BLM management.

35-4 Improper decisions: Under the Federal Land Policy and Management Act (FLPMA) and under court decisions, the BLM must perform various duties in RMPs, but this draft fails to do so in at least three areas. The DEIS does not analyze a **"no grazing" alternative**. The BLM is under federal court order to do so.

35-5 Under the preferred alternative, the BLM sets a vague **target for land disposals** of some 300 acres per year. It is the policy of Congress as expressed in FLPMA to retain the public lands. Any proposed land disposals must be identified in a valid land-use plan. The DEIS fails to list what tracts would be made available for disposal, or to mark those tracts on a map.

Under FLPMA, the BLM is required in land-use planning to set as a top priority the identification of Areas of Critical Environmental Concern (ACECs). The DEIS contains **no study of ACECs.**

35-6 With regard to ACECs and to land disposals, the DEIS refers to previous decisions and/or studies for policy guidance. An RMP represents the fundamental document for land-use planning in a BLM administrative unit. To meet the test of FLPMA, an RMP must be comprehensive and interdisciplinary. Decisions and actions previous to an RMP were undertaken on a piece-meal basis, and were directed to one resource or use rather than the range of multiple uses on the public lands. Therefore, while the RMP may or may not modify previous decisions, actions, or policies, the RMP can not merely refer to earlier documents.

The RMP must justify continuations of any and all previous BLM management decisions, actions, and/or policies. Minimally, this means that, in the RMP, the BLM must publish any earlier document, and explain why no modification is needed under the new multiple-use management prescriptions laid out in the RMP. If the RMP is truly comprehensive and inter-disciplinary, the RMP will in most cases modify previous decisions, actions, and/or policies.

35-7 For this reason, the WWC objects to the all "Alternatives/Issues Eliminated from Detailed Study" (p. 34-35) and the "Management Guidance Common to All Alternatives" (p. 35-47). Taking just one example, the DEIS eliminates the "Energy and Minerals Issue" stating: "Decisions based on this document [a previous environmental assessment] precluded surface disturbance, occupancy, or leasing on those or certain specific tracts of Federal land where potential for significant impacts were identified" (p. 35). In other words, the BLM presumes that the RMP does not identify any new lands which might be impacted significantly. That forces one to reach one of two conclusions: either that presumption is dead wrong and the BLM should be looking at new mineral withdrawals or lease stipulations, or the BLM purposely drafted the RMP in such a way as to avoid the minerals issue. In either case, the credibility of the RMP suffers.

35-8 Lack of Specificity in Management Decisions: Again the most telling indictment against this draft RMP would have to be its lack of maps. Other than rangeland allotments categorized as "I," not one management decision in this RMP is marked on a map! This is patently unacceptable.

35-9 Some decisions are probably a good deal more specific than represented in the RMP. For example, the DEIS states an elaborate policy for ORV designations (p. 38), and even announces the availability of maps upon request. But the failure to publish the maps in the DEIS leaves utter doubt and confusion about ORV designations and even the policy itself.

35-10 Other decisions are clearly lacking altogether. The RMP does not include a management plan for the new Juniper Dunes Wilderness, even though policies for the Wilderness Area clearly affect multiple-use administration throughout the Juniper Forest Planning Area.

35-11 Failure to resolve resource conflicts: It simply is not good enough to refer to other documents, to develop a policy for any given resource or use, and/or to defer specific decisions to later Environmental Assessments (EAs). An RMP is supposed to weave a fabric of comprehensive, multiple-use management. That means the EIS must resolve resource conflicts now. We can not maintain piecemeal policies or previous decisions; we can not wait for guidance from future EAs. The two most glaring examples of the problem are the Similkameen and Juniper Forest Management Areas, which have substantial resource conflicts.

At the **Similkameen Management Area**, there are overlaps among proposed "I" rangeland allotments, Areas of Critical Mineral

Potential (ACMPs), wildlife winter range, open ORV designations, and timber production zones. At least some of these competing resource uses would occur within the Chopaka Mountain Wilderness Study Area (WSA) and the Hot Lakes Research Natural Area (RNA). These are just the resource conflicts that can be identified by reading the RMP; there may be many more competing uses, such as road construction, land disposals, mineral claims/leases, and/or utility corridors, the locations of which are not discussed specifically in the RMP.

35-12 Not only are resource conflicts left unresolved, opportunities are squandered to maximize best uses of the land. The BLM earlier found the Chopaka Mountain WSA unsuitable for wilderness designation in part due to its size and shape. In the DEIS, BLM announces a vigorous program of land acquisitions to block up scattered tracts. WWC believes that, if lands were acquired through trades on the west side of the Chopaka Mountain WSA, the BLM would deem the resulting roadless unit suitable for wilderness designation. We urge you to acquire those lands.

Competing uses in the **Juniper Forest Management Area** include wilderness, "I" rangeland allotments, oil and gas leases, ORV recreation, utility corridors, significant wildlife values, and the need to acquire and block up BLM administered lands. Not all these activities can occur at the same time within the same unit without serious conflicts. The BLM should separate competing uses, and should do so in the RMP, an instrument intended and designed for that purpose.

Questions about keeping the Juniper Dunes Wilderness free from resource conflicts, and about acquiring lands next to Chopaka Mt. WSA, especially the latter, are precisely why we feel that the "Wilderness Issue" should not have been eliminated from consideration in the RMP. Clearly a new system of multiple-use management can and should change old wilderness suitability judgments, might and will affect future wilderness management decisions. In an RMP, in true multiple-use management, no resource can be viewed in a vacuum.

35-13 Improperly constructed array of alternatives: The alternatives in the DEIS do not meet NEPA guidelines. First of all, the array of alternatives is too narrow. The BLM must analyze several viable alternatives which it could reasonably choose to adopt as its proposed action. As mentioned earlier, the DEIS does not consider a "no grazing" alternative. There are various "balanced management" alternatives, besides alternative B, which could and should have been constructed and analyzed in the DEIS. Failure to construct a wider range of alternatives appears to create a bias for choosing alternative B as the proposed action.

In addition, the alternatives must be substantially different from each other. Clearly these alternatives in the DEIS are not. In Table 3-6, management decisions in Alternatives C and D read all too frequently "Same as Alternative B." Furthermore, the "Alternatives/Issues Eliminated from Detailed Study" (p. 34-35) and the "Management Guidance Common to All Alternatives" (p. 35-47) are so extensive, while the list of issues addressed in the RMP (p. 47) is so short, as to effectively block the construction of different alternatives.

Thank you very much for this opportunity to comment on the draft RMP/EIS for the Spokane District. The WWC urges you to withdraw this DEIS and to substantially rework it before issuing a second DEIS. The BLM should not release a final EIS based upon this draft because the DEIS so fails to provide data, maps, specific management decisions, and/or alternatives that the public can not effectively address the issues and concerns raised in this document. Regrettably, to proceed with a final EIS from this DEIS would in effect eliminate the public from participation in the planning process.

Sincerely,

James M. Baker
Associate Director

cc: Friends of Juniper Forest
Natural Resources Defense Council
Sierra Club
Washington Native Plant Society
The Wilderness Society

35-1 See response 27-4.

35-2 The introduction to Chapter 2, "Affected Environment," has been amended to include further details on the sources of information discussed in the Draft RMP/EIS. Summaries of recreation use for each management area are found on Table 2-12. Maps 4 and 5 display commercial forestlands.

35-3 This document has been amended to include larger scale maps.

35-4 The BLM is not required by law or court order to include "no grazing" alternatives in RMP/EISs. See responses 8-1 and 27-1.

35-5 Although FLPMA provides guidelines to retain and manage the public lands for multiple use, it also recognizes land disposals as a management tool and provides specific criteria for land sales in section 203. The figure for sale of 300 acres per year under the Preferred Alternative represents the District's best estimate, based on previous land use planning and preliminary review of the BLM administered lands in the state. Before any parcel is transferred to other ownership, an intensive field examination is conducted to determine if important public or resource values exist which should preclude their disposal. Please refer to Chapter 3, "Land Tenure Adjustments." Those parcels of public land that could be subject to disposal consist of the public land in the Scattered Tracts Management Area with certain noted exceptions.

35-6 Agencies are authorized to incorporate by reference when the effect will be to cut down on the bulk of a document when doing so does not impede agency and public review (40 CFR 1502.21).

All of the management decisions that were to be brought forward in this document were reviewed during the scoping phases of the RMP. The issues that were revealed during this phase did not indicate a need for further review of these decisions.

The "Mineral Resource" section of Chapter 2 in the Final RMP/EIS has been amended to include additional information concerning the mineral potential in the planning area and a synopsis of the oil and gas EA.

35-7 Prior to the distribution of the Draft RMP/EIS, news letters were sent to over 1,000 individuals, organizations, and other governmental agencies on three separate occasions. These news letters requested comments and proposals on the issues, planning criteria, and alternatives to be addressed in this RMP/EIS. The responses the BLM received from the interested parties who took time to comment during this critical period were used to identify issues and develop planning criteria and alternatives.

35-8 The text has been amended to include larger scaled maps that indicate the allocation of resources such as forestry, grazing, and ORV designations.

35-9 In the Draft EIS, the BLM made the offer to send ORV management maps to reviewers upon request. Only two parties requested the maps, which suggests that either ORV use is not a major issue or the public is satisfied with current management.

35-10 The BLM is required by the Wilderness Act to complete a management plan for the Juniper Dunes Wilderness Area within two years of its designation. The plan will address management of BLM lands within the wilderness boundary. The RMP recognizes the boundary and provides for appropriate multiple use within the balance of the Juniper Forest Management Area. In other states where RMPs were completed prior to wilderness designation, the RMP was one format option for analyzing wilderness values and management. The Wilderness Act provides that buffer zones for wilderness must be within the designated wilderness boundary.

35-11 The resource management planning process establishes the combination and levels of all allowable public land uses for the planning area. The resource management plan and environmental document provide a basis for development of the wilderness management plan. Other issues relating to the wilderness area are identified during the development of this plan. The draft wilderness management plan for the Juniper Dunes Wilderness is scheduled to be completed in October 1985.

35-12 The land use conflicts cited by the Washington Wilderness Coalition concerning the Chopaka Mountain WSA have been addressed in the draft "Chopaka Mountain Wilderness Study Plan Amendment and Environmental Assessment." Until the Secretary of the Interior makes a decision on this WSA, the area will be subject to Interim Management. The Bureau's Interim Management Policy and Guidelines for Lands Under Wilderness Review essentially prohibits the BLM from conducting or permitting activities in the WSA that would result in any unnecessary degradation of the environment.

The Hot Lakes RNA is withdrawn from mineral entry and is closed to grazing, off-road vehicles, and has been fenced to protect it from other surface disturbing activities.

The Areas of Critical Mineral Potential indicate a resource potential and do not constitute a land use allocation by the BLM. They do identify a potentially valuable resource which should be considered when future BLM actions might preclude or inhibit minerals development potential. See Chapter 1 for the ACMP description. The text has been amended to include the location of established utility corridors. (See Map 2.)

No new significant land use conflicts were identified during the scoping phase of the RMP/EIS by either the general public, user groups, or the interdisciplinary planning team. It was recognized that there are different land uses occurring concurrently in some areas; however, in the analysis of these uses, no significant impacts were revealed.

35-13 See response 20-1.

35-14 See responses 8-1, 12-2, 27-1, and 35-7.

December 6, 1984

Joseph Buesing
Bureau of Land Management

Re: Hills

Dear Mr. Buesing:

We proposal.

Our basic concern is of recreational and the environmental impact of

to provision of
the B.L.M. in permit holder. The grazing permit holder is accountable to however, there to recreational user.

current we find, as majority private we have amounts of property and live- numerous acts of noxious weeds trails, and erosion roads travel during the wet season.

With we problems. with these to rest with

36-1 In the saddle mountain and Rattlesnake management areas all BLM land should be closed to ORV use due to the adverse impact on the land in the limited rainfall areas. ORV's also spread Knapweed which will take over the range areas of the state if something is not done.

Joseph Buesing, District Manager
Bureau of Land Management

Page 2

hunters insurmountable problems; however, use by off-road-vehicles is basically

The areas use by off-road-vehicles is management of users as to

1. Access by potential users.
2. Damage to property and livestock on public property.
3. Litter control.
4. Fire control. (How will BLM control fires?) What are your plans for fire control? **36-2**
5. Erosion of roadways and hillsides.
6. Trespass and damage to adjacent private property.
7. Theft of property and livestock.
8. Environmental impact of vehicles on wildlife nesting.
9. Environmental impact on plant life caused by vehicle
10. Accountability of users destructive actions.

is needed to problem areas before we can alternatives as presented.

Sincerely yours,

I support alternative D for all of your BLM state management areas. The small tracts should be sold to private parties so they can enhance the tax base of the state of Washington.

[signature]
RT 1 Box 205B
Moxee, Wash 98936

36-1 The BLM is concerned about the use of off-road vehicles and is monitoring ORV activity in high use areas, including the activity on Saddle Mountains and Rattlesnake Hills Management Areas. The BLM is also cooperating with the State of Washington, adjacent landowners, and grazing lessees in a program to identify and control the spread of noxious weeds.

36-2 The BLM is working toward development of agreements with local fire suppression entities and adjoining landowners to provide fire protection for public lands.

37

Route 1 Box 205 A
Moxee, Wa. 98936
December 31, 1984

Bureau of Land Management
Spokane District Office
East 4217 Main
Spokane, Wa. 99202

Gentlemen:

We are a family corporation that has been ranching in the Rattlesnake and Saddle mountain area for over 40 years.

37-1 Since the BLM lands comprise such a small percentage of the land base in the State of Washington, I believe that the alternative of disposal of all BLM land in the state should have been considered in your EIS. This would be in line with President Reagan's plan in helping to balance the budget. The BLM does not own enough land in Washington state to control or efficiently manage them.

37-2 The Rattlesnake Hills and Saddle Mountain management areas should be closed to all ORV use due to the spread of knapweed and fires caused by ORV's. A lot of the area is outside fire protection districts and we have had a history of large reoccurring range fires in the past.

37-3 Also a condition of our Superior Court settlement with the Yakima County ORV park was that there cannot be any expansion of ORV activity in the east Moxee and Rattlesnake Hills area. Your proposal to obtain access across private lands to open your areas to ORV use is in violation of our court settlement.

37-4 The best solution would be to sell the small isolated tracts of BLM lands, and lease the balance of them to the adjoining land owners to manage along with their own lands. Alternative D (no action) of the draft EIS reflects this position. ORV's should be prohibited on BLM land currently under lease for grazing in the Saddle Mountain and Rattlesnake Hills management area. ORV use is not compatable with the environment and the management of these areas of land.

Sincerely,

S. Martinez Livestock, Inc.

Simon J. Martinez

37-1 The issue of a long-term strategy for management of the public lands in Washington for retention or disposal was addressed in a study conducted in 1982. The overwhelming response to the study from the public, state, and local governments was in favor of retention and efficient management of the public lands in the State of Washington. As a result, the Land Tenure Adjustment Policy, outlined on pages 36 and 37, was established and incorporated throughout the range of alternatives addressed in Spokane's Draft RMP/EIS. A second result of the study, designed to increase the efficiency of public land management in Washington, was the establishment of a detached Resource Area Office more centrally located in Wenatchee, Washington.

37-2 Bureau policy guidelines direct decisions allowing open ORV designations if there are no compelling resource protection needs that merit ORV restrictions. During the issue identification stage of this Draft RMP/EIS, which included use of accumulated inventory data and public input, it was determined that there were no compelling reasons or issues upon which a blanket ORV closure could be justified for all of the public lands. In the Saddle Mountains, where user conflicts have been increasing, restrictions are being proposed in the RMP. Due to a lack of identified problem areas in the Rattlesnake Hills Management Area, no restrictions are being proposed. This practice of identifying problem areas and mitigating them through some form of land use restriction or land treatment will continue.

37-3 The agreement between Yakima County, Martinez Livestock Co., and William M. and Joyce T. Eckerich, Donald D., and Harriett S. Swangler, and Robert M. and Margaret Hill promulgated through Washington State Superior Court (File No. 8-2-008-7; Dec. 18, 1980) refers only to the operation of the county ORV facility. In the draft RMP/EIS, the BLM is responding to increased public demand for general recreation areas while still protecting other resource values. There is no intention to develop facilities or opportunities to a degree equal to the county's ORV park. Consolidation of public lands and acquisition of legal access for public use would reduce potential for conflict and benefit all users.

37-4 Off-road vehicle recreation use is a legitimate use of public land. At its present level, both in the Saddle Mountains and Rattlesnake Hills, ORV use is compatible with domestic grazing. However, because there have been increasing recreation user conflicts in the Saddle Mountains, the proposed RMP includes restrictions to reduce conflicts. Also, see Tables 3-4 and 3-11 and Map 5.

38

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF M/S 443

DEC 27 1984

Joseph Buesing
District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Dear Mr. Buesing:

38-1 Impact Statement (DEIS) alternative of in will quality effects from impacts management preferred Final standards are currently

38-2 will be in Final to Also, how in to be monitoring information if standards

Based on our review, we have rated this DEIS LO (Lack of Objections) in accordance with our responsibility under Section 309 of the Clean Air Act to determine whether the environmental impacts of proposed Federal actions are acceptable in terms of public health, welfare and environmental quality.

We appreciate the opportunity to review this report. Should you wish to discuss our comments, please contact Wayne Elson of the EIS and Energy Review Section, at (206) 442-1828.

Sincerely,

Robert S. Burd
Director, Water Division

cc: WOO

38-1 Text has been amended to include this information. See Chapter 2, "Water Resources.

38-2 A monitoring plan will be included in the Record of Decision. It will include the parameters to be evaluated and frequency of sampling.

39

United States Department of Agriculture
Soil Conservation Service
Room 360
U.S. Courthouse
Spokane, Washington 99201

December 31, 1984

Joseph Buesing, District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, Washington 99202

Dear Mr Buesing:

39-1 We have reviewed your draft Resource Management Plan/Environmental Impact Statement for the Spokane District. Our only comment would concern the possible need to look into coordinated resource plans on all lessees to determine overall impact to the private landowner, as well as federal.

Thank you for the opportunity to review your draft

Sincerely,

LYNN A. BROWN
State Conservationist

cc: J. Melton, SCS, Spokane FO

The Soil Conservation Service is an agency of the Department of Agriculture

SCS-AS-1
10-79

39-1 The BLM strongly supports the Coordinated Resource Management Planning (CRMP) process as a means to implement proper land management. The BLM plans to use the CRMP process wherever possible to bring together all landowners and interested parties to develop specific management plans.

40

R 2 Box 2097-E
Wapato, Wa
98951
30 Dec. 1984

Mr. Joseph Buesing

Dear Mr. Buesing,

I am a rancher in the Rattlesnake Hills area of Central Washington. I understand the BLM has initiated a draft EIS concerning the future of BLM held lands in Washington. I also understand they have proposed four alternatives. After reading your draft I feel that alternative D is the least objectionable.

40-1 Yakima County proposed and subsequently received a variance to erect and operate an ORV park. At that time it was decided that no expansion be allowed. The history of that park should be evidence enough to deny any further expansions.

40-2 Most BLM lands are nonaccessible in our area. Any road building would seriously divide existing range and make ranching difficult if not impossible.

Few BLM lands are protected by a fire district. As Sawyer Fire Chief I have seen the result, time and time again, of careless people. The increased use of these lands would only enhance the prospect of range fires.

40-3 I feel BLM lands should be administered as they have been in the past. The BLM should, in a timely manner, sell their small holdings to adjacent land owners and allow them to implement their own policies. You must remember that the BLM has a responsibility to the landowner as well.

Yours truly,
Greg Babcock
Konnowac Cattle Co.

40-1 See response 37-3.

40-2 It is the BLM's policy to provide access to the public lands where feasible. Any public access plans of the Bureau are developed through consultation with the private landowner to assure that any adverse impacts are kept to a minimum.

40-3 It is Bureau policy as well as federal law that public land be retained in federal ownership unless or until a determination is made that it is in the interest of the United States to dispose of the land. If a determination is made to dispose of a parcel of land, the procedure outlined in Chapter 3, "Management Guidance Common to All Alternatives, Lands Program, Land Tenure Adjustments," will be followed.

Sales to individuals are made, usually by competitive sealed bidding at no less than fair market value. Adjacent landowners are notified prior to sale of public land to give them an opportunity to bid.

Wash Association, Inc.

DON RICKETTS
Executive Secretary

P.O BOX 96 • ELLENSBURG, WASHINGTON 98926 • (509) 925-9871

January 3, 1985

Mr. Joseph K.

99202

Dear Mr. Buesing:

First, let me chank members us
to It was helpful
in a

specific to
First, to plans approach to grazing
involving and
sometimes it was narrow the
to the 16 as "Improvement."

41-1 In our it have,
will
very Our
be that in working with to implement
the objectives of the it a coordinated resource
plan.

on
remains Chopaka is that it
this recommendation. supports

41-2 that
O.R.U. problems in is to
fence a specific an support
this potentially cause harm existing
will be a In
impacted economical
them in
grazing reduce

plan.
is
long-term
resource.
tive B

working 16 in
in the
little, impacts.

I this
Plan.

Sincerely,

Donald G. Ricketts
Executive Secretary

OGR/jab

cc: Don Howard

41-1 See response 39-1.

41-2 In response to public input, the BLM has changed the "intensive" ORV designation for a portion of the Juniper Forest Management Area to "open." This means that livestock would be allowed in the area, and different grazing treatments would be designed to minimize conflicts between livestock and ORVs.

January 4, 1985

Joseph Buesing, District Manager
Spokane District Office
Bureau of Land Management
East 4217 Main Avenue
Spokane, Washington 99202

Dear Mr. Buesing:

I had prepared detailed comments on your draft Spokane Resource Management Environmental Impact Statement, but I have decided not to submit them after I realized the extent to which figures offered in it are purely theoretical and the number of important program plans which are left out of this document.

42-1 For example, the discussion of grazing systems on page 42 points out that the figures offered are only "target stocking rate figures" and "not final stocking rates." No explanation is offered for what a "target stocking rate figure" is, or how and why it is set; however, it is clear that the real planning for grazing levels is to be carried on in the rangeland program.

You do not indicate whether any figures for AUMs given in this document for any of the alternatives are actual levels. If the figures in alternative A are not firm targets which the Bureau intends to achieve if E is adopted, then the range of other alternatives becomes meaning less for purposes of comment. Actual grazing levels will be set in negotiations with the cattle owners in another area of Bureau planning.

The same uncertainty is extended to range improvements which are also said to depend on "allotment-specific management objectives...review of proposed actions, operator contributions and BLM funding capability." The last qualification seems to cast doubt on the assertion on page 60, column 2, paragraph 6 in which you state: "1. Funding and personnel would be sufficient to implement the Preferred Alternative or any alternative as described herein." This is turned on its head if you mean that the alternative you adopt will be what can be funded with help from the ranchers.

The same level of uncertainty that clouds the discussion of grazing levels extends to forestry where it is said the acreages to are uncertain though that will determine the level of road building and the environmental and economic effects. One has that you are anything but your level of funding.

I suggest that this draft statement be scraped and that you prepare another one based on real figures with supporting information stating how the figures were arrived at, and why, in detail, you prefer the alternative you choose. My guess is your production alternative is your present policy and that the other alternative is present policy with the changes you wish and can afford to make. There should be a viable conservation alternative and it should be evaluated for money it would save in resource development as well as for other economic and environmental effects.

Your new draft statement should include the following programs:

1. Grazing
2. Forestry
3. Oil and Gas Exploration
4. Wilderness, including both Juniper Dunes and Chopaka Mt.
5. Cultural Program
6. Land Transfer Program
7. Western Washington Lands
8. Monitoring Program for wildlife, cultural resources protection, rare and endangered plants, ORV use, wilderness protection, and logging, mining, and oil and gas exploration.

9. ORV program

Grazing

42-2 This section should include information on the significance of operator needs in defining grazing levels. Economic analysis should relate the cost of grazing improvements by allotment to the income from AUMS on that allotment, and an analysis of how important public grazing costs are as a factor in determining the number of cattle raised in proportion to the price of beef and the interest rates in reaching that decision.

Forestry

42-3 This section should include information on the total amount of old growth timber in your district and the amount you propose to cut yearly and in total. Mitigation measures should be specified and an estimate given for how effective they are expected to be. Costs to the Bureau of logging should be included in economic analysis.

Oil and Gas Leasing

42-4 This program could have such far reaching effects, especially in Juniper Dunes wilderness area and if major finds are made, that its exclusion if arbitrary and unjustified.

Wilderness

42-5 This should include a plan for the protection of Juniper Dunes and for meeting the interpretive and informational needs of new visitors.

Wilderness cont.

42-6 Chopaka Mountain should be discussed as a possible wilderness and the opportunity taken to correct the deficiencies identified with the previous assessment.

42-7 Cultural Program

This resource is badly neglected in terms of the percentage of your area surveyed and for measures to protect what has been found. The percentage of your budget for this activity should be given. The assertion that sites might be spotted while range improvements are installed assumes that the person operating the backhoe will be constantly watching for cultural relics and will recognize them. I doubt that in actual operation your expectations are justified. For prior surveys for cultural relics, I would like to know how intensive such surveys are in time and in methods used.

42-8 Land Transfer Program

This should include information on the percentage of land to be offered to adjacent land owners rather than by competitive bidding or to other federal or state agencies.

42-9 Western Washington Land

This land should be more fully described, at least. as to and uses and an estimate given transferred.

Monitoring Programs

42-10 This is not the sort of information that should be inserted into a final statement, with no opportunity for draft review since it is vital in reducing environmental damage and in determining grazing levels. The budget for monitoring each activity category, e.g. grazing, forestry, oil and gas development, etc., should be included.

ORV Program

42-11 An explanation for why the intensive should be given since the environmental effects are severe. Explanations should also be offered for the decisions to much acreage areas, ORV use roads and trails for only certain months. It should not be implicitly assumed to be the only form of recreation on

Comments on Organization and Editing

The format of information in general information in Chapter and new draft could be Improved by better allotment maps, by an index so that all information on each topic, and and

42-12 An example of internal inconsistency in the present draft is the discussion of "Differing Levels of Livestock Use in M and C Category Allotments," in which three different explanations are offered for grazing levels remaining unchanged. The first is that you don't have enough information to warrant changing them. This implies that you might want to make changes, but lack the data to do so. The second is that you have already achieved "satisfactory management" with the assistance of the Soil Conservation Service Plans and cooperative agreements. The third is that your lands are so intermingled with private lands that revising grazing levels is pointless no matter what information you had. I believe explanations one and three and very much doubt number two. At any rate, they can't all be true.

I hope you find my comments helpful and I look forward to reading your new draft statement.

Sincerely,

Anne R. Conn

Anne R. Conn
10049 9th NW
Seattle, WA 98177

cc: Jean Durning, The Wilderness Society
Don Geary, BLM, Portland
Don Tryon, Sage

42-1 See response 19-2. The target stocking rates are developed from a one-time range site and condition survey. However, the stocking objectives are to achieve the various alternative utilization levels described in Chapter 3, "Grazing Management Guidance for Each Alternative Common to All Management Areas." Monitoring data would be used to adjust livestock use levels to achieve the utilization objectives.

42-2 Most target grazing levels were estimated through analyses of field inventories and site guides (see responses to 19-2 and 42-1). The BLM's grazing fees are determined in accordance with a formula legislated by the United States Congress. Most range improvements will be financed by grazing fee collection and contributions from range users. Fifty percent of grazing fee receipts are returned to our office to fund range improvements.

42-3 See responses 5-1 and 30-23.

42-4 See responses 9-1, 9-2, and 9-3.

42-5 See response 35-10.

42-6 The final environmental assessment on the Chopaka Mountain Wilderness Study area is scheduled to be completed by October 1985. Also, see response 35-11.

42-7 Refer to pages 38 and 39 of the Draft RMP/EIS for an explanation of the Cultural Resources Management Program.

42-8 The final RMP/EIS has been amended to include more information relative to the land disposals and exchanges (see Chapters 2 and 3, "Lands Program").

42-9 The 2,900 acres of public land in western Washington is located outside the planning area and is, therefore, not addressed in this RMP/EIS. See Chapter 1, "Introduction, Planning Unit."

42-10 The budget of the BLM changes from year to year. Any discussion on allocations of a portion of the budget would be pure speculation. The RMP Record of Decision and Rangeland Program Summary will identify the types of monitoring programs to be implemented. The section in the Final RMP/EIS has been revised to clarify this point. See Chapter 3, "Monitoring."

42-11 The text has been amended to include more information relating to the BLM's management of ORVs. Also, see response 5-2.

42-12 The M category allotments have achieved satisfactory management through Soil Conservation Service Conservation Plans, Coordinated Resource Management Plans, or Cooperative Agreements. Both the M and C category allotments are intermingled with much larger acreages of non-BLM lands. Consequently, the BLM's manageability is severely limited.

43

JOHN SPELLMAN
Governor

FRANK LOCKARD
Director

STATE OF WASHINGTON
DEPARTMENT OF GAME
600 North Capitol Way GJ-11 • Olympia Washington 98504-0091

January 3, 1985

Joseph K. Buesing, District Manager
Bureau of Land Management
Spokane District Office
East 4217 Main Avenue
Spokane, WA 99202

Re: Draft Spokane Resource Management Plan/EIS

Dear Mr. Buesing:

Your document was reviewed by our staff as requested; ~~comments follow.~~

A general BLM land tenure program and
and is
issue. As such,
options appear to be
Plan efforts at
time. To date. recommend alternative C

identified
regional offices.

for to provide comments.

Sincerely,

THE DEPARTMENT OF GAME

Chris Drivdahl

Chris Drivdahl, Chief
Habitat Management Division

CD:ks

Spokane Resource Management Plan/DEIS

_____ IV, Abstract:
sale annually." Page V, Alternative B
for acquisition and year
disposal. to other Federal agencies
natural

Comment:

43-1 Clarification is for assessing
natural resource values and when they would benefit in the disposal,
Our appreciate being
involved transfers or
exchanges. management
ACEC, ONA, RNA needs to in the preferred alternative.

_____ V, Alternative B

Comment:

43-2 timber is no
growth. the
this habitat type, this sensitive
to

_____ 5, Step 8: the
Plan.

Comment:

the Resource Management Plan,
Alternative C
protection in has indicated
for and
recommend Alternative C. the a
on
habitat, protection key
vehicle in ensuring a to our state.

43-3 Reference: Page 6, Formulating Alternatives . . .
All alternatives
endangered species.

Comment:

Reference to is State species, listed species. in this We our State's Threatened and i.e., pygmy rabbits, owls, ferruginous hawks and sandhill not or endangered species.

Reference: Page 6, Paragraph Ten . . . An exception to custodial management would be if the analysis of resource value dictates that other management options should be explored. Exceptions would include "public lands comprising an intricate part of critical or crucial wildlife habitat". On Page 7, however, it is stated that, "An intensive parcel by parcel inventory was not conducted on public lands located outside the 12 management areas since no issues were identified that required such an inventory."

Comments:

43-4 If there has not been an intensive parcel inventory, we will not be able to identify critical or crucial disposed! An intensive inventory should for disposals, alone total acres.

Reference: Page 7, Second Paragraph: ORV Designations. All to resulting in in

Comments:

43-5 What is impacts resulting from Existing ORV impacts upon All be closed to ORV evaluations are a project basis to assess ORV in areas year-round

Reference: Page 8, Paragraph Four . . . On allotments with multiple ownerships or complicated resource problems, development of a Coordinated Resource Management Plan (CRMP) may bring better resolution to livestock grazing . . .

Comments.

43-6 be identified as needing a CRMP for habitat.

Reference: Page 8, Nominations for Areas of Critical Environmental Concern . . . Nominations for potential ACEC's in Spokane District were requested . . . A total of four nominations were received.

Comments:

43-7 Nominations for ACEC's should be an ongoing process as the knowledge of these sites becomes available. This plan should include some mechanism for including additional ACEC's.

Reference: Page 9, Paragraph Three . . . It would also include habitat manipulation designed to maintain or enhance the habitat requirement.

Comments:

43-8 Another measure for protection of eagle habitat could include support of WDG Bald Eagle Buffer Zone Rules. Also, the Bald Eagle roost site in Brewster needs to be identified in this plan for protection.

Reference: Page 15, Wildlife . . . The grizzly bear, wolf, and woodland caribou are classified as endangered by the State of Washington and are protected by Federal and State law.

Comments:

43-9 the state's official

Reference: Page 17, Threatened or

Comments:

43-10 is will management-wise state in

Reference: 7, Forest Management.

Comment:

43-11 activities EIS is inadequate. There a (i.e., old growth, second growth, consideration included in (i.e., deer, thermal cover, travel corridors, snags, etc.). potential

Reference: 9. ORV Activities.

Comments:

43-12 This section, page 36, or Chapter Four should identify what BLM is doing to enforce, monitor and assess ORV impacts to wildlife and habitat. BLM should discuss mitigating measures to be used when ORV impacts are identified.

Management Areas - Critical Environmental

Comments:

43-13 We nomination for ACEC trout that currently drainage.

Reference: Page 26, Similkameen - Wildlife

Comment:

43-14 is currently a lands. The importance of this area for be mentioned also.

Reference: Page 27, Douglas Creek -

Comments:

43-15 in section.

Reference: Page 28, - Wildlife.

Comment:

43-16 The importance of this identified.

Reference: Page 32, Scattered Tracts.

Comments:

As indicated earlier an intensive inventory should be required to adequately assess the importance of these areas.

36, - The criteria to be used include the following .

Comments:

43-17 An as a major WDG in and identified as resource are presently in a for disposal will become final January.

39, Threatened Species Habitat.

Comments:

43-18 stated, warranting consideration under the legal listing

conflicts an

Reference: Page 39, Terrestrial Wildlife Habitat . . . Vegetative manipulation projects would be designed to minimize impacts on wildlife habitat . . . The WSDG would have the opportunity to review all proposed action . . .

Comments:

43-19 Will be clarified.

Reference: Page

Comments:

43-20 Domestic sheep grazing on BLM land in Mountain and Mt. Hull area eliminated in

41, Second Paragraph .

Comments:

43-21 Besides stocking rates, seasonal use restrictions should be considered as a management tool.

42, would also be used the changes . and to evaluate the effectiveness

Comments:

43-22 feel that monitoring to modifications in management when conflicts of wildlife considerations.

45, Table 3-4, Forest Alternatives.

Comments:

43-23 Presented BLM timber management discussion is insufficient for this review process. How wildlife is considered in the proposed timber management proposal is lacking and warrants much further discussion in the EIS. It would also be helpful to relate forestry to Management Areas as was done for grazing. We also notice there is virtually no difference in forestry propoosals for alternatives A and B.

References: Threatened or Endangered Species.

Comment:

43-24 Ye request to any land exchanges, disposals same attention as given to manipulation.

Reference:7, Fire Protection.

Comment:

43-25 to somewhere.

51, - Alternative B (Preferred).

Comments:

43-26 like to domestic in the Mt. alternative.

Reference: Page 52, - Wildlife Habitat Management.

Comments:

43-27 Management emphasis all activities on BLM lands

Reference: Page 52, Douglas Creek Management Area.

Comment:

43-32 operations will wildlife community but will impact. Wildlife "displaced". Decreases in useable habitat equal decreases in wildlife numbers areas are already at their natural road management be under

needs to be overall forest management.

Comments:

43-28 monitored if it be made of this site to determine an ACEC area.

Reference: Page 56, - Alternative B - Recreation Management.

Comment:

43-29 is considered by us a conflict to maintaining recommend the ORV this eliminated. If the ORV site maintained taking to in

Reference:1, Third Paragraph.

Comments:

ORV impacts in in the Juniper forest this site.

Paragraph. are Mts.

Comments:

43-30 Due to ment input on these upcoming projects.

Reference:6, Forest Vegetation.

Comments:

43-31 What level will in timber to be more In addition, given to old growth (critical wildlife a commitment protection needs to

67, - . . . Road building activity area.

43-1 The general policy and major criteria used to evaluate the suitability of public lands for retention or disposal are described in the main text of the document in Chapter 3, "Management Guidance Common to All Alternatives, Lands Program, Land Tenure Adjustments."

The Washington State Department of Game and other state and federal agencies are involved in the review and comment process of various land actions. When a parcel of land is identified as containing unique or significant resource values, it is retained in public ownership and managed accordingly.

43-2 See response 5-1.

43-3 The text has been amended to include the BLM's policy regarding plants and animals that the State of Washington regarded as endangered, threatened, or sensitive. (See Table 2-1 and Chapter 2, "Endangered, Threatened, or Sensitive Species; and Chapter 3, "Management Guidance Common to All Alternatives, Endangered, Threatened, or Sensitive Species Habitat.")

43-4 As a parcel is identified for exchange, sale, or other means of disposal, an intensive inventory by an interdisciplinary team is conducted. This team usually consists of a wildlife biologist, an archaeologist, a soil scientist, a botanist, a range conservationist, a forester, and a recreation planner. In addition, the Washington State Department of Game is consulted during this review to determine if there are any crucial habitats involved. If there are crucial habitats involved in the lands action, the parcels are usually retained in federal ownership.

43-5 The District has undertaken monitoring of intensive use ORV areas for a number of years. In some instances, this has been completed by recreation specialists while in others by an interdisciplinary team including but not limited to wildlife biologists, soils scientists, botanists, archaeologists, hydrologists, foresters, range conservationists, and realty specialists. Resource users have also supplied a great deal of information. Based upon an accumulation of this data, the Bureau determined whether any identified impacts were significant. Under current policy guidelines, public lands are open to ORV use unless a compelling reason has been identified to require restriction or closure.

43-6 The BLM will work with the WSDG to develop a Coordinated Management Agreement or CRMP for the Chiliwist Habitat Management Area.

43-7 ACECs can only be proposed, analyzed, and designated through a Resource Management Plan or a plan amendment. As additional areas are identified and nominated, they will be evaluated by an interdisciplinary team to determine if they meet the criteria of an ACEC and, if so, what appropriate interim management measures would be implemented until official designations can be made.

43-8 The BLM currently follows the U.S. Fish and Wildlife Services' guidelines for establishing buffer zones around bald eagle roosts. When the state buffer zone rules are adopted, the Bureau would comply with them if they are acceptable to the USFWS.

The Brewster bald eagle roost would be designated as an ACEC upon approval of the RMP.

43-9 See response 43-3.

43-10 See response 43-3.

43-11 The text has been revised to include maps that delineate the commercial forestlands. The WSDG has been consulted to identify important wildlife needs during the scoping phase of the RMP and during the development of specific forest management proposals. (See also response 5-1.)

43-12 See response 43-5 and Table 3-11.

43-13 The BLM interdisciplinary team evaluated the Douglas Creek area for potential designation as an ACEC and determined that the area did not meet the criteria for ACEC designation.

43-14 The only bald eagle nest that is known to the BLM in the Similkameen Area lies on state DNR land. If there is also a nest on BLM land, the Bureau would like to know its location so that it can be considered for habitat protection. Table 2-4 lists the bald eagle as a species of management significance in the Similkameen Area.

43-15 See response 43-13.

43-16 Two uncommon communities have been identified on Saddle Mountain: a winter fat community and a sagebrush-hopsage community. The acreage totals for the winter fat and sagebrush-hopsage communities within the planning unit are 1,760 and 16,593 acres respectively.

43-17 The text has been amended to include this information. See Chapter 3, "Management Guidance Common to All Alternatives, Lands Program."

43-18 See response 43-3.

43-19 In the past, the BLM has consulted the respective WSDG region officials on proposed timber sales planned on the BLM administered public land. The BLM will continue this practice.

43-20 Sheep grazing is not authorized on Aeneas Mountain or Mount Hull. The BLM will not license sheep grazing on or near bighorn sheep ranges. The BLM has talked with WSDG representatives and visited the areas. No domestic sheep grazing is occurring on the BLM lands in these areas.

43-21 Seasonal use restrictions are discussed in Appendix I. Livestock stocking estimates are reduced in some I category allotments where livestock grazing occurs during the period of forage competition with wintering deer. In these allotments, the livestock stocking estimates were reduced to provide adequate forage for wintering deer population target levels. If livestock grazing would be confined to the noncompetitive periods, estimated livestock stocking estimates would increase. In some other I category allotments with livestock grazing during the competitive period with wintering deer, sufficient forage is estimated to be available for wintering deer without reducing livestock stocking estimates. In any case, sufficient forage would be reserved for wintering deer as livestock stocking rates are adjusted through monitoring.

43-22 The BLM agrees with the state's position on monitoring. The monitoring section of Chapter 3, "Management Guidance Common to All Alternatives," has been amended to more clearly define the BLM's monitoring program.

43-23 Chapter 3, ""Management Guidance Common to All Alternatives, Forestry Program," has been amended to include the District's standard provisions made for wildlife.

43-24 The text has been amended to explain in greater detail the BLM policies and the inventories that are done on public land subject to disposal, exchange, or transfer.

43-25 See response 5-1

43-26 Limited ORV use in the area and lack of significant conflicts identified during development of previous MFP decisions and the Draft RMP/EIS comment period supported decisions to keep Mount Hull and Aeneas Mountain open for ORV use. In addition, see response 43-20.

43-27 There are no brush control activities planned for the public land in the Jameson Lake Management Area. The BLM recognizes that this area contains important sage grouse habitat.

43-28 See response 43-13.

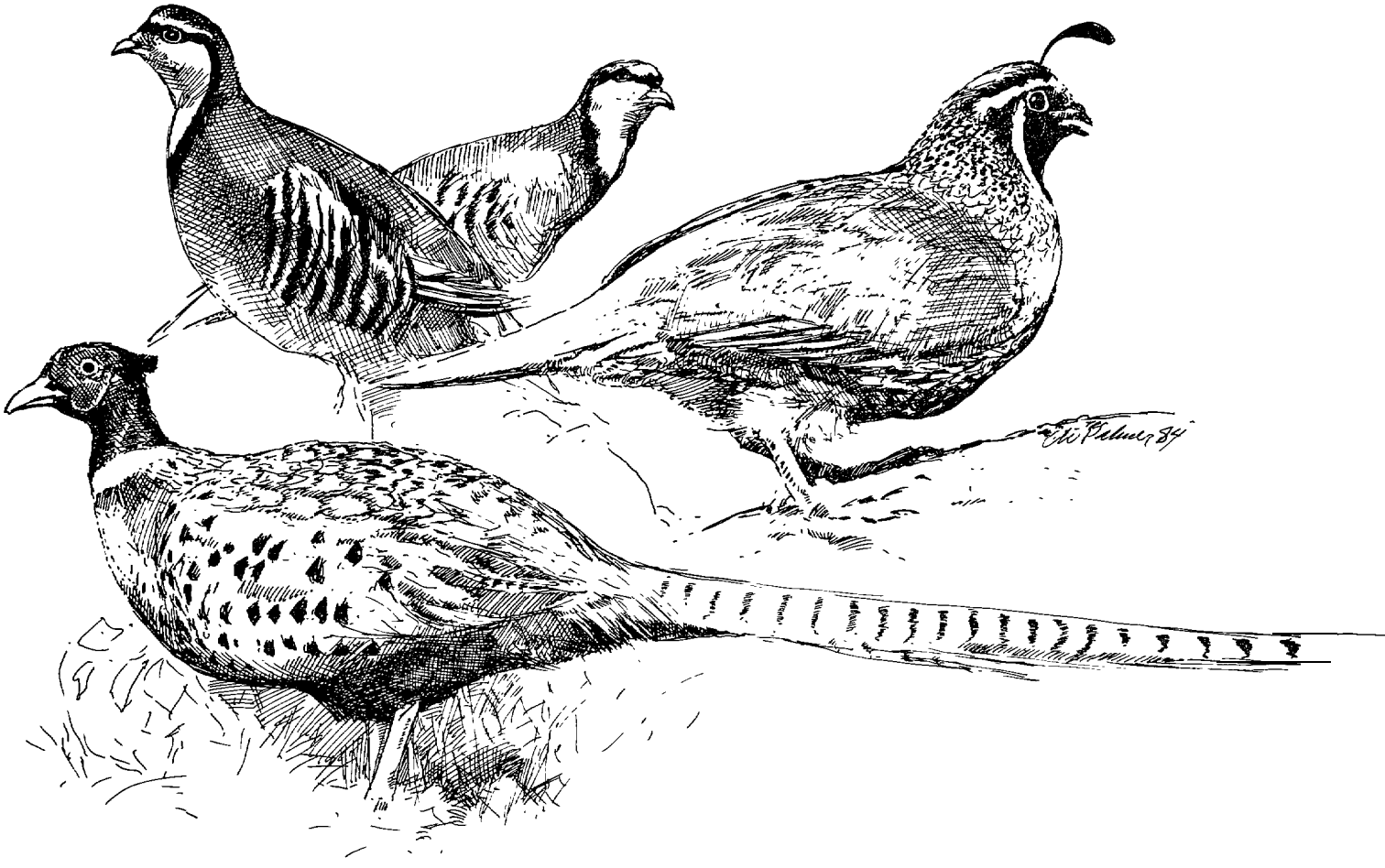
43-29 See response 5-2, 12-3, and 43-5.

43-30 As stated in Appendix H, pages 115 and 116 of the Draft RMP/EIS, layout and design of all vegetation manipulation projects would be coordinated with Washington State Department of Game biologists. Page 39 of the Draft RMP/EIS states, "the WSDG would have the opportunity to review all proposed action involving vegetation manipulation projects."

43-31 See response 5-1 concerning old growth habitat and Chapter 3, "Management Guidance Common to All Alternatives, Riparian and Wetland Vegetation."

43-32 See response 27-19.

Chapter 6
Preparers and References



List of Preparers

While individuals have primary responsibility for preparing sections of an EIS, the document is an interdisciplinary team effort. In addition, internal review of the document occurred throughout preparation. Specialists at the District and State Office levels of the Bureau both reviewed the analysis and supplied information. Contributions by individual preparers may be subject to revision by other BLM specialists and by management during the internal review process.

Name	Primary Responsibility	Discipline	Experience
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Adrian B. Caufield	Lands and Realty	Realty Specialist	B.S., Forest Management - Univ. of Montana; Beginning Lands School - Phoenix Training Center, BLM; Paralegal Certificate - Spokane Community College; BLM - 6 yrs.
W. Dean Crandell	Minerals/Energy	Geologist	B.S., Geology - Clemson Univ; BLM - 9 yrs.
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Neal Hedges	Wildlife Habitat	Wildlife Biologist	B.S., Zoology - Washington State State Univ.; M.S., Zoology - Univ. of Guelph, Ontario; USFS - 3 yrs.; BLM - 7 yrs.
Pete Haug	Technical Advisor Environmental Impact Analysis	Systems Ecologist	A.B., English Literature - Hamilton College; M.S., Wildlife Biology and PhD, Systems Ecology - Colorado State Univ.; Environmental Analysis for Industry - 2 yrs.; College Teaching - 2 yrs.; BLM - 6 yrs.
M. Susan Herdrich	Writer/Editor	Writer/Editor	B.A., English/Speech - Washington State Univ.; Education Degree - WSU; M.A., English - WSU; Post - M.A., work in English and Speech WSU, EWU, U. of W., CWU. English-Speech Instructor for Comm. Colleges of Spokane - 15 yrs.; Freelance writer, editor, proofreader 5 yrs. BLM - 6 months.

Name	Primary Responsibility	Discipline	Experience
Richard Hubbard	Vegetation	Range Conservationist	B.S., Wildlife Science - Texas A. & M. Univ.; M.S., Range Management - Colorado State Univ.; BLM - 10 yrs.
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Rick McComas	Forestry	Forester	B.S., Forestry - Utah State Univ.; USFS - 1 yr.; BLM - 9 yrs.
Dana Peterson	Vegetation	Range Conservationist	B.S., Wildlife Science - Oregon State Univ.; B.S., Range Management - Humboldt State Univ.; BLM - 6 yrs.
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Gary J. Yeager	Team Leader	Planning and Environmental Coordinator	B.S., Agronomy - Pennsylvania State Univ.; BLM - 8 1/2 yrs.
Charles Palmer	Illustrator-Volunteer	Artist	
Nicolin Gray	Illustrator-Volunteer	Artist	
Heather McKean	Illustrator-Volunteer	Artist	

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Glossary

Abatement Suppression or termination; an amount deducted or subtracted, as from the usual price, the full tax, and so on; a reduction of a tax assessment.

Activity Plan A site specific plan for the management of one or more resources (for instance a CRMP, AMP). This is the most detailed level of BLM planning.

Actual Use The true amount of grazing AUMs based on the numbers of livestock and grazing dates submitted by the livestock operator and confirmed **by** periodic field checks by the BLM.

Adjustments Changes in animal numbers, periods of use, kinds of classes of animals or management practices as warranted by specific conditions.

Allotment An area of land where one or more livestock operators graze their livestock. Allotments generally consist of BLM lands but may also include other Federally managed, State owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Allotment Management Plans (AMP)An intensive livestock grazing management plan dealing with a specific unit of rangeland, based on multiple use resource management objectives. The AMP considers livestock grazing in relation to the renewable resources--watershed, vegetation, and wildlife. An AMP establishes the season of use, the number of livestock to be permitted on the range, and the range improvements needed.

Alluvium Well sorted soil and rock debris deposited by water.

Anadromous Fish which migrate from the ocean to breed in fresh water. Their offspring return to the ocean.

Animal Unit Month (AUM) The amount of forage consumed by one mature cow and calf under six months, for one month. The amount of forage consumed by one horse, or five sheep, or five deer, or six bighorn for one month is considered equal to one cow AUM; also a unit of measurement of grazing privilege that represents the privilege of grazing one animal for a period of one month.

Archaeologocial Site Geographic locale containing structures, artifacts, material remains, and/or other evidence of past human activity.

Aspect The direction a slope faces.

Best Forest General forest management practices which are Management Practices consistent for all timber harvest and treatment activities.

Big Game Animals Limited to elk, mule deer, bear, mountain goats, and bighorn sheep in Spokane District in this document.

Board **Feet** A unit of solid wood, one foot square and one inch thick.

Broadcast Burning Allowing a controlled fire to burn over a designated area within well defined boundaries for a reduction of fuel hazard or as a silvicultural treatment or both.

Browse To browse is to graze a plant; also, browse (noun) is the tender shoots, twigs, and leaves of shrubs often used as food by cattle, deer, elk, and other animals.

Buffer Strip A protective area adjacent to an area of concern requiring special attention or protection. In contrast to riparian zones which are ecological units, buffer strips can be designed to meet varying management concerns.

Bureau Planning System A process used in the BLM to establish land use allocations, constraints, and objectives for various categories of public land use.

Cadastral Survey A survey that creates, marks, defines, retraces, or reestablishes the boundaries and subdivisions of public land.

Cairn A heap of stones set up as a landmark, monument, tombstone, and so forth.

Carrying Capacity The maximum stocking rate possible without damaging vegetation or related resources.

Catchment A structure built to collect and retain water.

Clearcutting A method of timber harvesting in which all trees, merchantable or unmerchantable, are cut from an area.

Climax Plant Community The vegetative community that emerges after a series of successive vegetational stages and perpetuates itself indefinitely unless disturbed by outside forces.

Commercial Forestlands Forestland capable of producing merchantable timber at rates of at least 20 cubic feet per acre per year and is currently or prospectively accessible and not withdrawn from such use.

Commercial Tree Species Tree species whose yields are reflected in the allowable cut: pines, firs, spruce, Douglas fir, cedar, and larch.

Coordinated Resource Management Plan (CRMP) A specific management plan for a unit of land developed by all landowners (Federal, State, private, and so on) and affected interests for management of all resources and land uses (grazing, timber, wildlife habitat, and so on) within the land unit.

Critical Growth Period A specified period of time in which plants need to develop sufficient carbohydrate reserves and produce seed, for instance approximately the months of May and June for bluebunch wheatgrass.

Critical Habitat Any habitat, which, if lost, would appreciably decrease the likelihood of the survival and recovery of a threatened or endangered species or a distinct segment of its population. Critical habitat nay represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion. Critical habitat must be officially designated as such by the Fish and Wildlife Service or the National Marine Fisheries Service.

Crucial Wildlife Parts of the habitat neccesary to sustain a wildlife Habitat population at critical periods of its life cycle. This is often a limiting factor on the population, such as breeding habitat, winter habitat, and so forth.

Cultural Site Any location that includes prehistoric and/or historic evidence of human use or that has important sociocultural value.

Custodial (C) Category Allotments These are grazing allotments that are unfenced, small tracts which are intermingled with much larger acreages of non-BLM rangelands, this limiting BLM's management opportunities. The custodial category was further divided into Cl and C2 allotments. The Cl designation will allow reclassification to an I category allotment when BLM obtains increased cooperation with adjacent landowners or improved manageability through land acquisition for improved management and BLM investment in range improvements. The C2 designation would result in the allotment remaining custodial management.

Deferment The withholding of livestock grazing on an area until a certain stage of plant growth is reached.

Deferred Grazing Discontinuance of livestock grazing on an area for a specified period of time during the growing season to promote plant reproduction, establishment of new plants, or restoration of the vigor by old plants.

Deferred Rotation Grazing Discontinuance of livestock grazing on various parts of a range in succeeding years, allowing each part to rest successively during the growing season. This permits seed production, establishment of new seedings, or restoration of plant vigor. Two, but more commonly three or more, separate pastures are required.

Direct Sale A sale at fair market value to a designated purchaser without competitive bidding.

Distribution The uniformity of livestock grazing over a range area. Distribution is affected by the availability of water, topography, and type and palatibility of vegetation as well as other factors.

Easements A right held by one person to make use of the land of another for a limited purpose, as right of passage.

Ecological Range Condition Four classes used to express the degree to which the Condition Classes composition of the present plant community reflects that of climax. They are as follows:

Successional Stage	Percentage of Present Plant Community that is Climax for the Range Site
Climax	76-100
Late Seral	51-75
Middle Seral	26-50
Early Seral	0-25

Ecosystem An ecological unit consisting of both living and nonliving components which interact to produce a natural, stable system.

Endangered Species A plant or animal species whose prospects for survival and reproduction are in immediate jeopardy, as designated by the Secretary of the Interior, and as is further defined by the Endangered Species Act of 1973, as amended.

Environmental Impact The positive or negative effect of any action upon a given area or resource.

Environmental Impact Statement (EIS) A formal document to be filed with the Environmental Protection Agency that considers significant environmental impacts expected from implementation of a major Federal action.

Fauna All the animals in a given area.

Federal Land Policy and Management Act of 1976 (FLPMA) Public Law 94-579. October 21, 1976, often referred to as the BLM's "Organic Act," which provides the majority of the BLM's legislated authority, direction, policy, and basic management guidance.

Flora All the plants in a given area.

Forage All browse and herbaceous foods that are available to grazing animals including wildlife and **domestic** livestock.

Forbs A broad-leafed herb that is not a grass, sedge, or rush.

Forest Management All commercial forestland that is part of the timber Lands production base for allowable cut calculation.

Geothermal Of or pertaining to the internal heat of the earth.

Glacial Outwash The material, chiefly sand or gravel, washed from a glacier by the action of meltwater.

Glacial Till Glacial drift consisting of an unassorted mixture of clay, sand, gravel, and boulders; a stiff clay.

Grazing System The manipulation of livestock grazing to accomplish a desired result. (See Appendix D for description of the various grazing systems.)

Ground Cover Vegetation, mulch, litter, rock, and so forth.

Improve (I) Category Allotment These are grazing allotments that have a potential for resource improvement where BLM controls enough land to implement changes.

Lek A site to which birds regularly resort for purposes of sexual display and courtship.

Lieu Public lands that a patentee has a right to locate and select in place of lands within the limits of a previous grant which are occupied by persons given pecial protection by the law.

Lithic A stone or rock that may be either abraded into the proper form for use as a tool or shaped by knocking pieces (flakes) off. A cluster of flakes is called a "lithic scatter."

Lithic Scatter A prehistoric site characterized by a scatter of stone tools and flakes that may indicate a number of functions.

Loam A rich, friable (crumbly) soil containing a relatively equal mixture of sand and silt and a somewhat smaller proportion of clay.

Locatable Minerals Minerals or materials subject to disposal and development through the Mining Law of 1872 (as amended). Generally includes metallic minerals such as gold and silver and other materials not subject to lease or sale (some bentonites, limestone, talc, some zeolites, and so on).

Lopping Cutting off one or more branches of a tree whether it is standing, felled, or fallen.

Lopping and Scattering Lopping the slash created by logging operations and spreading it more or less evenly over the ground without burning.

Maintain (M) Category Allotment These are grazing allotments where satisfactory management has already been achieved through Conserv ation PLans, Coordinated Resource Management Plans, or Cooperative Agreements with adjoining landowners.

Management Framework Plan (MFP) Land use plan that established coordinated land use allocations for all resource and support activities for a specific land area within a BLM District. It also establishes objectives and constraints for each resource and support activity and provides data for consideration in program planning. (This process has been replaced by the Resource Management Planning process.)

Management Situation Analysis (MSA) A comprehensive display of physical resource data and an analysis of the current use, production, condition, and trend of the resources and the potentials and opportunities within a planning unit, including a profile of ecological values.

Mineral Entry The location of mining claims by an individual to protect his right to a valuable mineral.

Mitigation Measures (a) Avoiding the impact altogether by not taking a certain action or parts of an action. (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment. (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action. (e)Compensating for the impact by replacing or providing substitute resources or environments.

Multiple Use Balanced management of the various surface and subsurface resources with permanent impairment of the productivity of the lands that will best meet present and future needs.

National Register of Historic Places The official list, established by the Preservation Act of 1966, of the Nation's cultural resources worthy of preservation. The Register lists archeological, historic, and architectural properties (such as districts, sites, buildings, structures, and objects) nominated for their local, State, or National significances by State and/or Federal agencies and approved by the National Register staff. The Register is maintained by the National Park Service.

Noncommercial Forestland Land which is not capable of yielding at least 20 cubic feet of wood per acre per year of commercial species of land which is capable of producing only noncommercial tree species.

Nonoperable Forestlands unsuitable for any type of timber harvest Forestland activity due to their 1) physical features; for example, extremely rocky, boulder fields, rim rocks, rock outcrops, and unsafe for logging operations and/or 2) forestlands on which logging activity will result in the loss of the site's potential for producing commercial tree species; for example, loss of soil through erosion, slope failure, and/or the inability to reforest the site within acceptable time limits (usually five to fifteen years) even with special reforestation techniques.

Off-Road Vehicle (ORV) Any motorized track or wheeled vehicle designed for cross-country travel over any type of natural terrain.

Old Growth Stand A stand of trees that is past full maturity and showing sign of decadence, usually 200 year age class or older (large trees, snags and down logs, multilayered canopy, many species).

Operations Inventory An intensive forest inventory which provides managers with information showing the location, acreage, silvicultural needs, and mortality-salvage or thinning needs within each section of public land.

Outstanding Natural Area (ONA) An area of unusual natural characteristics where management of recreation activities is necessary to preserve those characteristics.

Paleontology A science dealing with the life of past geological periods as known from fossil remains.

Permeability (soil) The quality of a soil horizon that enables water or air to move through it; may be limited by the presence of one nearly impermeable horizon even though the others are permeable.

Placer Mining A method of mining in which the surface material is washed for gold or other valuable minerals. When water under pressure is employed to break down the gravel, the term hydraulic mining is generally used.

Planning Unit A geographic area within a BLM District used for assembling resource inventory data.

Plant Community An association of plants of various species found growing together in different areas with similar site characteristics.

Plant Succession The process of vegetative development whereby an area becomes successively occupied by different plant communities of higher ecological orders.

Prescribed Fire A planned burning of live or dead vegetation under favorable conditions which would achieve desired results.

Public Lands Any land and interest in land (such as mineral estate) owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management. May include public domain or acquired lands in any combination.

Raptors Bird species which have adapted to seize prey, such as eagles and hawks.

Recreation and Public Purposes Act (R & PP Act) This act authorized the Secretary of the Interior to lease or convey public lands for recreational and public purposes under specified conditions to states or their political subdivisions and to nonprofit corporations and associations.

Research Natural Areas "A naturally occurring physical or biological unit (RNA) where natural conditions are maintained insofar as possible." Further, the natural features are preserved for research and educational purposes. The features to be preserved may be important or unique ecosystems, habitats, organisms and may be terrestrial, freshwater, or marine.

Right-of-Way A permit or an easement which authorizes the use of public lands for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs, and so on; also, the lands covered by such an easement or permit.

Riparian Habitat Those terrestrial areas where the vegetation complex (Area or Zone) and microclimate conditions are products of the combined presence and influence of perennial and/or intermittent water, associated high water tables and soils which exhibit some wetness characteristics.

Riprap A quanity of broken stone for foundations, revetments of embankments, and so on; a foundation or wall of stones thrown together irregularly.

Runoff That part of precipitation, as well as any other flow contributions, which appears in surface streams, either perennial or intermittent.

Salable Minerals High volume, low value mineral resources including common varieties of rock, clay, decorative stone, sand, and gravel.

Sensitive Species Species not yet officially listed but which are undergoing a status review or are proposed for listing according to a Federal Register Notice published by the Secretary of the Interior or Secretary of Commerce or according to comparable States' documents published by State officials. (Reference Instruction Memorandum WO 80-722.)

Seral Stage The series of relatively transitory communities, including plants and animals which develop during ecological succession, beginning after the Pioneer State (such as beginning with bare ground) to the Climax Stage.

Shrub A low woody plant, usually with several stems, that may provide food and/or cover for animals.

Slash The branches, bark, tops, cull logs, and broken or uprooted trees left on the ground after logging has been completed.

Soil Loss Tolerance The maximum amount of soil loss as expressed in tons/acre/year that can be tolerated and still permit a high level of productivity to be sustained indefinitely.

State Historic Preservation Officer (SHPO) The official within each State, authorized by the State at the request of the Secretary of the INterior, to act as a liaison for purposes of implementing the National Historic Preservation Act of 1966.

State Lieu See Lieu in Glossary.

Stocking Rate (Livestock) An expression of the number of animals and the grazing period allotted to a specific area. It is usually expressed as a ratio, such as acres/AUM.

Succession The orderly process of plant community change. The process by which one plant or animal community will succeed another over time given the same climatic conditions.

Sustainable Annual Harvest The yield that a forest can produce continuously from a given level of management.

Threatened Species A plant or animal species that the Secretary of the Interior has determined to be likely to become endangered within the foreseeable future throughout all or most of its range.

Timber Production See Table 4-2. **Base (Low Intensity)**

Timber Production Base (Full) Commercial forestland used to produce timber on a Base (Full) sustainable basis.

Timber Production Capability Classification TPCC)The process of partitioning forestland into major classes indicating relative suitability to produce timber on a sustained yield basis.

Visitor Day Twelve hours of recreational use by one person.

Visual Resource Management (VRM)The planning, design, and implementation of management objectives to provide acceptable levels of visual impacts.

Visual Resource Management Classes The degree of aceptable visual change within a characteristic landscape. A class is based upon the physical and sociological characteristics of any given homogeneous area and serves as a management objective.

Class I areas (preservation) provide for natural ecological changes only. This class includes primitive areas, some natural areas, some wild and scenic rivers, and other similar sites where landscape modification activities should be restricted.

Class II (retention of the landscape character) includes areas where changes in any of the basic elecments (form, line, color, or texture) caused by management activity should not be evident in the characteristic landscape.

Class Ill (partial retention of the landscape character) includes areas where changes in the basic elements (form, line, color, or texture) caused by management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character.

Class IV (modification of the landscape character) includes areas where changes may subordinate the original composition and character; however, they should reflect what could be a natural occurrence within the characteristic landscape.

Class V (rehabilitation or enhancement of the landscape character) includes areas where change is needed. This class applies to areas where the landscape character has been so disturbed that rehabilitation is needed. This class would apply to areas where the quality class has been reduced because **of** unacceptable intrusions. It should be considered an interim short-term classification until one of the other classes can be reached through rehabilitation or enhancement.

Water Quality The chemical, physical, and biological characteristics of water with respect to its suitablility for a particular use.

Watershed All lands which are enclosed by a continuous hydrologic drainage divide and lie upslope from a specified point on a stream.

Wetlands or Wetland Habitat Permanently wet or intermittently flooded areas where the water table (fresh, saline, or brackish) is at, near, or above the soil surface for extended intervals, where hydric (wet) soil conditions are normally exhibited, and where depths generally do not exceed two meters. Vegetation generally consists of emergent water loving forms (hydrophytes) which require at least a periodically saturated soil condition for growth and reproduction. In certain instances, vegetation may be completely lacking.

Wilderness Study Area (WSA) An area determined to have wilderness characteristics. Study areas will be subject to interdisciplinary analysis and public comment to determine wilderness suitability. Suitable areas will be recommended to the President and Congress for wilderness designation.

Acronyms

ACEC	- Area of Critical Environmental Concern
ACMP	- Area of Critical Mineral Potential
AMP	- Allotment Management Plan
AUM	- Animal Unit Month
BLM	- Bureau of Land Management
BPA	- Bonneville Power Administration
BR	- Bureau of Reclamation
Cl	- Custodial 1 Grazing Allotment
C2	- Custodial 2 Grazing Allotment
CFR	- Code of Federal Regulations
CMA	- Cooperative Management Agreement
CRMP	- Coordinated Resource Management Plan
DNR-WNHP	- Department of Natural Resources-Washington Natural Heritage Program
EA	- Environmental Assessment
EIS	- Environmental Impact Statement
EPA	- Environmental Protection Agency
FEIS	- Final Environmental Impact Statement
FLPMA	- Federal Land Policy and Management Act
FY	- Fiscal Year
GLO	- General Land Office
GRO	- Geothermal Resource Operational Orders
HMP	- Habitat Management Plan
I	- Improve Grazing Allotment
IMPLAN	- Input Model Plan developed by the U.S. Forest Service to measure the economic effects of changes in program-related activities.
M	- Maintain Grazing Allotment
MFP	- Management Framework Plan
MM bd. ft.	- Million Board Feet
MSA	- Management Situation Analysis
NEPA	- National Environmental Policy Act
NTL	- Notices to Lessees
ONA	- Outstanding Natural Area
ORV	- Off-Road Vehicle
PL	- Public Land
R + PP	- Recreation and Public Purposes Act
RMP	- Resource Management Plan
RNA	- Research Natural Area
scs	- Soil Conservation Service
SHPO	- State Historical Preservation Officer
TPCC	- Timber Production Capability Classification
URA	- Unit Resource Analysis
USFS	- U.S. Forest Service
USFWS	- U.S. Fish and Wildlife Service
USGS	- U.S. Geological Survey
VRM	- Visual Resource Management
WSA	- Wilderness Study Area
WSDG	- Washington State Department of Game
WSDNR	- Washington State Department of Natural Resources

Appendices

Cooperative Agreement Summary

Name	Date	BLM Acres	Apprx. State Acres	Type of Use	Location
Cistern Maintenance	05-24-67	N.A.	N.A.	Water Imp. and Cover Plantings	Rattlesnake Hills near Yakima
Colockum	12-23-67	1,262.07	21,120	Game Range	T. 19 N., R. 22 E.
Colockum	07-12-67 03-18-68	1,935.15	17,920	Game Range	T. 17 N., R. 21 E. T. 19 N., R. 22 E. R. 18 N., R. 21 E.
Entiat	11-18-66	2,386.00	2,040.00	Game Range	T. 25 N., R. 20 E. T. 25 N., R. 21 E. T. 26 N., R. 20 E. T. 26 N., R. 21 E.
Klickitat	12-11-64	2,232.64	7,612.36	Game Range	T. 3 N., R. 13 E. T. 4 N., R. 14 E. T. 5 N., R. 14 E. T. 6 N., R. 14 E.
Morning Dove Shooting Area	12-11-64	194.35	–	Dove Shooting Area	T. 12 N., R. 20 E. Moxee, WA
Methow	01-29-73	80.00	11,669.00	Game Range	T. 34 N., R. 22 E.
Yakima River	12-11-64 10-16-67 02-02-72	4,162.16	99,299.00	See (a), (b), (c), (d) below	T. 14 N., R. 19 E. T. 15 N., R. 19 E. T. 15 N., R. 19 E.
(a) Roza Site		Incl. in Total		Fishing Recreation	T. 15 N., R. 19 E.
(b) Umtanum Site		Incl. in Total		Fishing Recreation	T. 16 N., R. 19 E.
(c) Squaw Cr. Site		Incl. in Total		Fishing Recreation	T. 15 N., R. 19 E.
(d) Amendment for L. T. Murray		Incl. in Total		Game Range	T. 14 N., R. 19 E. T. 15 N., R. 19 E.
Swakane	04-15-68	1,046.46	8,947.00	Game Range	T. 23N., R. 20 E. T. 24 N., R. 20 E. T. 24 N., R. 21 E.
Yakima Feeding Areas	02-02-72	719.76	79,521.00	Winter feed sites for Big Game	T. 12 N., R. 16 E. T. 12 N., R. 17 E. T. 15 N., R. 17 E.
Chelan Butte and Gallagher Flats	02-I I-72	2,398.88	7,080.00	Wildlife Rec. Areas	T. 26 N., R. 22 E. T. 27 N., R. 22 E. T. 27 N., R. 23 E.
Quincy and Crab Creek	03-27-72	858.40	33,967.00	Wildlife Rec. Areas	T. 19 N., R. 22 E. T. 19 N., R. 23 E. T. 20 N., R. 23 E. T. 15 N., R. 23 E.

Appendix B

Oil

ment Summary

I. Background: The Spokane District Office, as of February 1976, had a backlog of 121 oil and gas lease applications covering a total of 162,225 acres of land in central Washington. In order to process an ever increasing oil and gas lease application workload, the Spokane BLM district opted to perform an area wide Environmental Assessment to analyze the impact of federal leasing upon the environment covering Grant, Kittitas, and Yakima Counties (1976 EA) and Klickitat, Benton, Franklin, Douglas, Adams, and Chelan Counties (1979 EA amended).

The BLM notified the various land management agencies of the applications to lease for the purpose of exploring for oil and gas resources.

The agencies were afforded the opportunity to supply information to the writing of this EA. All known private landholders were notified by letter of the applications. Some letters of inquiry were returned by private landholders. These letters are on file in the BLM's Spokane District Office.

The U.S. Forest Service supplied information from their Wenatchee National Forest for this report. Their submission is reflected in appropriate portions of this report.

An interdisciplinary team of BLM staff members from the Spokane District Office prepared this EA with assistance and guidance from the BLM Oregon State Office in Portland.

Inventories and data furnished by federal, state, and local agencies and individuals having direct knowledge of the area were utilized to prepare this EA. The basic data were recorded in BLM inventory documents called Unit Resource Analysis (URA). Land use capabilities and potential resource conflict's are listed in **a** document called the Management Framework Plan (MFP). Together, the two documents have inventories, conditions, uses, production, quality, and management potentials for defined geographic areas of BLM administered lands. The Yakima River, Saddle Mountain, Rattlesnake, Johnson Creek, and South Clockum and the Upper Columbia and Southeast Area URA-MFP contain information pertinent to this EA. These documents are available for review at the Spokane District Office.

The leasing procedures are such that, after **a** lease is issued but before the lessee is permitted to drill a well, the lessee would be required to submit an application for a permit to drill and a surface use plan to the U.S. Geological Survey (USGS). Before a permit to drill is issued, the USGS prepares an environmental assessment. The USGS confers with the land administering agency during the preparation of the analysis. The land administering agency may also prepare an environmental assessment at the time. If oil or gas is discovered and the lessee proposes to drill additional wells, the lessee must submit additional drilling permit applications and development plans for approval by the USGS.

Department of the Interior Secretarial Order 2948 and the "Cooperative Procedures Pertaining to Onshore Oil, Gas and Geothermal Resources Operations" (implementation of Secretary Order 2948) set up a division of responsibility between the BLM and the USGS for administration of the mineral leasing laws, onshore.

II. Purpose: To discuss and analyze the effects of the proposed leasing for exploration and development of oil and gas resources on the federal lands and lands of private or state ownership where the mineral rights were reserved to the U.S.

III. Proposed Action and Alternatives of the 1976 EA.

A. Proposed Action

The proposed action was the leasing of public land, private, and state lands on which the United States retained the mineral rights, and other federally controlled lands, within the State of Washington, for exploration and development of the oil or natural gas deposits that may be located beneath or adjacent to these lands.

Subject lands are located in south central Washington in Grant, Benton, Yakima, and Kittitas Counties. The proposed leases would be let without competitive bidding as directed under Public Law 86-705 of September 2, 1960, an act to amend the mineral Leasing Act of February 25, 1920. Under this act as amended (41 Stat. 437, 30 USC-181 et seq.) and the Acquired Lands Mineral Leasing Act of August 8, 1947, (61 Stat. 913, 30 USC 351-359) provision was made that oil and gas leases on federal lands, both public and acquired, be issued by the Department of the Interior, General Land Office, now the Bureau of Land Management. This same responsibility extended to oil and gas reserved to the U.S. in lands transferred out of federal ownership. The lands proposed for lease would be administered under regulations in 43 CFR 3100 and applicable sub parts.

B. Alternatives to Proposed Action

Alternatives to the proposed action include the following: (1) prohibition of surface disturbance or occupancy on specific tracts and (2) disapproval of leasing for oil and gas exploration on all tracts.

C. 1979 EA Amendment Proposal

This proposal opened the public lands, private, and state lands on which the United States retained the mineral rights, and other federally controlled lands located in Chelan, Douglas, Benton, Franklin, and Adams Counties to oil and gas leasing. It included prohibition of surface disturbance or occupancy on specific tracts on the Badger Slope in Benton County and in the Outstanding Natural Area (Juniper Forest) in Franklin County.

IV. Mitigation Measures

Most of the possible mitigating measures proposed in this report will be accomplished through enforcement of the existing state and federal laws and regulations governing exploration and development of oil and gas fields.

As the "site-specific" analyses are performed, the desired stipulations would be selected and incorporated into the operating plan. Both federal and state stipulations are designed to protect the environment and yet allow the lessee reasonable operating procedures.

BLM Forms 3109-5 and 3040-4 contain stipulations that protect the environment from surface disturbance, such as air and water pollution; restrict activities, such as road buitding to limit potential erosion; protect vegetation, water bodies, water tables, existing fixtures, facilities, and the natural well-being of the area.

The following is a list of mitigative measures that are covered by the standard stipulations and special stipulations.

1. Activities employing ORVs would be conducted in such a manner to minimize surface damage.

2. Drainage systems would not be blocked. No cute or fills would be made near or in streams which would result in siltation or accumulation of debris in the stream. All damage to streams should be repaired to the satisfaction of the Authorized Officer.

3. All operations would be conducted so that no change to the character or cause pollution of streams, lakes, ponds, water holes, seeps, and marshes or cause damage to fish and animal resources would occur.

4. Surface damage which might cause soil movement by wind or water or water pollution would be corrected to the satisfaction of the Authorized Officer.

5. Vegetation would not be disturbed within 300 feet of any waters designated in a proposed lease area except at authorized stream crossings.

6. No explosives would be used without prior written consent of the Authorized Officer.

7. Trails and campsites would be kept clean. All garbage and foreign debris should be eliminated by removal or burial. Burning would be permissible only by prior written consent of the Authorized Officer.

8. Existing roads and trails would be used whenever possible.

9. All survey monuments, witness corners, reference monuments, and bearing trees would be protected against destruction, obliteration, or damage. Any damaged or obliterated markers should be reestablished in accordance with accepted survey practices.

10. The operator would take every effort to prevent, control, or suppress any fire in the operating area. Reports of uncontrolled fires should be immediately sent to the Authorized Officer or his representatives.

11. The operator would fill all holes, pits, and excavations to the extent agreed upon in the approved plan and grade to the natural contour as soon as operations are completed.

12. Disposal sites would be selected and prepared to avoid downward percolation of pollutants into aquifers.

13. Disposal systems for solid and liquid waters should be designed and constructed to avoid landslides, control wind and water erosion, and establish conditions conducive to vegetative growth in the disposal area.

14. Excavations used for the impoundment of water should be graded to establish safe access to water for persons, livestock, and wildlife.

15. Except for solid rock faces, bench faces, and excavations used for impoundment of water, those surface areas of the lease application area disturbed by operations conducted by the lessee should be revegetated when their use is no longer required by the operator. Species, methods, and season of seeding or planting should be specified.

16. Backfilling, final grading, and revegetation would be completed within two years after the completion

or termination of the particular operation involved.

17. Drill holes would be permanently sealed or filled as directed by the Authorized Officer upon completion of operations.

18. Surface buildings, supporting facilities, and other structures which are not required would be removed and the area graded and revegetated.

19. All operations would be conducted to avoid range and forest fires and spontaneous combustion. Open burning of carbonaceous materials should be in accordance with suitable practices for fire prevention and control and according to state and federal regulations.

20. The area of operation would be appropriately posted and fenced, or otherwise protected, to minimize injury to persons, livestock, and wildlife.

21. All access, haul, and other support roads and trails should be constructed and maintained in such a manner as to control and minimize channeling and other erosion. Roads and trails would be constructed only at locations approved by the Authorized Officer.

22. Roads not needed after close out should be closed by barricades or protected from erosion by placing of water control bars or out sloping as required by the Authorized Officer.

23. Existing improvements (including, but not limited to, fences, gates, cattle guards, roads, trails, culverts, pipelines, bridges, public land survey monuments, and water development and control structures) would be maintained in serviceable condition. Damaged or destroyed improvements would be replaced, restored, or appropriately compensated for.

24. When agreed by lessee and lessor, the lease site should be available for other public uses, including, but not limited to, livestock, grazing, hunting, fishing, camping, hiking, and picnicking.

25. Discovery of historical or archaeological values should be immediately reported to the Authorized Officer and steps taken to protect the site until qualified persons can evaluate the site.

26. Leaks or spills from pipelines or other facilities would be corrected or treated promptly.

27. Prior to entry upon the land or disturbance of the surface, the lessee would submit for approval a map and an explanation of the nature of the anticipated activity and surface disturbance to the Authorized Officer or area oil and gas supervisor. The lessee should also furnish the appropriate surface management agency with a copy of such map and explanation.

28. Any drilling, construction, or other operations by the lessee that would disturb the surface or otherwise affect the environment should be subject to prior approval by the area oil and gas supervisor, in consultation with the appropriate surface management agency.

The following are mitigation measures for specific situations which would be incorporated into the appropriate leases.

1. The Yakima River, from Wilson Creek to Sunnyside Dam, has special temperature conditions. These conditions are spelled out in WAC 372-64-050(155), "Washington Intrastate Water Quality Standards Provisions." All leases on or along the Yakima River now and in the future should provide for these restrictions.

2. Lease applications 13456, 13564, and 15442 are on, or border on, sensitive and important raptor nesting sites in the Yakima River Canyon. If leases are issued on these applications, operations should not be allowed within one-quarter mile of known nesting sites during the nesting period from March through June.

3. The scenic values of the Yakima River Canyon should be protected. Lease applications 13448, 13456, 13460, 13470, 13504, 13563, 13564, 13640, 13856, 15442, and 15443 are on, or adjacent to, the Yakima River Canyon. If leases are allowed on these applications, there should be consideration given to slant drilling, locating operations in "unseen areas," or complete restriction of operations on portions of those lease applications where relocating is not possible.

4. The sage grouse strutting grounds in T. 15 N., R. 24 E., section 12, on private land adjacent to lease applications 13506 and 13426 and T. 15 N., R. 25 E., section 7, on private land north of application 13427 should be protected. A one-quarter mile buffer strip should be provided around the sage grouse strutting grounds. Operations should not be allowed within one-half mile of the grounds during the period from April through July.

5. There are big game wintering grounds on private and state lands adjacent to lease applications 13448, 13563, 13787, and 13789. If leases are granted, operations within one-half mile of these wintering grounds should not be allowed from December through March.

6. The lessee should be required to protect critical aquatic habitat, water quality, nesting sites, and spawning grounds. No operations should be al-

lowed within 300 feet of water bodies on the following lease applications: 13782 and 13783 in the Frenchman Hills; 13448, 13456, 13564, 13640, 13856, 15433, and 15442 on, or adjacent to, the Yakima River; and applications 13459, 13632, 13633, 13634, 13636, and 13786 on the Columbia River.

7. If oil or gas is discovered in or adjacent to areas of high recreational value, such as the Yakima River Canyon or the Tieton Canyon, the USGS should require the lessee to control or eliminate any hydrogen sulfide odors that might arise from that operation.

8. Surface occupancy of sites visible from the White Pass Highway 12 between the Tieton Dam and the junction of Highway 12 and 410 should be restricted to eliminate intrusions into this scenic corridor.

All drilling programs would normally be coordinated between the USGS, the appropriate land management agency, and the surface owner to provide adequate environmental protection of the lease application areas.

V. Environmental Consequences

During the course of the analyses of environmental affect of the Proposed Action and Alternatives, no significant impacts were identified that could not be mitigated through the standard and special stipulations.

VI. Adverse Impacts That Cannot be Avoided (Residual Impacts)

A. Plants (Aquatic)

Some aquatic vegetation would be destroyed or buried by oil and gas operations.

Operations in water habitat would increase sedimentation of aquatic ecosystems above natural levels despite all mitigative efforts to prevent it. The long-term effects of excessive sedimentation are often more serious to aquatic plants in shallow water habitats.

Unavoidable loss of groundwater may occur, but this is impossible to forecast or estimate.

Leaks or spills from pipelines or storage facilities could occur periodically causing pollution of surface waters despite contingency plans and quick clean ups. Impact would be short-term in nature.

B. Plants (Terrestrial)

Some terrestrial vegetation would be destroyed by oil and gas leasing operations.

Accidental leaks or spills could cause adverse impacts that cannot be remedied. Their significance depends on the magnitude.

C. Animals (Aquatic)

Regardless of the precautions taken during the mitigating processes, there would be an increase in soil erosion. This sediment loss would come from the building of new roads, pipelines and other construction sites. The degree of damage to aquatic life would be dependent upon the type of soil, slope of the land surface, climatic conditions, and amount of development.

Little can be done to mitigate the effects on aquatic habitat of large landslides that may result from operating in steep terrain.

Accidental oil leaks and spills tend to occur sometime during oil and gas operations. Loss of aquatic animals and impact on the environment would be variable, dependent on the amount of contaminant spilled, the size of the area, and whether or not the pollutant reached a water source.

Groundwaters can become contaminated when a well blowout occurs.

Loss of groundwater is possible by conducting stratigraphic testing, well drilling and operational activities. When this occurs, small springs or marsh areas could dry up causing death to all aquatic species utilizing the area.

The long-term ecological effects of excessive sedimentation of rivers and streams often have a greater impact on aquatic species than the immediate, short-term effect of accidental deaths.

D. Animals (Terrestrial)

Surface areas utilized for building or other construction would directly remove habitat from animals having small home ranges. Larger animals might move into adjacent areas, but smaller animals would be killed or displaced.

Man's activities and noise disturbance would not be entirely mitigated because many species move out to avoid the harassment.

Water tables might be lowered by extensive oil and gas development or associated increased domestic use.

Impact on livestock forage would be proportional to the average removed from use. Accidental fires could reduce the amount of forage availability for the short-term.

E. Ecological Interrelationships

Oil and gas operations would upset the natural balance of ecosystems, at least temporarily. Fragile ecosystems, where plant productivity is low and the natural balance delicate, would be most severely impacted and slowest to recover, particularly where the ecological equilibrium has been impaired by other human activity prior to oil and gas operations.

F. Human Interest Values

The visual resources would be unavoidably disturbed during all phases of oil and gas operations. Interruption of vegetative patterns, soil movement, and structures affect the form, line, color, and texture of the natural landscape.

Mitigating measures would lessen the impact with time. The time frame for mitigation would be dependent upon the intensity of the impact and ease of rehabilitation. Many of these impacts could not be entirely mitigated.

Some educational and scientific areas would be disturbed by oil and gas operations. Fragile areas and areas where studies are presently being conducted would be the most severely impacted. Some historical and archaeological sites would be inadvertently disturbed. Adverse impacts would be restricted to the initial disturbance through mitigating measures. Some historical and archaeological sites would be unavoidably vandalized with improved access. Additional social services would be needed as oil and gas operations bring people into rural areas. A small amount of short-term economic instability would be unavoidable. In most instances oil and gas operations would adversely affect recreation resource, but the impacts could be mitigated. Recreation access, whether provided or denied, would be affected.

Appendix C

Fire Suppression and Management

	Acreage Involved						Fire Occurence[2]			Remarks
	Total Planning Unit[1]	BLM Suppression Responsibility[3]	BLM Protected By USFS	BLM Protected By SDNR	BLM Inside Co. FPDs	BLM Outside Co. FPDs	Reported Fires on BLM Lands 19741983	BLM Acres Burned	Total Acres Burned	Fire Management Plan Needed for All Units
Management Unit										
Similkameen	200,960	30,129	1,629	28,500	766	29,363	1	1	1	Part Area-Modified Suppression. Prescribed fire use under consideration.
Conconully	141,440	9,739	1,278	8,461	5,209	4,530	3	450	5,100	Good suppression USFS and SDNR.
Jameson Lake	35,200	3,784	0	0	551	3,233	0	0	0	unknown.
	183,680	16,629	0	0	2,924	13,705	4	53	53	High man-caused risk area.
Saddle Mountains	147,200	34,337	0	0	33,387	950	8	15,580	49,485	Large recurring fires.
Badger Slope	48,630	7,721	0	0	7,721	0	1	4,000	5,440	Large recurring fires.
Rattlesnake Hills	193,920	24,726	0	0	10,923	13,803	8	10,440	34,890	Large recurring fires.
Rock Creek	36,560	6,528	0	5,990	960	5,468	0	0	0	unknown.
North Ferry	294,400	12,947	1,283	11,664	11,365	86	5	46	296	Good suppression USFS and SDNR.
	341,760	16,206	936	15,270	0	16,206	1	5	5	Good suppression coverage by USFS and SDNR.
Huckleberry Mountains	168,960	11,270	25	11,245	2,779	8,491	3	42	2,242	Good suppression USFS and SDNR.
Juniper Forest	111,360	13,311	0	0	2,323	10,988	8	8,130	14,000	Intensive suppression area due due to roadless exclosure.
Scattered Tracts	16,640,298	127,587	25,648	52,726	89,855	49,329	38	26,957	96,763	partly unknown.
Totals	**18,578,808**	**314,914**	**30,799**	**133,856**	**168,762**	**156,152**	**80**	**65,704**	**208,274**	

[1]Approximate acreage.
[2]Complete fire history not available.
[3]Acres protected may differ from acres managed; for instance, Bureau of Reclamation lands protected by BLM.

Appendix D

Methodology Used in the Range Analysis

Methodology for Vegetative Inventory

A vegetative **inventory on** 149,156 acres of public land in the Spokane Planning Area was conducted beginning in 1975, and field work was completed in August of 1982.

The data collected have been used in this document to classify sites, to determine the ecological condition of plant communities, and to make a preliminary estimate of the suitability of the land for livestock grazing.

Classification

The classification system used in site identification was the Oregon Automated Ecological Site Information System (OAESIS). This system was developed by the BLM Oregon State Office. The OAESIS guide contains range sites which were created by combining similar sites from the SCS site guides for Oregon and Washington. Vegetation composition and production were the criteria used for determining similar sites. This system interprets the site base9 upon soil characteristics, including texture and depth and climax vegetation, to the extent that it can be interpreted for the site. The information and data concerning this system is available at the Spokane District Office.

Ecological Condition

Inventory crews first identified and delineated the boundaries of the sites to be inspected. Soil mapping units were subdivided into areas of homogenous vegetation communities. Estimates of relative plant species composition, based on dry weight, were then made for the plant community found on each site. Using tables in the OAESIS guide, the present species composition was compared to the potential climax composition for the site. A condition rating was computed for the vegetation on each site. This rating represents the extent to which the site differs from potential climax. This condition rating is referred to as ecological condition.

Ecological condition is described as successional stages of plant communities. A plant community in climax stage is a community which exhibits little change in species composition when compared to the potential climax plant community for the site. Between 76% and 100% of the kinds and amounts of vegetation produced would be found in climax. Communities in late seral stage produce between 51 and 75% of the kinds and amounts of vegetation found in climax. Communities in middle seral stage produce between 26 and 50% of the kinds and amounts of vegetation found in climax. Communities in early seral stage produce between 0 and 25% of the kinds and amounts of vegetation found in climax. A fifth condition class designated as 'unclassified" was used in the inventory to designate areas without vegetation or as unsuitable for grazing such as rock outcrops, sand dunes, or extremely steep slopes.

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Appendix E

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories. and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated** Carrying capacity AUMs
Similkameen														
	0701	I	1,851	123	C	4/20 - 6/10	246				1,375		476	128
	0702	M	200	20	C	4/15 - 5/31 10/6 - 11/15	40		100				100	40
	0703	Cl	1,438	53	C	6/1 - 10/15	239			200			1,238	239
	0704	I	4,607	59	C	3/1 - 2/28	708	170	583	1,319	1,692	77	701	599
	0705	I	2,322	38	C	4/15 - 11/30	283		114	1,085	322		801	254
	0706	Cl	488	6	C	4/15 - 12/15	46			200	288			46
	0707	I	3,742	52	C	3/1	624	211	21	202	910		2,398	247
	0708	Cl	2,031	48	C	4/1 - 10/31	338		748	264	950		69	338
	0709	Cl	1,357	40	C	6/1 - 9/30	159			240			1,117	159
	0710	c2	187	9	C	6/1 - 7/31	37						187	37
	0711	M	1,524	35	C	6/1 - 10/31	175		476	2	24		1,022	175
	0712	M	2,894	89	C	5/1 - 10/15	489		1,609	35			1,250	489
	0713	Cl	288	7	C	6/1 - 10/31	33						288	33
	0714	Cl	468	11	C	5/1 - 10/31	67		40				428	67
	0833	Cl	40	1	C	3/1 - 2/28	8				40			8
	0858	Cl	157	3	C	4/1 - 10/31	20				157			20
	0861	Cl	460	9	C	5/1 - 10/30	55			40			420	55
	0871	Cl	560	18	C	4/15 - 8/14	70				560			70
	0890	Cl	881	18	C	5/1 - 12/31	142						881	142
	0894	c2	500	33	C	5/1 - 7/14	83		500					83
	0913	Cl	100	3	H	5/1 - 7/31	9						100	9
	0920	Cl	111	2	C,H	4/1 - 10/31	16						111	16
	0927	c2	320	10	C	4/16 - 9/30	53		160	160				53
	0938	Cl	280	12	C	5/1 - 6/30 10/1 - 11/30	46		40	80			160	46
	0968	c2	670	13	C	5/15 - 10/15	67		670					67
Total			27,476	712			4,053	381	5,061	3,827	6,318	77	11,747	3,420

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities. Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying Capacity AUMs
Conconully														
	0723	Cl	492	17	C	6/1	84		270	170			52	84
	0725	c2	790	26	C	5/15 - 10/14	130		40	530			220	130
	0726	c2	80	1	C	5/15 - 9/30	13			80				13
	0727	c2	716	60	C	6/1 - 7/31	120			546			170	120
	0728	Cl	197	5	C	5/1 - 10/31	37		197					37
	0729	c2	117	3	C	5/10 - 10/15	17		47	70				17
	0731	c2	160	29	C	6/15 - 7/15	29			100			60	29
	0734	M	930	62	C	4/20 - 5/20	124		40	595			295	124
	0735	I	720	26	C	5/1 - 10/15	144		50	608			62	57
	0736	Cl	80	3	C	4/1 - 5/31 10/1 - 12/31	16			80				16
	0737	I	560	16	C	4/1 - 10/31	112			535			25	112
	0738	Cl	170	2	C	3/1 - 2/28 4/1 - 5/31	21			40			130	21
	0739	c2	197	3	C	11/1 - 12/31	33			117			80	33
	0740	c2	676	21	C	4/15 - 9/30	113		40		516		120	113
	0741	Cl	1,040	21	C	4/1 - 10/31	148			940			100	148
	0742	c2	80	2	C	3/15	10			80				10
	0743	c2	140	3	C	3/1	23			40			100	23
	0853	c2	80	2	C	5/1 - 11/30	16		60				20	16
	0866	c2	40	4	C	4/1 - 5/31	7		40					7
	0872	Cl	1,090	22	C	5/15 - 10/31	210		360	50	100		580	210
	0919	c2	40		C	4/15 - 10/14	6			40				6
	0959	Cl	988	2:	C	3/1 - 10/31	218		40				948	218
	0961	c2	80	5	C	6/1 - 9/30	20				80			20
Total			9,463	361			1,651		1,184	4,621	696		2,962	1,564
Jameson Lake	0771	Cl	1.564	33	C	4/1 - 9/30	195	89	719	244	332		180	195
	0772	Cl	909	23	C	4/1 - 8/31	114	341	384	142	6		36	114
	0789	c2	400	7	C	4/1	50		400					50
	0971	c2	160	2	C	4/1 - 11/30	17		160					17
Total			3,033	65			376	430	1,663	386	338		216	376

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying capacity AUMs
Douglas Creek														
	0774	c2	40	2	C	4/15	6			40				6
	0775	Cl	4,795	120	C	5/1 - 8/31	480	405	964	1,701	1,725		44	480
	0776	M	400	7	C	4/15 - 12/14	57				160		240	57
	0777	M	883	16	C	4/1	136		227	35	98		523	136
	0778	I	5,405	90	C	5/1 - 10/1	449	365	2,568	929	175	373	995	451
	0780	Cl	160	2	C	2/28	21			160				21
	0781	Cl	1,562	65	C	4/1	195	155	80	419			908	195
	0782	Cl	958	16	C	4/12 - 12/31	137	298		320			340	137
	0783	M	640	27	C	4/1	170	105	250	207	78			170
	0784	c2	162	6	C	4/1 - 10/31	40						162	40
	0785	Cl	2,619	58	C	9/30	291	261	523	1,228	280		327	291
	0786	M	920	13	C	3/1 - 2/28	153		280	440			200	153
	0788	Cl	1,761	34	C	3/15	271	239	159	785	543		35	271
						9/15 - 12/14								
	0909	M	160	3	C	3/1 - 12/31	27		160					27
	0916	M	120	9	C		17		120					17
	0940	c2	160	3	C	4/1 - 9/30	18						160	18
Total			20,745	471			2,360	1,828	5,331	6,264	3,059	373	3,934	2,470
Saddle Mountains														
	0797	Cl	4,620	101	C	3/1 - 5/31	695		3,646	779	195			695
	0806	I	9,558	160	C	10/15-5/15	1,120	69	1,467	5,437	2,442		143	934
	0808	I	4,503	156	C	3/1 - 5/31	468	86	1,001	926	282		2,208	294
	0810	Cl	3,600	96	C	12/15-2/28	387	159	1,506	- 860	936		139	387
Total			22,281	513			2,670	314	7,620	8,002	3,855		2,490	2,310

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying Capacity AUMs
Rattlesnake Hills														
	0814	M	998	8	C	3/1 - 2/28	91						998	91
	0815	M	2,427	51	C	4/1 - 11/30	405	773	672	337	104		541	405
	0817	Cl	1,240	6	C	3/1 - 2/28	66		40	218	595		387	66
	0819	Cl	400	2	C	3/1	26						400	26
	0820	Cl	1,943	81	C	3/1 - 6/30	324	211	289	328	1,115			324
	0822	Cl	2,578	151	S	3/1 - 2/28	363			114	526		1,938	363
	0821	Cl	2,434	33	C	5/1 - 2/28	325	90	180	702	1,271		191	325
	0823	Cl	1,720	96	S	3/1	231	295	121	356	670		278	231
	0825	Cl	5,560	55	C	3/1 - 2/28	655	144	495	572	1,796	711	1,842	655
	0826	Cl	1,112	13	C-H	3/1 - 5/31	120	106	163	250	111		482	120
					H	3/1 - 2/28	40							40
	0827	Cl	362	4	C	3/1 - 2/28	48		46	161	155			48
	0828	Cl	1,303	87	C		217		22	76	1,032		173	217
	0834	M	1,680	33	C	3/1	400	840	534	336				400
Total			23,757	620			3,311	2,459	2,532	3,450	7,375	711	7,230	3.311
Badger Slope														
	0540	I	4,808	23	C	3/1 - 2/28	276	1,634	1.771	669	326		408	848
	0544	I	692	32	C	3/1 - 4/30	64		553	76	34		29	119
	0545	Cl	120	2	C	3/1 - 2/28	18		52	68				18
	0546	c2	1,995	51	C	12/1 - 2/28	300						1,995	300
	0590	c2	80	2	C	10/1 - 2/28	11		36	44				11
	0672	c2	105	1	C	3/1 - 2/28	12				105			12
Total			7,800	iii			681	1,634	2,412	857	465		2,432	1,308
Rock Creek														
	0548	Cl	480	1	C	4/1 - 10/31	48		395	80	5			48
	0549	c2	320	5	C	4/1 - 11/30	40						320	40
	0550	c2	160	5	C	5/30 - 9/10	18			146	14			18
	0551	c2	80	3	C	5/15 - 8/30	9		50		20		10	9
	0552	Cl	400	5	C	4/1 - 11/30	40			100	60		240	40
	0553	Cl	2,508	31	C	5/1 - 12/31	251		135	1,194	1,178		1	251
	0555	Cl	1,120	148	C	12/1 - 2/28	149		36	554	530			149
	0593	Cl	480	2	C	3/1 - 2/28	48		289	10	181			48
Total			5,548	206			603		905	-- 2,084	1,988		571	603

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying capacity AUMs
North Ferry														
	0516	c2	640	29	c	6/1 - 9/30	64						640	64
	0517	c2	1,004	37	c	6/1 - 10/15	167						1,004	167
	0518	M	1,068	39	c	5/15 - 10/30	214						1,068	214
	0522	c2	434	12	c	5/1 - 8/31	48						434	48
	0524	Cl	1,294	27	c	5/1 - 10/31	162			483	137		674	162
	0525	c1	375	8	c	5/1 - 10/31	50		33	20	53		269	50
	0526	M	553	20	c	6/1 - 10/15	92		203				350	92
	0527	c2	151	5	c	6/1 - 9/30	20						151	20
	0528	c2	33	1	c	6/1 - 9/30	4						33	4
	0571	c2	228	7	c	5/1 -9/30	33						228	33
	0577	c2	40	2	c	6/1 - 10/15	7						40	7
	0580	c2	220	5	c	4/15 -10/31	30						220	30
	0583	c2	120	2	c	5/1 - 11/30	15						120	15
	0586	c2	46	1	c	5/1 - 10/31	8						46	8
	0588	c2	568	12	c	5/1 - 10/31	72						568	72
	0594	c2	377	14	c	6/1 - 10/15	63						377	63
	0608	Cl	193	9	c	6/1 - 9/30	35						193	35
	0609	c2	349	7	c	5/1 - 10/31	43						349	43
	0618	c2	40	1	c	5/1 - 11/15	5						40	5
	0630	c2	93	1	c	3/1 - 11/30	5						93	5
	0631	c2	14	1	c	4/1 - 11/30	10						14	10
	0632	c2	160	6	c	5/1 - 8/31	23						160	23
	0639	c2	80	5	c	6/15 - 9/14	15						80	15
	0651	c2	140	19	c	6/1 - 10/31	34						140	34
	0666	Cl	464	12	c	6/1 - 10/31	62			133	143		188	62
	0667	c2	80	2	c	6/1 - 10/31	10						80	10
	0681	c2	40	1	c	3/1 - 6/30	4						40	4
	0684	c2	40	2	H	5/1 - 6/15	3						40	3
	0686	M	80	3	c	6/1 - 9/30	10						80	10
	0848	M	88	2	c	4/1 - 11/30	15		88					15
	0860	c2	798	36	c	7/1 - 9/30	109		785		13			109
	0896	M	327	16	c	6/1 - 9/30	65		327					65
	0905	M	179	8	c	7/1 - 10/1	30		179					30
Total			10,316	352			1,527		1,615	636	346		7,719	1,527

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized use	BLM Acres by Ecological Condition Class: Climax	Late	Mid	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying capacity AUMs
North Stevens														
	0513	c2	1.071	24	C	5/1 - 10/31	143						1,071	143
	0516	Cl	482	lb	C	6/1	53						482	53
	0565	c2	282	15	C	6/15 - 9/30	5						282	5
	0569	c2	360	9	C	5/15 - 9/30	45						360	45
	0578	c2	120	4	C	6/1 - 9/30	17						120	17
	0595	c2	465	13	C	7/1 - 11/30	66				317		148	66
	0604	c2	184	3	C	9/1 - 10/31	31						184	31
	0634	Cl	240	8	C	6/1 - 9/30	32						240	32
	0645	c2	60	1	C	3/1 - 10/31	8						60	8
	0656	C2	581	14	C	11/15	72						581	72
	0664	c2	40	1	C	9/1 - 10/31	5						40	5
	0671	C2	280	6	C	4/20 - 10/31	37						280	37
	0683	I	911	51	C	5/1 - 8/1	152				674		237	75
Total			5,076	165			666				991		4,085	589
Huckleberry Mountains														
	0502	Cl	473	13	C	5/1 - 9/30	67						473	67
	0503	Cl	480	3	C	6/1 - 10/31	13						480	13
	0504	Cl	1,799	50	C	5/15 - 9/30	225						1,799	225
	0506	Cl	499	17	C	5/15	83						499	83
	0508	c2	21	1	C	6/1	3						21	3
	0573	C2	270	13	C	6/1 - 9/15	45						270	45
	0591	c2	79	2	C	5/1 - 10/31	13						79	13
	0599	c2	164	2	C	5/15	8						164	8
	0614	c2	80	3	C	5/1	10						80	10
	0653	c2	239	6	C	5/1 - 10/31	34						239	34
Total			4,104	110			501						4,104	501
Juniper Forest														
	0534	C1	2,554	100	C	3/1	170			28	2,526			160
	0535	I	2,985	39	C	3/15 - 12/14	353			50	2,921		14	166
	0536	I	5,038	138	C	1/1	483				4,942		96	247
	0693	c3	80	1	H	5/1 - 7/1 10/1	10						80	10
	0694	c1	1,072	29	C	4/1 - 7/31	115						1,072	115
Total			11,729	307			1,131			78	10,389		1,262	698

Appendix E (continued)

Current Livestock Authorization. Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class					Estimated Carrying Capacity AUMs
								Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	
Chelan County Scattered Tracts														
	0747	C2	480	3	H	61 - 9/30	27						480	27
	0752	C2	560	6	H	4/15 - 10/15	36			381	27		152	36
	0755	Cl	870	35	C	3/1 - 10/31	145			31	658		181	145
	0758	C2	700	13	C	4/16 - 11/15	88		80	620				88
	0764	M	2,386	19	C	4/10 - 9/30	110						2,386	110
	0768	C2	280	13	C	4/16 - 7/31	46						280	46
	0847	C2	320	4	C	4/1 - 9/30	25						320	25
	0850	M	795	44	C	5/1 - 11/15	132						795	132
	0869	Cl	322	8	C	4/1 - 10/31	58			152	10		160	58
	0887	C2	120	4	C	5/1 - 9/30	20						120	20
	0888	C2	200	4	C	5/1 - 9/30	33			200				
	0901	C2	312	11	C	6/1 - 9/30	44						312	22
	0923	Cl	1,490	27	C	4/01 - 10/31	190			487	875	11	117	190
	0933	C2	40	1	H	4/1 - 10/31	8						40	8
	0944	C2	80	6	C	4/1 - 5/31	13						80	13
	0955	C2	582	9	C	4/1 - 10/31	66			62	520			66
	0963	C2	80	2	H	3/1 - 10/31	13						80	13
	0941	C2	80	1	H	3/1	11						80	11
	0925	C2	120	7	C	6/1	20						120	20
Total			9,817	217			1,085		80	1,933	2,090	ii	5,703	1,085
Stevens county Scattered Tracts														
	0598	C2	80	2	C	5/1 - 9/30	10						80	10
	0668	C2	80	2	C	3/15 - 10/31	13						80	13
	0670	C2	77	2	C	9/1 - 1//31	9						77	9
Total			237	6			32						237	32

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying capacity AUMS
Okanogan County Scattered Tracts														
	0718	Cl	280	4	C	3/1 - 2/28	47			280				47
	0719	C2	295	15	C	4/1	30			295				30
	0720	C2	320	18	C	4/1 - 5/31 10/1 - 10/31	53		281	13	26			53
	0721	I	688	11	C	4/15 - 10/31	69			559	49		80	91
	0755	Cl	400	11	C	5/1	67			200	180		20	67
	0830	C2	40	1	C	5/1 - 9/30			40					7
	0835	c2	276	11	C	3/1 - 6/15	40		120	120			36	40
	0838	C2	118	3	C	4/1 - 9/30	17			118				17
	0842	C2	40	1	C	3/1	8				40			8
	0843	C2	30	1	C	4/15 - 9/15	5						30	5
	0844	Cl	800	19	C	4/1 - 10/31	133		314	442	44			133
	0845	C2	80	3	C	4/16 - 10/15	16		80					16
	0846	I	977	31	C	4/1 - 5/31 10/1 - 12/15	140		130	480	197		170	59
	0848	C2	88	2	C	4/1 - 10/31	15						88	15
	0849	C2	120	7	C	7/1 - 9/30	20				60		60	20
	0852	C2	80	8	C	6/1 - 7/31	16						80	16
	0854	C2	557	40	C	4/20 - 6/30	93		120	437				93
	0860	c2	480	7	C	5/1	61		480					61
	0864	C2	200	10	C	4/1 - 5/15	15			200				15
	0867	C2	153	5	C	5/1 - 10/31	30		153					30
	0870	C2	80	3	C	5/1 - 10/31	16						80	16
	0885	C2	200	11	C	5/1 - 7/31	33		200					33
	0886	C2	120	7	C	9/1 - 11/30	20		110				10	20
	0896	C2	327	16	C	6/1 - 9/30	65						327	65
	0899	C2	244	5	C	3/1 - 2/28	55						244	55
	0902	C2	362	22	C	4/15 - 6/14 10/1 - 10/31	67			75	207		80	67
	0904	C2	382	18	C	9/1 - 11/31	54		382					54
	0905	C2	179	7	C	6/1 - 10/1	30		179					30
	0906	C2	120	3	C	5/1	20		80		40			20
	0910	C2	60	2	C	5/10 - 9/20	8		60					8
	0914	C2	172	6	C	5/15 - 9/30	25			3.72				25
	0915	C2	40	1	C	4/1 - 11/30	6		20		20			6
	0921	C2	370	19	C	5/1 - 7/31	56			150	100		120	56
	0937	c2	160	17	C	5/1 - 6/15	26						160	26
	0943	C2	200	9	H	5/1 - 6/30	28			200				28

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying capacity AUMs
Okanogan County Scattered Tracts (Cont.)														
	0946	C2	40	4	C	5/1 - 6/30	8						40	8
	0948	C2	40	2	C	6/1 - 8/31	6						40	6
	0949	C2	146	5	C	5/1 - 10/31	29		146					29
	0951	C2	31	1	C	5/1 - 9/30	5						31	5
	0952	C2	80	2	C	3/1	20			80				20
	0953	C2	73	1	C	5/1 - 2/28	12			73				12
	0957	C2	100	3	C	4/1 - 9/30	17		60	40				17
	0969	C2	40	1	C	3/1 - 8/31	6						40	6
	0970	C2	41	2	C	5/1 - 5/31 9/1 - 10/31	7		26				15	7
Total			9,629	375			1.533		2,981	3,934	963		1,751	1.475
Ferry County Scattered Tracts														
	0610	C2	84	1	C	5/1 - 11/15	8						84	8
Colockum Cooperative Management Tracts														
	0793	M	1,935	38	C	4/1 - 7/31	152						1,935	152
Swakane Cooperative Management Tracts														
	0923	M	1,480	24	C	4/1 - 11/1	190						1,480	190
Benton County Scattered Tracts														
	0575	C2	152	4	C	10/15	23			152				23
	0585	C2	640	4	C	12/1	43		40	210	390			43
	0607	C2	160	4	C	11/1 - 5/31	25				160			25
	0627	C2	34	1	C	3/1	3			34				3
	0638	C2	160	5	C	3/1 - 2/28	20			160				20
	0669	C2	80	1	C	3/1 - 2/28	10				80			10
	0688	C2	400	11	C	2/1 - 6/15	50			400				50
Total			1,626	30			174		40	956	630			174
Yakima River Cooperative Management Area														
	0803	M	241	4	C	11/1 - 5/31	27						241	27
	0804	M	1,030	19	C	4/1	148						1.030	148
	0805	M	171	9	C	5/1 - 6/30	17						171	17
	0823	M	80	5	S	3/1	11						80	11
Total			1,522	37			203						1,522	203

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying capacity AUMS
Franklin County Scattered Tracts														
	0581	c2	31	1	C	3/1	7		31					7
	0587	C2	35	1	C	3/1	6			35				6
	0597	C2	80	5	C	11/1 - 4/30	16			80				16
	0606	C2	644	13	C	10/15 - 5/15	90			160	484			90
	0644	C2	440	5	C	3/1 - 2/28	63	130		310				63
	0646	C2	120	9	C	9/1	27	85					35	85
	0654	C2	160	2	C	3/1	26	40		40	80	40		26
	0662	c2	254	12	C	4/15 - 11/30	88			110	144			88
	0674	C2	120	7	C	3/1 - 7/1	27	120						27
Total			1,884	55			350	393	31	735	708	40	35	408
Douglas county Scattered Tracts														
	0744	C2	80	2	C	4/1	11		80					11
	0745	C2	960	20	C	4/1	137	43	173				744	137
	0746	Cl	960	20	C	4/1 - 10/31	137		12	814		77	57	137
	0749	c2	775	17	C	6/1 - 9/30	86		352	28			395	86
	0750	C2	80	2	C	4/1 - 11/30	16		80					16
	0754	C2	265	8	C	6/1	33			101			164	33
	0756	C2	423	14	C	5/1	85		423					85
	0757	C2	198	5	C	4/15 - 11/15	33			88	110			33
	0759	C2	136	3	H	5/1 - 11/15	20						136	20
	0766	Cl	2,414	49	C	4/1 - 10/31	346	29	212	837	16		1,320	346
	0767	C2	360	7	C	4/1 - 10/31	51			240			120	51
	0829	Cl	200	5	C	5/1 - 9/30	25				200			25
	0831	Cl	750	54	C	4/5 - 5/10 12/1 - 12/31	107		281	423			46	107
	0841	C2	239	6	C	4/1 - 9/30	34						239	34
	0856	c2	66	1	C	6/1	5		66					5
	0862	C2	161	5	C	6/1 - 9/30	23		121	40				23
	0868	Cl	319	10	C	4/1 - 8/31	49				319			49
	0879	c2	240	11	C	5/16	32				240			32
	0883	C2	120	13	C	9/25 - 11/30	20		120					20
	0891	C2	160	5	C	4/16 - 9/30	26				60		100	26
	0900	c2	68	1	C	3/15 - 11/30	10		68					10
	0926	C2	283	18	C	4/15 - 6/30	47		283					47
	0931	C2	40	1	C	3/1	6			40				6
	0932	C2	120	10	C	3/1 - 5/1	20						120	20
	0935	C2	200	9	C	4/1 - 6/30	28		200					28

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying Capacity AUMS
Douglas County														
Scattered Tracts (Cont.)														
	0936	C2	40	1	C	4/16 - 10/31	6		40					6
	0942	c2	80	1	C	3/16 - 11/15	11						80	11
	0950	C2	480	11	C	6/1 - 8/15	28		248	71			161	28
	0954	C2	200	7	C	4/15 - 10/15	40		200					40
	0958	C2	360	6	C	3/1 - 10/31	51			280			80	51
	0962	C2	80	1	C	3/1 - 1/31	11				80			11
	0964	C2	360	30	C	4/1 - 5/31	60				160		160	60
	0965	M	1,083	26	C	4/1 - 5/31	155		883		120		80	155
	0967	C2	40	1	C	5/1 - 10/31	8				40			8
	0972	C2	79	1	C	4/1 - 10/31	10		79					10
Total			12,419	381			1,767	72	3,921	2,962	1,345	77	4,002	1,767
Asotin County														
Scattered Tracts														
	0570	C2	80	2	C	11/1 - 4/30	11						80	11
	0574	C2	120	9	C	3/16 - 5/31 9/1 - 11/30	48						120	48
Total			200	11			59						200	59
Adams County														
Scattered Tracts														
	0640	C2	160	4	C	11/1 - 5/31	29						160	29
	0647	C2	80	2	C	4/1 - 9/30	10						80	10
Total			240	6			39						240	39
Klickitat County														
Scattered Tracts														
	0555	C2	2,200	17	C	4/1 - 12/30	149						2,200	149
	0558	C2	40	2	C	4/1 - 5/31	6						40	6
	0559	C2	80	8	C	4/1 - 5/31	16						80	16
	0561	C2	40	2	C	4/1 - 5/31	8						40	8
	0572	C2	580	11	C	4/1 - 9/30	64						580	64
	0584	C2	80	2	C	3/1 - 4/30 11/15 - 2/28	11						80	11
	0593	C2	180	2	C	3/1 - 2/28	22						180	22
	0601	C2	40	2	C	8/1 - 10/31	7						40	7
	0615	C2	160	2	C	3/1 - 2/28	21						160	21
	0616	C2	440	8	C	4/1 - 11/30	63						440	63
	0617	C2	80	3	C	6/1 - 9/30	13						80	13

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories. and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying Capacity AUMs
Klickitat County Scattered Tracts (Cont.)														
	0619	c2	184	3	C	4/15 - 10/14	15						184	15
	0620	c2	240	15	C	4/1 - 5/31	30						240	30
	0626	c2	79	2	C	4/1 - 11/30	13						79	13
	0629	c2	80	2	C	4/15 - 6/14	11						80	11
	0637	c2	1.081	29	C	3/1 - 3/31	144						1,081	144
	0638	c2	480	5	C	2/28	60						480	60
	0641	c2	240	4	C	12/1 6/1 - 9/30	30						240	30
	0657	c2	37	2	C	2/1 - 5/31	7						37	7
	0661	c2	200	5	C	4/1 - 10/31	29						200	29
	0665	c2	440	6	C	3/1 - 2/28	68						440	68
	0673	c2	160	3	C	4/1 - 12/31	23						160	23
	0675	c2	80	3	C	6/1	10						80	10
	0682	c2	800	10	C	3/1 - 2/28	123						800	123
	0690	c2	160	7	C	4/1 - 6/15	18						160	18
Total			8,181	155			961						8,181	961
Whitman County Scattered Tracts														
	0576	c2	50	4	C	6/30	7						50	7
	0600	c2	38	2	C	10/1	8						38	a
	0622	C2	450	8	c	4/15 - 11/30	60						450	60
Total			538	14			75						538	75
Lincoln County Scattered Tracts														
	0566	C2	120	1	C	3/1 - 2/28	15						120	15
	0567	c2	80	2	C	4/1 - 9/30	13						80	13
	0568	c2	44	1	C	3/15 - 11/14	9						44	9
	0596	Cl	320	10	C	10/31	40						320	40
	0602	c2	163	3	C	3/1 - 10/31	22						163	22
	0603	c2	80	4	c	4/1 - 6/30	11						80	11
	0611	c2	277	6	C	4/1 - 11/30	50						277	50
	0621	c2	240	10	C	9/1 - 12/30	40						240	40
	0622	c2	358	4	C	3/1	47						358	47
	0623	c2	80	3	C	4/1 - 9/30	16						80	16
	0624	c2	80	2	C	4/1 - 10/31	13						80	13
	0628	c2	80	1	C	3/1 - 10/31	8						80	a
	0635	Cl	400	15	C	7/15 10/1 - 11/30	66						400	66

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying Capacity AUMs
Lincoln County														
Scattered Tracts (Cont.)														
	0649	c2	80	4	C	6/15 - 8/30	11						80	11
	0650	c2	80	2	C		13						80	13
	0655	c2	680	12	c	5/l - 11/30	85						680	a5
	0658	c2	80	3	C	4/15 - 8/31	13						80	13
	0659	c2	480	33	c	5/20 - 7/4	50						480	50
	0660	c2	478	13	C	6/1	64						47%	64
	0677	c2	80	1	C	4/1 - 10/31	8						80	8
	0678	c2	359	21	C	5/20 - 7/31	48						359	48
	0679	c2	476	45	C	4/15 - 5/31	68						476	68
	0680	c2	80	1	C	4/1 - 9/30	8						80	a
	0687	c2	160	4	C	4/1 - 10/31	27						160	27
	0689	c2	80	2	C	5/1 - 11/15	13						80	13
Total			5,435	141			758						5,435	758
County														
Scattered Tracts														
	0582	c2	40	1	C	5/28 - 11/27	6						40	6
Kittitas County														
Scattered Tracts														
	0794	Cl	180	9	C	12/1	26						180	26
	0797	Cl	5,095	99	C	11/1 - 5/31	695						5,095	695
	0798	Cl	1,217		C	4/1 11/1	174						1,217	174
	0799	Cl	2,262	66	C	4/1 - 6/30 11/1 - 12/31	329						2,262	329
	0802	C2	320	26	C	4/16 - 6/15	53						320	53
	0804	M	290	348	C	4/1 - 11/30	42						290	42
	0805	M	34	2	C	5/1	3						34	3
	0823	c2	233	13	S	3/1 - 2/28	30						233	30
	0855	c2	80	4	C	5/1 - 7/31	12						80	12
	0875	c2	40	5	C	5/15 - 6/14	5						40	5
	0877	c2	40	2	C	5/1 - 8/31	8						40	a
	0892	c2	81	8	C	4/1 - 5/31	16						81	16
	0912	c2	160	6	C	4/1 - 5/31 11/30	23						160	23
	0960	C2	200	33	C	4/1 - 4/30	33						200	33
Total			10,232	621			1,449						10,232	1,449

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying capacity AUMS
Grant County Scattered Tracts														
	0837	c2	960	43	C	8/16	128						960	128
	0859	c2	560	11	C	4/1 - 10/31	80						560	80
	0865	c2	140	4	C	10/15 - 2/28	20						140	20
	0876	c2	160	2	C	3/1 - 2/28	27						160	27
	0881	c2	200	1	C	3/1 - 2/28	15						200	15
	0882	Cl	446	32	C	4/1 - 4/30	64						446	64
	0893	M	362	362	c	5/1	52						362	52
	0897	c2	320	5	C	3/1 - 2/28 11/1 - 11/30	54						320	54
	0898	M	401	8	C	5/1 - 11/30	57						401	57
	0903	Cl	160	3	C	3/1 - 2/28	32						160	32
	0908	Cl	340	5	C	3/1 - 2/28	57						340	57
	0917	c2	682	10	C	4/1 - 10/31	68						682	68
	0918	C2	80	2	C	3/1	13						80	13
	0924	c2	480	9	C	9/1 - 5/31	68						480	68
	0928	c2	400	5	C	3/1 - 11/30	44						400	44
	0929	c2	240	2	C	3/1 - 10/31	16						240	16
	0934	c2	160	4	C	5/1 - 10/31	23						160	23
	0956	c2	120	4	C	4/1 - 8/30	20						120	20
	0966	M	1,357	22	C	4/1 - 11/30	179						1,357	179
	0974	c2	42	1	C	4/1 - 8/31	5						42	5
Total			7,610	535			1,022						7,610	1,022
Yakima County Scattered Tracts														
	0812	C2	80	2	C	4/1	10						80	10
	0857	c2	564	40	C	4/1 - 5/31	80						564	80
	0880	c2	80	13	C	5/1 - 5/31	13						80	13
Total			724	55			103						724	103
Garfield County Scattered Tracts														
	0633	c2	39	1	C	10/1 - 2/28	6						39	6
Klickitat Cooperative Management Area														
	0559	c2	2,233	21	C	4/1	42						2,233	42

Appendix E (continued)

Current Livestock Authorization, Estimated Livestock Carrying Capacities, Selective Management Categories, and Existing Ecological Condition

Management Area	Allotment Number	Selective Management Category	Acres Public Land	Livestock Numbers	Class *	Grazing Period Begin-End	BLM AUMs Authorized Use	BLM Acres by Ecological Condition Class: Climax	Late Seral	Mid Seral	Early Seral	Seeding	Unclassified or Unmapped	Estimated Carrying Capacity AUMs
Quincy/Crab Creek Cooperative Management Area														
	0836	M	673	8	C	3/15 - 11/30	72						673	72
Yakima Winter Feed Cooperative Management Area														
	0813	c2	40	5	C	5/31	10						40	10
Entiat Cooperative Management Area														
	0764	M	2,386	19	C	4/10	110						2,366	110
Chelan Butte/Gallagher Flats Cooperative Management Area														
	0752	M	40	1	H	3/1 - 2/28	7						40	7
	0760	M	2,302	47	C	4/16	330						2,302	330
			2,342	48			337						2,342	337
Grand Total			232,874	6,798			30,073	7,493	35,376	40,725	59,556	1,249	106,324	29.156

* C = Cattle; H = Horses; S = Sheep
** These estimates are for analysis purposes only. Future changes in authorized use would only be implemented after monitoring.

Appendix F

Estimates of Gross Sales, Personal Income, and Employment

These measures of the economic effects of changes in program-related activities were estimated by use of an input-output model (IMPLAN) developed by the U.S. Forest Service, with which BLM developed the model representing the economy of Eastern Washington.

An interindustry (or input-output) model is a summary of all the transactions occurring in an area during a l-year period, showing for each industry or economic sector the amount of its purchases from every other industry (inputs) and the amount of its sales to every other industry (outputs). Purchases of goods to be sold by trade industries are treated as direct sales by the producing industry, and trade industry transactions are limited to their gross margin accounts or the part of their transactions over and above the cost of goods sold. This information represents the interindustry relationships in the area and permits the estimation of how a change in one industry would affect other industries and the economy as a whole.

When a specific change occurs in the economy, such as an increase in cattle sales due to increased forage availability, the cattle industry purchases more from its suppliers, ranch families spend more, and so on. Recipients of these purchases increase their purchases. The end result of this process is increased activity throughout the economy. The effects on the industry in which the initial change occurs (such as, the cattle industry) are termed the direct effects of the change.

The direct effects plus the effects on other industries and individuals in the local economy make up the total local effects. Estimates of the effects per unit measure are shown in Table F-l for the resource activities significantly affected by the potential program actions.

Table F-l Economic Effects Per Unit Measure*

	Initial Unit of Measure	Direct Gross Sales* *	Direct Personal Income	Direct Employment (Jobs)	Total Personal Income	Total Employment (Jobs)
Livestock Production	1,000 AUMs	$12,490	$2,070	.08227	10,300	.38696
Range Improvements	$1,000	1,000	424.8	.01887	863.5	.04004
Timber Production	MBF	33.07	114.5	.00387	263.2	.01026

*Derived from interindustry model for Eastern Washington.

*'Total sales (or expenditures) per unit in 1982 dollars. Livestock sales per AUM derived from beef cattle sales in 13 counties for 1983 (Cooperative Extension Service, WSU, 1984).

Appendix G

Goals and General Objectives of Land Use Alternatives

Alternative A (Production)

Goal: Emphasize the highest degree of commodity production allowable, considering legal constraints.

Trade-offs would emphasize consumptive uses over non consumptive uses.

General Management Objectives

1. Improve and maintain ecological conditions to increase forage available to livestock. Allow for the maintenance of all existing improvements. Implement all technically feasible range improvements or management systems when cost effective. Provide maximum forage to livestock within the constraints of existing wildlife population forage requirements.

2. Produce the maximum sustained yield of timber on all commercial forestland. Utilize all salable dead and down materials where the benefit/cost ratio is positive. Keep all woodlands available for sale of minor forest products, such as firewood and fence posts.

3. Keep public lands open for the exploration/development of mineral resources, rights-of-way, and other public purposes.

4. Offer tracts for exchange or sale whenever the resulting land pattern would improve BLM's management of commodity producing resources. Pursue land transfers to other Federal agencies and leases or cooperative management agreements with State and local governments or private entities to improve management of commodity producing resources.

5. Manage upland habitat and riparian areas to emphasize production of upland and small game species to meet the Washington State Department of Game population targets.

6. Maintain and/or improve habitat for game and commercial fish when cost effective.

7. Manage public lands and keep access routes open for a variety of recreational opportunities/experiences with an emphasis on motorized recreation access and development of recreation facilities when cost effective.

Alternative B (Preferred)

Goal: Provide a variety of uses within the sustained yield capability of the resource. This alternative represents a combination of renewable and non renewable resource uses, incorporating the necessary constraints for protecting resources from irreversible decline.

Trade-offs would safeguard non consumptive uses while accommodating consumptive uses.

General Management Objectives

1. Protect or enhance water quality with particular attention to those watersheds with major downstream water uses including anadromous and other sport fisheries and agriculture.

2. Maintain and/or improve range productivity by providing available forage to maintain existing or target wildlife populations as estimated by the Washington State Department of Game. The remaining forage would be provided for livestock. Allow for the maintenance of all existing improvements. Implement management systems and all range improvements in allotments where projects and/or management systems are cost effective. Improve riparian habitat through management of livestock use.

3. Adjust the level of sustained yield timber production by restricting production on specific forestlands where appropriate to accommodate other resource values. Forestlands would be withdrawn from production only when stipulations and/or mitigation would not adequately protect the other resources.

4. Keep public lands open for exploration/development of mineral resources, rights-of-way, access, and other public purposes with consideration to mitigate designated resource concerns.

5. Enhance BLM land pattern and resource management efficiency or make lands available for better uses through exchange, sale, or R & PP lease. Transfer lands to other Federal agencies, and develop leases or cooperative management agreements with other agencies or private entities

to improve management efficiency, resource management, and availability of lands for better uses.

6. Manage upland habitat for nongame and game species to meet Washington State Department of Game population targets.

7. Manage public lands and keep access routes open for a variety of recreational opportunities/experiences, including both motorized and non motorized recreative activities.

8. Consider the protection and/or enhancement of State listed threatened or endangered species habitat.

Alternative C (Protection)

Goals: Protect and enhance natural values while allowing use and production only at levels that do not risk diminishing such values.

Trade-offs would favor protection of the resource over consumptive uses.

General Management Objectives

1. Improve or maintain ecological conditions to maximize plant diversity and wildlife habitat. Protect existing snag habitat unless prohibited by logging safety codes and manage for replacement of snags. Manage all riparian zones to maximize the riparian potential.

2. Manage for protection and/or enhancement of water quality and all aquatic ecosystems.

3. Provide for the protection and/or interpretation of high quality cultural, scientific, and educational resources.

4. Protect and/or enhance State listed threatened or endangered species habitat.

5. Offer tracts for exchange or sale as applicable whenever the result would be greater protection of natural values or sensitive or critical resources or enhance BLM management efficiency. Pursue land transfers to other Federal agencies and leases or cooperative management agreements with other agencies or private entities whenever the result would be greater protection of natural values or sensitive or critical resources or enhance BLM management efficiency.

6. Manage livestock grazing to enhance natural systems. Maximize forage use levels for wildlife and watershed protection. Provide any forage not needed for these uses to livestock.

7. Adjust the levels of sustained yield timber production by restricting production to specific commercial forestlands where appropriate to accommodate other resource values, provide habitat diversity, and minimize road construction. Commercial forestlands would be withdrawn from production only when stipulations and/or mitigation would not adequately protect the other resources.

8. Restrict the exploration and development of mineral resources, rights-of-way, and other public purposes to protect natural values only when restrictions and/or mitigation would not adequately protect the other resources.

9. Manage public lands for a variety of recreational opportunities/experiences with an emphasis on non motorized and/or preventative recreation activities.

Alternative D (No Action)

Goal: Provide for the continuation of existing management. This alternative would maintain the present management direction while responding to requirements of new regulations and changing policies.

Trade-offs would emphasize commodity production while safeguarding critical resource values.

General Management Objectives

1. Improve or maintain ecological conditions to benefit livestock and wildlife. Allow for the maintenance of all existing improvements. Implement management systems and all range improvements in I allotments where projects and/or management systems are the best alternative. Future forage use would be based on monitoring studies.

2. Produce the maximum sustained yield of timber on suitable and available forestlands and accommodate other important resource values where identified. Minimize road construction. Utilize dead and

down materials for consumptive and non consumptive uses.

3. Keep public lands open for exploration/development of mineral resources, rights-of-way, access, and other public purposes with site-specific mitigation of resulting resource conflicts.

4. Offer tracts for exchange or sale whenever the resulting land pattern would improve BLM management efficiency. Transfer lands to other Federal agencies. Develop leases or cooperative management agreements with other agencies or private entities to improve management efficiency, resource management, and availability of lands for better uses.

5. Maintain or improve existing riparian habitat.

6. Maintain and/or improve existing fisheries habitat.

7. Manage public lands and keep access routes open for a mix of both motorized and non motorized recreation opportunities/experiences.

8. Consider State listed threatened or endangered species habitat.

Appendix H

Benefit Cost of Range Improvements

Each I category allotments proposed range development program was subjected to a Rangeland Investment Analysis. This analysis process was used to design and evaluate the economic efficiency of various combinations of range improvements and management actions. Further refinements and details will be shown in the Record of Decision scheduled for publication in 1985.

Table H-l

Allotment Number	Benefit/Cost
0535	2.211
0536	1.1/1
0540	1.0/1
0544	0.8/1
0683	1.111
0701	0.711
0704	1.111
0705	0.7/1
0707	1.1/1
0721	0.811
0735	0.7/1
0737	0.8/1
0778	1.011
0806	1.0/1
0808	0.411
0846	1.5/1

Appendix I

Rangeland Monitoring and Evaluation

The effects of implementation would be monitored and evaluated on a periodic basis over the life of the plan. The general purposes of this monitoring and evaluation would be to accomplish the following:

1. To determine if an action is fulfilling the purpose and need for which it was designed or if there is a need for modification or termination of an action;

2. To discover unanticipated and/or unpredictable effects;

3. To determine if mitigation measures are working as prescribed;

4. To ensure that decisions are being implemented as scheduled;

5. To provide continuing evaluation of consistency with State and local plans and programs;

6. To provide for continuing comparison of plan benefits versus costs, including social, economic, and environmental; and

7. To determine livestock stocking levels.

A resource objective monitoring plan will be written. This plan would provide a framework for choosing the study methods that would provide the information needed to issue and implement specific management decisions which affect watershed, wildlife, and range. More specific objectives would be developed in the AMPs. These objectives are site-specific and relevant to specific management applications. Monitoring efforts would focus on allotments in the Improve and Maintain category.

For the range program, methodologies are available for monitoring vegetative trend, forage utilization, actual use (livestock numbers and periods of grazing), and climate. The data collected from these studies would be used to evaluate current stocking rates, to schedule pasture moves by livestock, to determine levels of forage competition, to detect changes in plant communities, and to identify patterns for forage use.

The methodology and intensity of study that is chosen for a particular allotment would be determined by the nature and severity of the resource conflicts that are present in that allotment.

For the wildlife program, monitoring would be directed at the biotic resource components using both temporary and permanent studies. The findings from these studies can be used to monitor responses in habitat condition and trend; monitor forage availability, utilization, composition, and vigor; monitor changes in cover and habitat effectiveness; and monitor habitat management objectives.

The data collected from the monitoring and evaluation process would be analyzed and fed back into the decision making process. This would provide information regarding the effects of the land use decisions, the adequacy of mitigation methods, and so forth. If monitoring indicates that significant unexpected adverse impacts are occurring or that mitigating measures are not working as predicted, it may be necessary to amend or revise the AMPs or CRMPs. Conversely, if implementation and mitigating efforts are highly successful, an allotment could be reclassified from an I to an M Selective Management category.

Appendix J

Grazing Treatments - Systems

Treatments

A grazing treatment is the application of livestock grazing to a pasture at a specific intensity with specific timing in relation to the annual growth cycle of key range plant species, Following are general descriptions of grazing treatments.

Early Grazing - grazing occurs for 1 to 2 months prior to the beginning of the critical growth period. Livestock are utilizing primarily the previous year's growth, although some use of the early green growth occurs.

Growing Season Grazing - grazing occurs during the critical growing period, generally between April 1 and seed ripe for key grass species.

Deferred Grazing - grazing occurs after seed ripe and may include any part of the period until growth begins in the spring.

Winter - grazing occurs during late fall and winter months while plants are dormant.

Rest - no grazing during the grazing season, excluding any of the above treatments.

Grazing Systems

A grazing system consists of one or more planned livestock grazing treatments which bring about changes in or maintenance of the composition of key species to accomplish specific objectives. Key species are those plants which serve as indicators of objective accomplishment in the vegetation communities. Grazing systems which allow key species to complete the growth stages generally result in increases in, or maintenance of, key species. In the RMP area, the critical part of the growing season normally occurs from April 1 to August 15, depending on the elevation.

The following are general descriptions of grazing systems and their effects.

Early Spring Grazing System - Grazing occurs for one to two months prior to the start of the critical growing period under this system. Early spring grazing maximizes use of early maturing grasses that are not as palatable later in the season, such as cheatgrass and Sandberg's bluegrass, and also utilizes the previous year's growth of perennial plants. Because grazing ceases while adequate soil moisture is available, most perennial plants are able to produce seed and replenish most carbohydrate reserves. Early spring grazing would permit seedling establishment (Stoddart and others, 1975), and an increase in key upland herbaceous species composition is expected under this system.

Light utilization on key upland woody species is expected under early spring grazing. Consequently, a long-term increase in composition of these species would occur in areas where a potential for increase exists because plant vigor and reproduction would be maintained.

Key woody and herbaceous riparian vegetation would increase in composition under this system. Better distribution of livestock because of cool weather, abundant green upland forage, and more water sources would lessen use on riparian vegetation. Regrowth after grazing would occur because of adequate soil moisture in the riparian areas.

Spring/Summer Grazing System - Grazing occurs every year during the critical part of the growing season under this system. Under stocking rates designed to achieve moderate levels of utilization on most areas, factors such as rough terrain, location of fences and water, and the type of vegetation often prevent uniform patterns of grazing. Heavy grazing inevitably would occur on some portions of an allotment, and light use would occur in other areas. A decrease in native, key upland herbaceous and woody species is expected on those areas within an allotment that receive heavy utilization--primarily areas adjacent to water developments, riparian areas, and flat valley bottoms. Spring/summer grazing at the Squaw Butte Experiment Station in central Oregon, where stocking rates were designed to achieve a moderate level of grazing use, resulted in heavy utilizaltion of 37% of the range. Over an ll-year period, this produced a change in species composition toward dominance by less palatable species such as Sandberg's bluegrass (Hyder 1951). Most researches (such as Hyder 1951) agree that heavy use levels under a spring/summer system result in lowered vigor and a decrease in composition of most key herbaceous and woody upland plants. Moderate grazing levels may somewhat reduce plant vigor, but the composition of most key species would be maintained.

Although this is not the most desirable system for native key species, crested wheatgrass can perpetuate itself under a slightly modified spring/summer grazing system. Research indicates that crested wheatgrass produces more photosynthetic tissue per unit volume of vegetation than bluebunch wheatgrass and can replenish root reserves much more rapidly than native grasses (Miller 1983). Miller also found that if grazing does not take place until after May 15 in central Oregon, crested wheatgrass will store adequate root reserves to retain vigor through the grazing period. Therefore, the spring/summer system is proposed mostly for use on seeded pastures.

Decreases in key woody and herbaceous species are expected to occur in riparian areas that are accessible to livestock under spring/summer grazing. Livestock prefer green forage. Consequently, as upland herbaceous species become dry in late summer, livestock begin grazing green herbaceous and woody species in accessible riparian areas, and heavy utilization generally occurs.

Deferred Grazing System - The deferred system allows grazing after most of the upland herbaceous key species have reached seed ripe stage and replenished carbohydrate reserves. The composition of key upland herbaceous species such as Idaho fescue and bluebunch wheatgrass are expected to increase.

Moderate utilization of upland woody species encourages growth of additional twigs and therefore increases forage production. Reproductive capacity, on the other hand, is slightly decreased over the years because increased twig growth reduces the development of flowers and fruits, but long-term composition is not expected to change (Garrison 1953 Cited by Stoddart, Smith, and Box 1975, p.135). Heavy utilization levels under the deferred grazing system would greatly inhibit reproduction and decrease the composition of upland woody key species.

Livestock would concentrate in accessible riparian areas under deferred grazing because of the availability of green forage and water and hot temperatures in late summer. This concentration results in heavy utilization of riparian herbaceous and woody species. The composition of key woody riparian species would decrease under this system because grazing would occur during the majority of the critical growth period for these species, particularly willow. Herbaceous riparian species composition would not change because deferred grazing would allow sufficient plant growth to sustain root reserves.

Winter Grazing System - Grazing occurs during late fall and winter months while range plants are dormant. Winter grazing maximizes use of shrubs, which have higher availability and nutritional value in the winter than herbaceous species. Since the growing points on many shrubs are elevated and subject to grazing, the shrub component of the vegetation community would be expected to decrease under moderate or heavy grazing use. Since livestock grazing would cease prior to initiation of growth of herbaceous species, increases in composition of perennial forbs and grasses would result under all levels of livestock use.

Deferred Rotation Grazing System - Under deferred rotation, one or more years of grazing use during the critical growing period are alternated with a year or more of grazing after the seeds of the key herbaceous species ripen and carbohydrate reserves have been stored. At moderate utilization levels, this system would allow adequate root storage, and an increase in key herbaceous species would occur. Under heavy utilization levels, root storage during the year of deferment would only be adequate to offset depletion that would occur during the year of season long use, and herbaceous key species composition would not be expected to change. Woody key species composition in upland areas would not change under moderate utilization and would decrease at heavy utilization levels (refer to discussion of deferred grazing) unless at least two years pass between deferred treatments.

The composition of woody species in riparian areas would decrease under this system if deferred treatment is used in alternate years. However, if two or more years pass between deferred treatments, woody riparian species would be maintained. Concentrations of livestock in riparian areas would result in heavy utilization of woody riparian species during their critical growth period. For herbaceous riparian species, benefits from rest periods would be offset by impacts from the periods of use, and composition would remain unchanged.

Rest Rotation Grazing System - Rest rotation grazing alternates one or more years of complete rest with other grazing treatments. The length of the rotation cycle and number of grazing treatments depend on the number and size of pastures in the grazing system. Three of the simplest rest rotation systems are discussed.

The first type of rest rotation alternates one year of

spring/summer grazing with one year of rest. Herbaceous and woody upland species would not change in composition at heavy use levels because the year of rest provides a recovery period from the year of summer long utilization. At light or moderate utilization levels, these species would increase in composition. Riparian key species composition would be maintained at existing levels because the heavy utilization made on these plants during summer long grazing would be offset by the year of rest.

The second type of rest rotation alternates one year of early spring grazing with one year of rest. This system has the advantages of the early spring grazing treatment and one full year of rest for plant reproduction. No grazing would be done during the critical growing period.

The third rest rotation system alternates one year of grazing after seed ripe and one year of complete rest. Under this system, upland herbaceous key species would not be grazed during the critical growing period. This would result in improved vigor, increased seed production, and seedling establishment, which would increase key species composition.

These are examples of the more simple systems. Various combinations of the treatments can be incorporated depending upon the needs of the plants, livestock management, topography, and so forth.

Grazing Systems Available Under All Alternatives

Spring/summer grazing systems would be available for consideration under all alternatives, where crested wheatgrass seedings are proposed. Crested wheatgrass seedings respond well to properly designed spring/summer grazing systems.

Grazing Systems Available Under Commodity Production Alternative

Several I allotments contain crucial deer winter range. It is important to maintain browse production on these allotments. Under the commodity production alternative, forage utilization would be allowed at a heavy (70% level. As explained above, deferred, winter, and spring/summer grazing systems would be detrimental for upland woody species under a heavy utilization level. The other systems discussed above would be available for consideration in these allotments for Alternative A.

For the other I allotments which do not contain crucial deer winter range, all grazing systems except spring/summer would be available for consideration. These allotments would be managed to maintain key upland herbaceous species to allow heavy use by livestock. As discussed above, spring/summer systems would be detrimental to these species at heavy use levels.

Grazing Systems Available Under Preferred Alternative

At a moderate level of utilization (50 /), upland woody species for the I allotments containing crucial deer winter range could be maintained or enhanced as explained above under all systems except winter and spring/summer.

For the other I allotments which do not contain crucial deer winter range, all grazing systems except spring/summer would be available for consideration. These allotments would be managed to maintain and/or improve key upland herbaceous species to provide a variety of livestock and wildlife uses.

Grazing Systems Available Under Protection Alternative

Under a light level of utilization (30 /), winter and spring/summer systems may still impact upland browse species in the I allotments containing crucial deer range because of localized concentrations of livestock grazing. Therefore, these systems would not be considered for these allotments.

Since the I allotments would be managed for maximum plant diversity and riparian potential, spring/summer and deferred systems would not be acceptable since livestock would concentrate in riparian areas and areas adjacent to water. Other systems would be available for consideration, since light use levels in conjunction with rest during critical growing periods would allow increases in plant diversity and riparian potential.

Appendix K

Range Developments

The following is a discussion of typical design features and construction practices for range improvements and treatments proposed in this plan (Table K-l for improvements and treatments by I allotment). There are many special design features that can be made part of a project's design which are not specifically discussed in this Appendix. One example of a special design feature would be the use of a specific color of fence post to blend with the surrounding environment, thereby mitigating some of the visual impact of the fence. These mitigating design features will be developed, if needed, for individual projects at the time an environmental analysis is completed.

Structural Improvements

Fences

Fences would be constructed to provide exterior allotment boundaries, divide allotments into pastures, protect streams and riparian zones, and control livestock. Most fences would be three or four wire and steel posts with intermediate wire stays. Existing fences that create wildlife movement problems would be modified. Proposed fence lines would not be bladed or scraped. Gates or cattleguards (gates with cattleguards) would be installed where fences cross existing roads. For any fences in wildlife migration areas, the need for let down fences to allow passage of wildlife would be analyzed. These fences would be let down when livestock are not present.

Water Impoundments

Reservoirs, including dugouts and waterholes, and catchments would be constructed with earth moving machinery. The essential steps in constructing a dam for a reservoir are the excavation of a keyway, backfilling a core of non-permeable material and placing other fill to a prescribed height and slope. Generally, all fill material is excavated on-site. Dugouts are very small reservoirs whose dams do not have a keyway and core. Depending upon feasibility, some reservoirs with a fill of over 15 feet would be fenced and water piped to a trough or waterhole. Waterholes are excavated holes in non-permeable material with the soil placed adjacent to the hole. Catchments are rainfall catching projects consisting of a fenced watershed apron and an impermeable waterhole, bag, tank, or trough. Catchments may have large aprons for livestock or very small ones for wildlife guzzlers.

Spring Development

Springs would be developed or redeveloped using a backhoe to install a buried collection system, usually consisting of drain tile or perforated pipe and a collection box. A short pipeline could be installed to deliver water to a trough for use by livestock and wildlife. Ramps, rocks, or floatboards would be provided in all water troughs for small birds and mammals to gain access to and/or escape from the water. Normally the spring area and the overflow are fenced to exclude livestock following development.

New spring developments and new reservoirs would cause a permanent decrease in upland key species composition on 5 to 10 acres surrounding the new water source due to heavy utilization and trampling by livestock concentrating in the area. As springs are developed, water would be diverted to livestock water troughs, and fencing would protect riparian vegetation where significant overflow occurs. Consequently, a new increase would occur over the long-term in both woody and herbaceous riparian key species at springs.

Pipelines

Wherever possible, water pipelines would be buried. Most pipelines would have water troughs and sometimes storage tanks.

Wells

Well sites would be selected based on geologic reports that predict the depth to reliable aquifers. All applicable State laws and regulations that apply to the development of ground water would be observed.

Nonstructural Improvements

Vegetation Manipulation

Vegetation manipulation (brush control and brush control with seeding) is proposed primarily in portions of the big sagebrush vegetation type where significant improvement in the range condition rating would require more than 15 years using grazing management alone.

Vegetation manipulation projects would be designed using irregular patterns, untreated patches, and so forth, to provide for optimum edge effect for visual and wildlife considerations. Layout and design would be coordinated with Washington State Department of Game biologists.

BrushControl

The proposed methods of brush control are burning, brushbeating, or plowing of big sagebrush outside of important deer wintering areas. Burning would temporarily reduce big sagebrush because big sagebrush does not resprout following fire. The effect of burning on perennial bunchgrasses varies with the intensity of the fire, season of the burn, and the species of grass in the burn area. The composition of Sandberg's bluegrass, bluebunch wheatgrass, and cheatgrass, where present, would increase on areas proposed for burning. Several studies in Idaho indicate that fall burning does not harm most perennial herbaceous species (Britton 1978). Sites with Idaho fescue or bitterbrush would not be burned since these species are easily damaged by fire.

Seeding

Seeding would be accomplished by use of the rangeland drill in most cases. Broadcast seeding would occur on small disturbed areas, rough terrain, and rocky areas. Preparation for seeding (brush and cheatgrass control) would be by burning or mechanical treatment. Based on observations of existing seedings in the RMP area and studies of similar areas in Oregon and Washington, crested wheatgrass would comprise 50 to 90% of the seeded area. Species composition following any treatment would vary according to the success of the brush and cheatgrass control, the survival of other species in the seed mixture, and the amount of precipitation in the year following seeding.

It is anticipated that the existing road and trail system would provide access for range improvement construction.

It is assumed that normal maintenance such as replacement of pipeline sections, fence posts, and retreatment of vegetation manipulations would occur.

Standard Operating Procedures

The following procedures would be followed in the construction of all management facilities and for vegetation manipulations.

1. Specific proposed projects and alternatives to the proposed actions would be evaluated individually through the environmental analysis process to determine whether they would have signficant adverse environmental impacts.

2. To comply with the National Historic Preservation Act of 1966, 36 CFR 800, and Executive Order 11593, all areas where ground is to be disturbed by range developments would be inventoried for prehistoric and historic features. Where feasible, all sites found by this inventory would be avoided.

If sites are found to be eligible for the national register and cannot be avoided, a determination of the effect of the project on the site(s), including including appropriate mitigating measures if necessary, would be done in consultation with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation. No action affecting the site would be taken until the Advisory Council and SHPO have had the opportunity to make comments.

If buried cultural remains are encountered during construction, the operator must discontinue construction until the BLM evaluates the discovery and determines the appropriate action.

3. No action would be taken by the BLM that could jeopardize the continued existence of any Federally listed threatened or endangered plant or animal species. An endangered species clearance with the U.S. Fish and Wildlife Service (FWS) would be required before any part of the Preferred Alternative or other alternatives would be implemented that could affect an endangered species or its habitat.

In situations where data are insufficient to make an assessment of proposed actions, surveys of potential habitats would be made before a decision is made to take any action that could affect threatened or endangered species. Should the BLM determine that there could be an effect on a Federally listed species, formal consultation with the United States Fish and Wildlife Service (FWS) would be initiated. In the interim period before formal consulatation, the BLM would not take any action that would make an irreversible or irretrievable commitment of resources that would foreclose the consideration of modifications or alternatives to the proposed action. When the FWS opinion is received, if it should indicate the action would be likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical

habitat, the action would be abandoned or altered as necessary.

The BLM also would comply with any State laws applying to animal or plant species identified by the State as being threatened or endangered (in addition to the Federally listed species).

4. All actions would be consistent with the BLM's Visual Resource Management criteria. The management criteria for the specific visual class would be followed.

5. In crucial wildlife habitat (winter ranges, fawning/calving areas, strutting grounds, and the like), construction work on projects would be scheduled during seasons when the animals are not concentrated to avoid or minimize disturbances.

6. Surface disturbance at all project sites would be held to a minimum. Disturbed soil would be rehabilitated to blend into the surrounding soil surface and reseeded as needed with a mixture of grasses, forbs, and browse as applicable to replace ground cover and reduce soil loss from wind and water erosion.

7. Analysis of cost effectiveness would be done on an Allotment Management Plan (AMP) basis prior to the installation of any management facility or land treatment.

8. Generally all areas where vegetative manipulations occur would be totally rested from grazing during at least two growing seasons following treatment.

9. All land treatment projects on crucial wildlife ranges would be limited in size, where appropriate, by the cover requirements of wildlife.

(Insert Range Improvement Tables)

Table K-l
Range Improvements by Allotment (I Category Allotments Only)

Production Alternative A

Management Area	Allotment No.	Seeding (Acres)	Brush Control (Acres)	Fence (Miles)	Spring Developments (No.)	Pipelines Miles	Catchments (No.)	Cattle-guards -(No.)	Stock Tanks (No)	Wells (No)
Similkameen	0701	47	0	1.5	0	0	3	0	0	0
	0704	0	0	3.5	3	0	0	2	3	0
	0705	0	0	0.0	3	0	0	4	3	0
	0707	77	0	2.0	2	0	0	0	2	0
Subtotal		124	0	7.0	8	0	3	6	8	0
Conconully	0735	0	0	2.0	0	0	0	0	0	0
	0737	0	0	0.0	1	0	0	0	1	0
Subtotal		0	0	2.0	1	0	0	0	1	0
Douglas Creek	0778	0	61	5.0	1	1.0	0	0	2	0
Saddle Mountain	0806	682	0	2.5	0	0.5	0	0	2	0
	0808	10	167	5.0	0	3.0	0	0	4	0
Subtotal		692	167	7.5	0	3.5	0	0	6	0
Badger Slope	0540	287	0	5.0	2	3.0	0	0	6	1
	0544	0	0	2.0	1	0.0	0	0	2	1
Subtotal		287	0	7.0	3	3.0	0	0	8	2
North Stevens	0683	0	0	1.0	1	0	0	0	1	0
Juniper Forest	0535	1,668	0	0.5	0	0	0	0	1	1
	0536	1,730	0	0.0	0	0	0	0	1	1
Subtotal		3,598	0	0.5	0	0	0	0	2	2
Scattered Tracts	0721	0	0	0.5	0	0.5	0	0	2	0
	0846	0	0	1.5	1	0.0	0	0	1	0
Subtotal		0	0	2.0	1	0.5	0	0	3	0
Grand Total		4,701	228	32.0	15	8.0	3	6	31	4

Table K-l
Range Improvements by Allotment (I Category Allotments Only)

Proposed RMP Alternative B

Management Area	Allotment No.	Seeding (Acres)	Brush Control (Acres)	Fence (Miles)	Spring Develop-ments (No.)	Pipelines Miles	Catchments (No.)	Cattle-guards (No.)	Stock Tanks (No.)	Wells (No.)
Similkameen	0701	47	0	1.5	0	0	3	0	0	0
	0704	0	0	3.5	3	0	0	2	3	0
	0705	0	0	0.0	3	0	0	4	3	0
	0707	47	0	2.0	2	0	0	0	2	0
Subtotal		94	0	7.0	8	0	3	6	8	0
Conconully	0735	0	0	2.0	0	0	0	0	0	0
	0737	0	0	0.0	1	0	0	0	1	0
Subtotal		0	0	2.0	1	0	0	0	1	0
Douglas Creek	0778	0	0	5.0	1	1	0	0	2	0
Saddle Mountain	0806	593	0	2.5	0	0.5	0	0	2	0
	0808	0	167	5.0	0	3.0	0	0	2	0
Subtotal		593	167	7.5	0	3.5	0	0	4	0
Badger Slope	0540	257	0	5.0	2	3	0	0	3	0
	0544	0	0	2.0	1	0	0	0	1	0
Subtotal		257	0	7.0	3	3	0	0	4	0
North Stevens	0683	0	0	1.0	1	0	0	0	1	0
Juniper Forest	0535	0	0	0.5	0	0	0	0	1	0
	0536	0	0	0.0	0	0	0	0	1	1
Subtotal		0	0	0.5	0	0	0	0	2	1
Scattered Tracts	0721	0	0	0.5	0	0.5	0	0	2	0
	0846	0	0	1.5	1	0.0	0	0	1	0
Subtotal		0	0	2.0	1	0.5	0	0	3	0
Grand Total		944	167	32.0	15	8.0	3	6	25	1

Table K-l (continued)
Range Improvements by Allotment (I Category Allotments Only)

Protection Alternative C

Management Area	Allotment No.	Seeding (Acres)	Brush Control (Acres)	Fence (Miles)	Spring Developments (No.)	Pipelines (Miles)	Catchments (No.)	Cattle-guards (No.)	Stock Tanks (No.)	Wells (No.)
Similkameen	0701	0	0	1.5	0	0	3	0	0	0
	0704	0	0	3.5	3	0	0	2	3	0
	0705	0	0	0.0	3	0	0	4	3	0
	0707	0	0	2.0	2	0	0	0	2	0
Subtotal		0	0	7.0	8	0	3	6	8	0
Conconully	0735	0	0	2.0	0	0	0	0	0	0
	0737	0	0	0.0	1	0	0	0	1	0
Subtotal		0	0	2.0	1	0	0	0	1	0
Douglas Creek	0778	0	0	5.0	1	1.0	0	0	2	0
Saddle Mountain	0806	0	0	2.5	0	0.5	0	0	2	0
	0808	0	0	5.0	0	3.0	0	0	2	0
Subtotal		0	0	7.5	0	3.5	0	0	4	0
Badger Slope	0540	0	0	0.0	2	3.0	0	0	3	0
	0544	0	0	0.0	0	0.0	0	0	0	0
Subtotal		0	0.0	0	2	3.0	0	0	3	0
North Stevens	0683	0	0	1.0	1	0	0	0	1	0
Juniper Forest	0535	0	0	0.5	0	0	0	0	1	0
	0536	0	0	0.0	0	0	0	0	1	1
Subtotal		0	0	0.5	0	0	0	0	2	1
Scattered Tracts	0721	0	0	0.5	0	0.5	0	0	2	0
	0846	0	0	1.5	1	0	0	0	1	0
Subtotal		0	0	2.0	1	0.5	0	0	3	0
Grand Total		0	0	25.0	14	8.0	3	6	24	1

No Action Alternative D

Management Area	Allotment No.	Seeding (Acres)	Brush Control (Acres)	Fence (Miles)	Spring Develop-ments (No.)	Pipelines Miles	Catchments (No.)	Cattle-guards (No.)	Stock Tanks (No.)	Wells (No.)
Similkameen	0701	0	0	0	0	0	0	0	0	0
	0704	0	0	0	0	0	0	0	0	0
	0705	0	0	0	0	0	0	0	0	0
	0707	0	0	0	0	0	0	0	0	0
Subtotal		0	0	0	0	0	0	0	0	0
Conconully	0735	0	0	0	0	0	0	0	0	0
	0737	0	0	0	0	0	0	0	0	0
Subtotal		0	0	0	0	0	0	0	0	0
Douglas Creek	0778	0	0	5.0	1	1	0	0	2	0
Saddle Mountain	0806	0	0	2.5	0	0.5	0	0	2	0
	0808	0	0	0	0	0	0	0	0	0
Subtotal		0	0	2.5	0	0.5	0	0	2	0
Badger Slope	0540	0	0	0	0	0	0	0	0	0
	0544	0	0	0	0	0	0	0	0	0
Subtotal		0	0	0	0	0	0	0	0	0
North Stevens	0683	0	0	0	0	0	0	0	0	0
Juniper Forest	0535	0	0	0	0	0	0	0	0	0
	0536	0	0	0	0	0	0	0	0	0
Subtotal		0	0	0	0	0	0	0	0	0
Scattered Tracts	0721	0	0	0	0	0	0	0	0	0
	0846	0	0	0	0	0	0	0	0	0
Subtotal		0	0	0	0	0	0	0	0	0
Grand Total		0	0	7.5	1	1.5	0	0	4	0

Appendix L

Methodology for Environmental Analysis

Introduction

The methods described here for identifying and analyzing environmental impacts have been developed and tested in the Bureau of Land Management and elsewhere for several years. These methods greatly facilitate a systematic, interdisciplinary approach to environmental analysis. The techniques are especially effective when used in a group setting, as in interdisciplinary team meetings.

This methodology was designed to attain the three objectives of implementing regulations for the National Environmental Policy Act of 1969 (NEPA), which were (1) to reduce paperwork, (2) to reduce delay, and (3) to improve decision making. These objectives are attained by using a broad and comprehensive systematic approach to environmental analysis which moves quickly to identify and analyze in accordance with the NEPA regulations. However, a public record is maintained of all these impacts and why some were dropped. Important or significant impacts are analyzed further to the extent necessary for an informed decision.

(Use of the words "important" and "significant" above are a result of the NEPA regulations' use of "significant." Under those regulations, if impacts are "significant," an environmental impact statement is required; if not, an environmental assessment is permitted. In theory, only "significant" impacts need to be analyzed in detail; in fact, important impacts are usually noted in impact statements to eliminate the possibility of leaving out any potentially significant impacts. For a more detailed discussion, see Haug et al., 1984a and 1984b.)

Definitions

Environmental consequences, effects, or impacts are interchangeable as used here. An environmental impact is a temporal or spatial change in the ecosystem, or human environment, produced by an act of man. There are three components to an environmental impact:

1. It is a change in some indicator in the ecosystem. This implies that a present baseline condition exists for that indicator and that a change will take place in that condition. The difference between present and future conditions is the impact. Change also implies an increase or decrease in some units of measurement for that indicator, such as a magnitude and direction for that change.

2. An impact is linked to man's activities through a cause, a change agent. This distinguishes an environmental impact caused by man from changes in the ecosystem caused by forces other than man.

3. An impact has a meaning, or value, separate from the actual change itself. Depending on the context within which a change takes place, an impact can be beneficial, adverse, good, bad, and so on. These types of imprecise, judgmental, qualitative terms are often found in environmental documents with no explanation or substantiation for the evaluation. This methodology attempts to eliminate the indiscriminate use of such value judgments by using the concept of 'context.'

Context as used in the NEPA regulations is largely what determines the significance of an impact. This methodology attempts to separate the estimated fact of the impact, the change itself, from its meaning, as derived from its context. This separation greatly reduces a major source of confusion commonly found in controversies about environmental consequences. Legitimate differences of opinion about the scientific facts can be specifically addressed and recorded for public scrutiny.

The Interdisciplinary Team

Although some of the work described below can be done by team members individually, it is more efficient and effective to perform much of the analysis in meetings as a team. There is no substitute for the exchange of ideas and concerns that occurs in this type of setting. Usually, there is a somewhat painful start-up period during which the team becomes frustrated. This is because they are learning a methodology that requires a new way of looking at the problem. There are false starts, backups, and general dissatisfaction with the way things are progressing.

However, once the team gets the knack of the analysis, things fall into place quickly, and the analysis proceeds far more swiftly than it would have if each team member had tried individually to write about impacts to his or her resource. For some reason, teams generally prefer to begin with

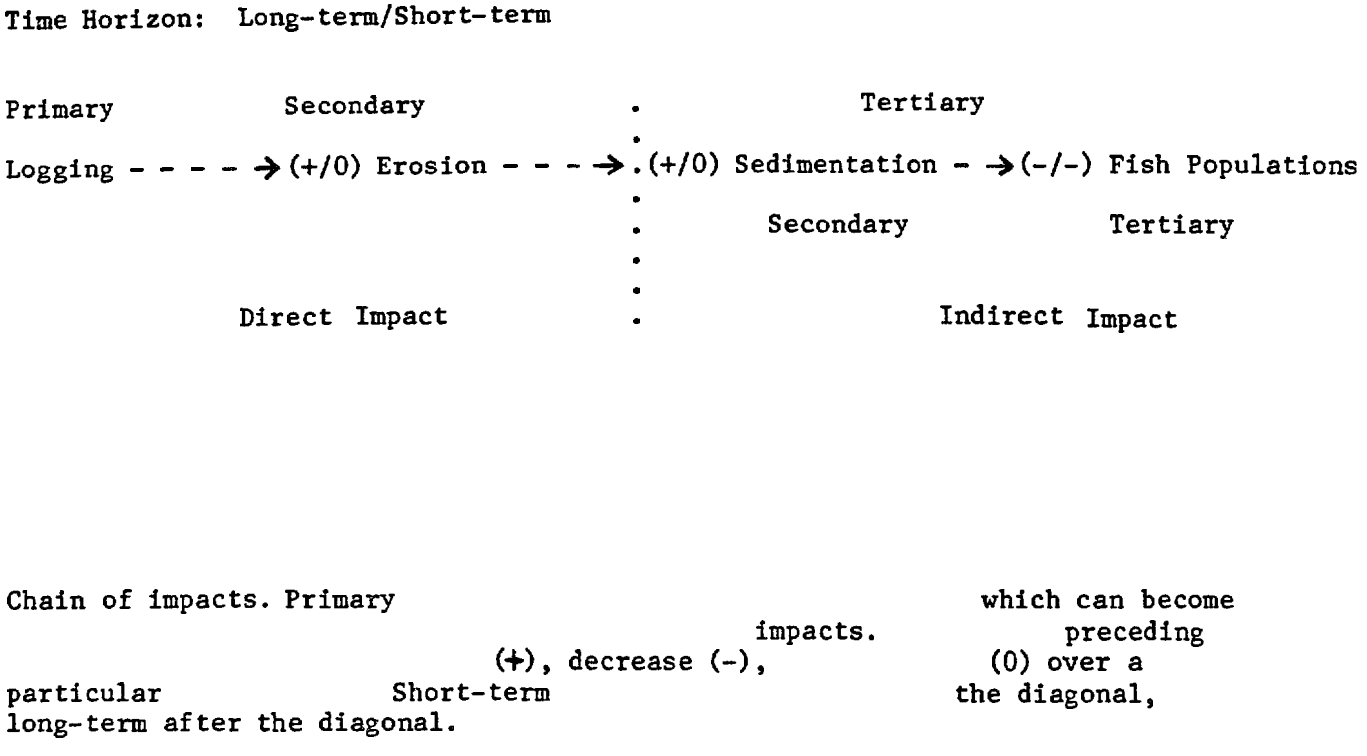
the more complicated analyses. Consequently, after they have struggled through one or two of these, several things occur. First, when the difficult ones are finished, only the simpler ones are left to analyze. Second, much of the analysis is repetitive. The same types of impacts tend to show up over and over; therefore, as the analysis proceeds, much can be cross-referenced to earlier work. Finally, the team simply gets better and becomes more efficient as it works.

Change Agents

The first step in this methodology is to identify all change agents. The list of change agents is developed from the management actions prescribed in the plan. A preliminary list can be generated by one or two team members in preparation for the meeting. This is a particularly good idea if the team is inexperienced in the methodology, for it gives the team examples of what is needed from the other members. Then, in the meeting, the management activities are reviewed, and the list is modified by the team working together.

Change agents are identified by breaking down each management activity into subactivities that directly affect resources. These activities are called primary change agents because they cause direct impacts. However, direct impacts often cause indirect impacts, and indirect impacts sometimes cause more indirect impacts in a chain or network of effects. When this happens, environmental impacts that cause other impacts are called secondary, tertiary, or higher order change agents. In other words, a primary impact which is caused by a primary change agent can become a

Figure 1 Change Agents



secondary change agent, which causes a secondary impact, and so forth (see Figure 1).

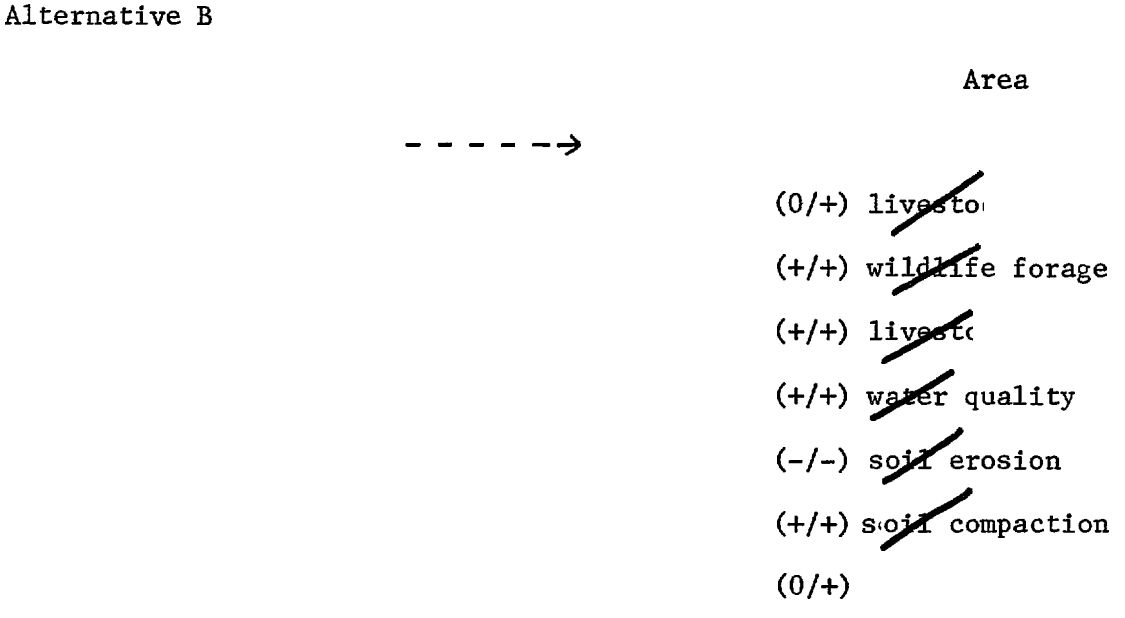
Networks

Knowledge that impacts often occur in chains or networks is used by the team to identify virtually all environmental consequences that could reasonably be expected under a management action. The team **leader** or another facilitator develops the network on a flip chart as team members call out the possible impacts (Figure 1). This is done for each management action, taking one primary change agent at a time. For example, timber harvest involves many types of activities that occur at different times during a harvesting operation. Each major activity is looked at in detail to quickly estimate the qualitative impacts that might be expected.

Arrows and +, -, and 0 symbols provide a kind of shorthand to show whether an impact is an increase, decrease, or no change in a resource.

Collectively, the team quickly identifies **all** reasonable impacts by using this method. Figure 2 illustrates one network that was generated in this RMP.

Figure 2 Networks



When team members are satisfied that all reasonable impacts have been considered, they analyze the network for places where the impacts listed are highly improbable because of required stipulations or other mitigation measures that will eliminate or minimize the impacts listed. As this part of the analysis proceeds, the team leader crosses off the arrows representing impacts that can be eliminated, using footnotes to state why a particular impact is being eliminated. It is important too that this be done by the team as a whole so that there will be an open consensus.

For record keeping, it is particularly important to copy the networks exactly as they appear from the flip charts onto file sized pieces of paper. This means including all the potential impacts as the team initially viewed them and then crossing off those that do not need to be analyzed further. This exercise provides a record of the systematic thought process the team used to identify important impacts.

Work Sheets

The next round of impact analysis uses a work sheet to look at the remaining impacts in more detail. The method is described in Haug et al. (1984). Briefly, the work sheet is designed in the form of an “impact sentence” (Figure 3). Impacts from the networks are entered on the work sheets. Change agents are the subjects, indicators are the objects, and the verbs are “increase” and “decrease.” Space is provided for units of measurement, quantities, and probabilities to be included as qualifiers, or modifiers, for each impact. The last column is for the “context” of the impact, that is, for any further remarks concerning the relative importance, duration, timing, spatial extent, intensity, risks, thresholds, and so on, surrounding any single impact.

Figure 3 Environmental Consequences Worksheet

				Change			
Change agent	I +	D -	Indicator	Estimated quantity	Units of measurement	P	Context (Relative importance, duration, timing, spatial extent, intensity, risks, thresholds, etc.)
(Subject>	(Verb)		(Object)	(	Modifiers	)	(Modifying clause)

Figure 1. Impact sentence from one line of environmental consequences worksheet. P=probability.

Different lines on the work sheets provide a means for tracking impacts from primary through secondary, tertiary, and higher order chains of cause and effect (Figure 4).

At each level, resource specialists are encouraged to quantify their estimates as much as possible.

Ideally, work sheets are filled out, at least initially, by the specialists working as an interdisciplinary team. Often it is necessary for some to take the work sheets back to their desks for further analysis in order to estimate the numbers accurately, but the initial efforts should be done as a team. When work sheets are filled out, and each team member has reviewed them from the perspective of his or her own resource speciality, a final working session should be held for the entire team. During this session the work sheets are reviewed with an eye to eliminating from further discussion all but the most important impacts. These are usually impacts that are unavoidable and not able to be mitigated effectively. Reasons for eliminating any impacts should be noted in footnotes or in the "context" column. Impacts that remain are those that are discussed in the environmental impact statement.

Once the team agrees upon those impacts that need to be discussed in the EIS, work sheets can be turned over to a writer/editor for translation into prose for the environmental document. Because the sheets contain impact sentences designed and strutured to read like an actual English sentence, writing the environmental consequences section becomes fairly routine.

After the environmental consequences section is written, work sheets can be filed with the impact networks, or they can be inserted into an appendix in the EIS. Either way, they provide a record available for public scrutiny of what was considered, what was dropped from further consideration, and what was analyzed in detail, and why.

Figure 4 Environmental Consequences Worksheet

ENVIRONMENTAL CONSEQUENCES WORKSHEET

Alternative A Major Prescription or Action Land Treatment

Location Allotment 701 Affected Resource(s) Range Date June 13 Page 1 of 63

Change agent	I +	D -	Indicator	Change: Estimated quantity	Change: units of measurement	P	Context (Relative importance, duration, timing, spatial extent, Intensity, risks, thresholds, etc.)
Seeding	+		Ecological Condition	47	acres	.7	Seeding converts early seral to late seral
Seeding	+		Perennial Grass Habitat	47	acres	.6	Should increase local habitat diversity and production, locally important
Change in Ecol. Cond.	+		Livestock Forage	12	AUMs	.7	Benefits to be realized in long-term

References

Haug, P.T., R.W. Burwell, G. Yeager, A. Stein and B.L. Bandurski,
1984a. A Systematic Interdisciplinary Language for Environmental Analysis Under the National Environmental Policy Act. Journal of Environmental Management 18:1-13.

Haug, P.T., R.W Burwell, A. Stein, and B.L. Bandurski.
1984b. Determining the Significance of Environmental Issues Under the National Environmental Policy Act. Journal of Environmental Management 18:15-24.

Appendix M
Existing and Expected Long-Term Ecological Conditions by I Allotment (Acres).

Management Area	Allotment Numbers	Condition Class	Existing Situation	Alternatives A Production	B Preferred	C Protect	D No Action
Similkameen	0701	Climax	0	0	0	0	0
		Late Seral	0	47	47	0	0
		Middle Seral	0	0	93	93	0
		Early Seral	1,375	1,328	1,235	1,282	1,375
		Unclassified	476	476	476	476	476
		Forage Production (Livestock AUMS)	246	191	137	81	246
	0704	Climax	170	170	170	170	170
		Late Seral	583	583	1,604	1,604	554
		Middle Seral	1,359	1,359	338	338	1,322
		Early Seral	1,729	1,729	1,729	1,729	1,795
		Unclassified	766	766	766	766	766
		Forage Production (Livestock AUMs)	708	838	668	379	708
	0750	Climax	0	0	0	0	0
		Late Seral	114	114	1,199	1,199	108
		Middle Seral	1,085	1,085	0	0	1,037
		Early Seral	322	322	322	322	376
		Unclassified	801	801	801	801	801
		Forage Production (Livestock AUMs)	283	344	281	176	283
	0707	Climax	211	211	211	211	211
		Late Seral	21	98	259	212	20
		Middle Seral	202	202	11	11	193
		Early Seral	910	833	863	910	920
		Unclassified	2,398	2,398	2,398	2,398	2,398
		Forage Production (Livestock AUMs)	624	366	271	16	624
Conconully	0735	Climax	0	0	0	0	0
		Late Seral	50	50	244	244	47
		Middle Seral	608	608	414	414	581
		Early Seral	0	0	0	0	30
		Unclassified	62	62	62	62	62
		Forage Production (Livestock AUMs)	144	79	73	44	144
	0737	Climax	0	0	0	0	0
		Late Seral	0	0	28	28	0
		Middle Seral	535	535	507	507	508
		Early Seral	0	0	0	0	27
		Unclassified	25	25	25	25	25
		Forage Production (Livestock AUMs)	112	157	118	70	112

Management Area	Allotment Numbers	Condition Class	Existing Situation	Alternatives A Production	B Preferred	C Protect	D No Action
Douglas Creek	0778	Climax	365	365	365	365	365
		Late Seral	2,941	3,002	3,820	3,820	3,820
		Middle Seral	929	868	50	50	50
		Early Seral	175	175	175	175	175
		Unclassified	995	995	995	995	995
		Forage Production (Livestock AUMs)	449	635	474	284	449
Saddle Mountains	0806	Climax	69	69	69	69	69
		Late Seral	1,467	2,149	7,439	6,846	1,467
		Middle Seral	5,437	5,437	58	58	5,437
		Early Seral	2,442	1,760	1,849	2,442	2,442
		Unclassified	143	143	143	143	143
		Forage Production (Livestock AUMs)	1,120	1,388	1,173	674	2,016
	0808	Climax	86	86	86	86	86
		Late Seral	1,001	1,178	1,927	1,919	951
		Middle Seral	926	759	0	8	930
		Early Seral	282	272	282	282	328
		Unclassified	2,208	2,208	2,208	2,208	2,208
		Forage Production (Livestock AUMs)	468	423	336	197	468
Badger Slope	0540	Climax	1,634	1,634	1,634	1,634	1,634
		Late Seral	1,771	2,058	2,694	2,437	1,682
		Middle Seral	669	669	3	3	723
		Early Seral	326	39	69	326	361
		Unclassified	408	408	408	408	408
		Forage Production (Livestock AUMs)	276	1,236	908	526	276
	0544	Climax	0	0	0	0	0
		Late Seral	553	553	629	629	525
		Middle Seral	76	76	0	0	100
		Early Seral	34	34	34	34	38
		Unclassified	29	29	29	29	29
		Forage Production (Livestock AUMs)	64	167	125	75	64
North Stevens	0683	Climax	0	0	0	0	0
		Late Seral	0	0	0	0	0
		Middle Seral	0	0	45	45	0
		Early Seral	674	674	629	629	674
		Unclassified	237	237	237	237	237
		Forage Production (Livestock AUMs)	152	105	79	47	152

Appendix M (continued)
Existing and Expected Long-Term Ecological Conditions by I Allotment (Acres).

Management Area	Allotment Numbers	Condition Class	Existing Situation	Alternatives A Production	B Preferred	C Protect	D No Action
Juniper Forest	0535	Climax	0	0	0	0	0
		Late Seral	0	934	50	50	0
		Middle Seral	50	50	0	0	47
		Early Seral	2,921	1,987	2,921	2,921	2,924
		Unclassified	14	14	14	14	14
		Forage Production (Livestock AUMs)	353	327	168	97	353
	0536	Climax	0	0	0		0
		Late Seral	0	865	0	8	0
		Middle Seral	0	0	247	247	0
		Early Seral	4,942	4,077	4,695	4,695	4,942
		Unclassified	96	96	96	96	96
		Forage Production (Livestock AUMs)	483	273	264	155	285
Scattered Tracts	0721	Climax	0	0	0	0	0
		Late Seral	0	0	526	526	0
		Middle Seral	559	559	33	33	531
		Early Seral	49	49	49	49	77
		Unclassified	80	80	80	80	80
		Forage Production (Livestock AUMs)	69	127	120	74	69
	0846	Climax	0	0	0	0	0
		Late Seral	130	130	148	148	123
		Middle Seral	480	480	462	462	463
		Early Seral	197	197	197	197	221
		Unclassified	170	170	170	170	170
		Forage Production (Livestock AUMs)	140	83	62	38	140

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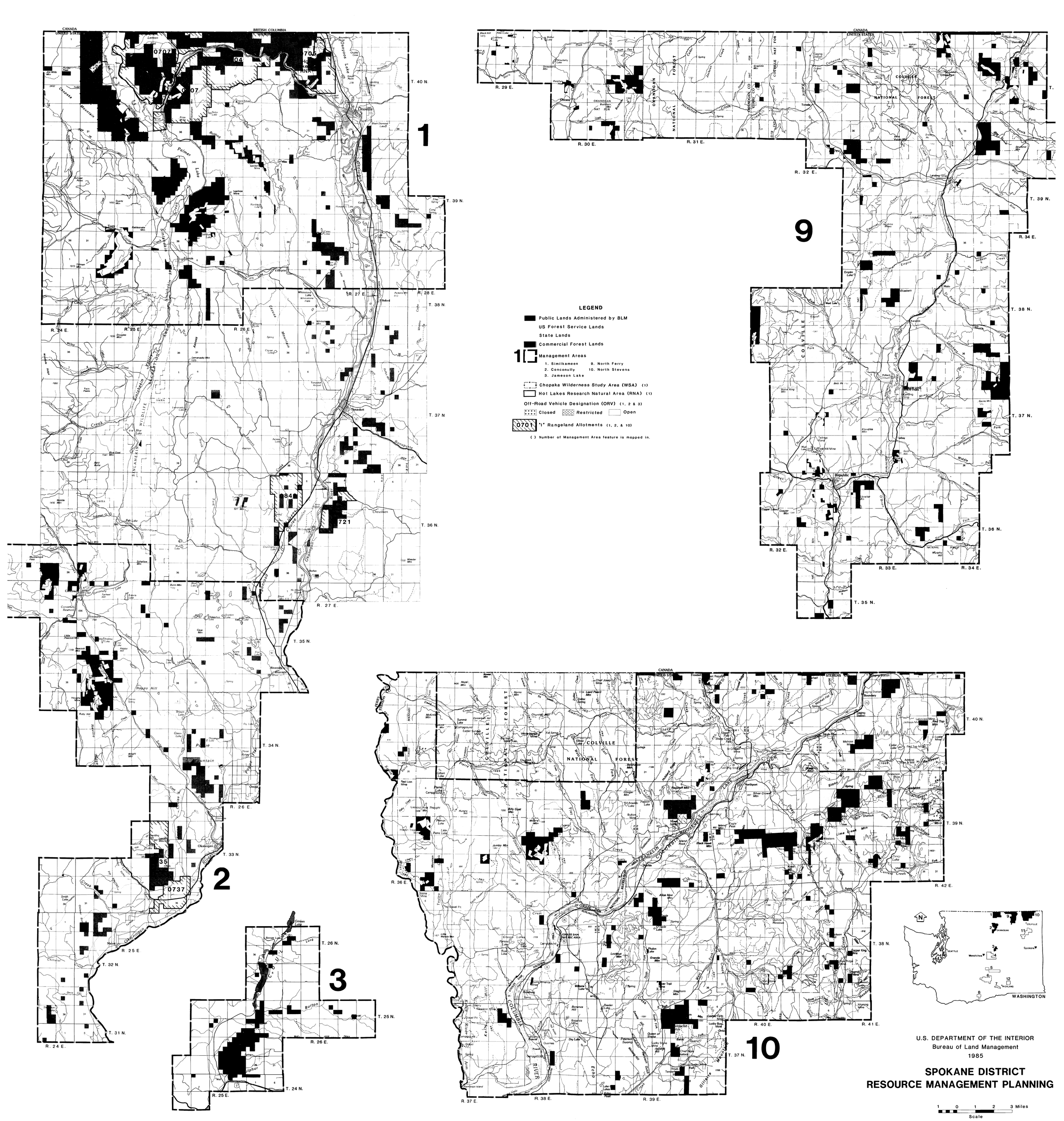

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1 0 1 2 3 Miles
Scale

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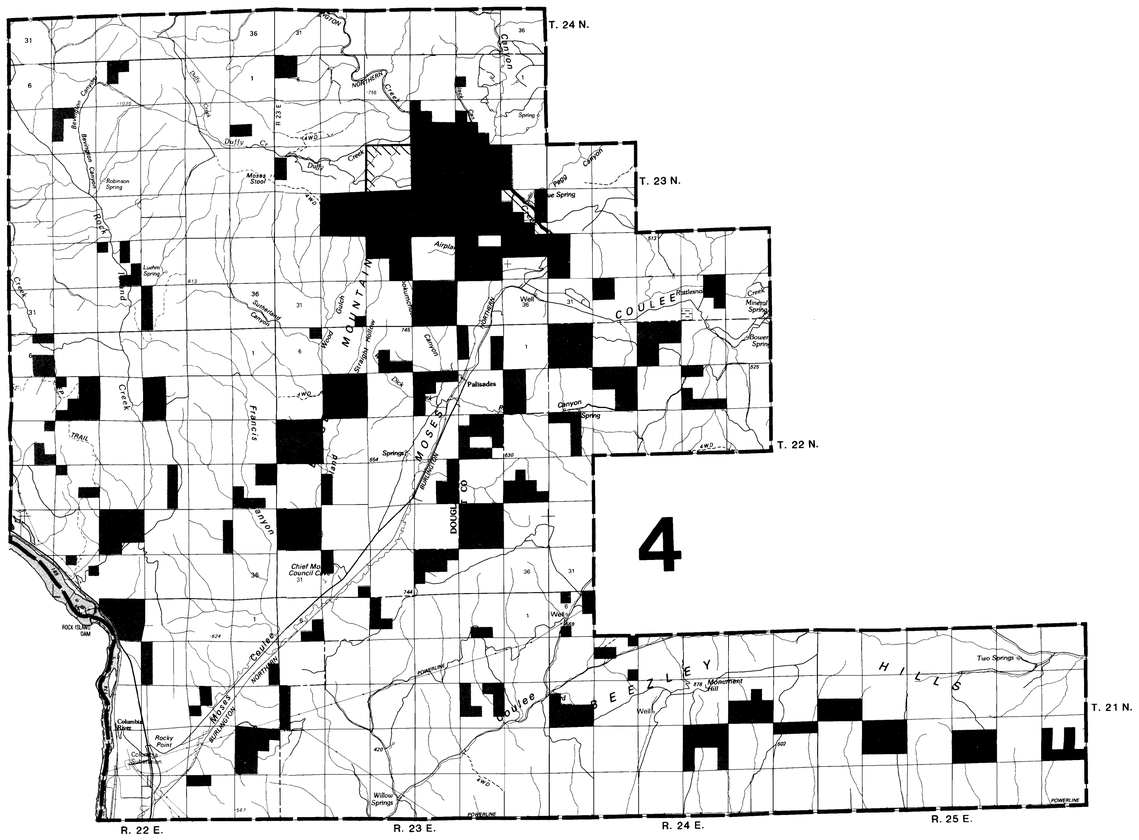
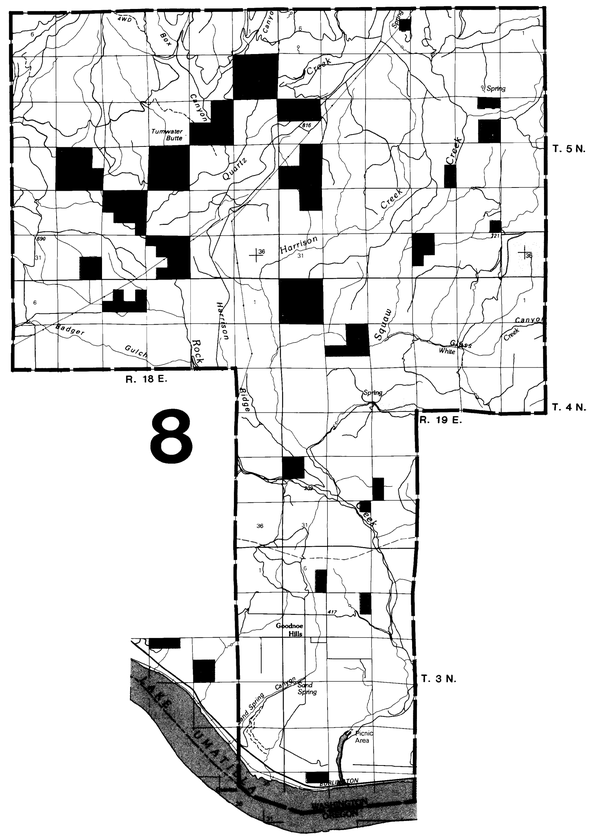
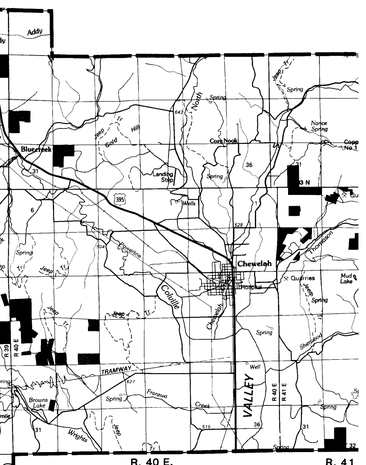
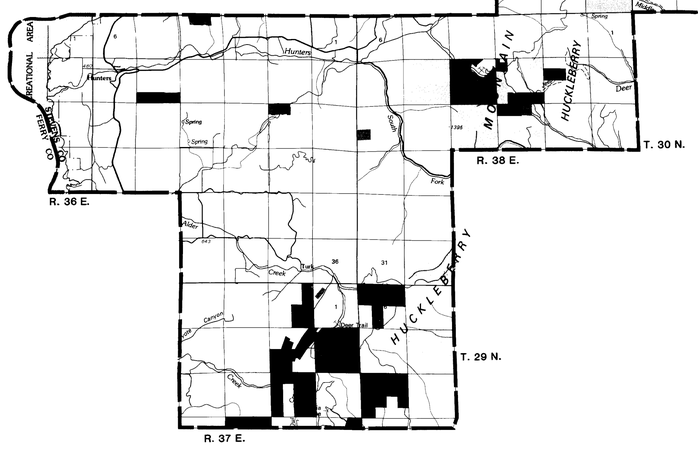
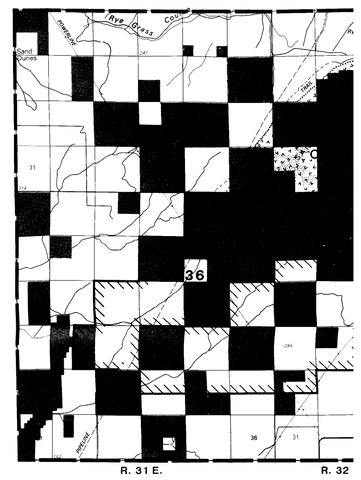
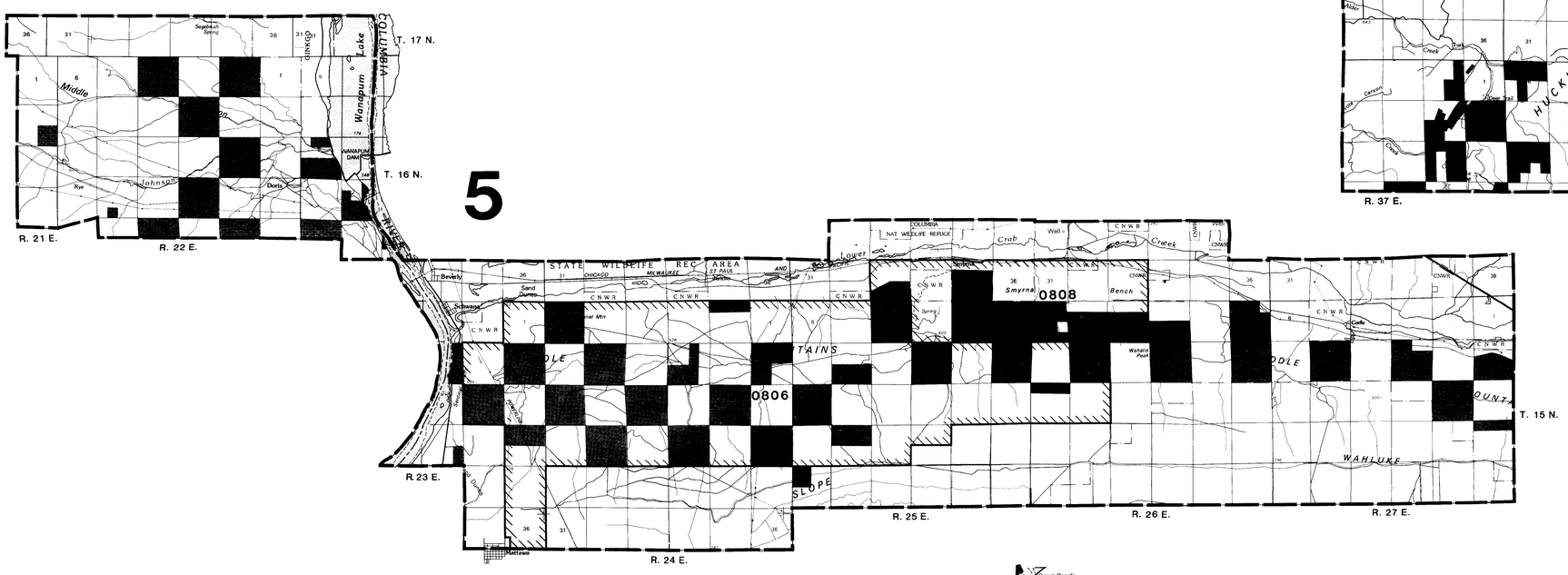


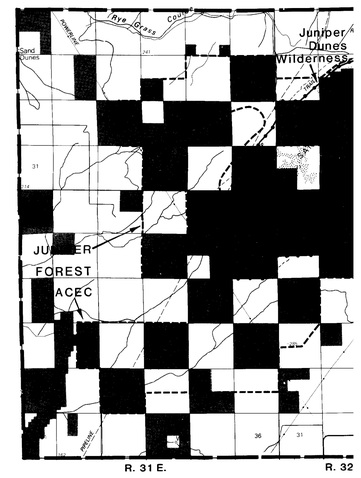


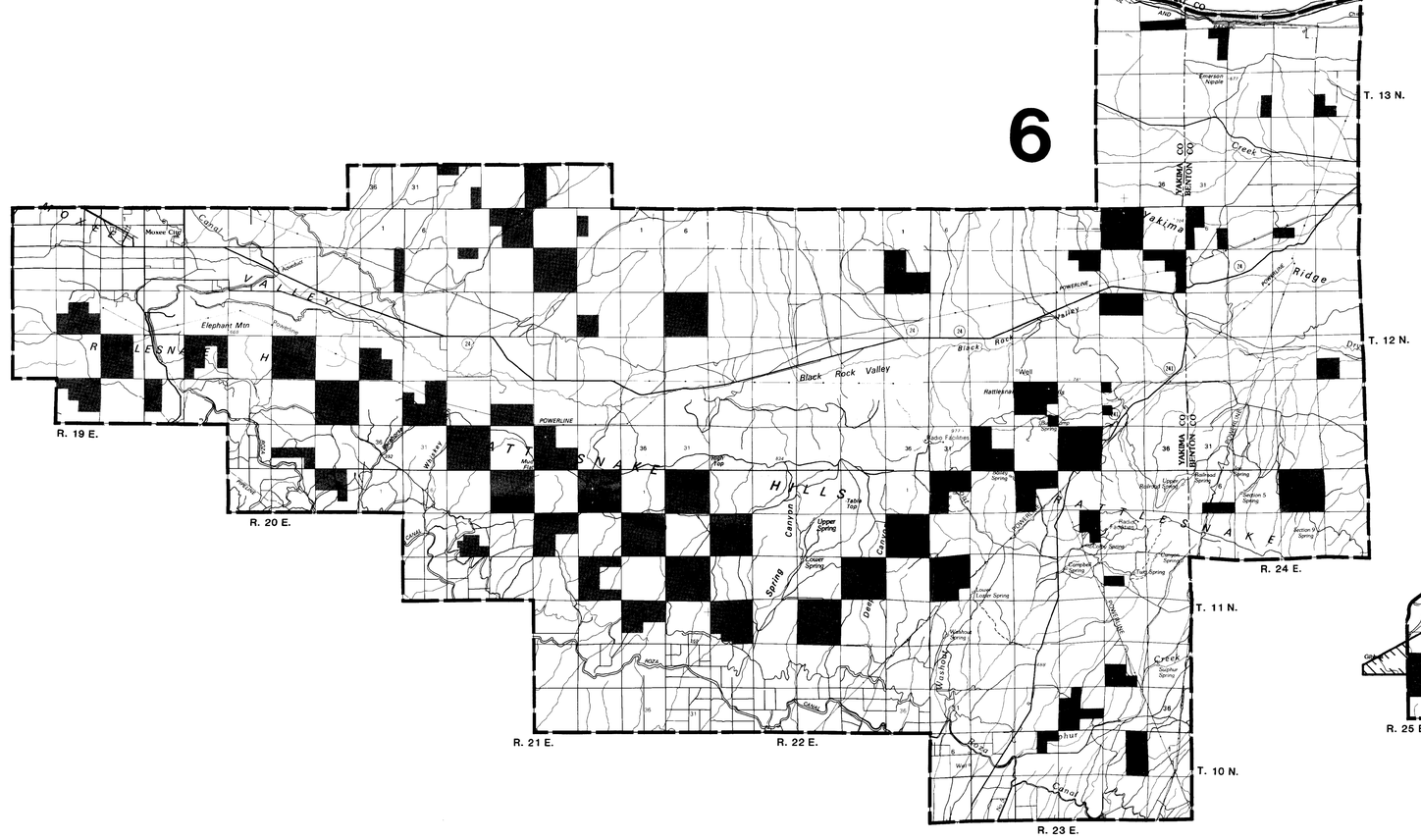


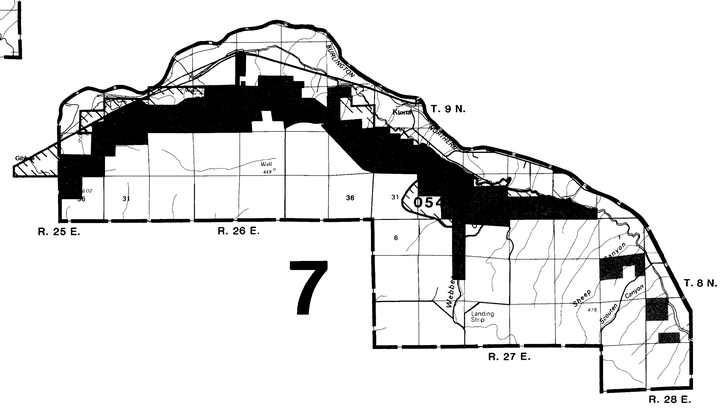








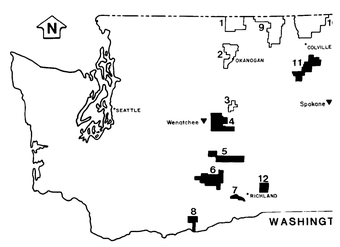




LEGEND

- Public Lands Administered by BLM
- US Forest Service Lands
- State Lands
- Commercial Forest Lands
- 4 Management Areas
  - 4. Douglas Creek
  - 5. Saddle Mountains
  - 6. Rattlesnake Hills
  - 7. Badger Slope
  - 8. Rock Creek
  - 11. Huckleberry Mountains
  - 12. Juniper Forest
- Juniper Forest Area of Critical Environmental Concern (ACEC) (12)
- Juniper Forest Outstanding Natural Area (ONA) (12)
- Juniper Dunes Wilderness (12)
- Off-Road Vehicle Designation (ORV) (4, 5, 7, 8 & 12)
  - Closed
  - Restricted
  - Open
- 0778 "I" Rangeland Allotments (4, 5, 7 & 12)

( ) Number of Management Area feature is mapped in.



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SPOKANE DISTRICT RESOURCE MANAGEMENT PLANN

1 0 1 2 3 Miles
Scale

LEGEND

- Public Lands Administered by BLM
- (Dot) Less Than 40 Acres
- ▼ Bureau of Land Management District/Area Offices
- Planning Area Boundary
- 1 Management Areas
  1. Similkameen
  2. Conconully
  3. Jameson Lake
  4. Douglas Creek
  5. Saddle Mountains
  6. Rattlesnake Hills
  7. Badger Slope
  8. Rock Creek
  9. North Ferry
  10. North Stevens
  11. Huckleberry Mountains
  12. Juniper Forest
- Cooperative Agreement Areas
- Crucial Deer Winter Range
- Mountain Goat Winter Range
- Big Horn Sheep Winter Range

Note:
BLM status is depicted for general use purpose only. Current land status, on Master Title Plats, may be obtained through BLM offices.

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SPOKANE DISTRICT
RESOURCE MANAGEMENT PLANNING AREA

10 0 10 Miles
Scale

Map 3

LEGEND

- Public Lands Administered by BLM
- (Dot) Less Than 40 Acres
- Bureau of Land Management District/Area Offices
- Bureau of Indian Affairs Lands
- US Forest Service Lands
- All Other Federal Lands
- Planning Area Boundary

Management Areas

1. Similkameen
2. Conconully
3. Jameson Lake
4. Douglas Creek
5. Saddle Mountains
6. Rattlesnake Hills
7. Badger Slope
8. Rock Creek
9. North Ferry
10. North Stevens
11. Huckleberry Mountains
12. Juniper Forest

Area of Critical Environmental Concern (ACEC)

1. Juniper Forest
2. Yakima River Islands
3. Columbia River Islands
4. Webber Canyon

ACEC's (Proposed)

1. Colokum Creek
2. Rock Island Canyon
3. Yakima River Cliff & Umtanum Ridge
4. Brewster Bald Eagle ACEC
5. Catherine Creek & Rowland Lake
6. McCoy Canyon
7. Earthquake Point
8. Roosevelt
9. Sentinel Slope

- Hot Lakes Research Natural Area (RNA & ACEC)
- Areas of Critical Mineral Potential (ACMP)
- Utility Corridors
- Juniper Dunes Wilderness

Note:
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SPOKANE DISTRICT
RESOURCE MANAGEMENT PLANNING AREA

10 0 10 Miles
Scale

Map 2