

DRAFT

# ELKO RESOURCE AREA

## Resource Management Plan and Environmental Impact Statement



U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Elko District Office Elko, Nevada





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT NEVADA STATE OFFICE

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Reno, Nevada 89520

1601  
(NV-010)

AUG 7 1985

Dear Reader:

Enclosed for your review and comment is the draft resource management plan and environmental impact statement for the Elko Resource Area in northeastern Nevada. This document outlines five alternatives for managing public lands in the Elko Resource Area. These alternatives are designed to resolve ten land use issues that were identified through public involvement during earlier stages of the planning process.

Public hearings will be held in Elko and Reno to receive oral and written testimony. The hearing in Elko will be held on October 2, 1985 at 7:30 p.m. at the Elko Convention Center, 700 Festival Way. The hearing in Reno will be held on October 3, 1985 at the Holiday Inn, 1000 E. Sixth Street also at 7:30 p.m. A written transcript of your oral presentation to be submitted at the hearing is encouraged.

Written comments should be submitted before the close of business on November 15, 1985. Comments should be sent to:

Bureau of Land Management  
Elko District Office  
ATTN: RMP Team Leader  
P.O. Box 831  
Elko, NV 89801

Following the public review and comment period, a final plan and associated final environmental impact statement will be prepared considering the comments received through the review process. An abbreviated format may be used to present this information, therefore it is suggested that you retain your copy of this draft plan and EIS for reference purposes.

A limited number of Elko Wilderness Technical Reports are available from the Elko District Office. They may be requested in writing from the address listed above.

Sincerely yours,

Edward F. Spang  
State Director, Nevada

For

Enclosure:

Encl. 1 - Draft Elko RMP/EIS



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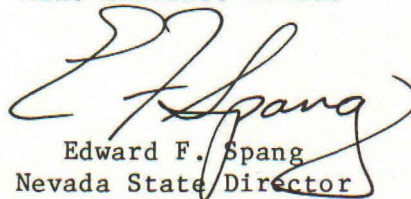
Resource Management Plan and Environmental Impact Statement

ELKO PLANNING AREA

NEVADA

Prepared by the

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Elko District Office



Edward F. Spang  
Nevada State Director

The proposed resource management plan is a long range plan to manage 3.1 million acres of public land within the Elko Planning Area. The plan has been prepared in response to Sections 202 and 603 of the Federal Land Policy and Management Act of 1976 that require the Bureau of Land Management to develop land use plans for the public lands and to study the suitability of certain lands for wilderness designation. An environmental impact statement assesses the environmental consequences of the plan.

This document is both the draft environmental impact statement for the resource management plan and the draft for a separate legislative final environmental impact statement for wilderness. A wilderness technical report containing the wilderness study area specific analyses is available upon request.

For further information contact: Rodney Harris, District Manager, 3900 East Idaho Street, P. O. Box 831, Elko, Nevada, 89801.

Date by which comments must be received: NOV 15 1985



# SUMMARY

## INTRODUCTION

The Bureau of Land Management (BLM) is proposing to implement a long-term (20 year) resource management plan (RMP) for the Elko Resource Area of the Elko District in Nevada. The RMP is being prepared to provide a comprehensive framework for future management of public lands in the resource area. This document presents both a proposed management plan (preferred alternative) and an environmental impact statement (EIS) on the plan.

The Elko Resource Area consists of three planning units, the North Fork, Buckhorn, and Tuscarora. These are combined in this document as the RMP area or planning area (Elko Resource Management Plan Area Map). The RMP area consists of approximately 5.3 million acres in the western half of Elko County and northern portions of Lander and Eureka Counties. Over 3.1 million acres (61 percent) are public lands administered by the BLM.

This RMP is focused on resolving ten issues identified early in the planning process. These include:

1. Lands and Realty
2. Corridors
3. Access
4. Recreation
5. Wilderness
6. Livestock Grazing
7. Wildlife Habitat
8. Wild Horses
9. Woodland Products
10. Minerals

## ALTERNATIVES

Five alternatives have been developed for this RMP. A preferred resource management plan and four other alternatives examine various levels of uses and solutions to problems occurring in the Elko RMP Area. These are all multiple-use oriented but each emphasizes a different balance among resources.

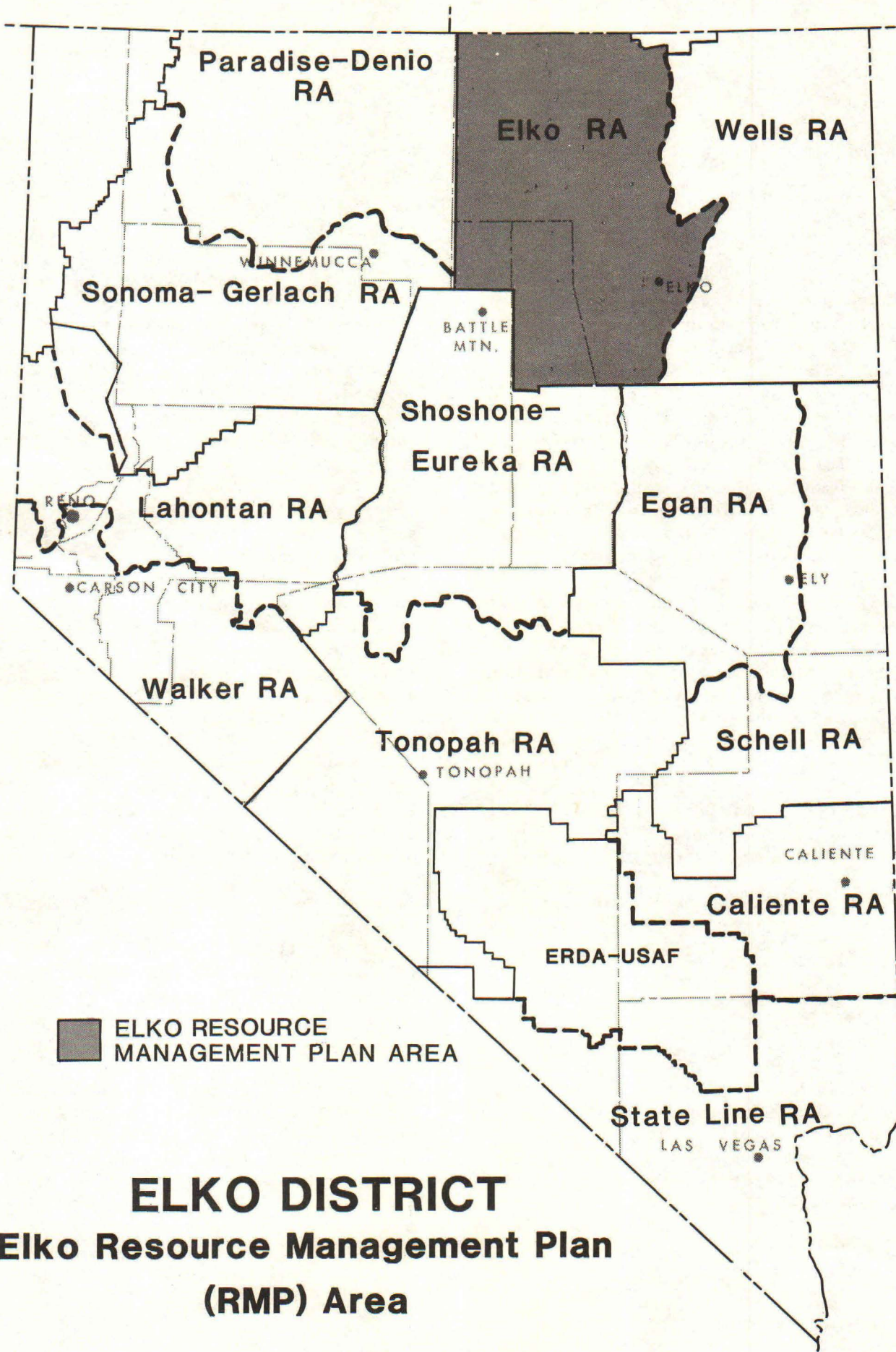
Alternative A: This alternative represents a continuation of present resource management and use levels as required in 43 CFR 1610.4-5. Actions would be taken on a case-by-case basis as circumstances warrant except for wilderness when this alternative provides for the mandatory "No Wilderness" analysis.

Alternative B: This alternative is oriented towards production of commercial resources with emphasis on livestock, minerals, land disposal, motorized recreation, woodland production, and utility corridors.

Alternative C: This alternative provides for the enhancement of fragile and unique natural resource values with emphasis on wildlife, wild horses, and wilderness. This provides for the mandatory "All Wilderness" analysis.

Alternative D: This is the preferred alternative. It provides for a mix of natural and commercial resource uses based on the relative value of those uses. It has been selected as the preferred alternative because it best meets the public's demand for goods and services while minimizing disruption of the human environment.





**ELKO DISTRICT**  
**Elko Resource Management Plan**  
**(RMP) Area**



Alternative E: This alternative was developed to provide for baseline data and a comparative analysis of the elimination of livestock grazing from public lands.

A comparative summary of the management actions and environmental consequences of each alternative is displayed in the following Summary Tables 1 and 2.



SUMMARY TABLE 1  
MANAGEMENT ACTIONS

ISSUE	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D (Preferred)	ALTERNATIVE E
Lands and Realty (Identify for disposal)	Case-by-Case	5,900 acres for community expansion; 58,320 acres for sale; and 336,000 acres available for exchange.	5,900 acres for community expansion; 212,480 acres for exchange.	5,900 acres for community expansion; 8,340 acres for sale; 243,200 acres available for exchange.	See Alternative C
Corridors (Designate/Identify)	Case-by-Case	333 miles transportation/utility lines; 276 miles planning corridors.	219 miles of transportation/utility lines. No planning corridors.	243 miles of transportation/utility lines; 130 miles planning corridors.	See Alternative C
Legal Access (Acquire)	Case-by-Case	Legal access for 56 roads (216.5 miles).	Legal access for 24 roads (72.5 miles).	Legal access for 60 roads (242 miles).	Legal access for 14 roads (50 miles).
S-4 Recreation	Maintain four SRMAs <sup>1/</sup> : (South Fork Owyhee River (3,500 ac.), Wilson Reservoir (5,440 ac.), Zunino/Jiggs Reservoir (800 ac.), and North Wildhorse Recreation Area (210 ac.)	Maintain four SRMAs: (see Alt. A); Designate two SRMAs: West Wildhorse Recreation Area (160 ac.) and Adobe Hills (21,120 ac.).	Maintain three SRMAs: South Fork Owyhee River (3,500 ac.), Wilson Reservoir (5,440 ac.), and Zunino/Jiggs Reservoir (800 ac.). Designate South Fork Humboldt River SRMA (3,360 ac.) and Wildhorse SRMA <sup>2/</sup> (5,760 ac.)	See Alternative C	See Alternative C
	Maintain entire RMP area open to ORV use.	Designate 98% RMP area open to ORVs; 2% limited to existing roads and trails.	Designate 97% RMP area open to ORVs; 3% limited to designated roads and trails.	Designate 98% RMP area open to ORVs; 2% limited to designated roads and trails.	See Alternative C

<sup>1/</sup> Special Recreation Management Area  
<sup>2/</sup> Includes North Wildhorse SRMA



SUMMARY TABLE 1  
MANAGEMENT ACTIONS

<u>ISSUE</u>	<u>ALTERNATIVE A</u>	<u>ALTERNATIVE B</u>	<u>ALTERNATIVE C</u>	<u>ALTERNATIVE D (Preferred)</u>	<u>ALTERNATIVE E</u>
Wilderness (Suitable Acres)	Recommended all Wilderness Study Areas unsuitable.	Recommend 28,386 ac. of Little Humboldt River WSA as suitable.	Recommend 66,754 ac. (all) in four WSAs as suitable.	Recommend 36,460 ac. in Rough Hills WSA & Little Humboldt River WSA as suitable.	See Alternative C
Livestock Grazing (AUMs)	Continue authorized use level which has resulted in an averaged licensed use of 305,247 AUMs.	Increase AUMs by 62% over current level, 27% over active preference. Implement AMPs on 37 Category I Allotments, 11 Category M Allotments and one Category C Allotments.	Reduce AUMs by 50% of active preference; a 37% decrease from current use levels. Implement AMPs on 9 Category I Allotments.	Initially license at existing use level (305,247 AUMs). There would be no initial change in active preference. Modify available AUMs to 396,989, a 30% increase, if monitoring supports. Implement AMPs on 22 Category I Allotments and six Category M Allotments.	Eliminate all livestock grazing from public lands.
Wildlife Habitat	Continue management for existing big game use - estimated at 20,338 AUMs for mule deer, 608 AUMs for antelope. Maintain crucial habitat.	Manage for existing numbers of big game (see Alternative A). Construct new projects in crucial wildlife habitat.	Manage for reasonable numbers of big game - 40,782 AUMs for mule deer, 1,215 AUMs for antelope, and 140 AUMs for reintroductions of big horn sheep. Construct wildlife projects to improve all habitat.	Manage for reasonable numbers of big game (See Alternative C). Construct wildlife projects to improve all habitat.	Manage habitat for increased numbers of big game beyond reasonable numbers (80,000-100,000 AUMs).
	Continue management on 11 miles (330 ac.) of riparian/stream habitat for T&E species.	Manage 52 miles (1,560 ac.) of riparian/stream habitat for T&E species.	Manage 191 miles (5,730 ac.) of riparian/stream habitat for 30% improvement.	Manage 116 miles (3,480 ac.) of riparian/stream habitat for 30% improvement.	



SUMMARY TABLE 1  
MANAGEMENT ACTIONS

ISSUE	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D (Preferred)	ALTERNATIVE E
Wild Horses	Continue current management for 330 horses in four herd areas.	Reduce horses by 33% to 220 head.	Increase horses by 100% to 660 head in four herd areas.	Manage for current numbers (330 horses) in four herd areas.	See Alternative C
Woodland Products	Continue to issue permits for harvest on a case-by-case basis.	Intensively manage 23,000 ac. for Christmas tree harvest; 74,000 ac. for fuelwood and post harvest.	Intensively manage 14,000 ac. for Christmas tree harvest; 43,000 ac. for fuelwood and post harvest.	Intensively manage 23,000 ac. for Christmas tree harvest; 60,000 ac. of woodlands for fuelwood and post harvest.	See Alternative C
Minerals	Maintain entire RMP area open for locatable minerals except for an 11 ac. administrative withdrawal.	Maintain RMP area open for locatable minerals except 47,022 ac. (1.5% of RMP area) for WSAs and administrative withdrawal.	Maintain RMP area open for locatable minerals except for 85,390 ac. (2.7% RMP area) for WSAs and administrative withdrawal.	Maintain RMP area open for locatable minerals except for 50,096 ac. (1.8% of RMP area) for WSAs and administrative withdrawal.	See Alternative C
	Provide for oil/gas leasing as follows: Limited - subject to NSO <sup>3</sup> 1% RMP area (33,001 ac.). Limited - subject to seasonal restrictions 5% of RMP area (181,370 ac.) Open - subject to standard leasing stipulations 93.3% of RMP area (2,922,464 ac.).	Provide for oil/gas leasing as follows: Limited - subject to NSO 0.4% RMP area (11,092 ac.). Open - subject to standard leasing stipulations 98.1% RMP area (3,075,905 acres). Closed - 1.5% of RMP area (47,022 ac.).	Provide for oil/gas leasing as follows: Limited - subject to NSO 1.2% RMP area (36,872 ac.) Limited - subject to seasonal restriction 28% of RMP area (877,525 ac.). Closed - 2.7% RMP area (85,390 ac.).	Provide for oil/gas leasing as follows: Limited - subject to NSO 1.2% RMP area (36,872 ac.) Limited - subject to seasonal restriction 15% RMP area (470,714 ac.). Open - subject to standard leasing stipulations 82% of RMP area (2,571,337 ac.) Closed - 1.8% RMP area (55,096 ac.).	See Alternative C

9-5

3/ No surface occupancy.



SUMMARY TABLE 2  
COMPARATIVE RESOURCE IMPACT SUMMARY

<u>Environmental Component</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D (Preferred)</u>	<u>Alternative E</u>
<b>Recreation</b>					
Projected Recreation					
Days-Total	1,436,000	1,252,200	2,033,400	1,728,600	2,118,800
Hunting	144,300	119,000	210,800	174,600	223,000
Fishing	288,900	238,500	421,900	350,000	447,100
Off-road Vehicles	94,200	137,600	77,800	103,600	77,800
ORV Use (%)					
Open	100	98(-2%)	97(-3%)	98(-2%)	97 (-3%)
Limited	0	2(+2%)	3(+3%)	2(+2%)	3 (+3%)
<b>Wilderness</b>	Wilderness values would not be protected on existing WSAs.	Wilderness values would be protected on less than 1% of the planning area.	Wilderness values would be protected on all areas currently under study, 2.1% of the planning area.	Wilderness values would be protected on 1% of the planning area.	Wilderness values would be protected on all areas currently under study, 2.1% of the planning area.
<b>Livestock</b>					
Use goal compared to existing use level	Initial and long-term stocking level would maintain livestock grazing at the existing use level (305,247 AUMs).	Initial stocking level would be at the existing use level and the long-term stocking goal would be 491,741 AUMs (+61%). Up to 7,442 AUMs could be lost due to potential land sales.	Initial stocking rates would be at the existing use level and the long-term stocking goal would be 193,767 (-37%). No loss in AUMs would occur due to land sales.	Initial stocking level would be at the existing use level and the long-term stocking goal would be 396,989 AUMs (+30%). No initial change in existing preference would occur until supported by monitoring data. Up to 93 AUMs could be lost due to potential land sales.	No livestock grazing would occur under this alternative.



SUMMARY TABLE 2 (Cont.)  
COMPARATIVE RESOURCE IMPACT SUMMARY

<u>Environmental Component</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D (Preferred)</u>	<u>Alternative E</u>
<b>Wildlife Habitat</b>					
Terrestrial	Existing numbers of big game would be impaired. NDOW <sup>1/</sup> proposed reintroductions could not be accommodated.	Existing numbers of big game would be re-established over the long-term.	Habitat to support reasonable numbers of big game would be provided over the long-term. NDOW proposed reintroductions could be accommodated.	Habitat to support reasonable numbers of big game would be provided over the long-term. Monitoring would be implemented. NDOW proposed reintroductions could be accommodated.	Habitat to support an excess of reasonable numbers of big game would be provided over the long-term.
	Sage grouse populations would decline.	Sage grouse populations would be maintained over the long-term.	Sage grouse populations would increase.	Sage grouse populations would increase.	Sage grouse populations would increase.
8-5 Riparian/Fisheries	Existing threatened species habitat would not be protected in accordance with the Endangered Species Act, 1973 as amended. Efforts to have Lahontan cutthroat trout removed from the list would be delayed indefinitely.	Existing threatened species habitat would be protected. Habitat for other fish species would improve on 42 miles of stream.	Existing threatened species habitat would be protected. Habitat for other fish species would improve on 181 miles of stream.	Existing threatened species habitat would be protected. Habitat for other fish species would improve on 106 miles of stream.	Stream associated riparian habitat would be improved to provide additional areas for Lahontan cutthroat trout and other fish species on 201 miles of stream.
<b>Aquatic Streamside Habitat</b>					
Condition (Miles)					
Excellent	0	0	17	7	37
Good	11	53	175	110	175
Fair	26	26	5	14	0
Poor	175	133	15	81	0

<sup>1/</sup> Nevada Department of Wildlife



SUMMARY TABLE 2 (Cont.)  
COMPARATIVE RESOURCE IMPACT SUMMARY

<u>Environmental Component</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D (Preferred)</u>	<u>Alternative E</u>
Wild Horses	Herd numbers would not change. The free roaming characteristic of wild horses would not be affected. The condition of wild horses would not be improved through additional water developments.	Herd numbers would be reduced in two herd areas. The free roaming characteristic of wild horses would be adversely impacted due to the increased level of fencing. The condition of wild horses would improve due to the increase in water availability.	Herd numbers would increase by 100 percent in all herd areas. The free roaming characteristic of wild horses would not be affected. The condition of wild horses would improve due to additional water developments.	No change in wild horse numbers is expected. The free roaming characteristic of wild horses would not be affected. The condition of wild horse would improve due to increased availability of water. Monitoring would be implemented.	Herd numbers would increase by 100 percent in all herd areas. The free roaming characteristic of wild horses would not be affected. Increased availability of water would improve wild horse condition.
5 6 Woodland Products	Harvest levels would remain static or decrease on 52,000 acres. The demand for fuelwood would not be met. Overall stand condition would remain static or decrease.	Harvest levels would increase on 74,000 acres. The full allowable cut would help meet demands for fuelwood. Trend of stand condition would improve.	Harvest levels would remain static or decrease on 43,000 acres. The demand for fuelwood and Christmas trees would not be met. Trend of stand condition would improve.	Harvest levels would increase on 60,000 acres. The full allowable cut on these acres would help to nearly meet projected demands. Trend of stand condition would improve.	Harvest levels would remain static or decrease on 43,000 acres. The demand for fuelwood and Christmas trees would not be met. Trend of stand condition would improve.
Minerals					
Locatable Minerals					
Open	100.0%	98.5%	97.3%	98.2%	97.3%
Closed	0.0%	1.5%	2.7%	1.8%	2.7%
Leasable Minerals					
Open	93.3%	98.1%	68.1%	82.0%	68.1%
Seasonal Restrictions	5.7%	0.0%	28.0%	15.0%	28.0%
No Surface Occupancy	1.0%	0.4%	1.2%	1.2%	1.2%
Closed	0.0%	1.5%	2.7%	1.8%	2.7%



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# CHAPTER ONE

## INTRODUCTION,

## PLANNING ISSUES, AND CRITERIA

### PURPOSE AND NEED

The purpose of a Resource Management Plan (RMP) is to provide a framework to ensure that public lands are managed in accordance with the principles of multiple-use and sustained-yield. The RMP is prepared under the authority of Sections 102 and 202 of the Federal Land Policy and Management Act of 1976 (FLPMA) which requires that the Secretary of the Interior shall, with public involvement, develop land use plans which provide for the use of public lands.

The National Environmental Policy Act of 1969 (NEPA) requires agencies to prepare an Environmental Impact Statement (EIS) documenting environmental consequences of significant Federal actions affecting the human environment. This RMP includes such an EIS, prepared pursuant to Council on Environmental Quality Regulations for implementation of NEPA.

The RMP is a comprehensive land use plan that establishes land areas for limited, restricted, designated, or exclusive uses within the planning area. It is not intended to make program decisions for individual resource elements, but to provide the overall multiple-use objectives and management direction for the planning area. It identifies allowable resource uses and related levels of production or use to be maintained, resource condition goals, program

constraints, and general management practices needed to achieve these objectives.

In addition to meeting the planning needs for the Elko Resource Area, the RMP also fulfills three other specific objectives. The first objective is to meet the requirements of the court ordered agreement between the Bureau of Land Management (BLM) and the Natural Resources Defense Council, which responded to litigation filed in 1973. As a result of this court order, BLM is preparing environmental analyses of grazing programs according to an agreed-upon schedule. The RMP will meet this objective.

Secondly, the RMP includes the study of four Wilderness Study Areas (WSAs) as required by FLPMA. In accordance with BLM policy, environmental concerns pertaining to wilderness designation will be discussed (USDI, BLM 1982). Environmental impacts of wilderness designation will be incorporated into the planning process through the Draft RMP stage. This draft document presents the impacts to wilderness and other resources by alternative. Comments received on wilderness from this document will be presented in a Preliminary Final Wilderness EIS published as a separate document from the Final RMP. It will be submitted through the BLM Director and the Secretary of the Interior to the President. The recommendations contained in the final wilderness EIS will be preliminary, subject to change during administrative review. Since Congress has the sole authority for designating any Federal land as wilderness, Congress will evaluate the



recommendations submitted by the Secretary of Interior through the President, and either reject or approve legislation formally designating areas as wilderness (USDI, BLM 1982).

Two other WSAs are located within the boundaries of the planning area. Their wilderness suitability was analyzed in the Draft Owyhee Canyonlands Wilderness EIS published in February 1984. This RMP will not repeat wilderness analysis included in the Canyonlands EIS, but will evaluate the impacts to the proposed 18,625 acre South Fork of the Owyhee River Special Recreation Management Area.

Finally, the RMP will update land use planning guidance contained in two existing Management Framework Plans. The decisions in these plans have been carried forward into this RMP where applicable. The decisions in this RMP will supercede the decisions in the two existing Management Framework Plans dealing with the issues identified.

The Draft RMP/EIS will be used as a tiered environmental document, one that can be used as a reference for subsequent environmental analyses. Following approval of the Elko Resource Management Plan, future activity planning and project implementation will follow the land use objectives and management actions outlined in the RMP. More site specific environmental assessments covering activity plans and local project work will include site specific details as appropriate.

#### LOCATION OF THE PLANNING AREA

The Elko RMP area encompasses all of the Elko Resource Area of the Elko District, located in northeast Nevada. The area is comprised of 5,967,854 acres of land primarily within Elko County, with smaller

portions in Lander and Eureka counties. Of this total land area, BLM administers 3,134,019 acres or approximately 52 percent of the planning area. Approximately 2,121,520 acres or 35 percent of the planning area is privately owned. The Bureau of Reclamation administers about 26,690 acres for watershed management. The Bureau of Indian Affairs manages 145,737 acres for irrigation purposes and approximately 16,940 acres are Native American lands. Table 1-1 shows the land ownership and administration responsibilities for the Elko Planning Area.

The Elko RMP Area is bounded on the north by the Idaho border and the Humboldt National Forest, Mountain City Ranger District, United States Forest Service (USFS); on the west by the Winnemucca District (BLM); on the south by the Battle Mountain and Ely Districts (BLM); and to the east by the Humboldt National Forest, Ruby Mountain Ranger District (USFS), and the Wells Resource Area (BLM). The RMP Area Map shows the location and boundaries of the planning area.

#### THE PLANNING PROCESS

The Bureau planning process has been designed to accommodate the issues and concerns of the public, while complying with the laws and policies established by Congress and the Department of Interior. The process includes nine mandated steps as established in 43 Code of Federal Regulations 1600. These steps are described as follows:

1. Issue Identification. The issues are the problems, concerns, or opportunities identified by the public and BLM at the beginning of the planning process. By identifying and focusing on the



TABLE 1-1

LAND OWNERSHIP/ADMINISTRATION FOR THE  
ELKO PLANNING AREA<sup>1/</sup>

<u>Ownership/ Administration</u>	<u>Acres in Elko County</u>	<u>Acres in Eureka County</u>	<u>Acres in Lander County</u>	<u>Total</u>	<u>Percent of Planning Area</u>
Private	1,472,920	468,309	180,290	2,121,519	35
Bureau of Land Management	2,475,825	519,228	138,966	3,134,019	52
Bureau of Indian Affairs	145,737			145,737	2
Native American Lands	16,098	162	680	16,940	1
USFS	522,949			522,949	9
Bureau of Reclamation	<u>--</u>	<u>--</u>	<u>26,690</u>	<u>26,690</u>	<u>1</u>
	4,633,529	987,699	346,626	5,967,854	100

<sup>1/</sup> Within two percent accuracy.



issues, the scope and direction of the plan is established. In this step BLM asked the public to identify land management issues and resource management opportunities for the planning area. Letters requesting information on what should be considered as issues were sent to approximately 500 individuals, groups, and organizations that have expressed interest in planning for the Elko District. Thirty-seven responses to this letter were received. Other information on resource management issues was obtained through voluntary comments from representatives of companies, interest groups, state and local government, livestock permittees, and other Federal agencies. Also, management concerns were identified by BLM staff and managers.

2. Development of Planning Criteria. Planning criteria are developed to set standards and guidelines for land use planning. They are designed to ensure that the RMP is focused on the established issues and to eliminate unnecessary data collection and analyses. The Draft Elko RMP Planning Criteria and Issues were distributed for public review and comment in April 1984. Approximately 450 copies were sent to interested individuals, groups, and organizations. A total of 19 comments were received.
3. Inventory Data and Information Collection. Public land resources were inventoried to establish a data base upon which to develop a resource management plan and analyze the impacts expected from the various alternatives. Vegetation (including riparian vegetation),

wildlife (including fisheries resources), forestry, and wild horse inventories were among those conducted. Information was obtained from the Nevada Department of Wildlife (NDOW) on various wildlife species.

4. Analysis of the Management Situation. In this step, the inventory data to define the existing situation, assess public demand for public land resources, and predict the ability of these resources to meet that demand are accumulated and analyzed. Opportunities were identified to meet these demands and resolve potential resource conflicts. This represents an intermediate stage which is preparatory to the next step, Formulation of Alternatives.
5. Formulation of Alternatives. At this point, BLM formulated a range of options for managing resources. These options ranged from emphasis on production of commercial goods to protection of unique or fragile resources. Public comment was sought during this phase from approximately 500 individuals and groups, including specific involvement of the livestock permittees in developing the level of range improvement in Alternative B. The proposed alternatives which considered these public comments are described in detail in Chapter Two.
6. Estimation of Effects of Alternatives. At this stage the biological, physical, economic, and social impacts of implementing each alternative is predicted and described. This analysis is described in Chapter Four.



7. Selection of Preferred Alternative. Based on the management options presented in the alternatives and the potential impacts of each, management determined the combination of options that was the most acceptable resolution of the planning issues. Once the preferred alternative was determined, this draft plan and environmental impact statement was prepared and is now released for a 90-day public review and comment period. The preferred alternative is described in Chapter Two and the environmental consequences of this alternative are discussed in Chapter Four.
  
8. Selection of the Resource Management Plan. At this step the District Manager reviews the comments received on the Draft RMP/EIS. After evaluation of all available information, the manager recommends a proposed resource management plan and publishes it along with a final EIS. The proposed plan and final environmental impact statement are then filed with the Environmental Protection Agency. Concurrently, the document is submitted to the Governor of Nevada for a 60-day review to determine consistency with state planning.
  
9. Monitoring and Evaluation. Following approval of the resource management plan implementation will occur, subject to funding capabilities. Collection and analysis of data will be accomplished to determine if the plan is achieving the desired results. The plan will be reviewed periodically (a minimum of five years) to determine the need for amendment.

## PLANNING ISSUES

Issues drive RMPs and indicate specific concerns the BLM or the public may have regarding the planning area. An issue is defined as an opportunity, conflict, or problem regarding the management of public lands and associated resources. Issue-driven planning means that those aspects of current resource management felt to be a concern are examined by being carried through the formulation and analysis of alternatives.

Ten issues are addressed in this document. These issues were identified through consultation with the public, other Federal agencies, and BLM personnel.

### Issue: Lands and Realty

Requests have been made by the public to identify lands suitable for disposal through sales, exchanges, and applications under the Recreation and Public Purposes Act within the Elko Planning Area. Those areas need to be identified where land ownership adjustments are needed to achieve more efficient management and use of public resources.

The issue involves the determination of which lands should be identified for disposal or retention.

### Issue: Corridors

The opportunity exists for formal designation of utility corridors under the authority of Section 503 of FLPMA and in consultation with the Western Regional Corridor Study compiled by the Western Utility Group in 1980. Such designation could serve to reduce width requirements for rights-of-way and provide for multiple occupancy.



### Issue: Access

Legal access is defined as the lawful right to enter or leave a parcel of land. It includes the right to enter public lands adjacent to existing public roads or trails, as well as from roads or trails that cross private property to public lands. Neither BLM nor the public has an inherent right of legal access to public lands over private property. Needs have been expressed by the public and public land managers for access to augment management of public resources. As populations and the desire to use public land resources increase, additional access problems are expected.

### Issue: Recreation

The Elko Planning Area offers a variety of recreation opportunities and is used increasingly for recreation by both local communities and nonlocal sources. The nearest metropolitan areas of Salt Lake City, Reno, and Las Vegas are expected to continue their population growth, creating the potential of greater recreational demands within the RMP area. The issue involves the determination of the number and amount of acres to be designated for recreation use, including those areas where off-road vehicle use is proposed for limited or closed designations.

### Issue: Wilderness

Section 603 of FLPMA directs the Secretary of the Interior to review roadless areas of 5,000 acres or more identified as having wilderness characteristics, and to report to the President on their suitability or nonsuitability for wilderness designation. The Secretary is also directed to cause mineral surveys to be conducted by the U.S. Geological Survey and the Bureau of Mines to determine the mineral values, if any,

in suitable areas. The Secretary is further directed to manage lands under review in a manner that will not impair their suitability for wilderness designation, as set forth in BLM's Interim Management Policy (USDI, BLM, 1979). Within the Elko Planning Area the issue involves the amount of acreage within four wilderness study areas to be recommended as suitable for wilderness designation and included in the National Wilderness Preservation System or recommended as nonsuitable and released from further wilderness review.

### Issue: Livestock

As a result of a 1973 Federal court suit, the BLM has been directed to prepare an environmental impact statement (EIS) to analyze the potential impacts of alternative grazing programs. This EIS requirement is integrated into the Resource Management Planning process. The issue involves the determination of selective management categorization for each allotment and which allotments will require further activity planning, such as allotment management plans, and what priorities will be used for implementation.

### Issue: Wildlife Habitat

#### Terrestrial

In compliance with the principles of multiple-use, the BLM is charged with the protection and enhancement of wildlife habitat. Competition for habitat components (forage, water and cover) exists between wildlife and other resource uses, e.g. mining, livestock, and woodland products, in some portions of the Elko RMP Area. This issue involves the determination of what areas of public land will be made available to big game and sage grouse.



## Riparian

Aquatic areas and riparian vegetation types constitute less than one percent of the total land area administered within the RMP area, however, they are the most productive in terms of plant and wildlife diversity. They are also areas where competition exists among various resources, including wildlife, mining, and livestock. As required by Executive Orders 11988 and 11990, management actions within floodplains and wetlands are to include measures to preserve, protect, and if necessary, restore their natural condition. The issue involves the determination of what objectives should be established for riparian areas.

## Issue: Wild Horses

Wild horse management is governed by the Wild and Free Roaming Horse and Burro Act of December 15, 1971. The purpose of the Act is to ensure the preservation of a unique feature of our Western heritage, as well as to prevent undue competition among wild horses, livestock, and big game. The issue involves the determination of what areas will be designated as herd management units and how many wild horses will be maintained within designated herd units.

## Issue: Woodland Products

Increasing public demand has made it necessary to develop a management program that will maintain or improve the supply of woodland products, i.e. firewood, posts, pine nuts, and Christmas trees. The issue involves the determination of what areas will be made available for the harvest of woodland products within the RMP area.

## Issue: Minerals

Development of locatable (hard rock) and leasable (oil, gas, and geothermal) minerals is necessary to

meet national, regional, and local demand and to provide increased employment and an expanded tax base for local communities. The Federal Mining and Mineral Policy Act of 1970 declared that it is the policy of the Federal government to foster and encourage the development of mining. However, in some areas mineral exploration, development, and associated road construction are in conflict with other resource values. The issue involves the determination of what areas will be open to leasable and locatable mineral development.

## PLANNING CRITERIA

The planning criteria developed for the Elko RMP provide the standards with which to guide the planning process. These criteria are:

### Criteria for Planning Data and Information Collection

Existing information shall be used in lieu of collection of new data to the greatest extent possible. The adequacy of existing data shall be assessed through the consideration of such factors as: (1) significance of required decisions, (2) relevancy to planning issues, (3) applicability to current situation, (4) accuracy, (5) level of detail, (6) legislation, and (7) management policy.

Data should establish the condition and capability of the resources to respond to identified public needs and concerns.

Collection of new data will be limited by personnel, funding, and time constraints.

### Criteria for the Analysis of the Management Situation (AMS)

The AMS will display and analyze data associated with the RMP area's physi-



cal profile, current conditions, problems, and management. It will project future conditions if current trend continues, estimate the capability of resources to meet demand, identify opportunities to resolve problems associated with the RMP issues, and identify the consistency of proposals with other approved plans. It will include initial Selective Management Categories.

#### Criteria for Formulation of Alternative Resource Management Plans

Alternatives formulated for the RMP will be multiple-use oriented, but each will emphasize a different balance among resources. These alternatives will provide a spectrum of resource uses ranging from protection and enhancement of natural values to production of commercial resources. Each alternative will be based on a reasonable level of expected funding. The livestock management proposals for Alternative B are based on a suggested level of improvement development determined through consultation with livestock permittees.

The no action alternative, which constitutes the existing management situation is included as required in 43 Code of Federal Regulations 1610.4-5.

#### Criteria for Estimating the Effects of the Alternatives

The impacts of implementing each alternative will be analyzed pursuant to the Council on Environmental Quality Regulations. The analysis will be written in plain language and will discuss only briefly those issues other than significant ones. It will include an analysis of direct, indirect, and cumulative impacts.

#### Criteria for Selecting the Preferred Alternative

Selection of the preferred alternative will be based on the combination of management actions which best meet the public's demand for goods and services while minimizing disruption of the environment.



## CHAPTER TWO

### ALTERNATIVES

#### INTRODUCTION

This chapter describes a preferred alternative and four other alternatives that were considered in the development of this plan. They are all multiple-use oriented, but each emphasizes a different balance among resources.

#### ALTERNATIVES CONSIDERED BUT NOT ANALYZED

During the Scoping Process (Chapter Six) the public proposed various alternatives providing for forage use levels and the amount of acreage preliminarily suitable for wilderness different from those proposed in this RMP. Since the RMP alternatives provide for a broad range of grazing levels and preliminarily suitable wilderness acres, it was determined that the time and expense of adding more alternatives could not be justified.

Another issue considered was the designation of Areas of Critical Environmental Concern (ACEC) to protect certain resource values. Lands in the RMP area were reviewed by the BLM for potential designation in compliance with 43 CFR 1610.7-2. The issue was not analyzed because existing proposals for management offer adequate protection of these resources and no areas were identified as suitable for this designation through the public scoping process.

#### ALTERNATIVES CONSIDERED IN THE RMP

Alternative A: This alternative represents a continuation of present resource management and authorized use levels as required by 43 CFR 1610.4-5. Actions would be taken on a case-by-case basis as circumstances warrant, except for wilderness where this alternative provides for the mandatory "No Wilderness" analysis.

Alternative B: This alternative is oriented towards production of commercial resources with emphasis on livestock, minerals, land disposals, motorized recreation, woodland products, and utility corridors.

Alternative C: This alternative provides for the enhancement of fragile and unique natural resource values with emphasis on wildlife, wild horses, dispersed recreation and wilderness resources. This provides for the mandatory "All Wilderness" analysis.

Alternative D: This is the preferred alternative. It emphasizes a balanced approach to land management in the RMP area. Management attention would be directed toward improving rangeland vegetative conditions, expanding livestock grazing opportunities, providing habitat for additional big game, meeting a variety of recreational needs, and providing for mineral development. This management direction would favorably influence orderly economic growth while providing for the social needs of the local and regional area.

Alternative E: This alternative was developed to provide for baseline data



and a comparative analysis of the elimination of livestock grazing from public lands.

Long-term management actions under each alternative are expected to be accomplished within 20 years, short-term management actions are within zero to five years. These alternatives provide management actions for the ten issues identified through the scoping process for this RMP, and associated resources. Management guidance common to all alternatives, and the plan implementation process are presented in this chapter following the detailed description of each alternative.

The format for each alternative is to discuss the goal for the alternative and then present an objective statement with the management actions proposed to attain that objective for each resource issue.

For a comparison of management actions for alternatives A through E see Summary Table 1.

## ALTERNATIVE A

GOAL: Alternative A represents a continuation of present resource use levels. Under this alternative the use of land and resources would remain essentially unchanged.

### ISSUE 1: LANDS AND REALTY

Objective: Continue to allow disposals, land tenure adjustments, and land use authorizations on a case-by-case basis as long as the land is physically suited for the purpose applied for; or in the case of land exchanges, if public benefit would result.

Short and Long-Term Management Action: Allow lands actions on a case-by-case basis using the various land laws available.

### ISSUE 2: CORRIDORS

Objectives: Grant intra/interstate transportation and utility rights-of-way on a case-by-case basis.

Short and Long-Term Management Action: Continue to process all major rights-of-way requests individually.

### ISSUE 3: LEGAL ACCESS

Objective: Continue acquisition of legal access on a case-by-case basis.

Short and Long-Term Management Action: Compare requests from the general public and other state and Federal agencies with the Bureau's identified needs to determine priorities for acquiring access.



**ISSUE 4: RECREATION**

Objective: Continue present levels of recreation management.

Short and Long-Term Management Actions:

1. Maintain four existing Special Recreation Management Areas (SRMAs): the South Fork of the Owyhee River for sport and commercial river recreation (3,500 acres, the rim-to-rim portion); Wilson Reservoir (5,440 acres); Zunino/Jiggs Reservoir (800 acres); and North Wildhorse Recreation Area (210 acres) for camping and water based recreation (Special Recreation Management Area Alternatives Map).
2. Manage the remaining acres for dispersed recreation activities.
3. Maintain the planning area open to off-road vehicles.

**ISSUE 5 :WILDERNESS**

**(NO WILDERNESS)**

Objective: Manage all lands currently under wilderness review as nonsuitable for wilderness designation.

Short and Long-Term Management Action: Recommend as nonsuitable for wilderness designation all of the four WSAs totaling 66,754 acres (Wilderness Study Area Location Map).

<u>WSA</u>	<u>Suitable Acres</u>	<u>Nonsuitable Acres</u>
Rough Hills	0	6,685
Little Humboldt River	0	42,213
Cedar Ridge	0	10,009
Red Spring	0	7,847
	0	66,754

**ISSUE 6: LIVESTOCK GRAZING**

Objective: Continue the current authorized use level which has resulted in an average licensed use of 305,247 AUMs (three to five year average; 1979-1983). No changes in active livestock preference or current livestock grazing practices would occur.

Short and Long-Term Management Actions:

1. Continue the average level of use of 305,247 AUMs.
2. Continue existing seasons-of-use and grazing systems. Continue to follow the management objectives provided in Allotment Management Plans (AMPs) for 12 allotments. No new AMPs would be prepared or implemented.
3. No new range improvements or land treatments would be implemented.

**ISSUE 7: WILDLIFE HABITAT**

Objective: Continue to manage terrestrial wildlife habitat, fisheries, and riparian habitat, including threatened and endangered species habitat, at present levels.

Short and Long-Term Management Actions:

1. Continue management of wildlife habitat which currently provides 20,338 AUMs of forage for existing numbers of mule deer and 608 AUMs for existing numbers of antelope (Appendix 4, Table 1).
2. Maintain crucial and essential wildlife habitat.
3. No new wildlife habitat projects would be implemented. Existing projects would be maintained.



4. Apply existing time of year restrictions to protect crucial wildlife habitats as directed in the Elko District's Oil, Gas and Geothermal Environmental Assessment.
5. No new riparian enhancement projects would be implemented. Existing projects would be maintained.

## ISSUE 8: WILD HORSES

Objective: Continue management of the existing wild horse herds in accordance with the Wild and Free Roaming Horse and Burro Act, as amended.

### Short and Long-Term Management Actions:

1. Continue management of current population levels on four existing wild horse herd areas with an existing population of 330 horses.
2. Conduct wild horse gatherings as needed to maintain current numbers.

## ISSUE 9: WOODLAND PRODUCTS

Objective: Continue to issue permits for woodland products on a case-by-case basis to meet existing private and commercial demands.

### Short and Long-Term Management Actions:

1. Continue the issuance of permits for Christmas trees and fuelwood at current harvest levels of 500 Christmas trees and 970 cords. Approximately 52,000 acres would be available for harvest.
2. Continue to authorize the cutting of dead and down aspen on an

individual basis, allowing only limited usage within those stands that are in a good or better condition class.

## ISSUE 10: MINERALS

Objective: Maintain public lands open for exploration, development, and collection of mineral resources consistent with existing laws and regulations.

### Short and Long-Term Management Actions:

1. Maintain the entire RMP area open to mineral entry for locatable minerals, except for an administrative withdrawal site (11 acres).
2. Provide for oil and gas leasing as follows:
  - a) Designation: Limited - subject to no surface occupancy  
Purpose: Protection of Special Recreation Management Areas (SRMAs) and sage grouse strutting grounds. No surface occupancy will apply to areas within one-half mile of the high water line around Wilson, Zunino/Jiggs and Wildhorse Reservoirs, and the rim-to-rim portion of the South Fork of the Owyhee River (Special Recreation Management Area Alternatives Map).  
Acres: 33,001 (1.0 percent of RMP area); 7,221 - in SRMAs and 25,780 of sage grouse strutting grounds).
  - b) Designation: Limited - subject to seasonal restrictions.  
Purpose: Protect crucial deer winter range (Antelope and Mule Deer Habitat Map).  
Acres: 181,370 (5.7 percent of RMP area).



c) Designation: Open - subject to standard leasing stipulations.  
Acres: 2,922,464 (93.3 percent RMP area)

See Appendix 6 for Special Leasing Stipulations.



## ALTERNATIVE B

GOAL: Alternative B is designed to implement a resource management plan that emphasizes the production of commercial resource uses including corridors, livestock grazing, and minerals.

### ISSUE 1: LANDS AND REALTY

Objective: Allow land tenure adjustments, disposals, and land use authorizations to accommodate the management goal of the alternative.

#### Short and Long-Term Management Actions:

1. Make available, primarily through sale, up to 5,900 acres of public land to meet community expansion needs (Land Tenure Adjustment and Corridor Map - Alternative B).

2. Transfer, primarily through sale, up to 58,320 acres of public lands that are difficult and uneconomic to manage (Land Tenure Adjustment and Corridor Map - Alternative B).
3. Identify for transfer, primarily through exchange, 336,000 acres of public land (Land Tenure Adjustment and Corridor Map - Alternative B).

### ISSUE 2: CORRIDORS

Objective: Identify the maximum possible number of designated corridors and planning transportation and utility corridors.

#### Short-Term Management Actions:

1. Designate 333 miles of transportation and utility corridors which contain existing facilities (Land Tenure Adjustment and Corridor Map - Alternative B).



- Identify 276 miles of planning corridors for future facilities (Land Tenure Adjustment and Corridor Map - Alternative B).

### ISSUE 3: LEGAL ACCESS

Objective: Acquire legal access for routes that would enhance management for commercial resource production.

Long-Term Management Actions:  
Initiate procedures to acquire legal access for 56 roads (216.5 miles) considered high priority for management of livestock grazing, woodland products, and mineral exploration/development (Table 2-1).

### ISSUE 4: RECREATION

Objective: Emphasize motorized vehicle recreation and concentrated forms of recreation.

#### Short and Long-Term Management Actions:

- Maintain four existing SRMAs: the South Fork of the Owyhee River for sport and commercial river recreation (3,500 acres, the rim-to-rim portion); Wilson Reservoir (5,440 acres), Zunino/Jiggs Reservoir (800 acres), and North Wildhorse Recreation Area (210 acres) for camping and water based recreation (Special Recreation Management Area Alternatives Map).
- Designate the following as SRMAs: West Wildhorse Recreation Area (160 acres) for camping and fishing and Adobe Hills (21,120 acres) for enhanced off-road vehicle (ORV) use (Special Recreation Management Area Alternatives Map).

- Manage the remainder of the planning area for dispersed recreation activities.
- Designate the RMP area as follows for off-road vehicles: 3,055,778 acres open (98 percent) and 78,241 acres (2 percent; composed of SRMAs and preliminarily suitable portions of WSAs, including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS), limited to designated roads and trails.

### ISSUE 5: WILDERNESS

Objective: Manage as wilderness those portions of WSAs where no identified existing or potential conflicts with oil and gas exploration, mineral development, utility corridors, or livestock production would occur.

#### Short and Long-Term Management Actions:

- Recommend a portion of the Little Humboldt River WSA (28,386 acres) as preliminarily suitable for wilderness designation (0.9 percent of RMP area).
- Recommend as nonsuitable for wilderness designation all of the Cedar Ridge, Red Spring, and Rough Hills WSAs, and a portion of the Little Humboldt River WSA totaling 38,368 acres.

<u>WSA</u>	<u>Suitable Acres</u>	<u>Nonsuitable Acres</u>
Rough Hills	0	6,685
Little Humboldt River	28,386	13,827
Cedar Ridge	0	10,009
Red Spring	0	7,847
<b>TOTAL</b>	<b>28,386</b>	<b>38,368</b>



TABLE 2-1  
ALTERNATIVE B - LEGAL ACCESS

<u>Resources</u>	<u>Number of Roads</u>	<u>Percent</u>	<u>Miles of Roads</u>	<u>Percent</u>
Range	20	35	91	42
Woodland	4	7	11	5
Minerals	3	5	14	6
Range/Woodland	4	7	17	8
Recreation/Range	8	14	29	13
Wilderness <sup>1/</sup> / Range/Woodland	3	5	9	4
Recreation	4	7	13.5	6
Wilderness	2	4	12	5
Wilderness/Range/ Recreation	2	4	10	5
Wilderness/Woodland	1	2	1	1
Range/Recreation/ Woodland	1	2	2	1
Recreation/Wildlife	1	2	1	1
Range/Wildlife	1	2	3	1
Wilderness/Recreation	1	2	1	1
Recreation/Woodland	$\frac{1}{56}$	$\frac{2}{100\%}$	$\frac{2}{216.5}$	$\frac{1}{100\%}$

ROADS FOR ALTERNATIVE B (Refer to Access Roads Map)

1000, 1009, 1020, 1030, 1033, 1035, 1041, 1042, 1045, 1047, 1053, 1059, 1066,  
1069, 1092, 1103, 1112, 1113, 1114, 1116, 1117, 1119, 1126, 1127, 1128, 1129,  
1130, 1138, 1139, 1140, 1200, 1219, 1224, 1225, 1227, 1229, 1230, 1239, 1247,  
1250, 1251, 1254, 1263, 1291, A, B, C, D, E, G, I, J, K, L, M, N.

<sup>1/</sup> Access to wilderness boundaries



## ISSUE 6: LIVESTOCK GRAZING

Objective: Enhance livestock forage production on a sustained yield basis resulting in maximization of AUMs.

### Short and Long-Term Management Actions:

1. Increase the availability of livestock AUMs to 491,741. This represents a 62 percent increase over the three to five year average use, and a 27 percent increase over active preference (Appendix 3 Table 2).
2. Treat or seed 635,000 acres to provide additional livestock forage or maintain existing seedings.
3. Construct 405 miles of fence, drill 50 wells, develop 139 springs, install 71 cattleguards, construct 25 storage tanks, install 187 miles of pipeline, and construct 243 reservoirs to improve livestock distribution and utilization of vegetation (Table 2-2).
4. Continue implementation of 12 existing AMPs. Develop and implement AMPs on 37 Category I allotments, 11 Category M allotments and one Category C allotment to meet the physiological requirements of the vegetation, ensure sustained yield, enhance distribution and increase livestock carrying capacity.

## ISSUE 7: WILDLIFE HABITAT

Objective: Maintain habitat sufficient to support present numbers of big game and sensitive, threatened, or endangered species populations.

### Short and Long-Term Management Actions:

1. Manage wildlife habitat to provide 20,338 AUMs of forage for existing numbers of mule deer and 608 AUMs for existing numbers of pronghorn antelope (Appendix 4, Table 1).
2. Maintain crucial and essential wildlife habitats.
3. Limit maintenance of existing and construction of new wildlife projects to those that exist in crucial wildlife habitat. Construct five guzzlers, seven spring protection facilities, 40 water developments, and 86 miles of fencing to improve habitat and management for wildlife (Table 2-2). Modify five miles of fence within crucial big game habitat.
4. Protect and enhance riparian and aquatic habitat currently or historically inhabited by fish species considered sensitive, threatened, or endangered (52 miles/1530 acres).

## ISSUE 8: WILD HORSES

Objective: Maintain wild horse populations in areas where no conflicts exist with commodity related resources.

### Short and Long-Term Management Actions:

1. Manage the four wild horse herd areas, with a target population of 220 horses.
3. Conduct wild horse gatherings as needed to maintain numbers.

## ISSUE 9: WOODLAND PRODUCTS

Objective: Make all woodland acreage available for harvest, approximately 74,000 acres.



TABLE 2-2  
RANGELAND IMPROVEMENT PROJECTS BY ALTERNATIVE  
FOR THE ELKO PLANNING AREA <sup>1/</sup>

<u>Livestock</u>	<u>Alternative B</u>		<u>Alternative C</u>		<u>Alternative D</u>		<u>Alternative E</u>	
Gilvert					1	2,000		
Wells (Each)	50	\$ 300,000		—	28	\$ 168,000		—
Pipelines (Miles)	187	748,000	83	\$ 332,000	132	528,000		—
Water Storage Tanks (Each)	25	50,000	13	26,000	24	48,000		—
Spring Developments (Each)	139	417,000	81	243,000	97	291,000		—
Fences (Miles)	405	972,000	256	614,400	258	619,200		—
Cattleguards (Each)	71	177,500	29	72,500	37	92,500		—
Land Treatment (Acres)	635,003	10,112,280		—	120,978	2,179,405		—
Reservoir (Each)	243	1,944,000	123	984,000	97	776,000		—
SUBTOTAL		\$14,720,780		\$2,271,900		\$4,704,105		
<u>Wild Horses/Burros</u>								
Water Developments	<sup>2/</sup>		3	\$ 30,000	2	\$ 20,000	<sup>2/</sup>	—
<u>Wildlife</u>								
Guzzlers (Each)	5	\$ 10,000	20	\$ 40,000	20	\$ 40,000	5	\$ 10,000
Spring Protection (Each)	7	35,000	10	20,000	40	20,000		—
Vegetation Treatments (Acres)		—		—	500	30,000	200	12,000
Water Developments (Each)	40	80,000	12	24,000	40	80,000	40	80,000
Fence Modification (Miles)	5	5,000	10	10,000	20	20,000		—
Fences (Miles)	86	206,400	353	847,200	189	453,600		—
SUBTOTAL		\$ 336,400		\$ 941,200		\$643,600		\$102,000
TOTAL COST		\$15,057,180		\$3,243,100		\$5,347,705		\$102,000

- <sup>1/</sup> These improvements will be designed to benefit all uses. The categories used here are only to indicate the primary benefiting use.
- <sup>2/</sup> No specific improvements currently planned.



Short and Long-Term Management Actions:

1. Implement intensive management of Christmas tree cutting on approximately 23,000 acres and allow maximum harvest levels in response to demand.
2. Manage fuelwood harvesting to allocate the full allowable cut on approximately 74,000 acres.
3. Implement a program providing for competitive commercial fuelwood sales.
4. Provide for commercial salvage cuts if pinyon pine/juniper type conversions to improve forage production prove to be the most beneficial use of the forested area.
5. Provide for commercial pine nut sales in years that pine nuts are abundant.

**ISSUE 10: MINERALS**

Objective: Encourage production of mineral resources consistent with existing laws and regulations.

Short and Long-Term Management Actions:

1. Designate the entire planning area open to mineral entry for locatable minerals, except 47,022 acres (1.5 percent of the RMP area) consisting of a portion of the Little Humboldt River WSA and 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS as preliminarily suitable for wilderness designation, and an 11 acre administrative withdrawal.

2. Provide for oil/gas and geothermal leasing as follows:

a) Designation: Limited - subject to no surface occupancy.

Purpose: Protection of SRMAs. No surface occupancy will apply to areas within one-half mile of the high water line around Wilson, Zunino/Jiggs, Wildhorse, South Fork of the Owyhee River, and Rock Creek and South Fork Reservoirs (Special Recreation Area Alternatives Map).

Acres: 11,092 (0.4 percent of RMP area).

b) Designation: Open - subject to standard leasing stipulations.

Acres: 3,075,905 (98.1 percent RMP area).

c) Designation: Closed.

Purpose: Areas recommended as preliminarily suitable for wilderness designation (including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS) and an 11 acre administrative withdrawal.

Acres: 47,022 (1.5 percent of RMP area).

See Appendix 6 for Special Leasing Stipulations.



## ALTERNATIVE C

GOAL: Management direction in Alternative C is to implement a resource management plan that is oriented toward enhancement of fragile and unique natural values with emphasis on wilderness, wildlife, and wild horses.

### ISSUE 1: LANDS AND REALTY

Objective: Allow disposals, land tenure adjustments, and land use authorizations that minimize loss or damage to wildlife and riparian habitat, wild horse herd areas, visual quality, and other fragile or unique resources.

#### Short and Long-Term Management Actions:

1. Make available, primarily through sale, 5,900 acres of public land to meet community expansion needs (Land Tenure Adjustment and Corridor Map - Alternative C).
2. Identify for transfer, primarily through exchange, 212,480 acres of public land (Land Tenure Adjustment and Corridor Map - Alternative C).

### ISSUE 2: CORRIDORS

Objective: Designate corridors that do not result in loss or damage to wildlife and riparian habitat, wild horse herd areas, visual quality, and other fragile or unique resources.

#### Short-Term Management Actions:

1. Locate corridors along existing rights-of-way whenever possible.
2. Designate 219 miles of transportation and utility corridors which contain existing

facilities. This includes 109 miles of low visibility corridor designation along Interstate 80. Facilities within the low visibility corridor would be accommodated only if the facility would not be evident in the characteristic landscape.

### ISSUE 3: LEGAL ACCESS

Objective: Acquire legal access for routes that would enhance management of recreation and wilderness areas, wild horses, wildlife, and riparian habitats.

Long-Term Management Action: Initiate procedures to acquire legal access for 24 roads (72.5 miles) considered high priority for management of recreation and wilderness areas, wild horse herds, and terrestrial wildlife and riparian habitats (Table 2-3).

### ISSUE 4: RECREATION

Objective: Emphasize dispersed and nonmotorized recreation.

#### Short and Long-Term Management Actions:

1. Maintain three existing SRMAs: the South Fork of the Owyhee River for sport and commercial river recreation (3,500 acres, the rim-to-rim portion); Wilson Reservoir (5,440 acres), and Zunino/Jiggs Reservoir (800 acres) for camping and water based recreation (Special Recreation Management Area Alternatives Map).
2. Designate the South Fork of the Humboldt River (3,360 acres) for water based recreation uses as an SRMA (Special Recreation Management Area Alternatives Map).



TABLE 2-3  
ALTERNATIVE C - LEGAL ACCESS

<u>Resources</u>	<u>Number of Roads</u>	<u>Percent</u>	<u>Miles of Roads</u>	<u>Percent</u>
Wildlife	1	3	3	4
Wilderness	5	21	17	24
Recreation	14	59	36.5	24
Wilderness/Recreation	4 <u>24</u>	17 <u>100%</u>	16 <u>72.5</u>	22 <u>100%</u>

ROADS FOR ALTERNATIVE C (Refer to Access Roads Map)

1020, 1042, 1047, 1092, 1103, 1117, 1126, 1128, 1129, 1130, 1140, 1230, 1247, 1250, 1254, A, C, D, E, J, L, M, N.





3. Designate the Wildhorse Special Recreation Management Area (5,760 acres) for camping and water based recreation. This area would include both the North and West Wildhorse SRMAs as well as lands for dispersed recreation use.
4. Manage the remainder of the planning area for dispersed recreation activities.
5. Designate the planning area as follows for off-road vehicles: 3,029,780 acres open (97 percent of RMP area) and 104,239 acres (three percent of the planning area; composed of SRMAs and preliminarily suitable portions of WSAs, including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS) limited to designated roads and trails.

### ISSUE 5: WILDERNESS

#### (ALL WILDERNESS)

Objective: To manage all lands currently under wilderness review as wilderness.

Short and Long-Term Management Action: Recommend all of the WSAs (66,754 acres) as preliminarily suitable for wilderness designation (2.1 percent of RMP area).

<u>WSA</u>	<u>Suitable Acres</u>	<u>Nonsuitable Acres</u>
Rough Hills	6,685	0
Little Humboldt River	42,213	0
Cedar Ridge	10,009	0
Red Spring	7,847	0
TOTAL	66,754	0

### ISSUE 6: LIVESTOCK GRAZING

Objective: Allow livestock grazing at use levels which would avoid significant conflicts with sensitive resources. Grazing systems and range improvements would be implemented to enhance overall rangeland vegetative conditions.

Short-Term Management Actions: Reduce grazing levels from 387,535 AUMs to a level of 193,767 AUMs (50 percent reduction of active preference). This would be a 37 percent reduction from the current three to five year average licensed use.

#### Long-Term Management Actions:

1. Construct 256 miles of fence, and 123 reservoirs; develop 81 springs; install 83 miles of pipeline, 13 water storage tanks, and 29 cattleguards to improve range condition and management for livestock and wildlife (Table 2-2).
2. Continue implementation of 12 existing AMPs. Develop and implement AMPs on nine Category I allotments to allow for natural recovery of range condition.

### ISSUE 7: WILDLIFE HABITAT

Objective: Protect and/or enhance terrestrial, riparian, and aquatic wildlife habitat to the maximum extent possible.

#### Short and Long-Term Management Actions:

1. Manage wildlife habitat to provide 40,782 AUMs of forage for mule deer, 1,215 AUMs for pronghorn antelope, and 140 AUMs for bighorn sheep (Appendix 4 Table 1).



2. Construct 20 guzzlers, ten spring protection facilities, 12 water developments, and 353 miles of fencing to improve habitat and management for wildlife. Modify ten miles of fence within crucial big game habitat.
3. Apply restrictions on leasable and/or salable mineral activities to protect all deer winter range, crucial sage grouse habitat, and antelope kidding areas.
4. Jointly evaluate and analyze availability and condition of habitat areas identified by Nevada Department of Wildlife (NDOW) for the reestablishment/reintroduction or introduction of bighorn sheep and other wild-life species. Accommodate these plans through cooperative agreements, if feasible.
5. Intensively manage 191 miles (5,740 acres) of riparian/stream habitat to provide good habitat condition for wildlife and fish. Techniques which would result in a minimum improvement of 30 percent in habitat condition in the short-term from the date of implementation would be used.
6. Preclude new road construction in riparian areas except at essential drainage crossings. Mitigate all mining and mineral exploration and development impacts in riparian areas.

### ISSUE 8: WILD HORSES

Objective: Manage wild horse populations with the goal of enhancing habitat conditions for wild horses and increasing horse numbers.

#### Short-Term Management Actions:

1. Evaluate wild horse habitat to reduce or eliminate conditions

that would prevent population numbers from increasing.

2. Construct three water development projects (catchment type) each with a storage tank and trough (Table 2-2).

#### Long-Term Management Actions:

1. Manage the four wild horse herd areas with a target population of 660 horses.
2. Conduct wild horse gatherings as needed to maintain numbers.

### ISSUE 9: WOODLAND PRODUCTS

Objective: Manage 43,000 acres of woodlands for woodland product harvest.

#### Short and Long-Term Actions:

1. Implement intensive management of Christmas tree cutting on approximately 14,000 acres and allow maximum harvest levels in response to demand.
2. Manage fuelwood harvesting to allocate the full allowable cut on approximately 43,000 acres.

### ISSUE 10: MINERALS

Objective: Allow mineral exploration and development while mitigating all impacts to wildlife, wild horses, recreation, and wilderness.

#### Short and Long-Term Management Actions:

1. Designate the planning area open to mineral entry for locatable minerals, except for 85,390 acres (2.7 percent of the RMP area) consisting of areas preliminarily suitable for wilderness designation, including 18,625 acres



addressed in the Draft Owyhee Canyonlands Wilderness EIS and an 11 acre administrative site.

2. Provide for oil/gas and geothermal leasing as follows:

a) Designation: Limited - subject to no surface occupancy.

Purpose: Protection of SRMAs and sage grouse strutting grounds. No surface occupancy would apply to areas within one-half mile of the high water line around Wilson, Zunino/Jiggs, Wildhorse, Rock Creek and South Fork Reservoirs and South Fork of the Owyhee Canyon SRMA (Special Recreation Management Area Map).

Acres: 36,872 (1.2 percent of RMP area; 11,092 - SRMAs and 25,780 - sage grouse strutting grounds).

b) Designation: Limited - Subject to seasonal restriction.

Purpose: Protect crucial deer winter, crucial deer yearlong, and crucial yearlong antelope habitat, and sage grouse brood rearing areas (refer to Antelope and Mule Deer Habitat Map).

Acres: 877,525 (28 percent of RMP area).

c) Designation: Open - subject to standard leasing stipulations.

Acres: 2,134,232 (68.1 percent of RMP area).

d) Designation: Closed.

Purpose: Areas recommended as preliminarily suitable for wilderness designation (including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS) and an 11 acre administrative withdrawal site.

Acres: 85,390 (2.7 percent RMP area) See Appendix 6 for Special Leasing Stipulations.

## ALTERNATIVE D

Alternative D emphasizes a balanced approach to land management in the planning area. Management attention would be directed toward improving rangeland vegetative conditions, expanding livestock grazing opportunities, providing habitat for additional big game, meeting a variety of recreational needs, and providing for mineral development. This management direction would favorably influence orderly economic growth while providing for the social needs of the local and regional area.

### ISSUE 1: LANDS AND REALTY

Objective: Allow disposals, land tenure adjustments, and land use authorizations to accommodate the overall goal of this alternative.

#### Short and Long-Term Management Actions:

1. Make available, primarily through sale, up to 5,900 acres of public land to meet community expansion needs (Land Tenure Adjustment and Corridor Map - Alternative D).
2. Make available, primarily by sale, up to 8,340 acres of public lands that are difficult and uneconomic to manage.
3. Identify for transfer, primarily through exchange, 243,200 acres.

### ISSUE 2: CORRIDORS

Objective: Identify designated corridors and planning corridors in coordination with other multiple-use objectives.



### Short and Long-Term Management Actions:

1. Designate 243 miles of right-of-way corridors. This includes 109 miles of low visibility corridor designation along Interstate 80. Future facilities within this low visibility corridor would be accommodated if the facility were not evident in the characteristic landscape (Land Tenure Adjustment and Corridor Map - Alternative D).
2. Identify 130 miles of planning corridors for future facilities.

### **ISSUE 3: LEGAL ACCESS**

Objective: Initiate procedures to acquire legal access for routes which would enhance opportunities to use public resources and provide for public land administration.

Long-Term Management Action: Acquire legal access for 60 roads (242 miles) considered high priority for management of all resources (Table 2-4).

### **ISSUE 4: RECREATION**

Objective: Provide a wide range of recreation opportunities.

### Short and Long-Term Management Actions:

1. Maintain three existing SRMAs: the South Fork of the Owyhee River for sport and commercial river recreation (3,500 acres, the rim-to-rim portion); Wilson Reservoir (5,440 acres), and Zunino/Jiggs Reservoir (800 acres) for camping and water based recreation (Special Recreation Management Area Alternative Map).

2. Designate the South Fork of the Humboldt River (3,360 acres) as an SRMA for water based recreation uses (Special Recreation Management Area Alternative Map).
3. Designate the Wildhorse Special Recreation Management Area (5,760 acres) for camping and water based recreation. This area would include both the North and West Wildhorse SRMAs as well as lands for dispersed recreation use.
4. Manage the remainder of the planning area acres for dispersed recreation activities.
5. Make the following ORV designations: 3,060,074 acres open (98 percent of the planning area) and the remaining area (73,945 acres; composed of SRMAs and preliminarily suitable portions of WSAs including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS) limited to designated roads and trails.

### **ISSUE 5: WILDERNESS**

Objective: Manage as wilderness those portions of the WSAs that are manageable as wilderness and where no identified existing or potential conflicts with oil and gas exploration or other minerals exist.

### Short and Long-Term Management Actions:

1. Recommend the entire Rough Hills WSA (6,685 acres) and a portion of the Little Humboldt River WSA (29,775 acres) as preliminarily suitable for wilderness designation (1.2 percent of RMP area).



TABLE 2-4  
ALTERNATIVE D - LEGAL ACCESS

<u>Resources</u>	<u>Number of Roads</u>	<u>Percent</u>	<u>Miles of Roads</u>	<u>Percent</u>
Wilderness	1	2	7	3
Range	22	36	94	38
Recreation	3	5	13	5
Woodland	5	8	12	5
Minerals	3	5	14	6
Other Government	5	8	29	12
Range/Woodland	7	11	23	10
Wilderness/ Range/ Recreation/Woodland	1	2	5	2
Range/Recreation	4	7	19	8
Wilderness/Range/ Recreation	2	3	10	4
Recreation/Wildlife	1	2	1	1
Range/Wildlife	1	2	3	1
Wilderness/Recreation	1	2	1	1
Recreation/Woodland	1	2	2	1
Range/Recreation/ Other Government	2	3	4	2
Wildlife/Other Government	$\frac{1}{60}$	$\frac{2}{100\%}$	$\frac{5}{242}$	$\frac{2}{100\%}$

ROADS FOR ALTERNATIVE D (Refer to Access Roads Map)

1000, 1009, 1020, 1030, 1033, 1035, 1041, 1042, 1045, 1047, 1053, 1059, 1066, 1069, 1072, 1092, 1095, 1103, 1112, 1113, 1114, 1116, 1117, 1119, 1126, 1127, 1128, 1129, 1130, 1138, 1140, 1200, 1219, 1224, 1225, 1227, 1229, 1230, 1239, 1247, 1250, 1251, 1254, 1263, 1264, 1265, 1287, 1297, A, B, C, E, G, I, J, K, L, M, N.



2. Recommend the Cedar Ridge and Red Spring WSAs and a portion of the Little Humboldt River WSA, totaling 30,294 acres, as nonsuitable for wilderness designation (Wilderness Study Areas Alternatives Maps).

<u>WSA</u>	<u>Suitable Acres</u>	<u>Nonsuitable Acres</u>
Rough Hills	6,685	0
Little Humboldt River	29,775	12,438
Cedar Ridge	0	10,009
Red Spring	0	7,847
<b>TOTAL</b>	<b>36,460</b>	<b>30,294</b>

### ISSUE 6: LIVESTOCK GRAZING

Objective: Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland values.

#### Short and Long-Term Management Actions:

1. Initially license livestock use at the three to five year (1979-1983) average licensed use level of 305,247 AUMs. Over the long-term increase the availability of livestock AUMs to 396,989 AUMs, a two percent increase over active preference and 30 percent over the three to five year average licensed use level (Appendix 3, Table 2). There would be no change in active preference unless adequately supported by monitoring.
2. Treat or seed 120,978 acres to provide additional livestock forage and reduce the grazing pressure on adjacent areas.
3. Construct 258 miles of fence; drill 28 wells; lay 132 miles of pipeline; install 24 storage tanks, 97 spring developments,

and 97 reservoirs to improve livestock distribution and utilization of vegetation (Table 2-2).

4. Develop and implement AMPs on 22 Category I allotments and six Category M allotments to allow for natural improvement of range condition while considering multiple-use values and increasing livestock carrying capacity.
5. Implement a rangeland monitoring program to determine if management objectives are being met and adjust grazing management systems and livestock numbers as required.

### ISSUE 7: WILDLIFE HABITAT

Objective: Conserve and enhance terrestrial and aquatic wildlife habitat.

#### Short and Long-Term Management Actions:

1. Manage wildlife habitat to provide 40,782 AUMs of forage for mule deer, 1,215 AUMs for pronghorn antelope, and 140 AUMs for bighorn sheep (Appendix 4, Table 1).
2. Construct 20 guzzlers, 40 spring protection facilities, 40 water developments, and 189 miles of fencing to improve habitat and management for wildlife. Implement 500 acres of vegetation treatment and modify 20 miles of fence within crucial big game habitat (Table 2-2).
3. Monitor the interaction between wildlife habitat condition and other resource uses and make adjustments in season-of-use for livestock to improve or maintain essential and crucial wildlife habitats.



4. Jointly evaluate and analyze availability and condition of habitat areas identified by the Nevada Department of Wildlife for the reestablishment, reintroduction, or introduction of bighorn sheep and other wildlife species. Accommodate these plans through cooperative agreements, if feasible.
5. Apply restrictions on leasable and/or salable mineral developments to protect crucial deer winter range, sage grouse strutting and nesting habitats, and antelope kidding areas.
6. Manage 116 miles (3,480 acres) of high priority riparian/stream habitat to provide good habitat condition for wildlife and fish. Techniques which would result in a minimum improvement of 30 percent in habitat condition in the short-term from the date of implementation would be used.

#### ISSUE 8: WILD HORSES

Objective: Manage wild horse populations in their current herd areas consistent with other resource uses.

Short and Long-Term Management Actions:

1. Manage the four wild horse herd areas with a target population of 330 horses.
2. Monitor wild horse populations and habitat conditions.
3. Construct two water development projects (catchment type) each with a storage tank and trough (Table 2-2).
4. Conduct wild horse gatherings as needed to maintain numbers.

#### ISSUE 9: WOODLAND PRODUCTS

Objective: Manage woodland areas to provide as wide a variety of products and services as possible to both the general public and commercial users.

Short and Long-Term Management Actions:

1. Implement intensive management of Christmas tree cutting on approximately 23,000 acres of woodlands.
2. Manage fuelwood harvesting to allocate the full allowable cut on approximately 60,000 acres. Additional live fuelwood harvesting areas would be opened as needed.
3. Provide for commercial pine nut sales in years when pine nuts are abundant.

#### ISSUE 10: MINERALS

Objective: Maintain public lands open for exploration, development, and production of mineral resources while mitigating conflicts with wildlife, wild horses, recreation, and wilderness resources.

Short and Long-Term Management Actions:

1. Designate the resource area open to mineral entry for locatable minerals, except for 55,096 acres (1.8 percent of RMP area) consisting of areas preliminarily suitable for wilderness designation, including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS and an 11 acre administrative site.
2. Provide for oil/gas and geothermal leasing as follows:



a) Designation: Limited - subject to no surface occupancy.

Purpose: Protection of SRMAs and sage grouse strutting grounds. No surface occupancy would apply to areas within one-half mile of the high water line around Wilson, Zunino/Jiggs, Wildhorse, South Fork of the Owyhee Canyon, and Rock Creek and South Fork Reservoirs (Special Recreation Management Area Alternatives Map).  
Acres: 36,872 (1.2 percent of RMP area; 11,092 - SRMAs and 25,780 - sage grouse strutting grounds).

b) Designation: Limited - Subject to seasonal restriction.

Purpose: Protect crucial deer winter range, crucial antelope yearlong habitat, and sage grouse brood rearing areas (Antelope and Mule Deer Habitat Map).  
Acres: 470,714 (15 percent of RMP area).

c) Designation: Open - subject to standard leasing stipulations.  
Acres: 2,571,337 (82 percent of RMP area).

d) Designation: Closed.  
Purpose: Areas recommended as preliminarily suitable for wilderness designation, including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS and an 11 acre administrative withdrawal.  
Acres: 55,096 acres (1.8 percent of RMP area).

See Appendix 6 for Special Leasing Stipulations.

## ALTERNATIVE E

GOAL: This alternative was developed to provide for baseline data and a comparative analysis of the elimination of livestock grazing on public lands.

### ISSUE 1: LANDS AND REALTY

Objective: To allow disposals, land tenure adjustments, and land use authorizations that minimize loss or damage to wildlife and riparian habitat, wild horse herd areas, visual quality, and other fragile or unique resources.

#### Short and Long-Term Management Actions:

1. Make available for sale up to 5,900 acres of public land to meet community expansion needs (Land Tenure Adjustment and Corridor Map - Alternative E).
2. Identify for transfer by exchange 212,480 acres of public land (Land Tenure Adjustment and Corridor Map - Alternative E).

### ISSUE 2: CORRIDORS

Objective: Designate corridors that do not result in loss or damage to wildlife and riparian habitat, wild horse herd areas, visual quality, and other fragile or unique resources.

#### Short-Term Management Actions:

1. Locate corridor routes on existing rights-of-way whenever possible.
2. Designate 219 miles of transportation and utility corridors which contain existing facilities. This includes 109 miles of low visibility corridor designation along Interstate 80.



Future facilities within the low visibility corridor would be accommodated if the facility were not evident in the characteristic landscape.

### ISSUE 3: LEGAL ACCESS

Objective: Acquire legal access for routes which would enhance management of recreation and wilderness areas, wild horses, wildlife, and riparian habitats.

Long-Term Management Action: Initiate procedures to acquire legal access for 14 roads (50 miles) considered as high priority for management of recreation and wilderness areas, wild horse herds, and terrestrial wildlife and riparian habitats (Table 2-5).

### ISSUE 4: RECREATION

Objective: Emphasize dispersed and nonmotorized recreation.

Short and Long-Term Management Actions:

1. Maintain three existing SRMAs: the South Fork of the Owyhee River for sport and commercial river recreation (3,500 acres, the rim-to-rim portion); Wilson Reservoir (5,440 acres) and Zunino/Jiggs Reservoir (800 acres) for camping and water based recreation (Special Recreation Management Area Alternatives Map).
2. Designate the South Fork of the Humboldt River (3,360 acres) as an SRMA for water based recreation uses (Special Recreation Management Area Alternatives Map).

3. Designate the Wildhorse Special Recreation Management Area (5,760 acres) for camping and water based recreation. This area would include both the North and West Wildhorse SRMAs as well as lands for dispersed use.
4. Manage the remainder of the planning area for dispersed recreation activities.
5. Designate the RMP area as follows for off-road vehicles: 3,029,780 acres open (97 percent of RMP area) and 104,239 acres (3 percent of RMP area; composed of SRMAs and preliminarily suitable portions of WSAs including 18,625 acres addressed in the Draft Owyhee Canyonlands Wilderness EIS) limited to designated roads and trails.

### ISSUE 5: WILDERNESS

Objective: Manage all lands currently under wilderness review as wilderness.

Short and Long-Term Management Action: Recommend all of the WSAs, totaling 66,754 acres, as preliminarily suitable for wilderness designation (2.1 percent of RMP area).

<u>WSA</u>	<u>Suitable Acres</u>	<u>Nonsuitable Acres</u>
Rough Hills	6,685	0
Little Humboldt River	42,213	0
Cedar Ridge	10,009	0
Red Spring	7,847	0
TOTAL	66,754	0

### ISSUE 6: LIVESTOCK GRAZING

Objective: Eliminate all livestock grazing on public lands.



TABLE 2-5  
ALTERNATIVE E - LEGAL ACCESS

<u>Resources</u>	<u>Number of Roads</u>	<u>Percent</u>	<u>Miles of Roads</u>	<u>Percent</u>
Wildlife	1	7	3	6
Recreation	11	79	35	70
Wilderness	$\frac{2}{14}$	$\frac{14}{100\%}$	$\frac{12}{50}$	$\frac{24}{100\%}$

ROADS FOR ALTERNATIVE E (Refer to Access Roads Map)

1042, 1047, 1092, 1103, 1126, 1128, 1130, 1230, 1250, 1254, A, C, E, J, M.





Short-Term Management Actions:  
Eliminate all livestock grazing on public lands.

## ISSUE 7: WILDLIFE HABITAT

Objective: Enhance terrestrial, riparian, and aquatic wildlife habitat to the maximum extent possible to allow big game populations to expand beyond reasonable numbers.

### Short and Long-Term Management Actions:

1. Manage big game habitat in good or better condition, so that population levels could expand beyond reasonable numbers. This is expected to range from 80,000 to 100,000 AUMs of use and represents the highest documented level for mule deer populations (NDOW, 1983). It also includes projected bighorn sheep and pronghorn antelope forage.
2. Construct 20 guzzlers, 10 spring protection facilities, and 12 water developments to improve habitat and management for wildlife. Modify 10 miles of fence within crucial big game habitat (Table 2-2).
3. Apply time of year restrictions on leasable and/or salable mineral development to protect all deer winter range and all crucial sage grouse habitat.
4. Jointly evaluate and analyze availability and condition of habitat areas identified by the Nevada Department of Wildlife (NDOW) for the reestablishment, reintroduction, or introduction of bighorn sheep and other wildlife species. Accommodate these plans through cooperative agreements, if feasible.

5. Preclude new road construction in riparian areas except at essential drainage crossings. Preclude mining and mineral exploration and development in riparian areas.

## ISSUE 8: WILD HORSES

Objective: Manage wild horse populations with the goal of enhancing habitat conditions for wild horses and increasing horse numbers.

### Short-Term Management Actions:

1. Monitor wild horse populations and habitat to reduce or eliminate conditions that would prevent population numbers from increasing.
2. Construct three water development projects (catchment type) each with a storage tank and trough (Table 2-2).

### Long-Term Management Actions:

1. Manage the four wild horse herd areas with a target population of 660 horses.
2. Conduct wild horse gatherings as needed to maintain numbers.

## ISSUE 9: WOODLAND PRODUCTS

Objective: Manage 43,000 acres of woodlands for woodland product harvest.

### Short and Long-Term Actions:

1. Implement intensive management of Christmas tree cutting on approximately 14,000 acres of woodlands.
2. Manage fuelwood harvesting to allocate the full allowable cut on approximately 43,000 acres.



## ISSUE 10: MINERALS

Objective: Allow mineral exploration and development while mitigating all impacts to wildlife, wild horses, recreation, and wilderness.

### Short and Long-Term Management Actions:

1. Designate the planning area open to mineral entry for locatable minerals except for 89,930 acres (2.7 percent of RMP area) consisting of areas preliminarily suitable for wilderness designation, including 18,625 acres address in the Draft Owyhee Canyonlands Wilderness EIS and 11 acres for an administrative withdrawal site.

2. Provide for oil/gas and geothermal leasing as follows:

a) Designation: Limited - subject to no surface occupancy.

Purpose: Protection of SRMAs and sage grouse strutting grounds. Surface occupancy will apply to areas within one-half mile of the high water line around Wilson, Zunino/Jiggs, Wildhorse, Rock Creek and South Fork Reservoirs and South Fork of the Owyhee Canyon SRMA (Special Recreation Management Area Alternatives Map). Acres: 36,872 (1.2 percent of RMP area; 11,092 - SRMAs and 25,780 - sage grouse strutting grounds).

b) Designation: Limited - Subject to seasonal restrictions.

Purpose: Protect crucial deer winter range, and crucial deer yearlong range, crucial antelope yearlong habitat, and sage grouse brood rearing areas (Antelope and Mule Deer Habitat Map).

Acres: 877,525 (28 percent of RMP area).

c) Designation: Open - subject to standard leasing stipulations. Acres: 2,134,232 (68.1 percent of RMP area).

d) Designation: Closed.

Purpose: Areas recommended as preliminarily suitable for wilderness designation and an administrative withdrawal.

Acres: 85,930 (2.7 percent of RMP area) for wilderness designation, including 18,625 acres address in the Draft Owyhee Canyonlands Wilderness EIS and an 11 acre administrative withdrawal site.

See Appendix 6 for Special Leasing Stipulations.

## MANAGEMENT GUIDANCE

### COMMON TO ALL ALTERNATIVES

The following management guidance is applicable to all alternatives. This guidance consists of current management practices expected to continue; plan implementation actions; and standard operating procedures resulting from existing policy, regulation, or legal requirements.

#### General

The selection of the final resource management plan will take place after publication of the final environmental impact statement. The plan will consist of one, or a combination of, the management actions presented in this document.

In general, this resource management plan will be implemented through activity plans. These are detailed, site-specific management actions outlined in livestock allotment management plans, wildlife habitat management plans, wild horse management area plans, and wilderness



management plans among others. These plans will be multiple-use in nature. They will include actions such as range improvements and grazing systems. This is consistent with the RMP process. Monitoring will be used to evaluate the plans to see if they are meeting their objectives.

A Rangeland Program Summary will be issued after completion of the RMP to inform livestock permittees and interested publics about the implementation of the rangeland management program. It will identify allotment specific objectives for livestock, wildlife, and wild horses. It will outline allotment specific monitoring studies needed to evaluate the attainment of objectives and the range improvements proposed to implement the RMP.

Public lands will be managed under the principles of multiple-use and sustained-yield. Any valid use, occupancy, or development of the public lands will be considered subject to existing environmental review procedures unless specifically excluded in this plan.

Environmental analysis, in compliance with existing laws and regulations, will be implemented prior to decisions on uses or projects involving public lands.

The Bureau will coordinate its review of projects prepared in conjunction with the RMP with officially adopted and approved plans, policies, and programs of other affected agencies, state and local governments, and Indian tribes to ensure consistency.

Any management action undertaken in connection with the RMP will consider local social and economic factors along with resource potentials and cost efficiency.

## SPECIFIC RESOURCE OR PROGRAM GUIDANCE

### 1. Lands Program

The final plan does not propose any acreage for immediate sale. It identifies tracts of lands with the potential for future transfer to state and local governments, as well as to the private sector. Preliminary analysis indicates those tracts of public land identified meet the disposal criteria outlined in Section 203 of the Federal Land Policy and Management Act (FLPMA).

Lands within this disposal pool are generally difficult or uneconomic to manage, are not suitable for management by another federal agency, were acquired for a purpose which is no longer required, or would serve an important public objective (i.e. community development, economic development, etc.) which cannot be obtained otherwise and outweigh other public values (i.e. recreation and wildlife values).

The primary methods for transferring these lands are through lease and sale under the Recreation and Public Purposes Act; and lease, sale, or exchange under FLPMA. These land tenure adjustment proposals would be considered where analysis indicates they are beneficial to the public.

Transfer of lands from Federal ownership will be subject to the following provisions:

- a) Mineral rights will be reserved to the United States unless there are no known mineral values in the land or the nonmineral development of the land is of more value than the minerals and the reservation of mineral rights precludes nonmineral development;
- b) access to public lands will be maintained;



- c) if disposal causes a reduction in grazing preferences a two year period is required for notification of the livestock permittee unless waived by permittee.
- d) compensation for investment by the permittee is authorized when disposal results in a decrease or cancellation of a permit in whole or part.

Land tenure adjustment would be subject to a detailed analysis. This analysis generally includes preparation of an environmental assessment, a cultural resources clearance, a report on mineral potential, and an appraisal to establish fair market value. The following is a list of criteria that are considered during the analysis process:

- a) Public resource values or concerns, including but not limited to: threatened, endangered, or sensitive species habitat; riparian areas, flood plains, and wetlands; fisheries, nesting/breeding habitat for game birds or animals, key big game seasonal habitat, wild horse and burro habitat; developed recreation and recreation access sites, municipal watersheds, mineral potential, visual resources, cultural resource sites eligible for inclusion on the National Register of Historic Places, wilderness, and areas being studied for wilderness; and other statutory-authorized designations.
- b) Accessibility of the land for public uses.
- c) Amount of public investment in facilities or improvements (e.g. range improvements, wildlife projects) and the potential for recovering those investments.

- d) Difficulty or cost of administration (manageability).
- e) Significance of the decision in stabilizing business, social and economic conditions, and/or lifestyles.
- f) Encumbrances or conflicts of record; consistency of the decision with cooperative agreements and plans or policies of other agencies.
- g) Suitability and need for change in land ownership or use for purposes including but not limited to: community expansion or economic development, such as industrial, residential, or agricultural (other than grazing) development.

Tracts that this analysis indicates are not suitable for disposal would be retained. If the analysis indicates that a tract is suitable for disposal, a Notice of Realty Action would be distributed to interested parties, including state and local governments. This notice is published with a right of protest. A final decision would occur upon analysis of any protests.

## 2. Utility Corridors

The designation of right-of-way corridors is intended to minimize adverse environmental impacts and the proliferation of separate rights-of-way. All major transmission or transportation facilities will be restricted to these corridors as preferred routes. Other rights-of-way will be evaluated on an individual basis.

Designated corridors will be three miles wide and planning corridors will be five miles wide except where constraints exist. Corridors will be identified and evaluated following standard Bureau procedures.



Corridor management involves working with prospective applicants on facility placement within corridors to allow for the highest usage of the land. This may limit other activities within corridors which are not compatible with the major type of usage of the particular corridor. Compatibility problems would justify expanding or shrinking individual corridor widths or adding additional corridors. Land sales within planning or designated corridors will consider impacts to the corridor.

Time of day and/or time of year restrictions will be placed on construction activities associated with transmission and utility facilities that are in the immediate vicinity of or would cross crucial sage grouse, crucial mule deer and pronghorn antelope winter and summer habitats, antelope kidding areas, or raptor wintering or nesting areas. Restrictions will also be placed on activities affecting riparian areas and erosive soils.

### 3. Legal Access

Bureau roads are for use, development, protection, and administration of public lands and resources. Although public use is generally allowed, roads may be closed or use restricted to fulfill management objectives, protect public health and safety, or preserve resources. Easements required to provide access to public lands will be acquired when a substantial public need is documented or the access is needed to achieve resource management objectives.

### 4. Recreation

A broad range of outdoor recreation opportunities are provided for all segments of the public. Opportunities for dispersed and resource dependent types of outdoor recreation will be provided commensurate with demand and

the need to provide resource protection. Recreation facilities will be provided to meet existing and projected demand.

Recreation Area Management Plans (RAMPs) will be developed and implemented for all existing and proposed SRMAs.

Except for areas designated as limited in the resource management plan, the planning area will be designated open to use by off-road vehicles. Areas designated as limited to off-road vehicles include existing and proposed special recreation management areas and wilderness study areas. Applications for commercial or competitive special recreation use permits in areas designated as open will be analyzed through the special recreation use permit/environmental assessment process to determine what impacts may occur. These potential impacts will then be weighed against resource values to determine whether the special recreation use permits will be authorized.

### 5. Wilderness Resources

The Federal Land Policy and Management Act of 1976 requires the Secretary of the Interior to review areas of the public lands determined to have wilderness characteristics, and to report to the President by October 21, 1991 his recommendation as to the suitability or nonsuitability of each such area for preservation as wilderness. The President will submit his recommendations to Congress by October 21, 1993. Appendix 2 contains additional information on the wilderness review process.

All wilderness study areas will continue to be managed under the Bureau's Interim Management Policy and Guidelines for Lands Under Wilderness Review until completion of the wilderness review process (USDI, BLM,



1979). Wilderness recommendations made in the final environmental impact statement for the resource management plan are preliminary and subject to change during administrative review. A separate legislative final environmental impact statement will be prepared for the wilderness study recommendations. A wilderness study report will also be written that addresses each area individually. The Director of the Bureau of Land Management will request mineral surveys by the United States Geological Survey and Bureau of Mines for each area recommended as preliminarily suitable.

Separate management plans tailored to the characteristics of each designated wilderness area will be developed through consultation with interested parties. They will be coordinated with other activity plans for their areas. Specific management objectives, requirements, and decisions implementing administrative practices and visitor activities will be developed in each plan (USDI, BLM, 1981).

Designated wilderness areas will be segregated against appropriation and operations under the mining laws, mineral leasing laws, and other mineral disposal authorities subject to valid existing rights. Designation of certain nonconforming uses such as livestock grazing would be allowed. Lands released by Congress from further wilderness consideration will be managed in accordance with management objectives and actions for the selected alternative (USDI, BLM, 1981).

Upon designation, wilderness areas would become closed to off-road vehicle use.

## 6. Rangeland Management Program

### Selective Management Policy

It is the policy of the BLM to address range management problems through a

selective management approach. This approach assigns management priorities among allotments within a planning area. This is based on identifying allotments with similar management needs, resource characteristics, and potential for improvement in both resource and economic returns.

The similarity among the allotments allows them to be grouped into three categories with each having its own objective. The three categories and their objectives are: Maintain current satisfactory condition; Improve current unsatisfactory condition; or manage the allotments Custodially, while protecting existing resources. The use of these allotment categories will help to establish priorities for distributing available funds and personnel in such a way as to achieve cost effective improvement of rangeland production and condition. Generally Improve category allotments will have the highest priority for implementation of range improvements and grazing systems, Maintain category allotments will have next highest priority with Custodial category allotments having the lowest priority for development.

The categorization process will be used to develop grazing treatments and systems, and install range improvements in order to resolve grazing related problems. The priorities identify those allotments where more intensive management is needed. Appendix 3, Table 4 contains the criteria used in evaluating each allotment and the initial allotment categorizations. This initial categorization, as well as the criteria, was subject to public comment and may be changed as new information becomes available. This initial categorization was developed through analysis of existing data and consultation with the public, including the livestock permittee and the Nevada Department of Wildlife.



### Allotment Management Plans

Allotment management plans will be multiple-use in nature. They will be developed in consultation with interested parties and coordinated with other resource activity plans. Key components of allotment management plans are allotment specific objectives, monitoring studies, grazing systems, season-of-use, authorized numbers and range improvements.

The numbers of allotment management plans presented for each alternative represent the minimum level attainable.

### Grazing Treatments and Systems

A grazing treatment describes the level of grazing use and periods-of-use for a unit (usually a pasture) of an allotment, or an entire allotment in one or more years. Grazing treatments are the building blocks of the grazing plan, and are designed to improve rangeland condition by manipulating livestock grazing to accomplish objectives of management. The deferment of grazing or complete rest from grazing during the critical growth period of key management species will allow these species to maintain and/or increase their density, composition, vigor, production, and reproduction. The following treatments (singly or in various combinations) will be used in the design of grazing systems incorporated into allotment management plans:

Treatment 1: Rest from livestock grazing for two consecutive growing seasons (approximately April 1 of one year to August 31 of the following year). Two growing seasons of rest would allow key management species to improve vigor and increase litter accumulation, seed production, and seedling establishment.

Treatment 2: Rest from livestock grazing at least one year in both the spring (April 1 to May 30) and summer (June 1 to August 31) during each three or four year cycle.

Treatment 3: Graze each pasture at some time during each grazing year.

Treatment 4: Graze no pasture more than twice in the same growing season (spring or summer) during any three or four year cycle.

Treatment 5: Graze livestock from midsummer to late fall only (approximately July 16 to November 15), and rest during the spring or summer the following year to improve the vigor, density, and reproduction of key management species.

Treatment 6: Provide rest from livestock grazing for two years until seedlings are established or until it is determined that a vegetation manipulation or recovery project is unsuccessful. This treatment provides the protection necessary for establishment or recovery of key management species following wildfire, prescribed burning, and vegetation treatment.

Treatment 7: Defer livestock grazing from early spring to midsummer each year (approximately April 1 to June 30). Improved vigor and reproduction for key management species in each allotment would result.

Treatment 8: Graze livestock in early spring, so as to reduce or maintain annual and perennial grasses, while improving or maintaining key browse species (i.e. bitterbrush) on mule deer winter range. This treatment would probably only occur once in every five to six years.



## Range Improvements

Range improvements will be developed to meet identified management objectives. Fencing and water developments improve livestock distribution, especially when developed in conjunction with a grazing management plan. Appendix 3, Table 3 identifies potential range improvements by allotment, Table 2-2 shows cumulative cost of improvements by alternative.

Development of range improvement projects will include the following procedures:

- a) Benefit/Cost (B/C) analysis will be performed on an allotment basis for those range improvements required to implement new AMPs. The B/C analysis will be performed in compliance with BLM policy.
- b) Minimal clearing of vegetation will be allowed on project sites requiring excavation.
- c) Alteration of sagebrush areas either through application of herbicides, prescribed burning, or by mechanical means will be in accordance with procedures specified in the Western State's Sage Grouse Guidelines, the Memorandum of Understanding between the Nevada Department of Wildlife and Bureau of Land Management, as amended, and as future studies might dictate.
- d) Vegetation manipulation projects will be designed to minimize impact on wildlife habitat and to improve it whenever possible. Projects that would alter the potential natural plant composition will not be allowed in riparian areas.
- e) Active raptor nests adjacent to areas proposed for vegetation manipulation will be protected. On-the-ground work will be confined to the period preceding nesting activity or after the young have fledged. Areas containing suitable nesting habitat will be inventoried for active raptor nests prior to initiation of any project.
- f) A site specific soils analysis will be completed prior to planning vegetation type conversions to determine land treatment feasibility.
- g) Prescribed burn plans will be developed before any planned burning occurs on any native vegetation.
- h) Fence construction will comply with BLM Manual 1737 and NSO Manual Supplement 4730. Lay-down fences will be constructed in wildlife and wild horse areas if necessary and feasible. Fences in wild horse areas will contrast enough with surroundings so as to be visible to horses and will have gates installed at least once every mile and at all corners.
- i) Livestock water improvements will include bird ramps in watering troughs, and as needed, drinkers along pipelines, overflows at troughs, and protected seep areas. Spring developments will be fenced to prevent trampling of adjacent vegetation and provide escape areas for small wildlife. A portion of the water at these spring developments will be maintained at the source ensuring that wildlife which have used the water will have access to it as per Nevada Revised Statutes 533.367.



- j) Disturbed areas will be treated, where such action is necessary and practical, to replace ground cover and prevent erosion.
- k) Maintenance of structural improvements shall be provided by the user deriving the primary benefit from the improvement through cooperative agreements and as specified in the BLM's 1982 Rangeland Improvement Policy.
- l) Water will be made available in allotments and rested pastures for wild horses and wildlife, wherever feasible.

#### Livestock Use Adjustments

Livestock use adjustments are most often made by changing one or more of the following: the class of livestock grazing an allotment, the season-of-use, the stocking rate, or the pattern of grazing. Livestock use adjustments may be implemented through agreement or decision in compliance with existing regulation. When livestock use adjustments are implemented by decision, the decision will be based on adequate data, monitoring of resource conditions, and after consultation with the affected permittee. Current BLM policy emphasizes the use of a systematic monitoring program to identify the need for livestock adjustments. Adjustments may also be made through mutual agreement.

#### Monitoring Program

The purpose of monitoring is to measure the accomplishment of the various objectives identified within activity plans. It incorporates approved methods contained in the Nevada Rangeland Monitoring Handbook. More specifically the monitoring program objectives are to:

- a) Maintain an inventory of ecological status and a record of trend on Elko Planning Area rangelands.
- b) Determine if grazing management actions are meeting resource management objectives within prescribed time frames.

The field procedures or methods recommended by the Nevada Rangeland Monitoring Task Group include recording actual use, use pattern mapping, measuring key forage plant utilization on key areas, placement of utilization cages, collecting frequency trend data, determining ecological status and/or resource value ratings, noting information on growing conditions, and documentation of other events and observations.

Additional monitoring will be conducted in crucial wildlife and wild horse areas. Information gained through these efforts and other studies will be used in making any grazing decision. For more detailed information on these monitoring procedures, refer to the Final Nevada Range Monitoring Procedures (Nevada Rangeland Task Force, 1981), the draft Bureau Monitoring Studies Manual (1981) and the Nevada Wildlife Manual Supplement 6630 (1982).

For category I allotments, monitoring will be focused on the effects of management prescriptions on objectives developed through consultation and coordination with interested parties. The monitoring program for those allotments in Category M and C will be of lower intensity for range purposes.

#### Grazing Use Records

Accurate recording of actual grazing use by livestock, wild horses, and wildlife will be maintained by use areas to help make adjustments in



management plans. As data are recorded and accumulated, they provide managers accurate information on the season and duration of use and the number, kind, and class of grazing animals that are using or have used pastures of varying sizes. The permittee will be responsible for the livestock portion of this record. This actual use information is the day-to-day working record of a livestock operation.

Use Mapping

The use map is one of the most important tools in grazing management. It is used to help establish key management areas, to identify distribution problems and solutions, to develop objectives and grazing plans, to locate range improvements, and to make adjustments in management plans.

The utilization map for an allotment or pasture can help determine whether or not the grazing plan is functioning as designed. The map can identify and indicate the relative extent of areas underused, overused, and properly used. Problem areas can be identified for closer study to determine causes and potential solutions.

Key Forage Plant Utilization

The key forage plant utilization method is used to monitor utilization on key areas. Utilization cages may be used in conjunction with this method on key areas to help the observer make reliable estimates of the present utilization-by-weight of the key species. It is used in short-term monitoring where documented use is needed on key areas in addition to use maps. Practice and experience with this method also helps observers properly recognize the light, moderate, and heavy use classes when doing use mapping. Key forage plant utilization is also used in long-term

monitoring to help interpret why vegetation changes have taken place. The following chart shows the allowable use level guidelines for five plant categories by season-of-use.

Degree of Allowable Use Guide

Plant Category	Grazing Seasons					Yearlong
	Spring	Summer	Fall	Winter		
Annual Grasses	60%	90%	90%	90%		83%
Perennial Grasses & Grasslike	50%	50%	60%	60%		55%
Annual Forbs	60%	90%	90%	90%		83%
Perennial Forbs & Biennial Forbs	50%	50%	60%	60%		55%
Shrubs, Half Shrubs, & Trees	30%	50%	50%	50%		45%

Source: Nevada Rangeland Task Force, 1984

The utilization determined on key areas is used with actual use data, trend, ecological status, use patterns, weather, and/or supplementary information to evaluate whether management changes are needed.

Weather Data

Weather is an important factor influencing variation in forage production, and when properly recorded is an important part of both short and long-term monitoring. General observations on growing conditions and any applicable measured weather data



will be considered when making changes in grazing use.

### Frequency

A frequency sampling procedure is used to measure trend in long-term monitoring. Both a landscape and a closeup photograph are taken each time a transect is sampled. When frequency transect data indicate a significant change in the frequency of occurrence of the key species, the change is evaluated to see if the specific management objectives for the rangelands represented by the key area are being met.

### Ecological Status

Ecological status is use-independent and is defined as the present state of the vegetation of an ecological site in relation to the potential natural community for that site. Potential natural community is a biotic community that would become established if all successional sequences were completed without interference under present environmental conditions. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in the present plant community resemble that of the potential natural community (PNC). The four seral stage classes that relate to the potential natural community are:

<u>Percent of Potential Natural Community by Air Dry Weight</u>	<u>Seral Stage Classes</u>
76 - 100	potential natural community(climax)
51 - 75	late seral
26 - 50	mid seral
0 - 25	early seral

The primary purpose of determining ecological status in long term monitoring is to provide a basis for comparing or monitoring the extent and direction of changes in the plant community as a result of specific treatment or management. When establishing key area studies for native plant communities, the ecological status should be determined to facilitate monitoring the accomplishment of specific management objectives.

### 7. Wildlife and Threatened and Endangered Habitat Management Program

Wildlife habitat improvement projects (Table 2-2) will be guided primarily through habitat management plans. The plans will be developed through consultation with interested parties and other activity plans. The priority for habitat management plans will be those located within critical habitat first, within crucial habitat areas second, and all other habitats following. These plans will be focused on maintenance and improvement of wildlife habitat through actions including water developments, grazing management, fencing, and vegetation treatments. Habitat management plans will be written for specific purposes including management of crucial habitats to provide for threatened, endangered, or sensitive species where present; management of big game ranges to provide habitat for reasonable numbers of animals over the long-term; improvement of riparian, wetland, and aquatic habitats; and management of other habitats to meet the needs of upland game and nongame animals.

Techniques proven to be effective in improving and protecting riparian habitat will be used. These include the following (Platts, 1984):

1. Road relocation.



2. Mitigation of mining and mineral exploration activities where possible.
3. Modifying the time of forage use.
4. Reducing intensity of streamside forage use.
5. Adding more rest to a grazing cycle.
6. Fencing streamside corridors.
7. The inclusion of a riparian pasture as a separately managed resource.
8. Changing the kind of livestock grazing riparian habitat.

Which technique or combination of techniques to be used will be determined individually for each stream or riparian area.

#### 8. Wild Horses

Wild horse management will be guided by herd management area plans. These plans will be developed through consultation and coordination with interested parties and will be coordinated with livestock and wildlife plans and other resource plans. They will focus on wild horse management through determination of proper population management, habitat improvement, and population and habitat monitoring studies.

Wild horse gathering procedures will be designed so that captured animals are handled in a safe manner, death loss of captured animals is limited to less than two percent, and use of helicopters on roundups do not occur six weeks before and after the peak foaling season.

#### 9. Woodland Products

Woodland products will be harvested in accordance with sound forest management and BLM guidelines using the principles of sustained yield and multiple-use. Woodlands will be managed in such a way that other resource values are conserved and/or enhanced. Reforestation may be employed to enhance the sustained yield capabilities of the forest resource. Harvest areas will be closed as planned thinning levels are achieved.

Develop forest management plans for all forested areas capable of sustained yield production on an as needed basis.

Type conversions of pinyon pine/juniper stands to improve livestock and/or wildlife forage production will be limited to areas where forage production is the most beneficial (and has the greatest cost/benefit ratio).

#### 10. Minerals

Locatable mineral exploration and development on public land will be regulated under 43 CFR 3802 to prevent unnecessary and undue degradation of the land. To the extent feasible and allowed by regulation, mineral exploration activities will be restricted during wet ground conditions. In areas of unsuitable or highly erodible soils, consultation with the authorized officer is required prior to entry.

Mineral material disposals will be authorized as provided for by applicable laws and regulations. Sound management practices to prevent undue and unnecessary degradation of the public lands will continue to be used. Disposals will be evaluated on a case-by-case basis. Use of existing disposal areas will be encouraged.



To the extent feasible, mining activities will be discouraged within 400 feet of streams, springs, lakes, ponds, and reservoirs.

No oil, gas, or geothermal leasing will be permitted within incorporated city limits.

#### 11. Watershed

A variety of methods, including structural, may be employed to maintain, improve, protect, and restore watershed conditions and to provide for various water improvements. Meeting emergency needs will be the first priority. The BLM will comply with state water laws and will coordinate with local, state, and Federal agencies in designing and locating watershed projects.

Watershed management plans will be developed through consultation with interested parties and will be coordinated with livestock, wildlife, and wild horse management plans. After the plans have been implemented, watershed conditions will be monitored through water quality and wind and water erosion studies. If necessary, changes in future watershed treatments will be proposed.

Management actions within floodplains and wetlands will include measures to preserve, protect and if necessary, restore their natural functions (as required by Executive Orders 11988 and 11990).

#### 12. Air Quality

Air quality will be protected. As BLM and BLM authorized activities must prevent air quality deterioration beyond the established standards specified in the Nevada Ambient Air Quality Standards.

#### 13. Soils

Soils will be managed to maintain or improve rangeland productivity as well as minimize present and potential erosion due to wind or water.

#### 14. Water

Water quality will 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 within municipal watersheds will be designed to protect water quality and quantity.

Management actions within riparian zones will be designed to maintain or, where possible, improve riparian habitat condition.

Road and utility corridors will avoid riparian zones.

#### 15. Threatened, Endangered, and Sensitive Species

Activities that could adversely affect threatened, endangered, or sensitive species habitat will not be permitted. Actions in threatened, endangered, or sensitive species habitat will be designed to benefit these species through habitat improvement. All project work will require a threatened, endangered, or sensitive species clearance before implementation. Consultation with the U.S. Fish and Wildlife Service as per Section 7 of the Endangered Species Act is necessary if a threatened, endangered, or proposed threatened or endangered species, or its habitat may be impacted. Other species considered sensitive, but not under the protection of the Act, are given special management considerations through Bureau policy. If adverse impacts to these other sensitive



species are identified during project planning, the project will be modified or possibly abandoned, to avoid these impacts.

#### 16. Visual Resources

Visual resources will continue to be considered and evaluated for compliance with Visual Resource Management Design Procedures described in BLM Manual 8400. Effects on visual resources will be evaluated as a part of the environmental analysis process for activity and project plans and other proposed actions. Such evaluation will consider the significance of the proposed project and the visual sensitivity of the affected area. Stipulations will be attached as appropriate to assure that the visual integrity of the area remains intact and that visual resource management objectives are met. The degree of alteration allowed is determined through an inventory process which results in the classification of all public lands into one of five Visual Resource Management Classes, each class allowing for a different degree of modification.

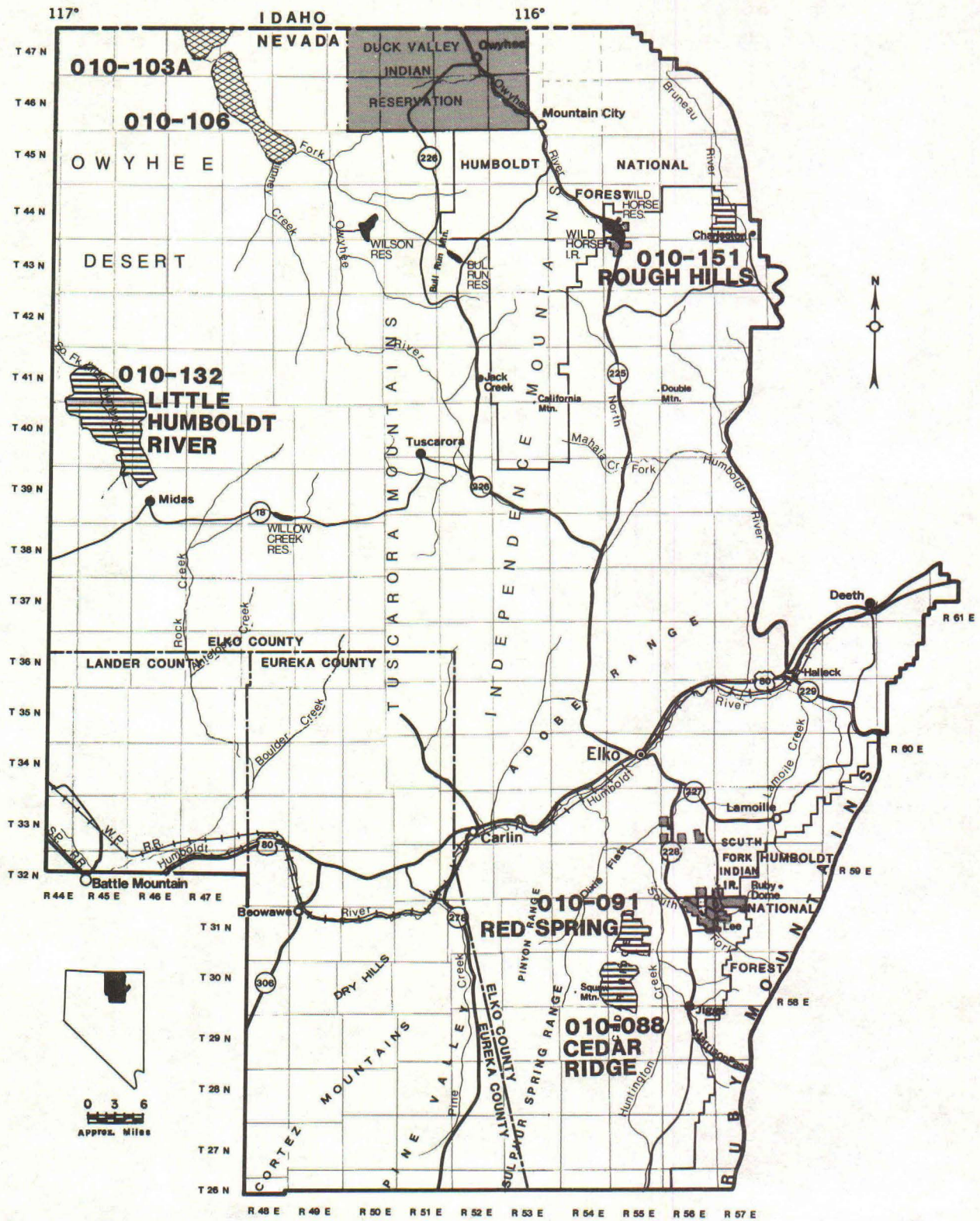
#### 17. Cultural Resources

All actions are required to comply with section 106 of the National Historic Preservation Act of 1966, section 206 of the National Historic Preservation Act Amendments of 1980, and section 101 of the National Environmental Policy Act of 1969. Additionally, compliance with Executive Order 11593 requires that no federally owned property which may qualify for the National Register of Historic Places be transferred, sold, demolished, or substantially altered without pursuing appropriate Section 106 consultation. State Director guidelines will be followed to implement the above laws. Prior to project approval, intensive field

inventories will be conducted in specific areas that could be impacted by implementing activities. If cultural or paleontological sites are found, every effort will be made to avoid adverse impacts. However, in the case of National Register quality sites where avoidance of adverse impacts is not possible, BLM will consult with the State Historic Preservation Officer and the Advisory Council on the Historic Preservation in accordance with the Programmatic Memorandum of Agreement between the BLM and the Council dated January 14, 1980. This agreement sets forth a procedure for developing appropriate mitigative measures to lessen the impact of adverse effects.



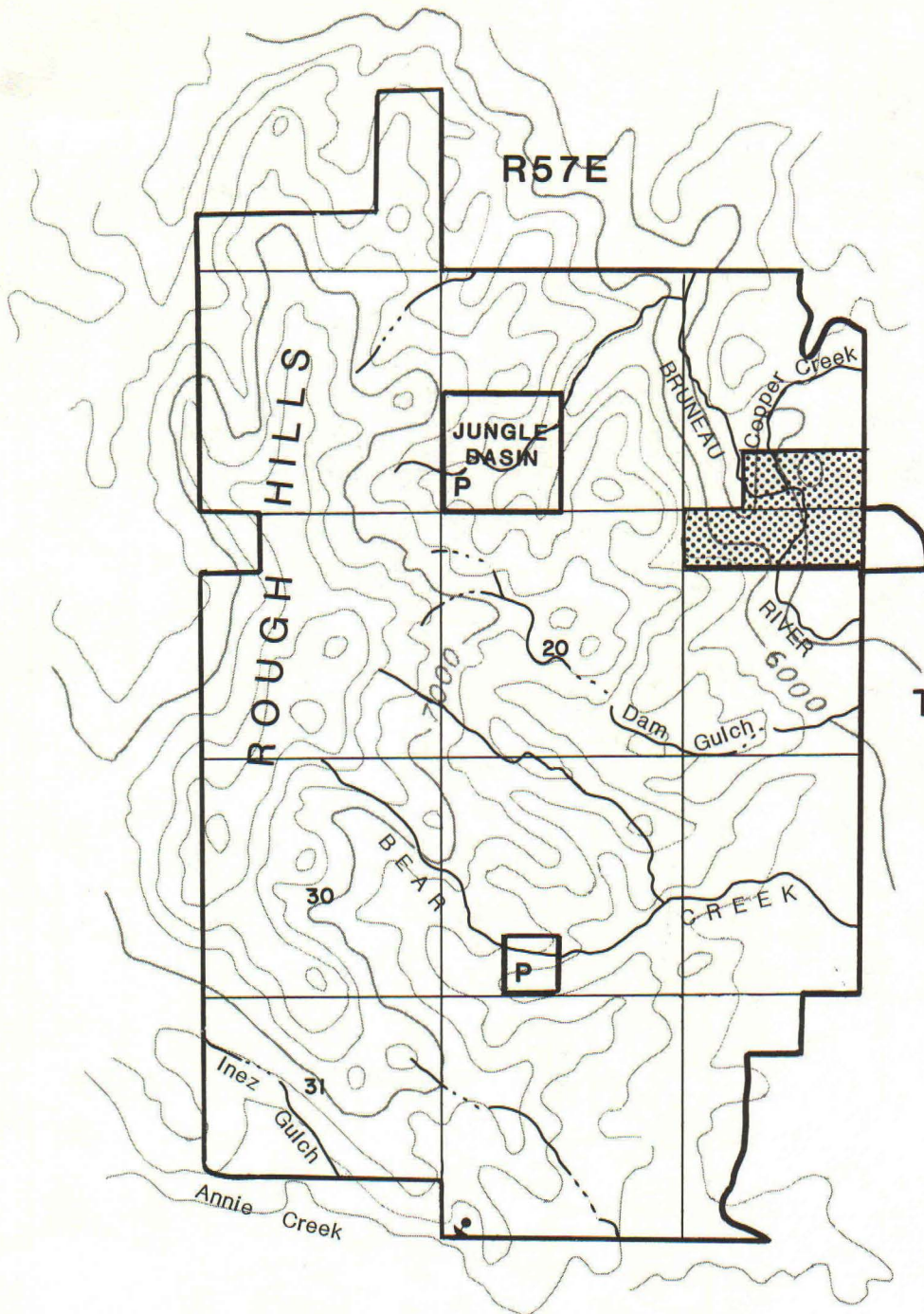




- ELKO RMP WILDERNESS STUDY AREAS**
- CANYONLANDS EIS WILDERNESS STUDY AREAS**

UNITED STATES DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT  
**WILDERNESS STUDY AREAS  
 LOCATION MAP**





 PUBLIC WATER RESERVE

 DEVELOPED SPRING

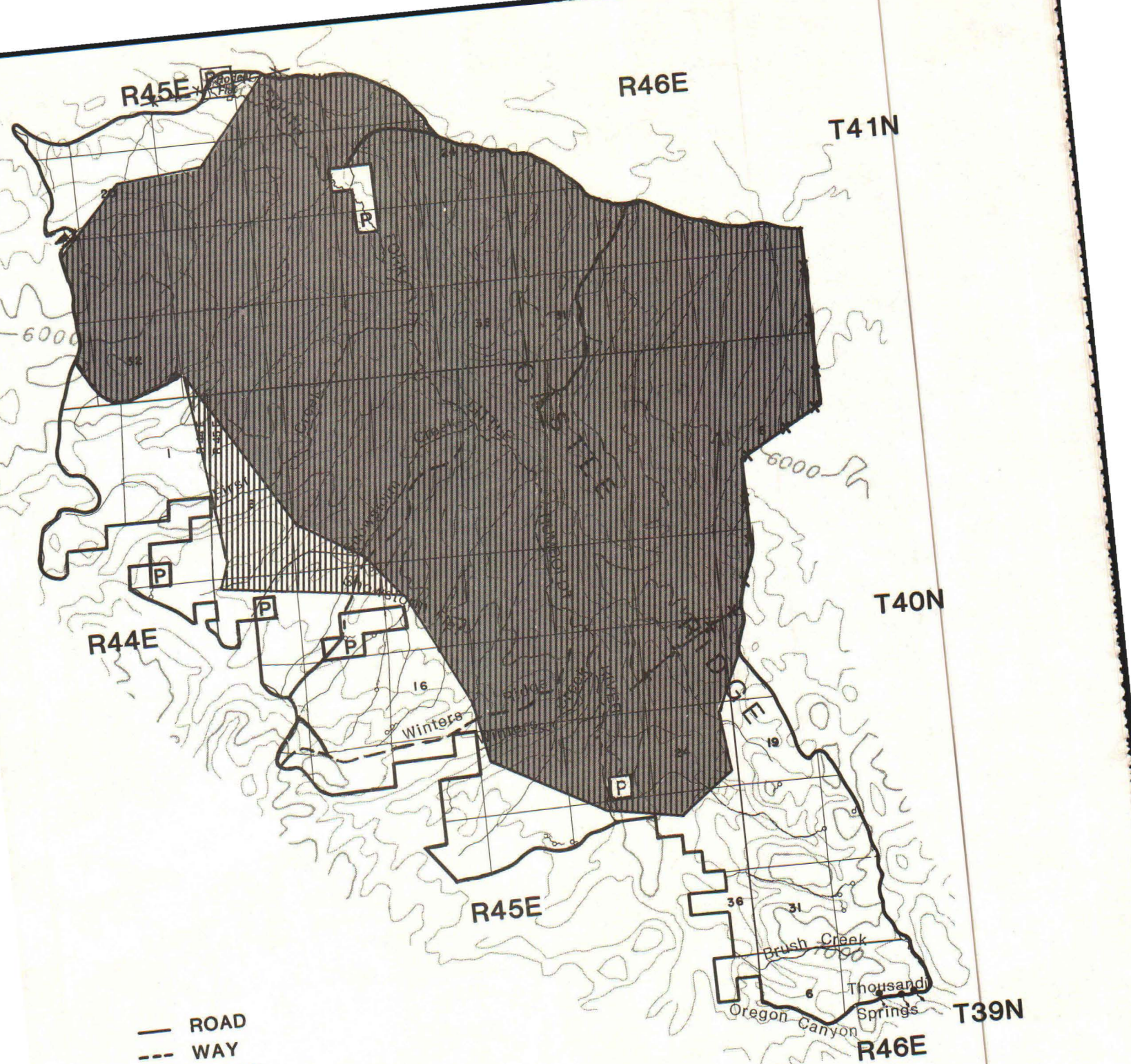
**P** PRIVATE LANDS

ALTERNATIVE	SUITABLE
A	NONE
B	NONE
C	ALL
D	ALL
E	ALL



**WILDERNESS STUDY AREA**  
**ROUGH HILLS NV-010-151**





- ROAD
- - - WAY
- x-x FENCE
- ◀ RESERVOIR
- P PRIVATE LANDS
- NATURAL SPRINGS



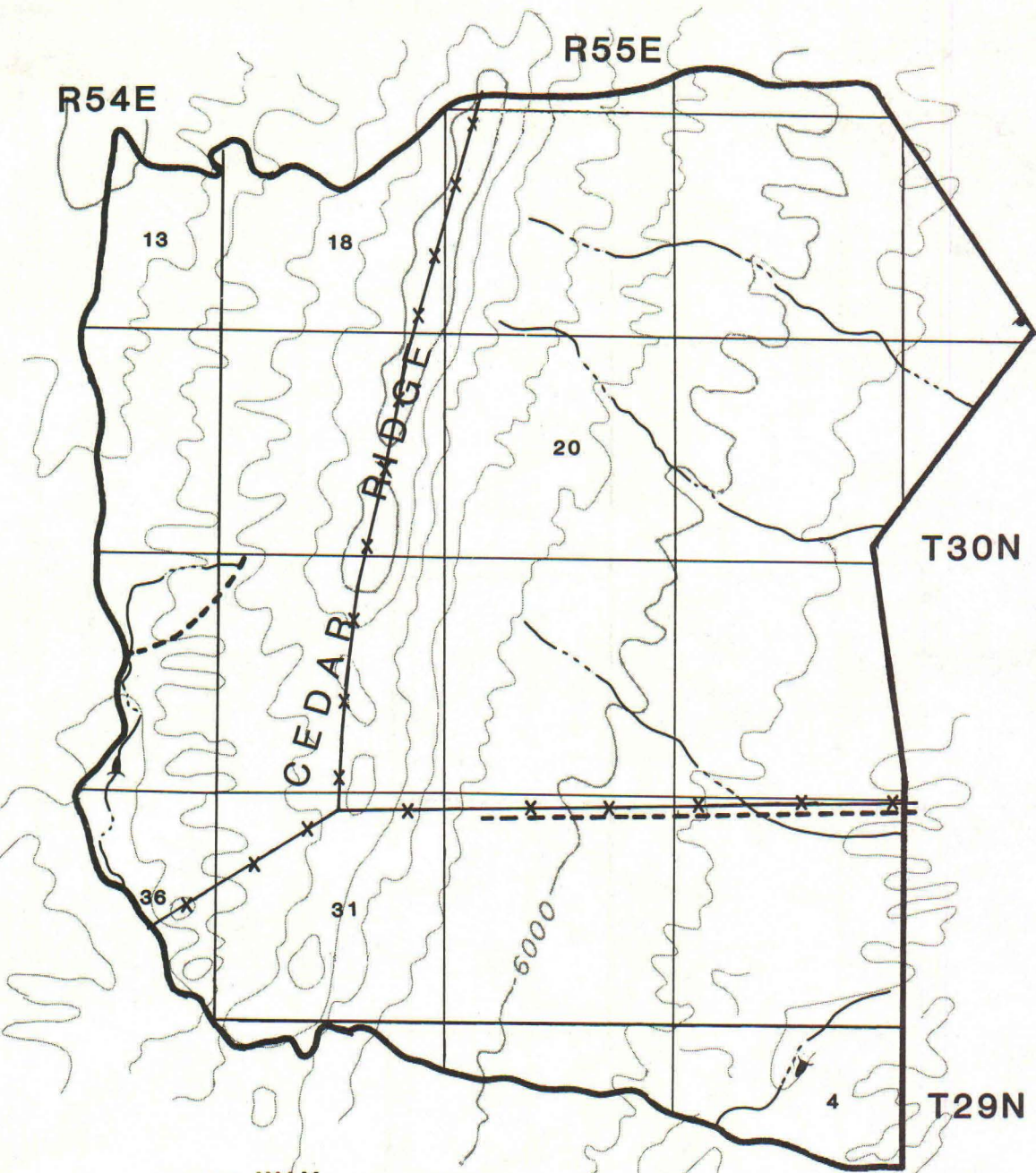
Note: The scale on this map is different than other WSAs.

MILES

ALTERNATIVE	SUITABLE
A	NONE
B	
C	ALL
D	
E	ALL

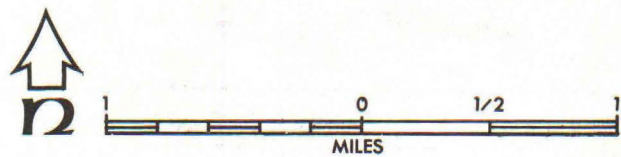
**WILDERNESS STUDY AREA**  
**LITTLE HUMBOLDT RIVER NV-010-132**





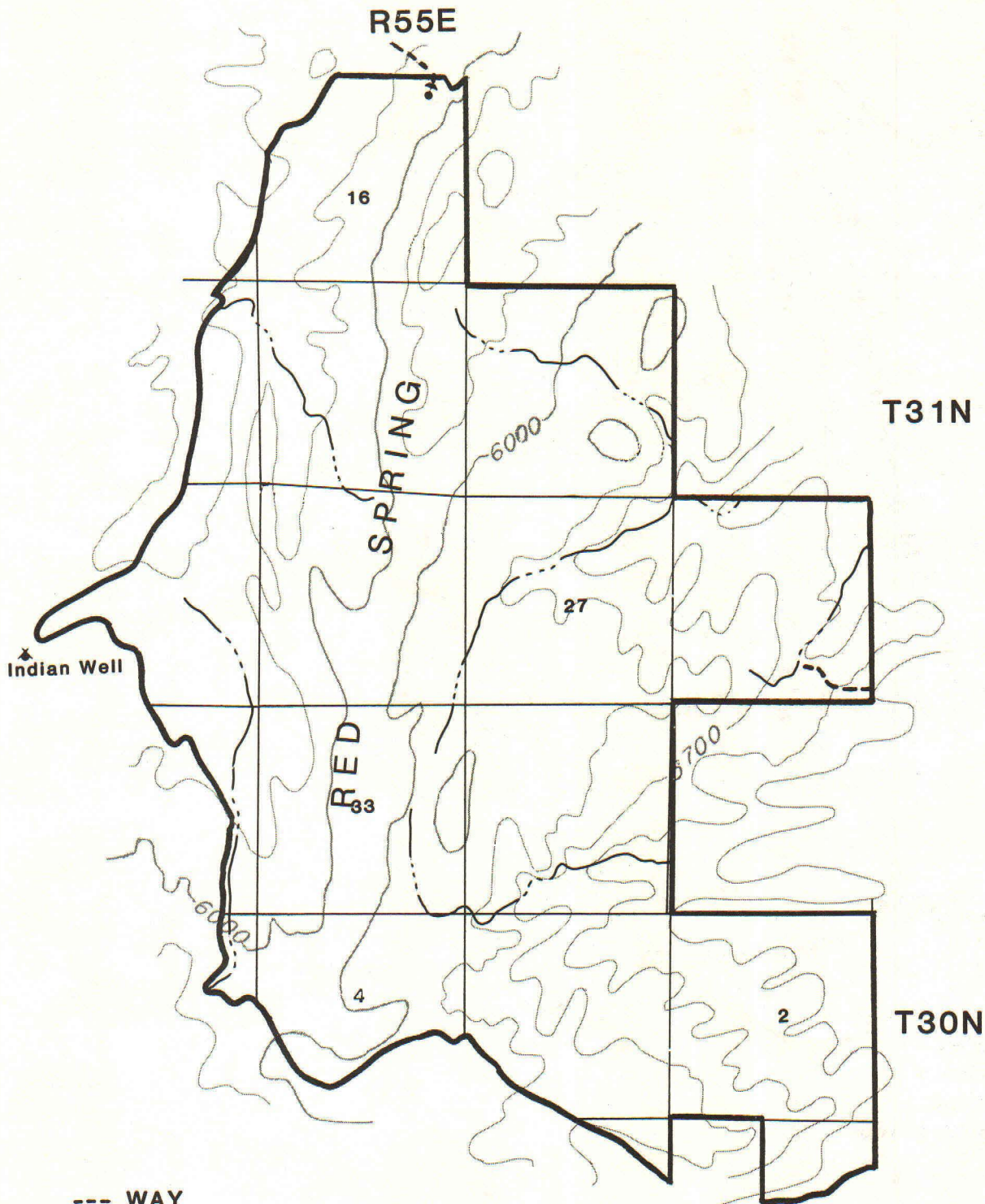
- WAY
- x-x FENCE
- \* WELL
- ▲ RESERVOIR

ALTERNATIVE	SUITABLE
A	NONE
B	NONE
C	ALL
D	NONE
E	ALL



**WILDERNESS STUDY AREA**  
**CEDAR RIDGE NV-010-088**





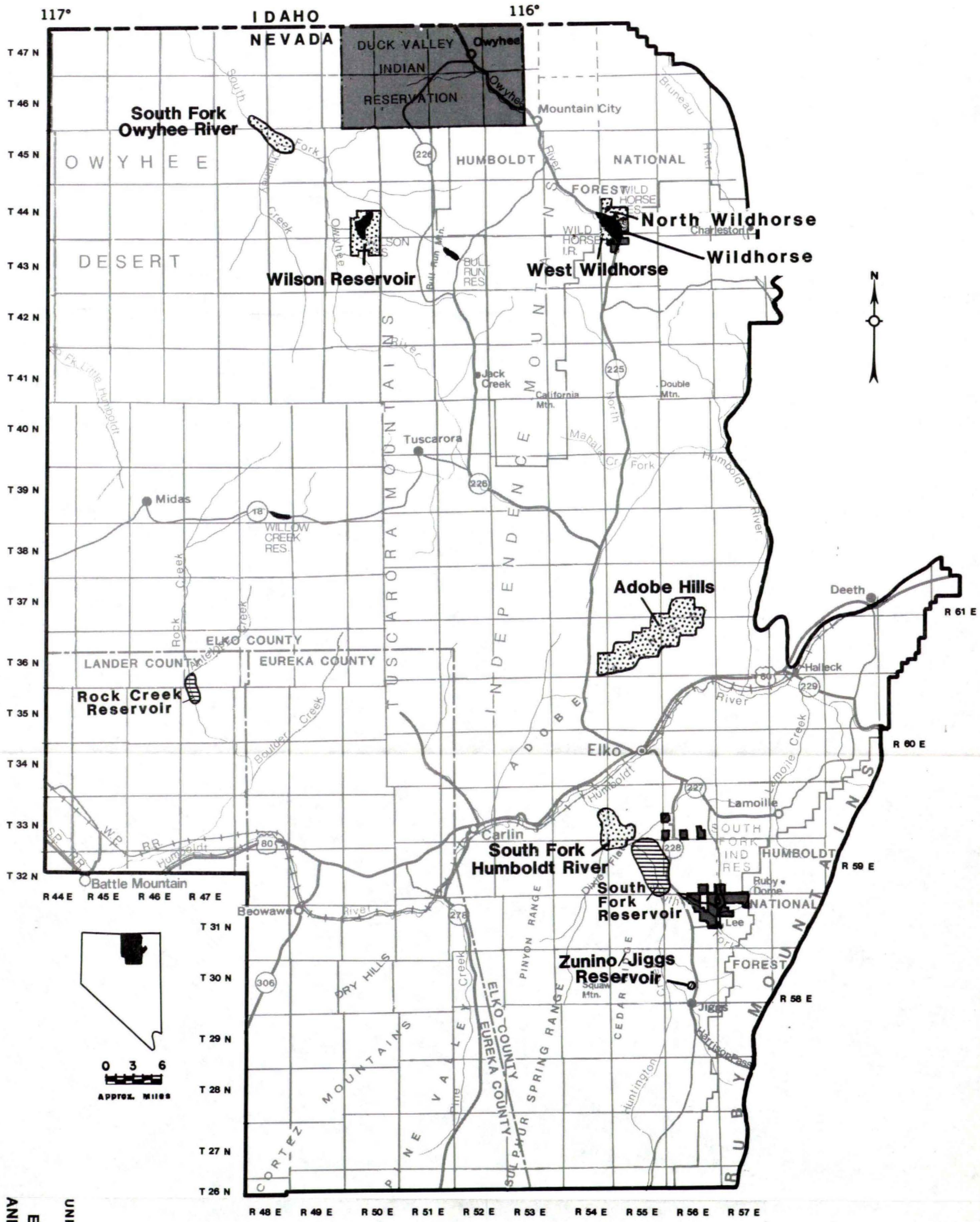
- WAY
- DEVELOPED SPRING
- ✕ WELL

ALTERNATIVE	SUITABLE
A	NONE
B	NONE
C	ALL
D	NONE
E	ALL



**WILDERNESS STUDY AREA**  
**RED SPRING NV-010-091**





UNITED STATES DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT

**EXISTING AND PROPOSED**

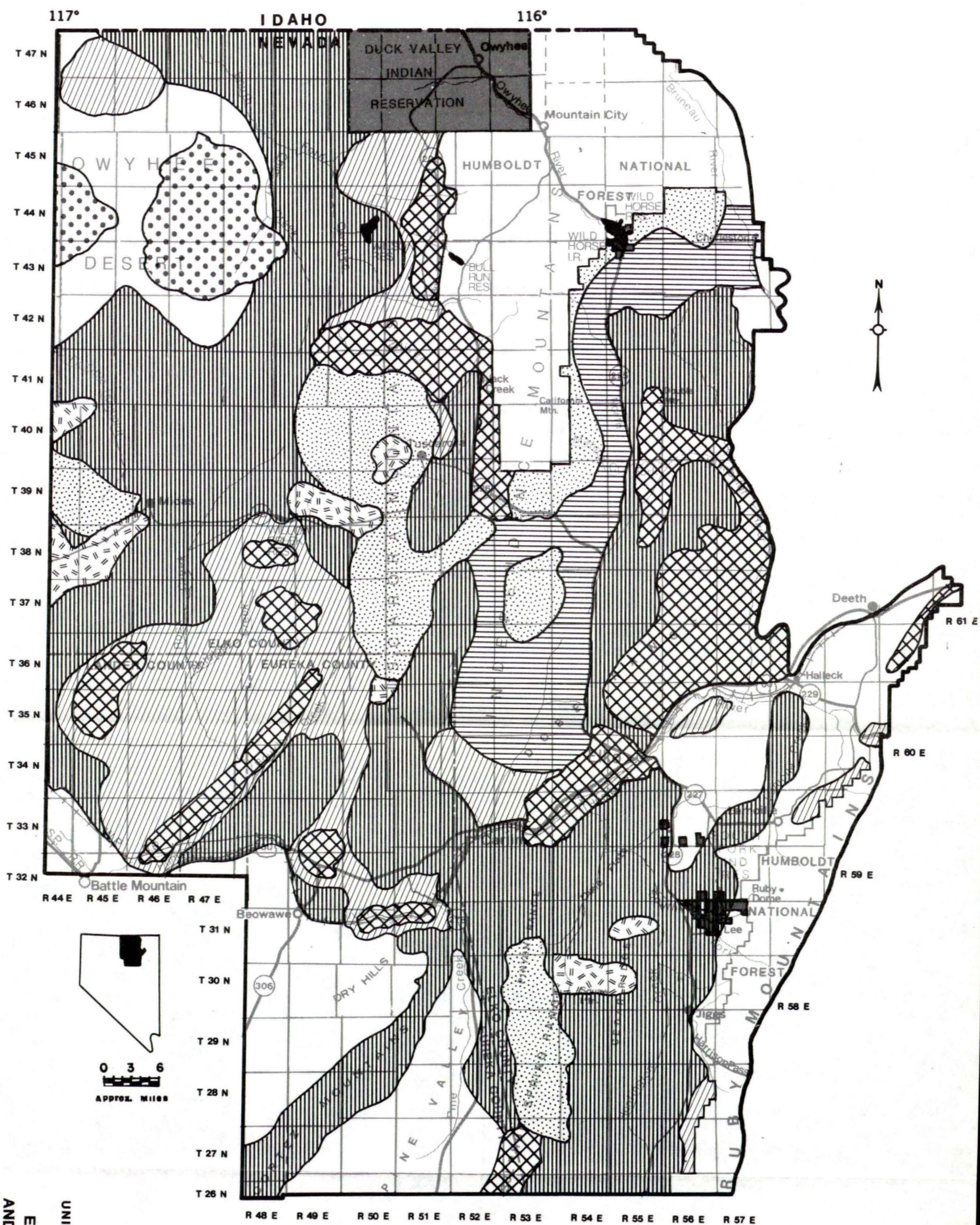
ALTERNATIVE	A	B	C	D	E
South Fork Owyhee River	Stippled	Stippled	Stippled	Stippled	Stippled
Wilson Reservoir	Stippled	Stippled	Stippled	Stippled	Stippled
Zunino/Jiggs Reservoir	Stippled	Stippled	Stippled	Stippled	Stippled
North Wildhorse	Stippled	Stippled	Stippled	Stippled	Stippled
West Wildhorse	Stippled	Stippled	Stippled	Stippled	Stippled
Adobe Hills (ORV USE AREA)	Stippled	Stippled	Stippled	Stippled	Stippled
South Fork Humboldt River	Stippled	Stippled	Stippled	Stippled	Stippled
Wildhorse	Stippled	Stippled	Stippled	Stippled	Stippled








 BLM EXISTING AND PROPOSED RECREATION SITES

 NON FEDERAL PROPOSED RECREATION SITES

**SPECIAL RECREATION MANAGEMENT AREAS  
 ALTERNATIVES**



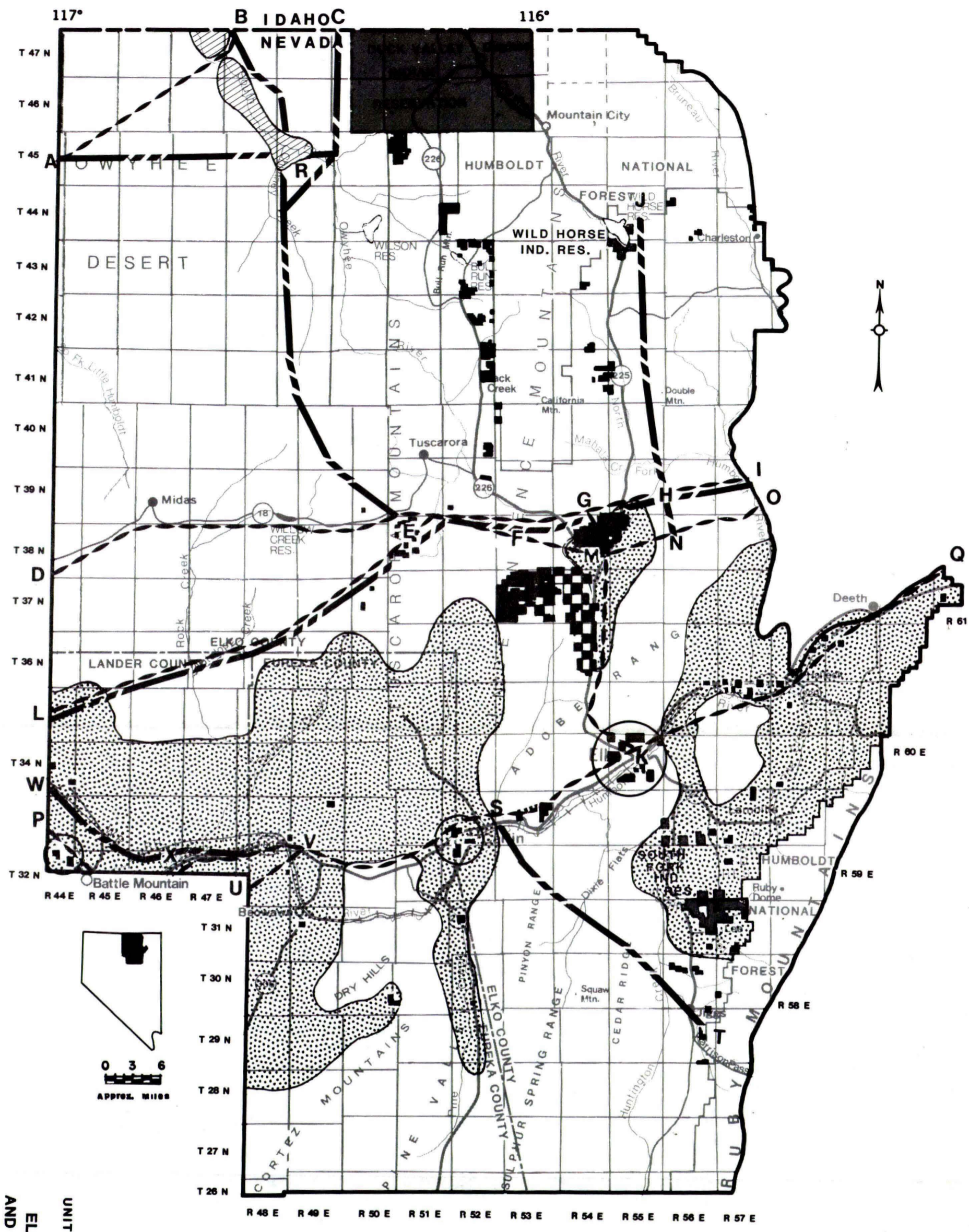


-  CRUCIAL ANTELOPE YEARLONG HABITAT
-  CRUCIAL DEER SUMMER HABIT
-  CRUCIAL DEER WINTER HABITAT
-  CRUCIAL DEER YEARLONG HABITAT
-  OTHER DEER WINTER RANGE
-  OTHER DEER YEARLONG RANGE
-  OTHER DEER SUMMER RANGE







UNITED STATES DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT

ANTELOPE AND DEER HABITAT AREAS



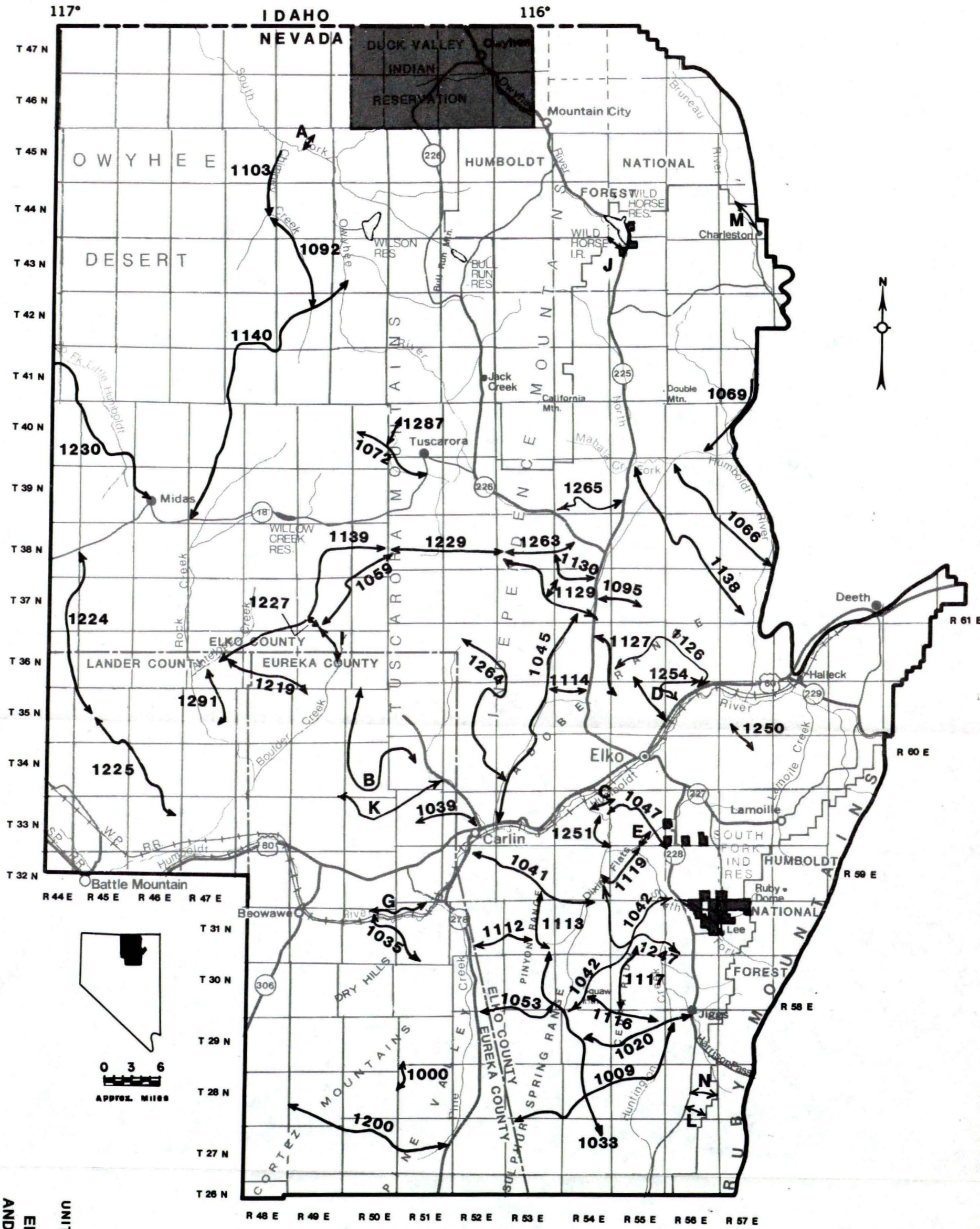


**ALTERNATIVE B**

-  SALES (Community Expansion)
-  SALES
-  TRANSFER PRIMARILY BY EXCHANGE
-  CENTERLINE OF DESIGNATED CORRIDORS (3 Miles Wide)
-  CENTERLINE OF PLANNING CORRIDOR (5 Miles Wide)
-  OWYHEE CANYONLANDS WSA

UNITED STATES DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
**ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT**  
**LAND TENURE ADJUSTMENTS  
 AND CORRIDORS**



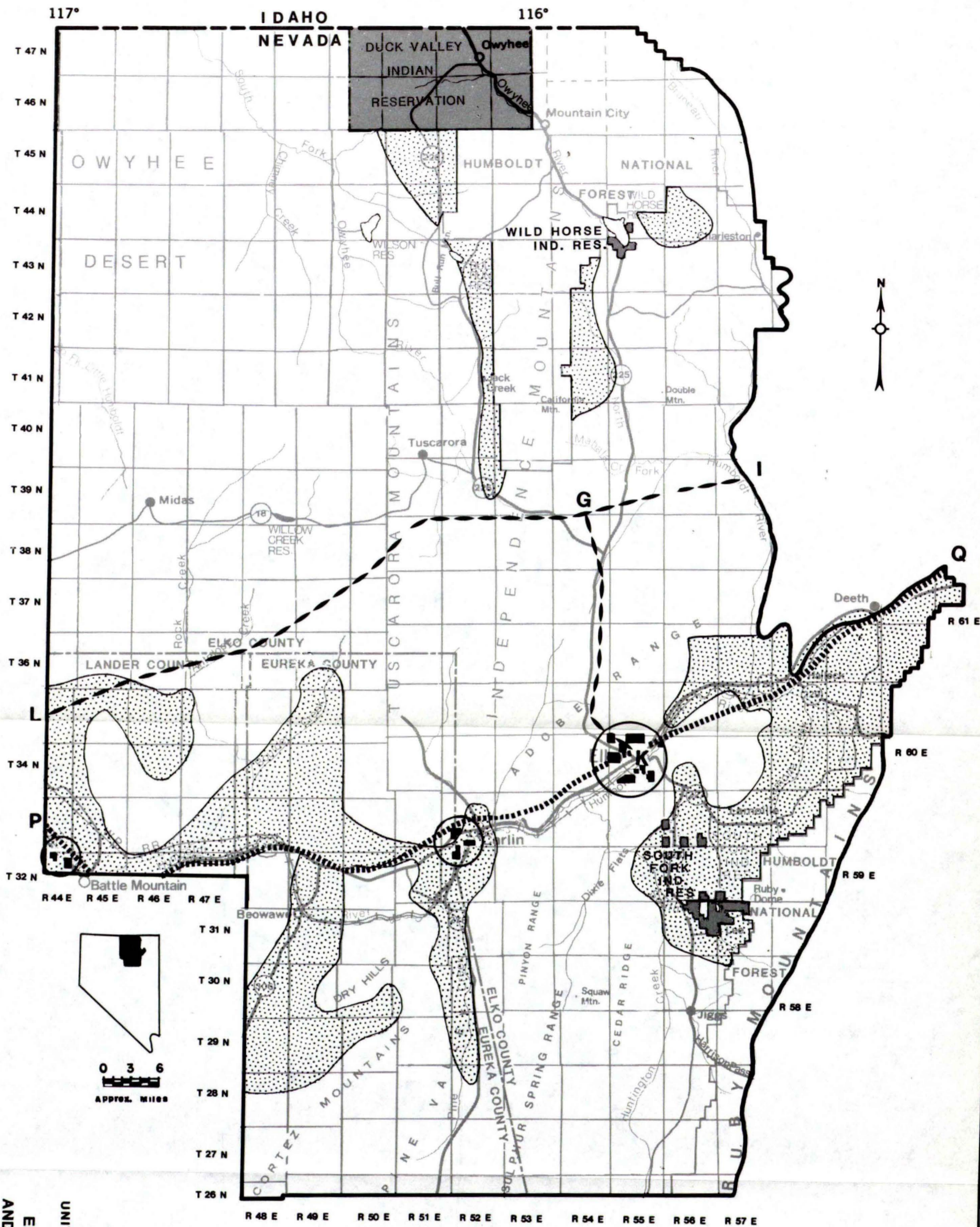


ROADS IDENTIFIED AS NEEDING ACCESS ACQUISITION CONSIDERATIONS





- A Bureau Roads Not On Transportation Plan
- 1043 Bureau Roads on Transportation Plan

UNITED STATES DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT  
 ACCESS ROADS





**ALTERNATIVE C & E**

-  SALES (Community Expansion)
-  TRANSFER PRIMARILY BY EXCHANGE
-  CENTERLINE OF DESIGNATED CORRIDORS (3 Miles Wide)
-  CENTERLINE OF DESIGNATED LOW VISIBILITY CORRIDOR (3 Miles Wide)

UNITED STATES DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT  
 LAND TENURE ADJUSTMENTS  
 AND CORRIDORS







# CHAPTER THREE

## AFFECTED ENVIRONMENT

### INTRODUCTION

Chapter Three describes the resources and uses of the Elko Resource Management Plan (RMP) Area which may be affected by one of the five alternatives proposed in this plan. Additional information on these resources or uses may be found in the Elko District Office files.

#### Setting

The northwestern quarter of the Elko RMP Area lies within the Columbia Plateau, while the remaining area lies within the Basin and Range Province and is characterized by long, narrow mountain ranges and valleys trending in a north to northeasterly direction. Most mountain ranges are 50 or more miles long. Valley floor elevations are generally 4,700 to 6,000 feet, while mountain elevations are typically 8,000 to 9,500 feet. The Columbia Plateau Province consists of rolling plateau lands of low relief broken occasionally by buttes and steep narrow canyons. The RMP Area Map shows the general location of the planning area within the state.

The two principal towns within the RMP area boundaries are Carlin and Elko. Interstate 80 is the major east-west highway, and State Route 225 (Mountain City Highway) is the major route north. State Route 278, from Carlin to Eureka, is the major route south.

Climate in the planning area is characterized by a continental temperature regime with arid to semi-arid conditions in the valleys and lower mountain slopes, to sub-humid conditions

near the crests of the higher mountains (Houghton, 1969).

Average annual precipitation ranges from six inches on valley floors to over 20 inches on the higher mountains. Snowfall averages 25 inches in the lowlands to over 100 inches on the high mountains. January and July are the coldest and warmest months, respectively. Temperatures range from summer highs of 90 degrees F to 100 degrees F and winter lows near -10 degrees F. The growing season, except in areas of pronounced air drainage, is approximately 90 days. Freezing temperatures have been recorded during every month of the year (Geoscientific Systems and Consulting, 1980).

Air masses generally move eastward, with most of the precipitation falling in the Great Basin originating from the Pacific Ocean. Arid conditions are due in large part to the rain-shadow effect created by the Sierra Nevada and southern Cascade ranges. As Pacific air masses pass and are lifted over these mountains, they lose much of their moisture in the higher elevations.

### LANDS AND REALTY

The Elko RMP Area contains approximately 5,967,854 acres with 3,134,019 acres of this under administration by BLM. The public land pattern is generally consolidated, with the exception of a 40-mile wide band of checkerboard land consisting of alternating Federal and private sections of land. This pattern was created when



the Act of July 1, 1862 granted alternating sections of land to the Union Pacific and Central Pacific Railroads as incentive for construction of the transcontinental railroad. About two-thirds of this area remains in a checkerboard pattern (Land Status Map).

The Elko RMP Area encompasses portions of three counties; Elko (23 percent of the county), Eureka (19 percent of the county), and Lander (four percent of the county). The majority of the planning area is in Elko County.

The public demand for sales and exchanges is fairly high. The most vocalized of these demands is for community expansion sales around the towns of Elko, Carlin, and Battle Mountain. Numerous Recreation and Public Purpose Act sales and leases have been requested to provide public fishing use and recreation areas. The demand for the exchange of lands predominately exists because of the desire to resolve management problems created by the checkerboard land pattern.

The major land actions in the Elko RMP Area to date have consisted of rights-of-way, sales, Recreation and Public Purpose Act leases, and land exchanges. In the future similar actions can be expected.

## CORRIDORS

The Elko RMP Area is traversed by a number of major utility and transportation facilities. To date, no utility right-of-way corridors have been formally established. Major transmission facilities are anticipated in the future to support the Thousand Springs Power Project in the adjoining Wells Resource Area.

## LEGAL ACCESS

Increased public demand for access in connection with recreation, wilderness, minerals, firewood harvest; and the BLM's administrative needs will intensify the need for access acquisition. The areas identified as needing access include the Spring Range (West of Jiggs), Adobe Range (north of Elko), the southern part of the Independence Range (northwest of Elko), Tuscarora Mountains (northwest of Carlin) and the Owyhee Desert (Access Roads Map).

## RECREATION

The public lands within the RMP area provide for a diverse choice of recreation opportunities ranging from snow skiing to whitewater rafting. The greatest demand results from reservoir fishing, sightseeing, upland game bird hunting, and mule deer hunting. Appendix 1, Table 1 reflects existing use levels.

The planning area contains three developed recreation areas: North Wildhorse Recreation Area, Wilson Reservoir, and Zunino/Jiggs Reservoir. These areas supply about four percent of the fishing activity within the State of Nevada. The state has proposed development of the South Fork Reservoir and Lander County has proposed development of the Rock Creek Reservoir (Special Management Recreation Area Alternatives Map). If developed, these areas would add to the availability of developed recreation sites.

North Wildhorse Recreation Area is a developed campground on 210 acres situated in an aspen grove overlooking the 3,200 acre Wildhorse Reservoir. This campground provides drinking water; two pit-vault toilets; two group use areas; and 19 campsites



which contain picnic tables, BBQ stoves, campfire rings, RV parking pads, and cabanas. In 1984 campground use totaled approximately 550 visitors. Wildhorse Reservoir's shoreline is comprised of Native American, Nevada State Park, and private lands surrounded on three sides by BLM land. The North Wildhorse campground is operated under a Cooperative Agreement with the Nevada Division of State Parks (Special Recreation Management Area Alternatives Map).

Wilson Reservoir is a Special Recreation Management Area (SRMA) encompassing 5,440 public acres which includes the 800 acre reservoir. The area contains four primitive vault toilets and a well providing drinking water. Tree enclosures have been planted in anticipation of a proposed 15 unit campground for 40 recreational vehicles with a boat ramp, day use area, parking areas, and additional health and sanitation developments. The area had approximately 3,400 visitors during 1984.

Zunino/Jiggs Reservoir is comprised of 800 public acres including the 95 acre reservoir. Development has been limited to one vault toilet, a gravel boat ramp area, picnic area, and parking sites. The reservoir is utilized primarily by local residents on a year-round basis. There are about 2,500 visitors a year to the reservoir.

Recreation use within the RMP area is almost evenly divided between Elko County use and out-of-county use at the current time. The Elko area is centrally located between Las Vegas and Reno, Nevada; Boise, Idaho; and Salt Lake City, Utah; and is within a day's driving time of each of these major metropolitan areas and two day's driving time from much of California.

Legal access to suitable dispersed recreation areas is often non-existent. Private land often precludes access into larger tracts of public lands. Most roads open to the public for recreational use have no legal right-of-way guaranteeing continued future use.

About 20 percent of the state's mule deer population resides in the RMP area, and provides excellent deer hunting opportunities. All of the major mountain ranges in the Elko area are popular for deer hunting. While some of these ranges are within U.S. Forest Service (USFS) boundaries; hunting, access, and camping occur on BLM lands. Estimating hunting use which actually occurs on BLM or USFS lands is very complicated because of this. While the majority of big game hunters are dispersed campers, they use camping sites situated near hunting areas. Aspen stands which occur near water and are situated close to mountain access are the most desirable. Camps are found along trails and close to water even in lowland pinyon-juniper stands. New hunters to the area are camped on the better known public dirt roads. Because of the checkerboard pattern of land-ownership and "strip ownership" along creeks and at the foot of the mountains, access to the desirable camping areas is often restricted.

In 1984, five commercial hunting and fishing outfitters and guides operated within the planning area. Other forms of commercial recreation have occurred within the area in recent years, including float trips on the South Fork of the Owyhee River. This trend of commercial recreation and private recreation developments is expected to continue.

Recreational off-road vehicle (ORV) use is generally dispersed throughout the planning area. Use is intensified in the vicinity of the Elko urban area



with high use levels on the Elko Hills and Adobe Hills. Minor ORV user conflicts among various recreational user groups and between other nonrecreational uses exist in these areas. Unregulated ORV use is causing some erosion within the existing SRMAs.

The RMP area contains historic and prehistoric sites of public interest. These include cemeteries, mining camps, wagon trails, mining equipment and structures, old buildings, isolated grave sites and Native American caves and encampments. The Tosawihl Quarry, a National Register quality site, is the source of "White Knife" chert which is regionally significant to the hobbyist for raw material.

Mineral collectors and recreational miners use many areas. Currently, none of these activities are under a management, informational, or interpretive program.

## WILDERNESS

Section 603 of The Federal Land Policy and Management Act (FLPMA) requires the Bureau to review its roadless areas of more than 5,000 acres and recommend their suitability or nonsuitability for wilderness preservation to the Secretary of the Interior. The inventory phase was completed in 1980 and four Wilderness Study Areas (WSAs) totaling 66,754 acres have been designated in the Elko RMP Area (USDI, BLM Nevada, 1980). The Elko Resource Area Wilderness Technical Report provides more detail about wilderness values and other resource values present in each WSA. Table 3-1 summarizes the resource and characteristics for each WSA.

Two additional WSAs occurring within the Elko RMP Area have been analyzed in the Draft Owyhee Canyonlands

Wilderness EIS published in February, 1984.

### Rough Hills WSA

This unit is comprised of 6,685 acres in a rectangular shape, approximately three miles long (east-west) by four and one-half miles long (north-south). The highest peak is 7,923 feet, approximately 2,000 feet above the Bruneau River. The topography of the WSA is extremely mountainous and includes eight drainages and over two miles of the Bruneau River Canyon (Rough Hills WSA Map).

Outstanding solitude is attainable throughout much of the WSA due to topographic screening. There are a limited number of areas of good vegetative screening.

Outstanding opportunities for primitive recreation exist because of the diversity of activities available which include backpacking, camping, hiking, horseback riding, hunting, fishing, wildlife observation, river floating, and photography.

The island-like effect of the Rough Hills, in relation to the mountain ranges around it, results in outstanding scenic value. Vistas of up to 20 miles to the sub-alpine regions to the north, east, and west stand in stark contrast to the steppe basin and range areas to the south. Mountain mahogany forests, aspen stands, and the river drainage generally appear in the middle to foreground areas and add contrast to the scenic views. Excellent scenic values also exist along the Bruneau River and Copper Creek in the northeastern portion of the WSA. The picturesque contrasts of rugged rhyolite flows and dome formations, riparian meadows and vegetation, and the water body offer scenic values far from common in Nevada.



TABLE 3-1

WILDERNESS STUDY AREA  
RESOURCES AND CHARACTERISTICS  
FOR THE ELKO PLANNING AREA

	<u>Rough Hills</u>	<u>Little Humboldt River</u>	<u>Cedar Ridge</u>	<u>Red Spring</u>
<u>Acres</u>	6,685	42,213	10,009	7,847
<u>Estimated Recreation Use Days</u>	165	140	70	125
<u>Outstanding Solitude</u>	X	X	X	X
<u>Outstanding Primitive Recreation</u>	X	X		
<u>Special Features</u>				
Geological	X	X		
Scenic	X	X		
Cultural Resources <sup>1/</sup>				
Open Aboriginal Sites	100	650	115	150
Rock Shelter	5	40	5	10
Historic Sites	5	10	10	10
Scientific - Educational		X		
T&E Species		X		
Wild Horses		X		
Rivers and Streams	X	X		
<u>Energy and Minerals</u>				
Number of Mining Claims	0	3	6	0
Acres	0	30	80	0
Oil & Gas Leases				
Number	0	0	11	7
Acres	0	0	7,243	5,484
<u>Woodland Products (acres)</u>	0	0	4,940	3,200
<u>Livestock Management</u>				
Permittees	2	2	3	2
AUMs	1,004	3,779	182	482

<sup>1/</sup> Site numbers reflect an estimate based on site types and densities for the planning area as a whole and do not represent known locations.

Source: USDI, BLM. 1980, Elko District Wilderness Study Inventory Files, and Wilderness Study Handbook.



### Little Humboldt River WSA

This 42,213 acre unit is arranged along a 14 mile long diagonal axis running northwest to southeast, and is about nine miles wide. The study area includes primarily the upper drainage basin of the South Fork Little Humboldt River, situated between the middle slopes of the Snowstorm Mountains on the west, Castle Ridge on the east, Owyhee Bluffs on the south, and the Owyhee Desert on the north. The 12 miles of river canyon, Winters Ridge, Castle Ridge, Snowstorm Flat, Bush Creek, Winters Creek, Oregon Canyon, Snowstorm Creek, and First Creek constitute the main features of the area (Little Humboldt River WSA Map).

The main twisted river canyon and numerous creeks and draws offer outstanding topographic screening. Vegetative screening is good along portions of the creeks and river. Overall, within the WSA there are numerous areas where outstanding opportunities for solitude exist.

This unit provides excellent diversity of primitive recreation opportunities which include hiking, camping, stream fishing, hunting, nature study, outstanding photographic areas, rock climbing, and wildlife observation plus the potential for a system of horse trails for equestrian riding. One of the significant opportunities within the WSA exists in viewing and photographing wild horses.

The Little Humboldt River contains Lahontan cutthroat trout, a Federally listed threatened species. Evaluations are currently being done to determine the possibility of reintroducing bighorn sheep within the WSA.

The northern portion of the unit is believed to contain a Nevada listed sensitive species, Packard's sagebrush (Artemesia packardiea).

### Cedar Ridge WSA

This WSA contains 10,009 acres in a blocked configuration four and one-half miles wide by four miles long (Cedar Ridge WSA Map). The highest point within the unit is Hilton Peak on the north boundary at 7,151 feet. The lowest elevation is 5,600 feet on the flats along the eastern boundary. The dominant topographic feature of the unit is a single north-south trending ridgeline. The west side of the ridge has a short uptilted remnant bench, which is deeply dissected. The east side of the ridge is severely eroded and gullied. The study area is substantially forested with 4,940 acres of juniper.

While the area generally appears natural and contains no cherry-stem roads, it does contain three ways totaling five miles, two pit reservoirs, and three fence segments totaling six and one-half miles of which three and one-half miles were bladed during construction. Juniper stumps through out the unit are evidence of many decades of wood harvest.

The unit provides marginally outstanding opportunities for solitude on the west side with excellent vegetative and topographic screening. The east side offers good solitude with vegetative screening.

Primitive recreational activities available include hiking, backpacking, camping, hunting, horseback riding, and wildlife observation. The lack of water and lack of diversity of recreational areas limits the attractiveness and potential for outstanding recreational opportunities within the WSA.

### Red Spring WSA

This WSA is comprised of 7,847 acres in an irregular shape six miles long



(northwest to southeast) by four miles wide at its widest point (east to west) (Red Springs WSA Map). The elevation varies between about 5,500 feet to 6,400 feet. The core of the WSA is an east tilted block of limestone. The remaining area is comprised of soft Tertiary sedimentary rocks forming rounded weathered hills, benches, and eroded drainages. The area is a dense pinyon pine-juniper woodland covering 3,205 acres.

The unit offers marginally outstanding solitude due to moderate topographic screening and marginal vegetative screening. The area generally provides ample opportunities to find seclusion, although the two eastern-most sections and several areas along the western boundary offer almost no topographic or vegetative screening.

Primitive recreational activities available include hiking, backpacking, photography, camping, hunting, wildlife observation, and horseback riding. The lack of water, diversity of recreational activities, geologic formations, and diversity of vegetation limit the attractiveness and potential for outstanding recreational opportunities within the WSA.

## LIVESTOCK GRAZING

The Elko RMP Area contains 140 grazing allotments (Allotment Boundaries Map). Grazing privileges associated with the 140 allotments total 387,533 AUMs of active preference with an average licensed use of 305,247 AUMs for the period of 1979 to 1983. There are four allotments within the Elko RMP Area which are administered by either the U.S. Forest Service or the Winnemucca or Battle Mountain BLM Districts. Current grazing allotment data is presented in Appendix 3, Table 1.

Currently, 99 livestock operators hold grazing privileges within the 140 allotments. Of these, 94 run cattle only, three run sheep only, one runs cattle and sheep, and one runs horses only. The majority of livestock use occurs from early April through late October.

All allotments have been placed into one of three selective management categories: M (Maintain), I (Improve), or C (Custodial). Table 3 in Appendix 4 shows the category for each allotment as well as a list of the criteria used to categorize each allotment. This allotment categorization was determined through consultation with livestock permittees, the Nevada Department of Wildlife (NDOW), and other interested agencies or publics. These are preliminary and subject to change as more data is obtained or situations change.

There are 12 grazing systems in effect on the planning area consisting of eleven Allotment Management Plans (AMPs) and one Coordinated Management Plan. These grazing systems determine the manner and degree in which grazing use will occur, including the timing of use. The allotments which operate under these grazing systems range in size from 4,469 acres to 474,932 acres and account for 15 percent of the planning area. All 12 allotments have a rest-rotation type of grazing system.

The remaining allotments not managed under an AMP comprise 2,447,669 acres. The majority of these allotments have some fencing or use natural boundaries. Some of the allotments have inter-allotment drift of livestock and poor distribution of use patterns due to a lack of adequate water and insufficient fencing.



## WILDLIFE HABITAT

### Big Game Population and Habitat Condition

Mule deer and pronghorn antelope occur throughout the Elko RMP Area. The RMP area provides habitat for about 20 percent of the mule deer population within the State of Nevada. The RMP area is comprised of ten percent mule deer summer and 11 percent crucial summer habitat; 15 percent of the mule deer winter and eight percent crucial winter habitat; and 53 percent mule deer yearlong and three percent crucial yearlong habitat. The planning area provides habitat for about one percent of the pronghorn antelope within the state. The Antelope and Mule Deer Habitat Map shows existing big game habitat within the planning area.

The current estimated demand for mule deer is 20,338 AUMs and 608 AUMs for antelope (Appendix 4, Table 1). In general, the long-term (20-year) trend for habitat and populations for both species is down in all management areas/units (Wickersham, 1984 personal communication).

Big game studies to monitor wildlife habitat condition were first established in 1980 and were focused on crucial habitat. Studies have been implemented which represent seven percent of the crucial mule deer summer habitat. These studies show this portion of the crucial summer habitat to be in fair to good condition. Competition for and habitat degradation of preferred forbs and grasses by domestic livestock appear to be the primary reasons for current habitat conditions. Studies representing 15 percent of the crucial mule deer winter habitat have also been established. These studies show this portion of the crucial winter habitat to range from fair to excellent, with the majority in good and excellent.

Approximately 12 percent of the pronghorn antelope summer, winter, and yearlong habitat are rated in fair to poor condition, based on monitoring studies. Competition with domestic livestock for preferred forbs and grasses appears to be the primary reason for current habitat conditions.

The condition of big game habitat areas identified by NDOW were evaluated based on several habitat parameters. These included browse age and form class, forage preference and quantity, escape-thermal-fawning habitat, human disturbance factors, and water distribution. Several of these parameters, such as utilization, cover, disturbance by man's activities, and water distribution are independent of the area's ecological site potential. Many of the above habitat parameters can be controlled or improved through different management techniques. Evaluation and determination of habitat conditions for big game can also be considered as resource value ratings. Resource value ratings evaluate the ability of a particular area to support a specific big game species.

The Nevada Department of Wildlife has identified four sites within the planning area as suitable for possible reintroductions of California and Desert bighorn sheep.

### Upland Game Populations

Sage grouse, blue grouse, chukar and Hungarian partridge, mourning doves, and rabbits are the most common and abundant upland game species within the Elko RMP Area. Of these species, the sage grouse and its habitat needs are the most significant and will be the only upland game species analyzed.

The sage grouse population is estimated to be 29,000 for the planning area with approximately 150 strutting grounds. It is estimated



that about 60 percent of the sage grouse population for Elko County occurs within the planning area; while ten percent of the Eureka County and five percent of the Lander County sage grouse populations occur within the RMP area (NDOW, 1983).

The majority of the sage grouse life cycle occurs within close proximity to the strutting grounds. Strutting ground areas range from one to 100 acres, but generally average less than five acres in size (Kesting and Susmilch, 1980). Nesting and brood rearing habitat, as well as wintering habitat, are of equal importance and concern. Grouse numbers are normally higher in areas where greater numbers of strutting grounds exist. The importance of meadows and riparian habitat to immature sage grouse has been documented in Nevada (Oakleaf 1971). Further analysis concerning this subject is addressed under terrestrial riparian habitat.

#### Threatened, Endangered, and Sensitive Animal Species

Relatively few sightings of threatened, endangered, or sensitive species have been made within the planning area. Wintering bald eagles, a Federally listed endangered species, occasionally inhabit the Lamoille-Jiggs-Lee, Wildhorse, and Wilson Reservoir areas. Few opportunities exist for habitat improvement for bald eagles. Historically, nesting peregrine falcons occurred within the planning area, specifically along the North Fork of the Humboldt River. As a result of global population declines and egg shell thinning due to DDT contamination, this species was also Federally listed as endangered (Hickey, 1969). Previous to a recent sighting this species was only considered to occur as a spring-fall migrant. Major alterations in peregrine falcon habitat and current

land status have eliminated the possibility for reintroductions within the planning area.

The above species as well as the following candidate species; white-faced ibis, Swainson's hawk, and long-billed curlew, have been documented to occur in relatively low numbers within the planning area. The spotted bat may occur within the RMP area but this has not yet been documented. Ferruginous hawk numbers and habitat conditions are similar to its range throughout Nevada and although listed as a candidate species, is relatively abundant within the southern portion of the planning area. These species are not discussed further within this document.

#### Terrestrial Riparian Habitat

Approximately 22,000 acres of terrestrial riparian habitat occur within the Elko RMP Area. This represents less than one percent of the total public land acreage. More than 300 terrestrial wildlife species are known to occur within the RMP area. It is estimated that 80 percent of these species are directly dependent on riparian habitat or use it more than any other habitat. Thomas, et al (1979) states that for any given number of acres of habitat, this habitat type supports a higher population diversity and density than any other type. The primary habitat conflict is the trampling of water sources, particularly springs and small wet meadows, by livestock. Trampling also reduces the quality and quantity of both water and vegetation.

The reduction of cover adjacent to terrestrial riparian habitat is also considered a habitat conflict. Overutilization of forage severely impacts the cover quality of any given site. Increased predation and subsequent loss of animals is usually the end result. Recent studies have



substantiated that the single largest negative impact to wildlife is that which reduces vegetative conditions such as diversity, structure, and regeneration (Mackie 1978, Wagner 1978, Gallizioli 1977). Additional habitat conflicts such as the placement of livestock supplements (salt) on meadows, and the existence of roads in or through riparian areas are evaluated on a case-by-case basis.

#### Aquatic Habitat and Fish Populations

Wetland-riparian ecosystems are defined as areas where vegetation is the product of the presence of perennial or intermittent surface water, associated high water tables, or soils which exhibit some wetness characteristics. These ecosystems are also characterized by high animal species diversity and density. Wetland-riparian areas play an essential role in determining the quality of the aquatic habitat for fish resources and the purity of surface water (Thomas et al. 1979).

Riparian areas accommodate and attract important recreational activities, including hunting, fishing, camping and hiking. Aesthetic value is high because of the pleasing combination of land and water, an attractive and unique variety of vegetation types, and the abundance of animal life.

Within the RMP area 73 streams were inventoried (a total of 585 miles) of which 212 miles are administered by BLM. Habitat condition rated as poor on 66 percent and fair on 27 percent of these streams. Seven percent rated as good, and no streams were rated as having excellent habitat conditions. Appendix 4, Table 2 includes some results of the inventory.

The overall habitat condition (percentage of optimum) was determined from an average of values for five "Priority A" limiting factors. Each

of these factors was rated poor to fair on at least some of the 73 streams inventoried: pool to riffle ratio on 32 streams; pool quality on 72; stream bottom percent desirable materials on 51; bank vegetation cover on 54; and bank stability on 33.

"Priority B" limiting factors are not averaged in the overall rating but are significant in limiting fish populations. The stream widths and depths, for example, were found to have a mean ratio of 28:1, which indicates a wide and shallow stream channel with limited space for fish.

Shading of the stream surface is important in keeping water temperatures cool enough to support trout populations. A minimum surface shading of 70 percent serves to protect streams from excessive solar radiation. Of the streams surveyed in the Elko RA, surface shading averaged 19 percent. The percentage of stream bottom with sedimentation (sand and silt) averaged 31 percent. This sediment load inhibits fish food production and smothers fish eggs (Armour, 1977). Lack of surface shading and heavy sediment beds are both direct results of deteriorated riparian habitat.

Trout populations are present in 37 of the 73 streams inventoried (Table 3-2). Historically (within the last 100 years) trout populations were found in most, if not all, of the 73 streams inventoried (Coffin, 1982 and Weller, 1985 Personal Communications). Non-game fish only are located in 13 streams, while 22 streams are devoid of fish altogether. Game fish occupy approximately 211 of the 585 miles of stream, of which 60 miles occur on BLM administered lands.

A total of 81.5 miles of stream, of which 16.6 miles are BLM administered, are inhabited by cutthroat trout



(Nevada Department of Wildlife, 1980). None of the 16 streams occupied by this threatened species are in poor habitat condition and several are rated fair; only one is in good condition (USDI, BLM, 1980).

Redband trout is considered a sensitive species by NDOW and a candidate species by the U.S. Fish and Wildlife Service, with known populations existing in only three Nevada streams. Two of these streams are located in the planning area. The Nevada redband trout is unique in that it is able to tolerate water temperatures up to 85 degrees F (Behnke, 1979).

Rainbow trout occupy 18 streams, including seven streams in combination with other trout species. Brown trout are present in two streams in combination with other trout species. Brook trout are in seven streams, including five streams in combination with other trout species.

Impacts associated with mining, roads, water diversions, and channelization were important on some specific stream locations. However, the analysis of limiting factors in each stream inventory report indicated that, in most cases, livestock grazing was primarily responsible for producing and maintaining deteriorated aquatic/riparian habitat conditions. Riparian studies on Gance Creek in the Elko RMP area, and on other streams within the intermountain area support this finding (Platts and Nelson 1982). Livestock overuse of streambanks is particularly harmful to streambank riparian habitat. It causes soil compaction, sloughing of streambanks, and a reduction in streamside vegetation. Soil compaction reduces the water holding capacity of the soil which results in increased spring runoff and flood drainage while reducing late season flow when water is needed most. Sloughing of streambanks makes the stream wider and more shallow,

leaving fewer living spaces for fish. It also reduces or eliminates riparian vegetation, increases water turbidity, and decreases total dissolved oxygen. A reduction of riparian vegetation reduces the quantity of insects available as food for fish and wildlife, and increases water temperature by reducing the amount of water shaded from the sun. Once riparian vegetation is eliminated, severe erosion, gullyng, and a decline in the water table follows. The summary of the aquatic/riparian inventory and analysis of impacts within the resource area is on file in the Elko District.

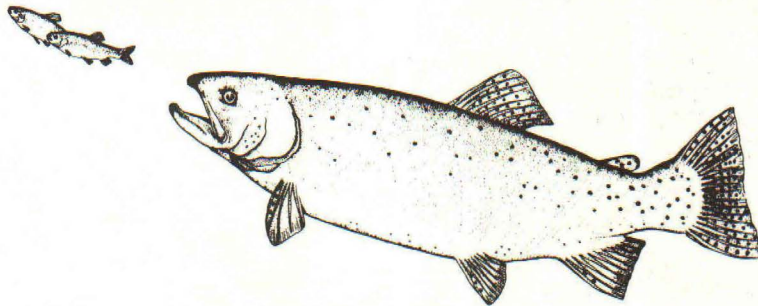


TABLE 3-2  
FISH SPECIES PRESENT IN INVENTORIED STREAMS  
ELKO PLANNING AREA

Fish Species	No. Streams
Trout	
Rainbow only	11
Lahontan cutthroat only	13
Rainbow and brown	1
Rainbow and brook	4
Rainbow and Lahontan cutthroat	1
Redband only	2
Rainbow and whitefish	1
Lahontan cutthroat and brook	1
Brook only	2
Lahontan cutthroat and brown	1
Other non-game fishes	13
No fish present	22

Threatened, Endangered, and Sensitive Species - Lahontan cutthroat trout listed as threatened on the Federal list, occupy 16 streams. In 13 of these streams Lahontan cutthroat trout was the only salmonid species present.

Source: Elko District Files



*Don Reaney*



## WILD HORSES

The Wild and Free-Roaming Horse and Burro Act became law on December 15, 1971. With the passage of this act, the authority to manage wild horses and burros on public land was assigned to the BLM and U.S. Forest Service. The Act proclaims that wild and free-roaming horses and burros are protected from capture, branding, harassment, or death. They are to be considered as an integral part of the natural system in the area where they were found in 1971.

Wild horses are currently found in six herd areas in the Elko RMP Area (Wild Horse Herd Areas Map). Two of these herd areas, the Bullhead and Little Owyhee, are managed by the Winnemucca BLM District. These two herd areas have had initial populations established through the Paradise-Denio Grazing EIS with input from the Coordinated Resource Management and Planning Process.

All the herd areas have been established based upon historical horse use and inventory data. The assignment of specific animals and lands to a herd area varies, as there is some movement between herds. However, no organized migration occurs and move-

ment between lands and herd areas seems to be sporadic.

Complete counts were not made in the herd areas in 1971. There were some partial counts made between 1969 and 1972. The first complete count after the claiming period occurred in 1978. Several horse gathers have occurred since, removing 421 horses from the Owyhee, Little Humboldt, and Rock Creek herd areas during 1981 and 1982; and approximately 3,500 horses from the Little Owyhee and Bullhead herd areas. Major problems which may be faced by wild horse herds in the future include fences that inhibit movement to areas of forage or water, and conflicts with humans.

Conflicts with private landowners arise from wild horses using private forage and water. This occurs in the Little Humboldt and Rock Creek herd areas. These areas have considerable intermingled private land, and horses in these areas could be subject to removal if a private land owner were to request the BLM do so. The Bureau may also pursue cooperative agreements with private landholders to allow a specified number of wild horses to exist on the intermingled land. Table 3-3 lists the herd areas, herd size, resource conflicts, and the grazing allotments where wild horses are found.

TABLE 3-3

### Wild Horse Herd Area Characteristics For The Elko Resource Area

Herd Use Area Name	Target Herd Size	Planning Conflicts		Grazing Allotment
		Fences	Humans	
Owyhee	58	X		Owyhee
Little Humboldt	107	X	X	Little Humboldt
Rock Creek	119	X	X	Rock Creek
Diamond Hills	50	X	X	Red Rock, Brown
Bullhead	50	Managed by Winnemucca District Office		
Little Owyhee	150	Managed by Winnemucca District Office		



## WOODLAND PRODUCTS

Pinyon pine, Utah juniper, and curlleaf mountain mahogany are the three most common tree species found in the Elko RMP area. They occupy approximately 80 percent of an estimated 74,000 forested acres in the RMP area. The fourth major tree species, aspen, covers approximately 20 percent of the forested acres. All of the forested lands within the planning area (excluding 8,140 acres within the Red Spring and Cedar Ridge WSAs) are classified as forest land available for woodland products management.

The pinyon, juniper, and mahogany community is generally located in the southern half of the RMP area. The aspen communities are primarily located in the northern half of the planning area (Forest Resources Map).

Pinyon pine is used for fuelwood, pine nuts, and Christmas trees. Utah juniper is used for fuelwood and posts. Mahogany and aspen are generally used for fuelwood. In addition, the forest ecosystems within the planning area have a very high aesthetic value as well as producing other multiple-use resources, including water, wildlife habitat, and recreation sites.

The pinyon pine, Utah juniper, and mountain mahogany stands are generally in good condition. However, a great deal of the aspen stands are in a declining condition class.

The demand for woodland products by the public has been steadily increasing over the last decade. Many people living in or near the RMP area rely on BLM woodland areas for fuelwood, Christmas trees, posts, and pine nuts. From October of 1983 to September of 1984 there were approximately 970 cords (873 thousand board feet) of fuelwood, 900 posts,

and 500 Christmas trees sold (Elko District Files). The pine nut crops completely failed during that period. Because the pine nut crop varies so drastically from year to year, there are no average figures. However, during good crop years, yields have been estimated to reach 300 pounds per acre (Hamilton, 1965). The demand for firewood in the RMP area is projected to equal the yearly allowable cut within sustained yield limitations in about two years. The current demand for Christmas trees already exceeds the annual supply.

Fuelwood yields vary with the density, age, and composition of stands. Pinyon pine and Utah juniper yields vary up to about 15 cords per acre. Prime Christmas tree areas may support from ten to 20 trees per acre; however, most areas produce two to three trees per acre.

### Firewood

Both live and dead firewood cutting is allowed. Deadwood, with the exception of aspen, is allowed to be cut throughout the RMP area. Aspen, being a desirable but less frequently occurring species, requires special management to ensure maintenance of existing stands. Unregulated cutting, beaver activity, and livestock grazing which have occurred in certain areas have resulted in overmature and/or declining conditions. Some aspen cutting is allowed on a case-by-case basis in stands that are in a good condition class.

The cutting of live firewood is confined to special management areas within the pinyon pine, Utah juniper, and curlleaf mountain mahogany communities. To minimize conflicts, separate cutting areas are set up and administered for commercial cutters. Selective cutting practices are utilized within the live cut areas to keep the woodlands in as productive a state as possible.



### Christmas trees

Christmas tree harvesting is open to the general public throughout the RMP area. Specific harvest areas are set up and administered for commercial cutters. These areas are advertised on a bid basis.

### Posts

Juniper post harvesting for fencing is allowed throughout the area to both individual and commercial cutters. Post cutters are guided toward designated greenwood units. The Bureau is currently identifying and implementing post harvest areas in order to manage the harvesting of this resource more intensively.

### Pine Nuts

Pine nut harvesting is allowed throughout the area for the general public. Commercial pine nut areas are identified and in abundant crop years are advertised on a bid system.

## MINERALS

Mineral exploration and development has been ongoing in the RMP area since the mid-1800s. This area contains one of the most significant gold belts in the U.S. with over 7,000,000 ounces of gold reserves in bulk minable (open pit) type deposits (Bonham, 1982). Current exploration and development efforts are concentrated on gold, however, in the past significant amounts of silver, copper, lead, zinc, iron, tungsten, turquoise, antimony, mercury, and diatomite have been produced. Production of bedded barite was substantial in the late 1970s and early 1980s but has been cut back significantly due to unfavorable market conditions. As of 1984 there are nine active gold mines and three active barite mines, all of which are

open pit operations, within the geographic boundaries of the RMP area (Locatable Mineral Potential Map). Market trends have had a substantial effect on the kinds of minerals being explored for, but overall exploration has been at a consistently active level in recent years. Locatable mineral exploration and development has resulted in about 800 acres of disturbance per year on the planning area since 1981. This may be high due to unusually frequent new mine openings and would be expected to average 200 acres per year in the long-term. About 70 percent of the disturbed area can be reclaimed. There are about 35,000, mining claims recorded in the RMP area (Nevada Bureau of Mines and Geology, 1983).

With one exception, all major active mines have ore deposits hosted in Paleozoic marine sedimentary strata. The one exception noted above is a gold mine within clay altered volcanic rocks. Volcanic terraces have produced substantial amounts of metals in the past from small high grade deposits. Other occurrences of diatomite, zeolites, turquoise, uranium, and vein barite are known to exist in the area but are not of sufficient quantity and quality to support development under current market conditions.





## Oil and Gas

The search for oil and gas in the RMP area has been ongoing since the early 1950s. About 45 wildcat wells have been drilled in the RMP area to depths ranging from less than 1,000 feet to over 12,000 feet. Results were occasionally encouraging, but more frequently ended in another dry hole. In 1982 a significant discovery was made in Pine Valley. Subsequent drilling in Pine Valley resulted in the development of a two-well field producing about 350 barrels of oil per day from public land. This field comprises the only Known Geologic Structure in the planning area.

Initially the Pine Valley and concurrent Railroad Valley (Central Nevada) discoveries caused dramatic increases in oil and gas leasing in the planning area and later a three fold increase in seismic exploration. In February, 1985, a total of 508 noncompetitive oil and gas leases encompassing 1,244,588 acres and 203 simultaneous leases for 346,829 acres were in effect. Drilling increased a similar amount in 1984 and apparently will remain quite active for the next few years. To date all drilling has been, and is expected to continue to be, in the intermountain basins and foothills (Leasable Mineral Potential Map). Approximately 15,000 gallons of shale oil were produced in the vicinity of Elko in the early 1900s (Nevada Bureau of Mines and Geology, 1983).

The planning area contains about 20,000 feet of Paleozoic marine sedimentary strata which contain numerous favorable oil and gas source rocks such as the Chainman Shale. Tertiary lake and basin fill deposits which frequently contain oil shale underlie many of the valleys and are also good oil and gas source rocks.

The Paleozoic sediments have been complexly folded and faulted, making delineation of suitable oil and gas traps difficult. Further complicating the difficult task of discovering oil and gas is the presence of a substantial thickness of volcanic cover over the sedimentary rocks in the northern portion of the planning area.

## Geothermal

Direct use of geothermal resources for bathing and cooking has been known to occur since prehistoric times. More recently, extensive drilling of temperature gradient holes has been done in areas having past or present evidence of geothermal activity. This exploration has resulted in the delineation of two areas, Beowawe and Tuscarora, that have significant potential for electric power generation. Production wells have been drilled at Beowawe and power generation could occur as soon as 1985. Hot water is used in the City of Elko to heat numerous buildings along with other direct use applications. Expanded direct use of hot water can be expected in the area.

The RMP area contains three Known Geothermal Resource Areas (KGRAs) and other extensive areas classified as prospectively valuable for geothermal resources. As of February 1985, there were 11 noncompetitive leases on 15,325 acres and four competitive leases on 9,246 acres.

## **VEGETATION**

The Elko RMP Area supports vegetation typical of the Great Basin region. The present native plant communities are dominated by big sagebrush. Seedings, predominately composed of crested wheatgrass, comprise



approximately 200,000 acres or about six percent of the RMP area.

The planning area has 19 major ecological sites. Each ecological site is based on differences in production and in proportions and kinds of plant species that are potentially dominant for a specific site. Appendix 5, Table 1 lists the dominant plant species found in each major ecological site.

#### Ecological Status

Ecological status describes the existing vegetation composition of an area in relation to the natural potential plant community. It is an expression of the degree to which the kinds, proportions, and amounts of plants in the present native plant community resemble the potential plant community (Nevada Rangeland Task Force, 1984). Ratings for seedings were determined solely from the estimated relative percent composition of the seeded species and forage values were assigned to woodlands based on relative percent composition totals of species which are preferred and desirable for cattle and horses. The 1984 range inventory shows that of the 2,511,893 acres of native vegetation inventoried, 11 percent are in the early seral state, 56 percent are in mid-seral, 31 percent is in late seral and two percent are in the potential native community. Appendix 5 Table 3 shows ecological status ratings by allotment.

#### Apparent Trend

Trend is the direction of change in ecological status or in resource value ratings observed over time. Apparent trend refers to one time observations of soil and vegetative conditions on rangelands. It relies on soil and vegetation indicators. Appendix 3 Table 1 shows existing apparent trend ratings by allotment.

#### Riparian Vegetation

On the public lands within the Elko RMP Area there are approximately 2,500 springs and 212 miles of stream which support an estimated 8,000 acres of associated riparian vegetation. In addition, there are about 14,000 acres of aspen not directly associated with surface water. An estimated total of 22,000 acres of riparian vegetation are present within the RMP area.

Riparian communities found in the planning area represent some of the most valuable wildlife habitat available. These areas have greater diversity and productivity than any other vegetative habitat. Riparian zones are also critical in stabilizing streambanks, preventing accelerated erosion, maintaining water quality, and moderating streamflows through the maintenance of high water tables.

Overall, within the RMP area, riparian vegetation makes up for less than one percent of the total land area. However, these areas also receive a disproportionate amount of land use activities. Along with the majority of wildlife species which depend on these areas, livestock grazing and recreational uses such as hunting, fishing, camping, and hiking are other important uses drawn to riparian zones.

Riparian habitat, associated with streams known, or suspected to have fish populations, was inventoried from 1977 to 1980. About 6,600 acres of riparian vegetation was evaluated. Approximately 6,000 acres, or 91 percent, was rated in poor or fair condition. The remaining nine percent was in good condition with no excellent habitat observed (USDI, BLM, 1980).



## Threatened, Endangered, and Sensitive Plant Species

There are no Federally listed threatened or endangered plants within the Elko RMP Area. Four species, however, have been listed in the Federal Register as candidates or species currently under review. Each of these four plants have been documented to exist within the planning area. Additionally, there are five other sensitive species which are listed in the Nevada State Museum's 1984 Threatened and Endangered Plant Handbook. Each of these plants has been documented as existing within the RMP area. There are nine other species which are either Federally listed candidates or sensitive species that occur or could occur within the district and have the potential of occurring within the planning area. Those species identified as candidates or species currently under review for Federal and state listing are shown in Appendix 5 Table 3.

## SOILS

A total of six soil surveys have recently been completed by the Soil Conservation Service (SCS) which cover the RMP area. These soil survey areas include Elko County, Central; Elko County, NW; Tuscarora Mountain; Eureka County; Lander County, North Part; and Diamond Valley. Only Tuscarora Mountain and Diamond Valley soil surveys are available in a published format. The other surveys are available in draft form only, and are subject to changes as the SCS correlates the data for each survey area.

Potential land treatment areas, ie. those areas identified for seeding or type conversion, were developed for the Elko RMP Area using general soil

maps prepared by the SCS. Roughly 35 percent of the planning area was classed as suitable for land treatments. However, inclusions exist within potential treatment areas which are not suitable for treatment. The same is true for areas which were designated unsuitable; inclusions exist which would be suitable for rangeland seedings. For the general purposes of the RMP, these inclusions were too small to map.

Based on physiographic position, soils in the RMP area can be subdivided into five broad groups. General soil descriptions are based largely on SCS soil surveys and are included in Appendix 7.

## ECONOMICS

The Elko RMP Area includes the northernmost portions of Lander and Eureka Counties, together with western Elko County. The principal area potentially affected by resource management decisions would be western Elko County, and would involve the local economy of the City of Elko and the surrounding community. Wherever possible, analysis will focus on this specific affected area, but due to data limitations analysis of potential effects must largely be inferred from county-wide data.

### Population

Current official estimates for 1984 place Elko County's population at 22,025 with approximately 49 percent (10,710 persons) concentrated in the City of Elko (Bureau of Business and Economic Research, 1985).

A predominately rural area of 17,181 square miles with a 1984 population density of approximately one person per square mile, Elko County's population is projected to grow to



30,020 persons by 1990 with further increases to 36,594 by the year 2000 (UNR, Bureau of Business and Economic Research, 1984).

#### Income and Employment

Total county personal income for 1982 which includes income from dividends, rent, interest, and transfer payments in addition to wages, salaries, and proprietor's income, is estimated at \$232.2 million. Industrial income (which includes only wages, salaries, and proprietors' income) is estimated at \$166.2 million.

Table 3-4 lists the sectoral and total income and employment along with the relative importance of each sector for the county. In 1982, services and government were the major sources of income, followed by mining and wholesale and retail trade. Elko County annual per capita personal income for 1982 was estimated at \$11,959, third highest in the state, and just slightly lower than the state average of \$12,022.

Employment in Elko County, for 1982, was estimated at 11,032 persons with 3,617 in services (32.8 percent), 1,855 in government (16.8 percent), and 1,517 in wholesale and retail trade (13.8 percent). The 1982 unemployment rate rose to a seasonally adjusted figure of 9.6 percent in August of that year. Current estimates place the county labor force at 13,440 persons with a seasonally adjusted unemployment rate of 5.8 percent, compared to the February, 1985 level of 7.4 percent for the state.

#### Affected Sectors

The City of Elko serves as an intermediate regional trade center and is increasing its identity as an urban gaming and vacation destination, particularly during the hunting

season. This explains the predominance of the services industry in the county economy.

The economic structure remains relatively simple, with a large amount of wholesale and retail trade composed of outside purchases. Livestock oriented agriculture and mining are the major industries directly affected by use of public land resources.

#### Agricultural Industry

Agricultural production in the planning area consists primarily of cattle, hay, and alfalfa. Livestock production predominates. Cash receipts from marketings in 1982 totaled \$42.2 million in Elko County, with \$40.6 million from meat animals and other livestock and \$1.6 million from crops. Agriculture accounts for about four percent of total labor and proprietors' income in the county and provides 7.3 percent of total employment.

Gross income for ranch operations in the planning area is estimated at \$20.8 million, with a total estimated net ranch income of approximately \$1.9 million. However, through purchases and sales transactions with other sectors of the economy, the livestock industry generates a total net income estimated at \$5.6 million and sustains slightly more than 700 jobs.

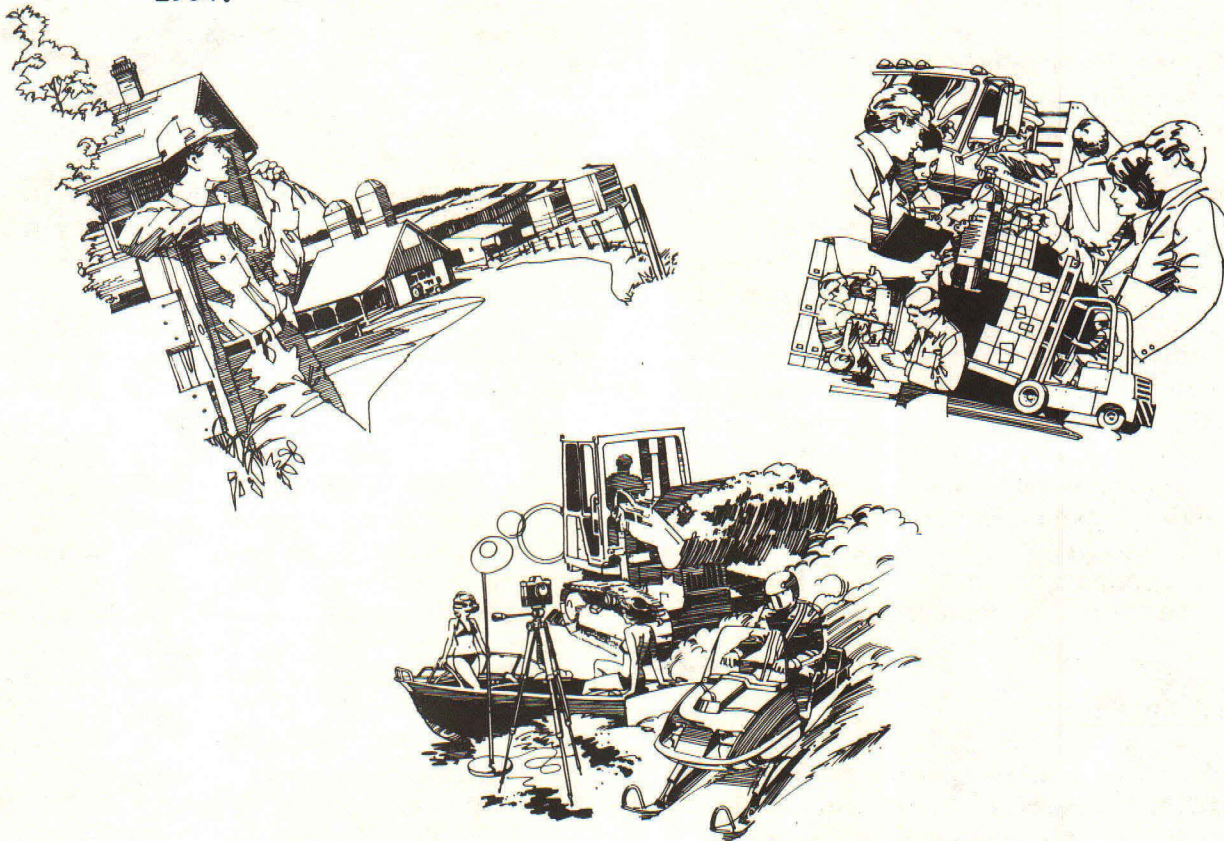
Livestock have been using an average of 305,247 AUMs of public land forage in the planning area. This accounts for about 22 percent of the total forage requirement and depicts the average dependency on the public lands. Appendix 8, Table 1 displays a representative ranch budget for operations in the area. This budget is a composite adapted from studies by the University of Nevada (1981), Resource Concepts, Inc. (1980), and the Wells Resource Management Plan (USDI, BLM, 1983). No budgets have



TABLE 3-4  
Income and Employment By Industrial Sources  
Elko County, 1982

	Income		Employment	
	\$1,000	Percent	Persons	Percent
Agriculture	6,448	3.9	802	7.3
Mining	21,004	12.6	810	7.3
Construction	11,893	7.1	509	4.6
Manufacturing	3,131	1.9	167	1.5
Trade	20,044	12.1	1,517	13.8
Transportation and Public Utilities	18,046	10.9	677	6.1
Services	49,775	29.9	3,617	32.8
Government	30,740	18.5	1,855	16.8
Other	5,155	3.1	1,078	9.8
<b>TOTAL</b>	<b>166,236</b>	<b>100.0</b>	<b>11,032</b>	<b>100.0</b>

Source: Regional Economic Information System, Bureau of Economic Analysis, 1984.





been developed for sheep operators. Three permittees operate an exclusively sheep enterprise, with one operator conducting a cattle and sheep operation.

Historically, the economic benefits derived by area ranchers from the use of public range have exceeded the fees they are charged. The existence of this imbalance, or "consumer surplus," has meant that ranchers are willing to pay extra for the opportunity to use public lands, thereby causing the grazing permit to acquire a market value (Vale, 1979; Neilson and Workman, 1971). The permits can be bought or sold in the market place, or used as collateral for loans (Corbett, 1978). Although not officially recognized as real property, BLM permits have nonetheless become an integral element in the capital and credit structure of area ranchers. The value of a permit is affected by the number of range improvements, water availability, dependence on Federal AUMs, and whether the allotment is grazed in common or by one permittee. Currently, the market value of an AUM ranges from \$25 to \$60, with an average value of \$50 in northern Nevada (Falk, 1980). At an average market value of \$50 per AUM, BLM grazing permits contribute about \$19.4 million to the wealth of area ranchers.

#### Mining Industry

Elko County derives substantial income, employment, and tax revenues from the mining industry. Total personal income from mining activities in 1982 was approximately \$21 million or 12.6 percent of total county industrial income; 810 persons were employed. In that same year, the mining industry provided \$473,514 in tax revenues (16.7 percent of all property tax revenues) for the county. This was based on an assessed valuation for net proceeds of mines of

\$11.2 million and an assessed value of mining property of \$27.2 million.

Currently, there are 756 oil/gas and geothermal leases on the public lands in the Elko RMP Area, encompassing a total of 1,709,464 acres. The Bureau receives annual lease revenues from these holdings, estimated at \$1.00 per acre for oil and gas leases, and \$1.50 per acre for geothermal leases, of which the State of Nevada is paid 50 percent. Based on these estimates, \$864,160 is paid to the state as its share of current lease revenues from public lands. The state in turn redistributes these revenues to the counties through the Distributive School Fund.

#### Lands

Potential changes in the proportion of private to public lands would affect both the tax base and BLM payments to the counties in lieu of property taxes. With 2,957,614 acres on the tax rolls (26.9 percent of total county acreage), assessed valuation for Elko County in fiscal year 1983 amounted to \$245,730,895. Property tax revenues were approximately \$2.9 million. The tax rate averaged 1.1765 per \$100 of assessed valuation. In lieu payments of property taxes from BLM for fiscal year 1983 amounted to \$464,554.

#### Corridors

The identification of corridors will enable more efficient planning of future energy, communication, and transportation facilities. The lack of corridors sustains high planning costs to utility companies and results in longer processing time for right-of-way applications.

There is no clear evidence that long-term land values are affected by placement of transmission lines (Holberger, et. al., 1975).



### Access

While access is of significant importance to BLM in order to exercise proper management of the public lands, and to the public for recreation use and mineral exploration, there is little or no significance to the area economy other than the questions of road maintenance and land values.

Presently, the only access to checkerboard lands is by public ways or through roads of historical use. The Bureau bears the cost for maintenance and improvement of roads and ways which provide rights-of-way or easements for public access. Where access for recreation is restricted these activities are displaced to other, more accommodating locations in the area. While some mineral exploration may be precluded by lack of access, the foregone exploration costs, as well as the economic potential, cannot be determined.

### Recreation

Expenditures for recreation in the planning area contribute to the regional economy through the purchase of lodging, services, equipment, fuel, and food. Public land resources that are associated with recreation and affected by this plan include wildlife, wild horses and burros, wilderness, lands, and riparian areas.

Some population adjustments may be expected as a result of alteration of habitat condition, or changes in the amount of vegetation available for fish and wildlife. Adjustments in fish and wildlife populations will influence the number of hunter and angler days (Appendix 1, Table 1), thereby affecting changes in expenditures, income, and employment.

Current hunting, trapping, and fishing activity within the RMP area is estimated at 63,700 recreation days and 119,900 angler days per year (Appendix 4, Table 1). These figures include estimates for both consumptive and non-consumptive wildlife associated recreation. Expenditures derived from these recreation activities are estimated at \$1,350,000 for hunting and \$1,810,000 for fishing, for a total of \$3,160,000 (1982 dollars). This expenditure level provides about \$936,000 in income and generates 85 jobs.

While other outdoor recreation activities entail local expenditures and generate income and employment to the area economy, no data are available to provide for estimation of their economic significance.

### Wilderness

Economic interest in the wilderness study areas is derived from their use for grazing, recreation, forest products, mineral exploration, and tax revenues. At the present time, each of these activities within the WSAs generate a small to moderate amount of economic activity. However, existing uses are of such limited extent and character that neither designation nor nondesignation would have sufficient impact to be considered significant to the present economy.

Future economic activity that might be derived from potential mineral development cannot be determined at this time. There is no existing mineral production within any of the WSAs.

### Woodland Products

Revenues received by the Bureau from permit sales in the Elko RMP Area for firewood, posts, and Christmas trees were approximately \$6,210 in fiscal year 1983. Based on fair market



values, the benefit to permit holders is estimated at about \$103,000 in retail prices. While of great benefit to individual consumers, harvesting and sales of woodland products from BLM lands are of little significance within the area economy.

## SOCIAL VALUES AND PUBLIC ATTITUDES

### Lands and Realty

A major issue in the RMP area is the potential disposal of checkerboard lands. The state in the 1983 legislative session passed a "Checkerboard Resolution" proposing all such lands be sold to the state. This is but one such proposal suggested to alleviate this land management problem.

The problem of access surfaces when proposed disposal of public lands is discussed. The public feels that unrestricted access to public lands is an inalienable right, and no constraint to historic uses should be incurred. Those who depend on public lands for their livelihood, ranchers and miners in particular, support the concept of guaranteed access, but have expressed concern that provisions are made to protect private rights and property.

### Corridors

There is strong support from the utilities sector for making utility corridor planning a key issue in the development of the Elko RMP. Their rationale is that long-range planning indicates that as existing routes become filled, transportation and utility corridors within the resource area would become a vital link between the utility resources in the Intermountain West and the load center in the West.

Little public concern has been expressed. That which has been expressed, particularly by public land user groups, suggested they would prefer that the corridor issue be resolved on a case-by-case basis and be accommodated so that the least amount of disturbance and/or loss of any resource values would occur.

### Recreation/Wilderness

Elko County supports a large share of the state's dispersed recreational needs. Over 15 percent of the state's total for fishing, and about 25 percent of backpacking occurs within the RMP area (Nevada Dept. of Conservation and Natural Resources, SCORP, 1982). Although recreational needs for residents are being met, there is a large demand by nonresidents on existing recreational areas. To some extent, a negative effect has been felt by the local residents, especially from out-of-state hunters.

Related to recreational use are the values associated with wilderness. Resistance to wilderness is widespread among individuals and groups who have interest in mineral potential and mining, or those who perceive wilderness as a "lock-up" of economic opportunities. Opponents who reside in the RMP area interpret wilderness as an area "locked up" against any uses but occasional solitary enjoyment by those whose livelihood does not depend on economic use of natural resources found in the areas proposed for wilderness designation. In the RMP area, as in many parts of the west, there is resentment of open spaces being encumbered by regulations against any particular uses.

In general, the minerals industry is adamantly opposed to management proposals that limit the potential for minerals exploration, now as well as in the future. The major concern from



the ranching sector regarding wilderness involves the constraints that would be placed on future range improvements and use of vehicles if wilderness study areas were ultimately included in the National Wilderness Preservation System.

The term wilderness also evokes strong feelings from proponents of the concept that some areas should remain essentially untouched by human development.

There is also a broad base of support for wilderness among those individuals and groups who are preservation, conservation, environmental, or wild lands recreation oriented. They, like the mining and ranching interest, have participated in the Bureau's planning process to assure their concerns are considered and responded to as a range of management opportunity proposals are developed.

#### Livestock

Public attitudes within Elko County toward ranching are similar to those in other rural areas of Nevada. Ranching is a valued source of identity for many Nevada residents, both those who are an integral part of the ranching sector as well as those non-ranching residents who identify with ranching by virtue of their sharing a common rural background and similar values and attitudes. These residents strongly feel that the production of food and fiber should be the first priority on public lands and they adamantly oppose the assignment of grazing areas to what they perceive to be single use activities such as wilderness or other uses that may preclude, constrain, or interfere with any aspect of the historic patterns of livestock grazing on public lands.

Management proposals that would increase AUMs for the livestock sector would probably follow predictable

patterns. Generally, environmental and conservation coalitions could be expected to oppose those management proposals, citing overgrazing as their rationale. The ranching sector and their supportive coalitions would likely support AUM increases, particularly those that were proposed as a result of trend and monitoring studies. Their supportive rationale would likely point out the positive economic and social contributions of the ranching sector to the community.

Wild horse and wildlife groups and their supportive coalitions would probably ask that the same management considerations and proposals be given their respective resources as were given to the livestock sector.

Traditionally, the livestock sector in Elko County has been cautious, if not suspicious, toward Bureau proposals regarding the range and livestock grazing. Ranchers perceive that they are gaining more control over their grazing privileges on public lands through the implementation of coordinated resource management, which may serve to improve relations between the rancher and the BLM.

#### Wildlife Habitat

There has been little public concern, pro or con, expressed on the issue of wildlife habitat. Prevailing attitudes on wildlife in the planning area would seem to support the concept of reasonable numbers, provided those numbers do not come at the expense of reductions in AUMs for livestock. Crucial wildlife, aquatic, and riparian habitats seem to be of general concern, as is the related concern about what criteria would be used to identify present and future levels of game. Concern was also expressed, particularly by the Nevada Chapter of the Wildlife Society, that the economic value of wildlife is often overlooked in agency planning



processes. Those who expressed this concern recommended that wildlife information be considered fully in any economic evaluation used during development of the plan.

#### Wild Horses

Little public input has been received concerning the wild horse issue in the Elko RMP Area. The consensus of some public land user groups is that wild horses should be managed in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands as is mandated in the Wild Free-Roaming Horse and Burro Act of 1971. Public indifference to this issue may be the result of the 1981 and 1982 removal of horses from three herd areas within the planning area which reduced the numbers to 330 head.

#### Woodland Products

One of the Bureau programs of greatest interest to the public is wood sales. Permits have been issued for the cutting of firewood, fence posts, and Christmas trees in past years. Residents are concerned that the demand for these products is more than current supply can handle. Although these products are available within adjacent areas, residents are reluctant to travel rather long distances to harvest them.

#### Minerals

Of all the natural resource programs managed by the Bureau in the planning area, the minerals program probably has the greatest potential for altering the "status-quo." This would be particularly true if major developmental activities of a long term nature were undertaken. That type of developmental activity would affect the number and types of people in the area; the number and types of jobs; and the levels of income as well

as distribution of that income. To some residents of the area, the possibility of this happening holds the promise of a "better life", for others the opposite would be true.

In view of the historic and productive mining activity in the planning area, the high minerals value in some of the area lands; and the dependency of the minerals industry on the exploration and subsequent developmental opportunities provided on public lands, this issue is a highly visible one. Although it is realized that there would be significant economic changes in various minerals activities occurring in the RMP area over time, the mining sector wants to assure that all options remain open. Their rationale implies that subsequent developments in the field of minerals and energy exploration technology will undoubtedly lead to minerals and energy discoveries in areas where that is not now possible. Wilderness designation in the view of minerals proponents is a "lock-up" which could preclude exploration activities in the future when technology has progressed to the point that exploration becomes an economically viable option. However, those individuals or groups who are preservation and/or environmentally oriented strongly oppose this point of view. Since only 2.1 percent of the total acreage in the planning area is currently under study as wilderness, these individuals and stakeholder groups feel that the remaining 97.9 percent provides ample opportunity for subsequent minerals and energy development.

## **WATER**

### Surface Water

Surface waters in the planning area drain two major hydrographic basins: the Snake River Basin and the Humboldt



River Basin. The Snake River Basin drains the northern one-third of the RMP area into the Snake River, a tributary to the Columbia River. The basin is characterized by high tablelands and highlands, and except for Independence Valley, is cut by deep canyons. Total annual runoff from the part of the basin contained within the planning area averages 476,000 acre-feet.

The Humboldt River system drains the lower two-thirds of the RMP area, terminating in the Humboldt Sink in the western part of the state. The Humboldt River is used extensively along its course. The basin itself is characterized by medium to high altitude valleys and is the only internally drained basin within this hydrographic region. Total runoff for the Humboldt River System within the RMP area is 433,500 acre-feet per year (Nevada Dept. of Conservation, 1971).

Diamond Valley is the only area falling outside of the two major hydrographic regions. The northern one-fourth of this valley lies within the RMP area. It is a topographically closed basin (no external drainage) and is part of the Central Hydrographic Region. The region is characterized by isolated valleys with little surface interflow between them.

Perennial streams which occur in the area drain large mountain watersheds. Peak runoff occurs from April to May as the snowpack begins to melt in the higher elevations. Peak discharges occur when rain and warm temperatures cause rapid melting of the snowpack. Low flows, in turn, occur during December and January.

Springs in the RMP area vary from small seeps to those with flows exceeding several hundred gallons per minute. Generally, these springs are small and in many cases not capable of sustaining yearlong flow. There are

approximately 2,500 springs within the planning area.

#### Groundwater

Groundwater is a primary source of water for domestic needs, stock-watering, and irrigation in the RMP area. There are a total of 116 wells on public land in the Elko RMP Area. The major water bearing zone occurs in sediments within valley bottoms and on alluvial fans. For nonagricultural purposes, an adequate supply of water can be obtained at depths of less than 500 feet. Water quality is generally good, although saline water may be found in low lying basins such as Crescent and Diamond Valleys.

Groundwater recharge comes primarily from mountain runoff. Annual recharge in the RMP area is estimated at 273,000 acre-feet for the Humboldt River Basin and 104,350 acre-feet for the Snake River Basin (Nevada Dept. of Conservation, 1971).

#### Water Quality

Surface water quality is variable within the Elko RMP Area. Results from surface water tests conducted in 1977 and 1982 through 1984 indicate the water is generally adequate for livestock watering, irrigation purposes, and in some locations domestic use. Water quality data gathered on 27 representative streams in 1984 were compared and classified using water quality standards and classification criteria as set forth in the State of Nevada's water pollution control regulations. A majority (13) of the streams fall within Class C, eight fall into Class D, three are within Class A, two within Class B, and one within Class E (USDI, BLM Water Quality Report, 1984).



## AIR QUALITY

Air quality in the Elko RMP Area is generally good. Particulate matter, mainly as wind-blown dust, is the major source of air pollution. Dust problems occur mostly on a local scale (i.e., areas disturbed by construction, wildfires, or mining). There are no designated nonattainment areas within the planning area where established standards for one or more pollutants have been exceeded.

## CULTURAL RESOURCES

The Elko RMP Area contains over 1,600 known historic and prehistoric sites. Although a Class II inventory has never been undertaken, it is estimated that over 50,000 sites are present on public land within the planning area. Historic sites include towns and camps associated with mining and railways, as well as ranches and historic trails. Prehistoric sites include lithic scatters, quarries, rock art, and caves or rock shelters. As the prehistoric period is longer than the historic period by thousands of years, prehistoric sites are by far the most abundant.

Cultural resources are fragile, finite, and non-renewable. As such, many land development uses lead to a decline or loss of cultural resources. The loss of these resources will continue and may only be shored through protection or mitigation of these effects through data recovery. Both of these are prohibitively expensive and impractical to consider without volunteer participation. Public participation and private funding can best be stimulated through long-term development of tangible cultural resource development projects. It is in this area that cultural resource and recreation management are complimentary. Several opportunities

of this type exist within the resource area.

### Historic Resources

Although no inventory has been undertaken, numerous historic camps, towns, and mines are known to have structures or cemeteries on public lands. Potential and current user days are difficult to estimate, as these resources have not been actively managed in the past. A concern is that such areas are frequented by vandals as well as sightseers.

### South Fork of the Humboldt River

About ten miles southwest of Elko, a highly significant archaeological site was excavated in the 1950s. Most of this site was subsequently destroyed by gravel procurement and has since been fenced and stabilized. The site represents over 4,000 years of prehistoric occupation in the area. In addition to the prehistoric site, this is also part of the Hastings Cutoff Emmigrant Trail traversed by the ill-fated Donner Party.

### Tosawihi Quarry

The Tosawihi Quarry is about 38 miles northeast of Battle Mountain within the Ivanhoe Mining District. White opalite from this area was quarried as early as 7,500 years ago for the manufacture of stone tools. Prior to Euro-American contact, the people living in the area of Battle Mountain were called the Tosawihi or White Knife Shoshone because of stone knives manufactured from this material.

In addition to the prehistoric importance of this area are the abandoned cinnabar mine sites. Mercury production from this area was important to the war effort during the 1940s. The remnants of these mines may be good representatives of a mining history narrative.



At present, none of these areas are being managed for cultural values with the exception of legal compliance.

## VISUAL RESOURCES

Visual Resource Management (VRM) involves the inventory and evaluation of scenic quality, the public sensitivity level of acceptable change, and the distance zone analysis of public lands. A variety of rating factors are evaluated and integrated to arrive at five visual resource management classes. These management classes are used to determine the amount of acceptable contrast allowed within the particular landscape.

Class I lands contain natural ecological changes and allow very limited management activity. Any contrast created within the characteristic landscape must not attract attention. No areas were presently identified within the RMP area as Class I.

Class II lands should not have any management activities which cause changes in the basic landscape elements (form, line, color, and texture). Management activities which result in contrasts may be seen, but must not attract attention. The RMP area contains 120,596 acres or two percent of the area in Class II (USDI, BLM, 1984).

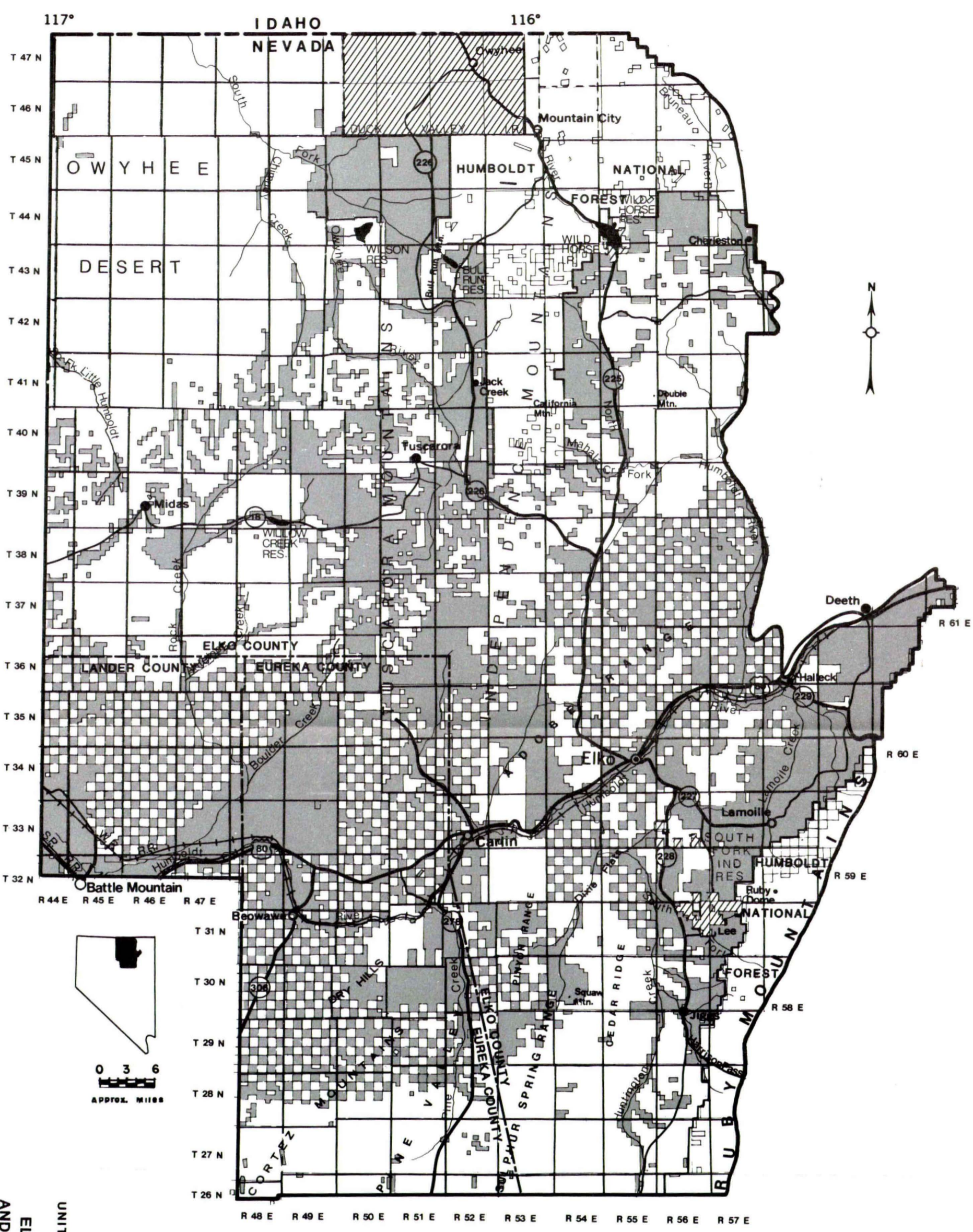
Class III lands may contain contrasts to the basic landscape elements caused by a management action which are evident but remain subordinate to the existing landscape. The planning area contains 1,508,070 acres or 28 percent within this scenic class.

Class IV lands may contain contrasts which attract attention and are a dominant feature of the landscape in terms of scale, but repeat the form, line, color, and texture of the characteristic landscape. The remaining 70 percent of the planning area was identified as being in this class.

Class V lands are those areas where the natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the other classifications. There were no lands identified within the planning area as class V (USDI, BLM, 1984).







- Public Lands
- Private Lands
- Native American Lands

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 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT

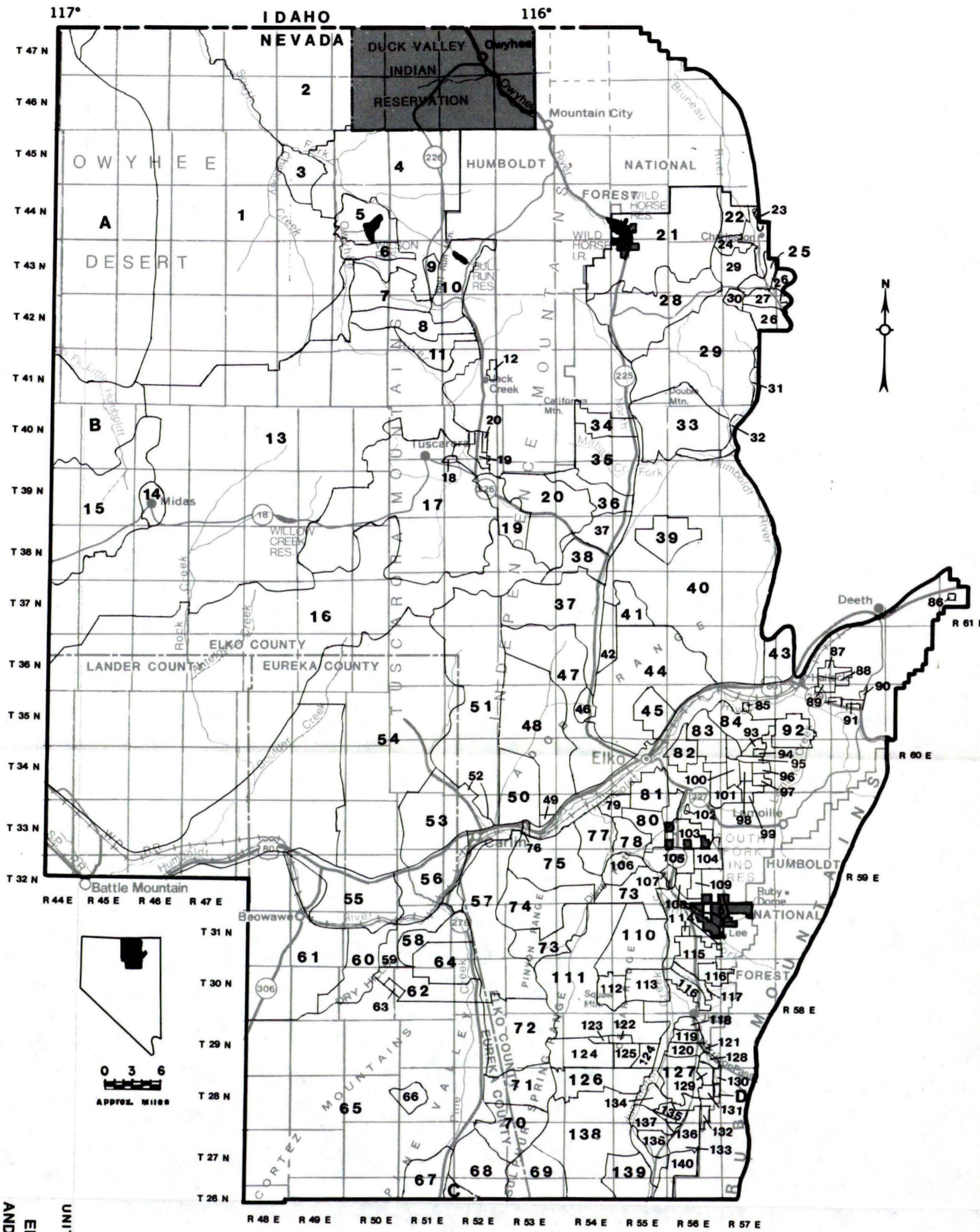
LAND STATUS



ALLOTMENT BOUNDARY MAP REFERENCE LIST

<u>MAP REF. NO.</u>	<u>ALLOTMENT</u>	<u>MAP REF. NO.</u>	<u>ALLOTMENT</u>
1	Owyhee	46	Adobe
2	YP	47	Blue Basin
3	Owyhee-Petan	48	Dry Susie
4	Indian Creek FFR	49	Carlin Canyon
5	VN Pocket Petan	50	Carlin Field
6	VN Pocket Allied	51	Hadley
7	Cornucopia	52	Taylor's Carlin
8	Andrae	53	Mary's Mountain
9	Wilson Mountain	54	T Lazy S
10	Lime Mountain	55	Horseshoe
11	Mori	56	Palisade
12	Bucket Flat	57	Pine Mountain
13	Rock Creek	58	Iron Blossom
14	Midas	59	Safford Canyon
15	Little Humboldt	60	Scotts Gulch
16	Twenty-five	61	Geyser
17	Tuscarora	62	Thomas Creek
18	Six Mile	63	Thomas Creek FFR
19	Taylor Canyon	64	Devils Gate
20	Eagle Rock	65	South Buckhorn
21	Wildhorse Group	66	Potato Patch
22	Rough Hills	67	Pine Creek
23	Stone Flat FFR	68	Mineral Hill
24	Annie Creek	69	Union Mountain
25	Bruneau River	70	Bruffy
26	Rattlesnake Canyon	71	Pony Creek
27	Stone Flat	72	Indian Springs
28	Four Mile	73	Dixie Flats
29	Beaver Creek	74	Emmigrant Springs
30	Mason Mountain	75	Tonka
31	Mexican Field	76	Old Eighty FFR
32	Cotant	77	Grindstone Mountain
33	Double Mountain	78	Cut-Off
34	Sheep Creek	79	Bullion Road
35	Mahala Creek	80	Ten Mile
36	Eagle Rock 1	81	Four Mile Canyon
37	Lone Mountain	82	Burner Basin
38	Fox Springs	83	Elko Hills
39	Coal Mine Basin	84	East Fork
40	North Fork Group	85	East Fork FFR
41	Dorsey	86	Burger Creek
42	Long Field	87	Smiraldo
43	Halleck	88	King Seeding
44	Adobe Hills	89	Horse Fly
45	White Rock	90	Heelfly

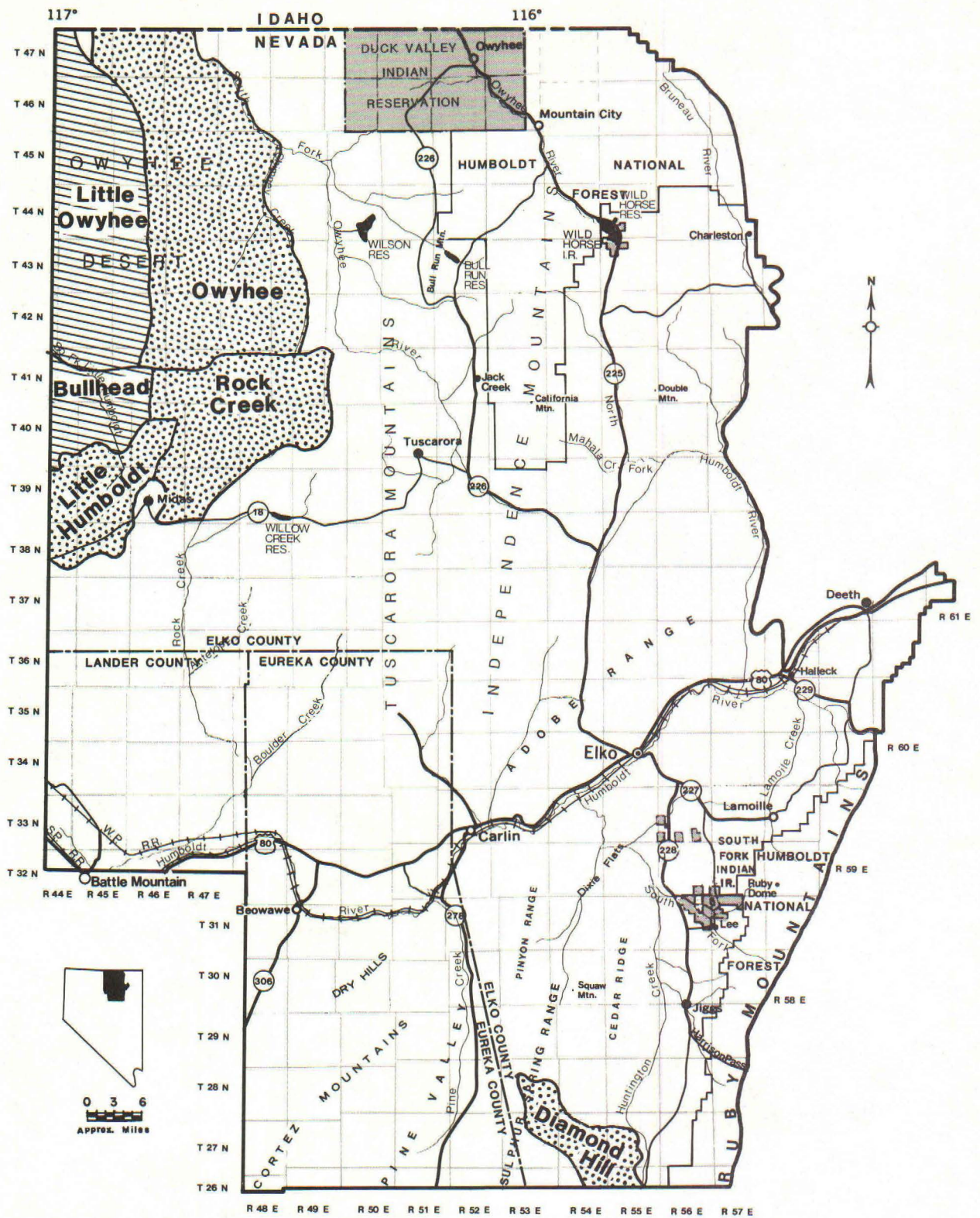




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ALLOTMENT BOUNDARIES





HERD AREAS ADMINISTERED BY WINNEMUCCA DISTRICT

HERD AREAS ADMINISTERED BY ELKO DISTRICT

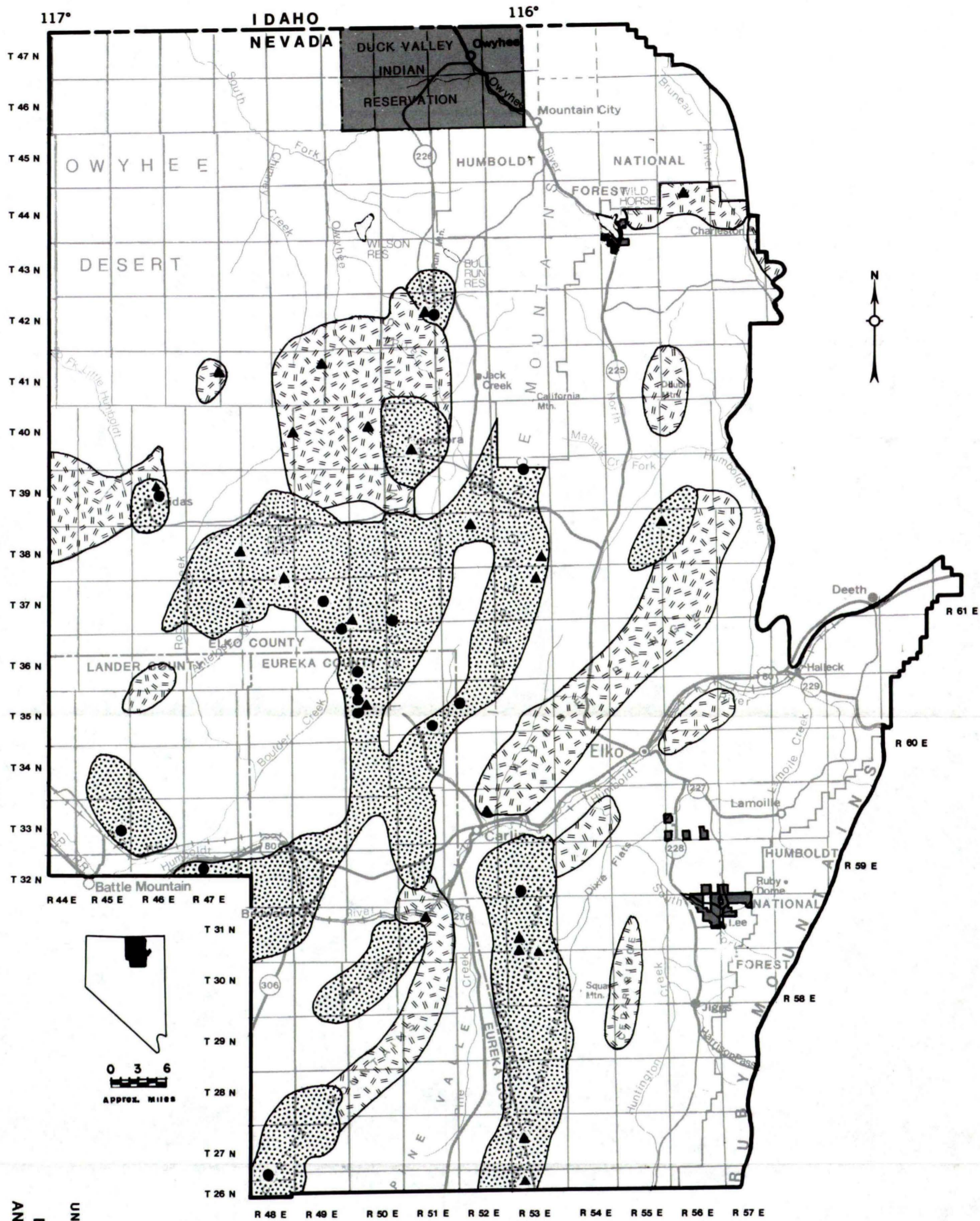
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



**WILD HORSE HERD AREAS**







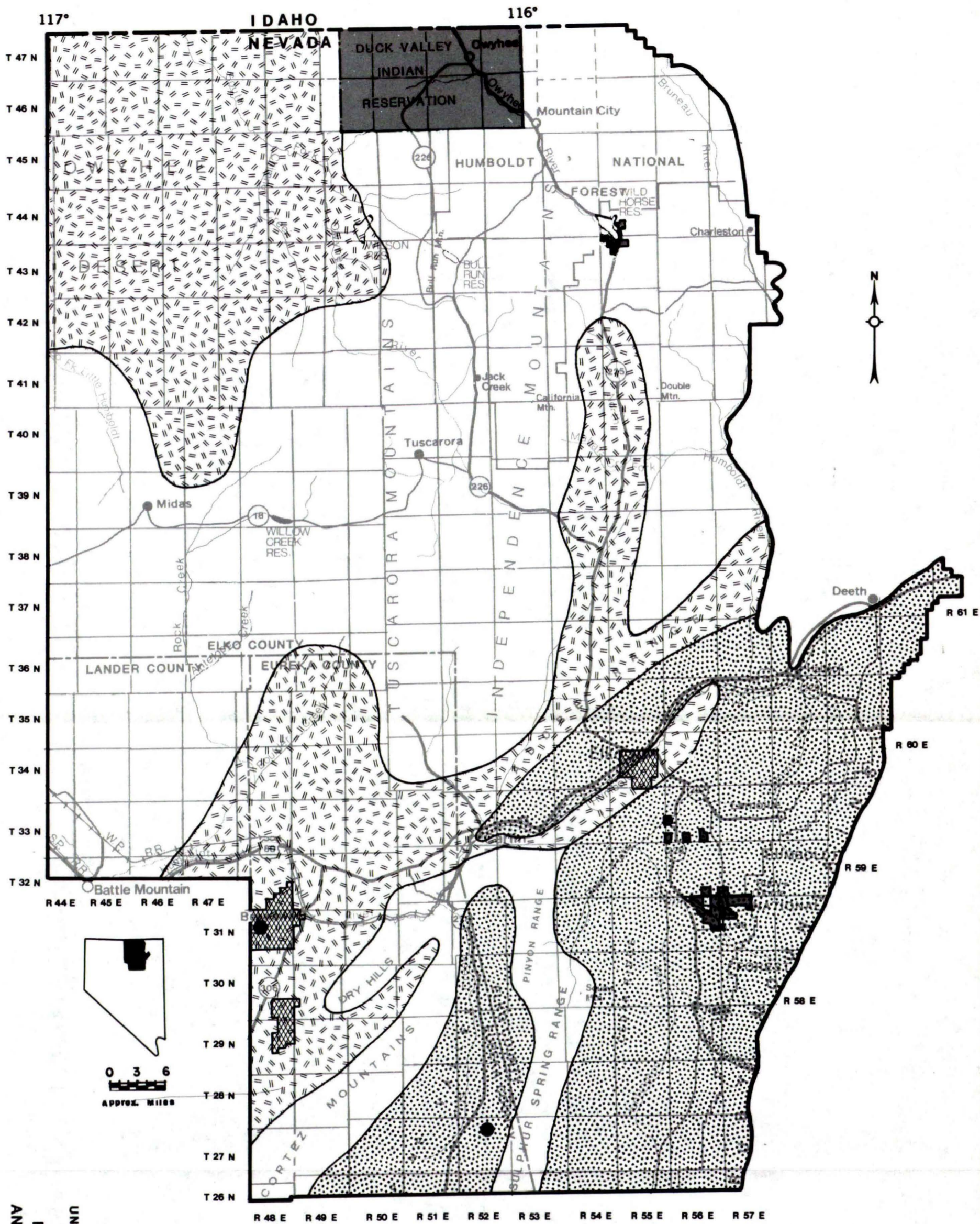








-  **High**
-  **Moderate**
-  **Low**
-  **Current or Recently Active Mines**
-  **Historic Mining Areas**

NOTE: More detailed mineral potential information concerning wilderness study areas is available in the Elko Resource Area Wilderness Technical Report.

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 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT  
 LOCATABLE MINERAL POTENTIAL





-  **High (Oil and Gas)**
-  **Moderate (Oil and Gas)**
-  **Low (Oil and Gas)**
-  **Known Geologic Structure(S) And Developed Field (S)**
-  **Known Geothermal Resource Areas**
-  **Geothermal Power Plant**

**NOTE:** More detailed mineral potential information concerning wilderness study areas is available in the Elko Resource Area Wilderness Technical Report.

UNITED STATES DEPARTMENT OF THE INTERIOR  
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 ELKO RESOURCE MANAGEMENT PLAN  
 AND ENVIRONMENTAL IMPACT STATEMENT  
**LEASABLE MINERAL POTENTIAL**



## CHAPTER FOUR

### ENVIRONMENTAL CONSEQUENCES

#### INTRODUCTION

This section presents the scientific and analytic basis for comparison of the alternatives and selection of the resource management plan. The RMP is designed to be a comprehensive, long range plan under which additional site specific analysis and planning would take place before on the ground actions occur. As outlined in 40 CFR 1502.2(b), the discussion of environmental consequences is in proportion to the significance of projected impacts.

This chapter includes the relationship between short-term use of the environment and the maintenance and enhancement of long-term productivity, and irreversible or irretrievable commitment of resources. Actions committing future generations to continue a similar course are considered irreversible. Irretrievable is defined as not replaceable.

Impacts to threatened and endangered, sensitive or rare plant species, cultural resources, air quality, and ground water are difficult to determine due to a lack of site-specific project information. As these resources are protected by specific management guidance and laws, they will be examined in future environmental assessments and are not analyzed further.

Bureau policy states that rivers listed with the National Park Service for potential inclusion into the National Wild and Scenic Rivers System are to be evaluated and recommendations pertaining to further study

should be part of the Bureau planning process. The Elko RMP Area contains a 29 mile segment of the South Fork-Owyhee River, from the YP Ranch to the Idaho-Nevada state line, which is currently listed in The Nationwide River Inventory, Nevada Component (National Park Service, 1982) as having potential for inclusion in the National Wild and Scenic Rivers System.

This segment of the river is managed under the 1983 Owyhee River Recreation Area Management Plan and interim management protection of the South Fork Owyhee River and Owyhee Canyon Wilderness Study Areas. The river segment is also the subject of the Preliminary Draft Owyhee Canyonlands Wilderness EIS which has determined part of the river preliminarily suitable for wilderness designation. The Elko RMP proposes to designate the nonsuitable wilderness acres as a Special Recreation Management Area for management of the semi-primitive non-motorized wild river values which exist under the Recreation Opportunity Spectrum (ROS) System. Subsequent recommendations pertaining to Wild and Scenic River designation will be consistent with the decisions in the Final Owyhee Canyonlands Wilderness EIS.

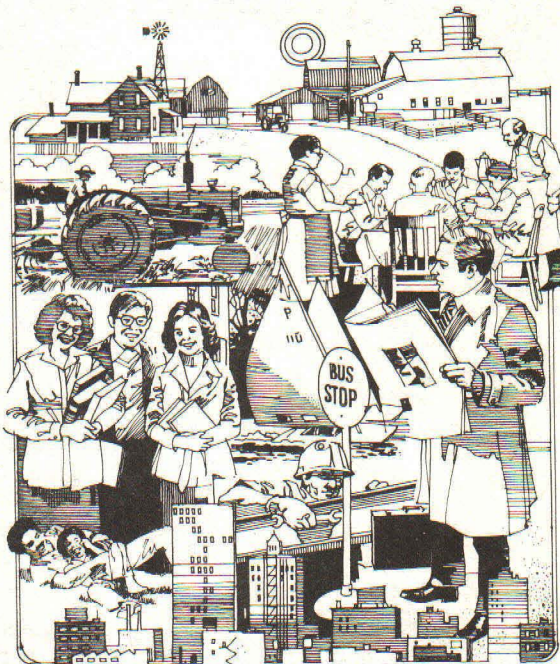
#### ASSUMPTIONS FOR ANALYSIS

The following assumptions are made for analysis purposes:

1. Funding and personnel will be sufficient to implement the selected resource management plan.



2. Short-term impacts are defined as those which occur within five years after implementation of the plan. Long-term impacts are those which occur from six to 20 years. Unless otherwise stated, impacts described will be over the long-term.
3. Baseline data for vegetation condition and trend, and other parameters is the best available. While this data is not used by itself for making forage allocation decisions, it is useful for planning and analysis purposes.
4. For analysis purposes, monitoring of vegetation for livestock, wildlife, and wild horse use would be a component of the Preferred Alternative only.



## ALTERNATIVE A

### LANDS AND REALTY

Community expansion, land consolidation, and public land management would be hindered.

Since lands would be available on a case-by-case basis only, extended periods of time could be required to respond to requests for lands either for private or local government purposes. This would result in limited land tenure adjustment, primarily accomplished through Recreation and Public Purpose Act applications for lands near Elko, Carlin, and Battle Mountain.

### CORRIDORS

Utility and transportation companies would not benefit from long range planning for major facilities.

Transportation and utility corridors would not be designated or identified in this alternative. Assured accurate long-range planning by utility and transportation companies would be difficult, if not impossible. This could hinder efficient processing and installation of facilities to meet future utility needs. This could also hinder the ability of the BLM to efficiently process rights-of-way requests.

### LEGAL ACCESS

Legal public access through important access routes would not be acquired.

This alternative would not identify any public, other government or agency, or resource priorities for



acquiring legal access. The number of acquisitions would be few and benefits would be of very low magnitude because acquisition would be initiated in response to specific situations. This would cause delays in the acquisition process.

Legal access would not exist on roads where easements are not required.

This alternative would not emphasize acquisition of easements important for public use and administration by BLM and other governmental agencies. Hence an adverse impact to public use and resource management is expected in the long-term as access is not obtained.

## RECREATION

Recreation use would increase to 1,436,000 recreation days over the long-term.

A 140 percent increase in recreation use is expected from the current level of 596,400 recreation days over the long-term (Appendix 1, Table 1).

Short-term demand on the existing SRMAs would be met. With the development of South Fork and Rock Creek Reservoirs by the State of Nevada and Lander County, decreased recreation demand is expected on the existing BLM SRMAs in the short-term. Over the long-term the quality of the camping experience would be reduced due to increased demand and subsequent over-use of the developed facilities at Wilson and Zunino/Jiggs Reservoirs, and North Wildhorse Recreation Area. Off-road vehicle (ORV) use would increase from 39,100 to 94,200 recreation days, and ORV use would remain unhampered. Over the long-term, unrestricted ORV use would

create resource damage, including vegetation loss and erosion in existing SRMAs.

Topographic constraints limit ORV use in the South Fork Owyhee River SRMA, therefore impacts from ORVs are not expected in this area.

Dispersed recreation activities would be intensified by the competition for desirable and suitable sites by various recreational groups, and by the increase in projected population. This competition would, in the long-term, result in intensive use patterns on extensive use areas resulting in conflicts among various recreation user groups. This could result in resource deterioration and a declining quality of experience.

Since existing numbers of big game would decrease, hunting opportunities are expected to decline. However, projected recreation days spent in pursuit of game animals would increase from 59,800 to 144,300 over the long-term due to increased hunter populations and participation from hunting interests (Appendix 1, Table 1).

## WILDERNESS

Wilderness values would not be protected on 66,754 acres and none of this acreage would be added to the National Wilderness Preservation System (NWPS).

Actions by people would, in the long-term, degrade the wilderness character of these WSAs by reducing their natural character and the opportunity to experience solitude and/or primitive and unconfined recreation in a natural setting. Roads would be built most frequently in areas of moderate to high mineral potential to provide better access to mining claims, land leased for oil and



gas use, and other reasons. Loss of vegetation and increased soil erosion would occur in proportion to increased ORV use for recreation and other activities.

It is anticipated in the short-term that precious metal, nonmetallic, and oil and gas exploration activities would occur within and along the peripheries of the WSA boundaries, causing a loss in vegetation and soils. Long-term production is speculative, but would most likely be restricted to those commodities having a moderate or high favorability for occurrence in the area (Tingley and Quade, 1984). Additionally, Cedar Ridge and Red Spring WSAs would provide about 8,000 additional acres for fuelwood harvest per year to partially meet the woodland products demand of the residents of the city of Elko. Approximately 40 percent of the highest quality acreage would be degraded due to projected woodland and mining activities. Additional information on impacts associated with wilderness in all alternatives is provided in the Elko Resource Area Wilderness Technical Report.

#### Rough Hills WSA

Without designation, this unit would remain essentially the same. Even with moderate potential for precious metals, the area is covered with a 1000-2000 foot layer of rhyolite reducing the economic feasibility of exploration or development of these minerals over the long-term. If exploration did occur, road building would likely occur near the western and southern borders of the WSA. This would eliminate naturalness and opportunities for solitude.

#### Little Humboldt River WSA

The impacts of not designating this area would be probable mineral exploration activities within the

study area along the southern and western borders. These activities would result in loss of naturalness from road building and surface disturbance over about one-fourth of the area. The potential for oil and gas is slight within the northern portion of the unit, however, impacts from seismic exploration (e.g. roads and other surface disturbance) are likely to occur as this WSA borders the southern edge of an active energy exploration area. This could result in such surface disturbing activities which would forego opportunities for primitive recreation within a natural setting.

#### Cedar Ridge WSA

Without designation, impacts would result from exploration and potential development for oil and gas, along with road construction associated with these activities.

Off-road vehicle use and firewood cutting by the general public are anticipated on 4,940 acres. This would result in soil erosion and removal of vegetation. The consequences of these activities would be a loss of naturalness and opportunities for solitude. Wilderness character and integrity would be reduced in the entire area.

#### Red Spring WSA

Without designation, surface disturbing impacts from oil and gas exploration and development, including roads, could be expected. Wood harvesting activities would also be intensive within the unit on about 3,200 acres. Additional roads and surface disturbing activities connected with energy development and wood harvest could occur in the interior of the unit and would eliminate naturalness and opportunities for



solitude, resulting in a loss of wilderness values throughout the unit.

## LIVESTOCK GRAZING

The present three to five year average licensed use would continue. New land treatments/improvements would not be implemented.

Livestock grazing would continue to be authorized at the existing use level which has averaged 305,247 AUMs over a three to five year period (1979 to 1983). This is 21 percent below the existing active preference of 387,533 AUMs for the RMP Area (Appendix 3, Table 1).

No new range improvement projects would be implemented under this alternative. Also no new grazing systems would be initiated. Existing AMPs would continue to be maintained.

## WILDLIFE HABITAT

The opportunity for maintaining existing numbers of big game within each grazing allotment would be impaired.

While there would not be significant changes in overall native range condition, it is anticipated that the majority of crucial big game seasonal habitat would remain in its current condition or decline. This would increase competition and reduce the existing AUM availability of 20,338 AUMs for existing numbers of mule deer and 608 AUMs for existing numbers of antelope, resulting in a decline in present population levels for both species.

Continued concentration of grazing use in crucial big game habitat, especially around water sources, would result

in a further decline in existing pronghorn antelope and mule deer populations by reducing the availability of important forage and water.

Sage grouse populations would continue to decline. Vegetative production and quality in crucial brooding areas would continue to be below potential. This use would lower plant production and cause soil erosion and evaporation. Potential impacts to brood rearing habitat would continue from unrestricted leasable mineral entry activities including road building and exploration activities.

Locatable mineral development under all alternatives is unrestricted. Historically, mineral development throughout the planning area has directly disturbed an average of 200 acres per year. The majority of mineral exploration activities have occurred from June through November and have predominantly affected the Tuscarora, Pinon-Sulphur Spring, and South Cortez Mountain ranges. Direct impacts are loss of cover, forage, and to a lesser extent, loss of water over approximately 4,000 acres in the long-term. Indirect impacts include reductions in populations and loss of useable habitat. The combination of the direct and indirect impacts is considered a significant adverse impact.

Upland game, furbearers, and nongame wildlife rely heavily upon riparian habitat. Since overall riparian conditions are expected to decline, so would those wildlife species dependent on them.

The existing situation would continue for aquatic habitat.

Eleven miles of aquatic habitat would be maintained in good condition with the remaining 201 miles in poor or fair condition due to the existing level and patterns of grazing use. If



## ALTERNATIVE A

selected, this alternative would not comply with the Endangered Species Act of 1973, as amended. As a result, efforts to have Lahontan cutthroat trout removed from the Federal threatened species list could be delayed indefinitely.

### WILD HORSES

Wild horse herd numbers would not change. The free roaming characteristic of wild horses would not be affected.

Existing population levels for wild horses would be managed in existing herd areas. Since overall vegetation condition would remain the same and livestock grazing use levels would not change, no impacts are expected.

Fence construction would not be a component of this alternative, therefore no change to the free roaming characteristic of wild horses in the RMP area is expected.

The condition of wild horses would not improve.

With no additional water developments no improvement would be expected in both habitat and/or wild horse condition.

### WOODLAND PRODUCTS

Woodland product harvest levels would remain static or decrease.

The demand for woodland products (particularly firewood) would not be met in the short-term or in the long-term. This would be a significant adverse impact because demand for woodland products has been shown to increase by approximately 18 percent per year. No additional selective greenwood harvest areas would be opened to supplement the deadwood

harvest and harvest levels would decline as the deadwood supplies became more limited.

With nondesignation of the Cedar Ridge and Red Spring WSAs, about 8,000 acres of woodlands could potentially be harvested on a sustained yield basis.

Without acquiring legal access into the checkerboard and/or other woodland areas with blocked access, management problems would continue. The annual sustained yield levels could be reduced due to inaccessibility of woodlands.

Overall stand condition would remain static or decrease.

No intensive forest management would be implemented to manage and protect the woodland resources. Forest productivity, stand health, and vigor would not be improved without the implementation of forest management practices such as selective thinnings and reforestation.

### MINERALS

Maximum opportunity for mineral development would occur due to nondesignation of wilderness.

None of the WSAs would be recommended as suitable for wilderness designation. Therefore, wilderness management constraints would be removed and mineral entry segregations would not be enacted. Due to high oil and gas potential in the Cedar Ridge and Red Spring WSAs, a beneficial impact would occur to the minerals industry as a result of allowing exploration and development.

Existing seasonal and no surface occupancy restrictions would continue.



Limited impacts would occur to oil/gas and geothermal exploration and development activities due to restrictions instituted to protect terrestrial wildlife habitat and designated Special Recreation Management Areas.

Impacts from no surface occupancy stipulations have not occurred to date. Minor adjustments would be necessary to route seismic lines and new roads around sage grouse strutting grounds. No impacts to Special Recreation Management Areas would be expected, due to a combination of low leasable mineral potential in these areas and/or the relatively small areas involved. See Appendix 6 for Special Leasing Stipulations.

Seasonal restrictions cause limited impacts to oil/gas and geothermal exploration. Delays of up to three months could occur, most commonly due to a combination of wet ground conditions which restrict cross-country vehicle travel and limitations to protect wildlife habitat. If existing trends continue, delays would be expected on about 10 percent of exploration activities and are not judged to be significant.

## VEGETATION

Overall, one percent of the native vegetation within the planning area would move toward the potential native community, one percent would move away from the potential native community, and 98 percent would remain unchanged in the long-term.

Changes in ecological status from the present situation as a result of implementing this alternative are projected to include a shift of 30,297 acres from earlier seral stages toward the potential native community. Conversely, 23,884 acres would shift

from the later seral stages toward the early seral stages (Appendix 5, Table 2).

Changes in ecological status within allotments would occur both within and between stages. These changes in some cases can be relatively small, but the net result is used to indicate the overall trend of the allotments. Considering current stocking levels, and that no new range improvements or grazing systems would be implemented, it is projected that 50 allotments would show downward trend in ecological status. This would adversely affect the ability of those allotments to produce forage on a sustained-yield basis. Considering those same conditions, 49 allotments would show an improvement in ecological status due to continued stocking levels below forage capacity. The remaining 41 allotments would continue at or near their present seral stage.

Overall, riparian vegetation would remain in its present condition.

By continuing current management, riparian vegetation would be maintained in its present condition. Approximately 5,250 acres would remain in poor condition, 78 acres would be in fair condition and 330 acre would be in good condition.

The 58 acres of riparian vegetation associated with fenced spring sites would improve in habitat condition and 1,193 acres of unprotected springs would remain unchanged or decline. No change in condition is expected on approximately 14,000 acres of aspen habitat.



## ECONOMIC CONDITIONS

### Lands and Realty

Land sales would not result in significant economic impacts.

The expression of interest for transfer of public lands to other ownership would continue to be considered on a case-by-case basis. However, without the encouragement of specific management proposals, it is expected that the present pattern of land ownership within the RMP area would remain substantially the same. The potential for economic development, or the possibility of realizing benefits that might derive from more efficient use of the land would be diminished.

### Corridors

This alternative would result in continued high right-of-way planning costs to utility companies.

Long time frames for processing major rights-of-way would continue. However, once future rights-of-way were obtained, construction and operation costs could be low compared to other alternatives since the entire RMP area would be potentially available. This would provide lower construction costs and minimize operating costs, including reduced maintenance and power loss.

### Recreation

Expenditures associated with these activities are projected to reach \$3.9 million in the short-term, rising to \$7.6 million at the end of the 20-year period (1982 dollars).

Hunter days would increase to 74,600 in the short-term and 144,300 in the long-term. Angler days are estimated at 149,800 and 288,900 in the short and long-term, respectively (Appendix 1, Table 1). This would provide

income to the area economy estimated at \$1.2 million and \$2.3 million respectively and would sustain a total of 106 jobs in the short-term, increasing to about 205 jobs in the long-term.

### Wilderness

No significant economic effects would result from nondesignation of wilderness.

No beneficial economic advantages would be gained or lost and no major adverse economic impacts would be experienced or avoided.

Wilderness recreation opportunities and their potential income effects would be foregone, along with the benefits of preservation for future generations. In turn, mineral development potential would remain unfettered and present recreation uses and trends, particularly off-road vehicle use, would continue.

### Livestock Grazing

No significant economic effects would occur to the livestock industry.

This alternative would introduce no changes in the administration of grazing on public lands, and livestock grazing would continue at its present level. However, particular allotments may experience gains or losses as a result of changes in forage condition and trend, over time.

## SOCIAL VALUES AND PUBLIC ATTITUDES

There would be no significant social impacts at the community level if this alternative were to be implemented.

With the exception of wilderness, this alternative maintains the "status-quo" and would have little or no affect on



the number or characteristics of people living in the area; the levels of income or distribution of that income; nor would it significantly increase or decrease the types or availability of community resources.

The lack of wilderness designations under this alternative would be negatively viewed by conservation and preservation oriented groups as wilderness values would be lost over a prolonged period of time on all 66,754 acres. This loss to the National Wilderness Preservation System would be viewed as significant by some interest groups.

Mining interests would view this favorably as it would release acres currently protected under the Interim Management Guidance for Wilderness Study Areas for further development and exploration, should they so desire.

It could be expected that the utilities sector would oppose the implementation of this alternative since there are no provisions for identifying planning or designated corridors. This could possibly have an adverse impact on the utility sector's long-range planning programs. Developing rights-of-way on a case-by-case basis could increase the costs or impede the development of major power projects and their associated power distribution systems, making future energy development projects more difficult, time consuming, and expensive to plan.

At the individual level, the implementation of this alternative would probably cause a negative impact, i.e. a sense of anger, frustration, and perhaps alienation for those individuals who were actively became involved in the resource management planning process and who endorsed wilderness designation for one or more of the wilderness study areas. This

could further strain the working relationships between those individuals and the Bureau.

Since legal access on routes which currently provide physical access for administration of various multiple-use programs would not be obtained under this alternative, except in response to specific situations, legal access could be denied on 242 miles of access routes over private lands. Should this lack of legal access occur, it could adversely affect the day-to-day administration of various Bureau natural resource management programs making them more time consuming and costly as a result.



## ALTERNATIVE B

### LANDS AND REALTY

Community expansion needs would be accommodated and management of public lands would be enhanced by transferring 58,320 acres out of Federal administration and exchanging up to 336,000 acres.

A total of 5,900 acres of public land would be reserved for future community expansion, meeting the needs of Elko, Carlin, and Battle Mountain as identified through consultation with local government entities. A total of 58,320 acres of land that are difficult or uneconomic to manage would be made available for sale. An efficient management pattern could be established by transferring 336,000 acres of scattered and difficult to manage parcels out of Federal administration through exchange. Since land exchanges, by law, must provide the Federal government with equal or greater public value or interest, a net beneficial impact would result from consolidating a fragmented ownership pattern. This would provide more cost-effective management primarily in Pine and Lamoille Valleys, the southern portion of the Independence Mountains, the Adobe Hills, and throughout Lander and Eureka Counties.

### CORRIDORS

Utility and transportation companies would benefit from long range planning.

The identification of 609 miles of designated corridors and planning corridors would provide the maximum opportunity for utility and transportation companies to plan facilities.

Identifying these corridors would assist utility companies in planning future rights-of-way and would expedite the approval process.

These corridors meet the needs of the utility industry by fully accommodating corridor routes as identified in the Western Regional Corridor Study. Including routes for the Thousand Springs Power Project located in the adjacent Wells Planning Area is beneficial to the utility industry through a reduction of siting costs.

### LEGAL ACCESS

Easements would be acquired on important access routes

This alternative would emphasize acquisition of easements important for BLM administration of livestock grazing, woodland products, and mineral exploration and development. The acquisition of easements on 56 roads (216 miles) would have long-term beneficial impacts for these resources.

Legal access will not exist on roads where easements are not acquired.

This alternative would not emphasize acquisition of easements important for public use and BLM administration of recreation, wilderness study areas, wildlife, and other government agencies. Hence, a significant adverse impact to these resources is expected in the long-term as access across 19 roads (59.5 miles) would not be obtained.

### RECREATION

Recreation use would increase to 1,252,200 recreation days over the long-term.



A 109 percent increase in recreation use is expected from the current level of 596,400 recreation days over the long-term (Appendix 1, Table 1).

Short-term demand for recreation on the existing SRMAs would be met. Long-term impacts would be the same as in Alternative A, except somewhat reduced with the addition of the West Wildhorse SRMA which would produce additional opportunities for camping and fishing.

Impacts from the development of South Fork and Rock Creek Reservoirs by the State of Nevada and Lander County would be the same as in Alternative A.

Opportunities for dispersed recreation activities on public lands would be reduced as a result of the loss of public lands through sale and the loss of aesthetic values from increased vegetation treatments for livestock and increased woodland product harvest.

Since big game populations would be maintained in the long-term, hunting opportunities would remain the same. However, projected recreation days spent in pursuit of game animals would increase from 59,800 to 119,000 over the long term due to increased hunter populations (Appendix 1, Table 1).

Off-road vehicle (ORV) use would increase from 39,100 to 137,600 recreation days. Nearly all of the RMP area (98 percent) would remain open to ORV use. Designation of the Adobe Hills SRMA would greatly enhance ORV use. Off-road vehicle caused degradation would continue in localized areas outside of the SRMAs.

The South Fork Owyhee SRMA, provided it is not designated wilderness by Congress, is overlapped by planning corridor segment A-R. Planned development within this corridor would be evaluated at the time of proposal to determine the extent of impact to

the natural primitive recreational river values and opportunities. While any utility development would not enhance the river corridor, the range of possible mitigations available allow considerable management discretion to not substantially impact the resource values.

Proposed utility corridor S-T passes through the existing Zunino/Jiggs Reservoir SRMA and would impact the aesthetic value of this recreation area.

Proposed corridor segment L-E and M-K would pass through the Adobe Hills SRMA and impact the aesthetic values of this site.

## WILDERNESS

Wilderness values would not be protected on 38,368 acres but would be protected on 28,386 acres in the Little Humboldt River area by adding this unit to the National Wilderness Preservation System.

Impacts would be the same as those discussed in Alternative A for those areas not designated as wilderness. The area proposed for designation within the Little Humboldt River WSA (28,386 acres) would preserve the wilderness character of the unit, maintaining its naturalness and preserving the opportunity to experience solitude and/or primitive and unconfined recreation in a natural setting. Within this area wildlife habitat would be protected and limitations on ORV use would reduce harassment of wildlife and wild horses. Watersheds would be afforded added protection because of limitations on surface disturbing activities such as road construction, mining exploration and development and range improvements. The integrity of cultural resource sites would also be



## ALTERNATIVE B

enhanced by reduced access inside the WSA, thereby minimizing artifact collecting.

Hiking use is also expected to increase over the long-term within the designated WSA (Appendix 1, Table 1).

### LIVESTOCK GRAZING

Livestock use would be authorized at a level of 491,741 AUMs over the long-term.

The level of livestock use is projected to increase under this alternative to 491,741 AUMs. This would be an increase of 27 percent over the existing active preference of 387,533 AUMs and 61 percent over the three to five year average licensed use level of 305,247 AUMs (Appendix 3, Table 2). No reductions in preference would occur for any allotment. Of the 140 allotments within the planning area, 92 allotments would exceed current active preference while the balance would remain at active preference.

This level of grazing use would occur as a result of management and range improvement implementation. Over the long-term, 37 AMPs would be developed for the Category I allotments, 11 for Category M allotments and one for a Category C allotment. This would provide a means of achieving uniform patterns of utilization through improved distribution of livestock. These AMPs would provide scheduled grazing treatments that would include periodic rest for specific areas within allotments. Range improvements proposed would improve the manageability of livestock grazing with subsequent increases in forage production (Appendix 3, Table 3).

Land actions proposed under this alternative would eventually eliminate

Federal control of four allotments (Burger Creek, Lone Mountain, Stone Flat Fenced Federal Range (FFR), and Bucket Flat) through land sales.

Range improvement projects would not be implemented and the potential improvement in range conditions would not be realized on lands identified for disposal.

Wilderness designation of 28,386 acres could result in restricting vehicle use which would limit livestock management opportunities. Maintenance of some existing range improvement, and salting practices presently being done with vehicles may have to be accomplished by horseback or on foot, causing permittees additional time and expense.

### WILDLIFE HABITAT

Over the long-term existing wildlife populations would be maintained.

With the initial implementation of range improvements on 17 percent of the crucial big game ranges, the short-term result would be a decline in existing numbers for mule deer and antelope. The long-term effects would result in maintaining existing numbers of big game.

Improvement in native range, primarily the grass-forb component, would occur where deferment of grazing use during the critical growth period is implemented in a management system. This would benefit antelope and mule deer summer habitat. However, early season deferment resulting in late fall use in combination with increased livestock numbers would have a negative impact on the browse component of crucial mule deer and mule deer winter range. Mid-summer to late season livestock use, after



grasses and forbs have cured, results in livestock using a greater percentage of browse within their diets. This is anticipated to lead to forage competition in localized areas. An initial reduction in habitat condition is also expected from implementation of vegetation treatments on six percent of crucial big game ranges. The result would be that the quality of mule deer ranges would be expected to decline over the short-term.

The implementation of intensive grazing systems providing periodic rest on native range, especially for the browse component, in combination with the deferment of use on native range would promote overall improved range conditions over the long-term.

The development of some livestock improvements in crucial big game habitat would also result in an initial change in livestock utilization patterns and create competition for forage between livestock and wintering big game. The development of livestock waters would result in increases in use of vegetation in specific areas previously used only by wildlife species. However, wildlife would also benefit from the use of some of the range improvements implemented primarily for livestock or wild horse use.

Other adverse impacts could occur from the potential for increases in oil and gas exploration activity during crucial mule deer fawning and pronghorn antelope kidding periods, and an increase in this activity throughout crucial big game use areas. Where oil and gas development occurs, localized reductions in existing population levels of mule deer and pronghorn antelope could occur.

Sage grouse populations throughout the planning area would be negatively impacted in the short-term due to reduced production of the forage resource. This is specifically within meadows and riparian areas not intended for intensive management. Loss of protection from no surface occupancy designation for leasable minerals could also reduce sage grouse populations. The long-term impacts resulting from the implementation of livestock range improvements and improved livestock management through grazing system development would be improved sage grouse habitat, including upland meadow areas. Improvement in streamside riparian vegetation will also improve the broodrearing habitat. The net result would be that existing numbers of sage grouse would be re-established over the long-term.

In the short-term, habitat conditions for furbearers and nongame wildlife would be negatively impacted on those areas where vegetation treatments occur, displacing certain animals and potentially reducing numbers. In the long-term however, habitat conditions would improve due to improved livestock management resulting from intensive range improvements and grazing system developments. Over the long-term, it is expected that existing population levels would be re-established.

Lands and realty actions under this alternative have identified three percent of seasonal crucial big game habitat and sage grouse habitat available for public disposal. Impacts to wildlife habitat would occur if any of these lands are subject to vegetation treatment.

Under this alternative the reintroduction proposals by the Nevada Department of Wildlife could not be accommodated.



## ALTERNATIVE B

Approximately 53 miles (1,590 acres) of aquatic stream habitat would be in good condition and 159 miles (4,770 acres) would be in poor or fair condition.

Aquatic and riparian habitat would be protected and/or improved from a declining state and would result in direct positive benefits to fisheries and water resources on 53 miles of stream habitat. Some of the significant short and long-term beneficial impacts would be as follows:

Riparian vegetation would provide cover for fish and stream shading, protecting waters from direct solar radiation which results in excessive water temperature; a major limiting factor of fishery resources.

Deep rooted riparian vegetation would stabilize stream banks, allowing the development of quality pools and stopping accelerated erosion of stream banks (occasional stream bank and channel alterations are natural and would still occur). It would also collect stream sediments, rebuilding eroded streambanks resulting in upgrading the quality of fisheries habitat and assisting in restoring water tables.

Riparian vegetation in good condition would maintain the microclimate crucial to the living organisms using these habitat areas. The microclimate has high humidity relative to upland areas, reduced summer evaporation and winter ice damage because of vegetative insulation (providing moderate temperature extremes for air and water storage (reduced surface runoff). Water storage results in moderate stream flow, extended periods of intermittent stream flow, or maintenance of flows to re-establish perennial flows where they have historically been reduced to intermittent.

Other stream and associated riparian habitat would remain unchanged in overall quality due to grazing pressure, but also accelerated by mining and other land use activities. Currently, 37 of the 212 stream miles the Bureau administers within the Elko RMP Area are in fair or better habitat condition. This alternative would improve the situation with about 79 miles being in fair or better condition over the long-term. This includes the streams which support, or are suspected of supporting, a Federally or state listed threatened, endangered, or sensitive fish species. Therefore, this alternative would comply with the Endangered Species Act of 1973 as amended. However, the remaining 159 miles, some of which currently support game fish populations, would remain unchanged in habitat quality. Table 4-1 shows the current or existing situation and the long-term anticipated condition of aquatic habitat under this alternative.

## WILD HORSES

Wild horse herd numbers would be reduced in two herd areas. The free roaming characteristic of wild horses would be adversely impacted.

Wild horse herd numbers would be reduced in the Little Humboldt and Rock Creek herd areas for an overall 33 percent reduction. However, no herd would be reduced below a viable herd population.

All of the herd areas would be adversely impacted by fences for livestock control and management. These fences would impede free movement of horses and inhibit their free roaming behavior.

The condition of remaining wild horses would improve.



TABLE 4-1  
Existing Situation and Projected  
Aquatic Habitat Conditions For All Alternatives  
Elko RMP Area

	Aquatic Habitat Condition in Miles				Total	Miles Intensively Managed
	<u>Poor</u>	<u>Fair</u>	<u>Good</u>	<u>Excel.</u>		
Existing Situation	175	26	11	0	212	11
Alternative A, Long-term	175	26	11	0	212	11
Alternative B, Long-term	133	26	53	0	212	52
Alternative C, Long-term	15	5	175	17	212	191
Alternative D, Long-term	81	14	110	7	212	115
Alternative E, Long-term	0	0	175	37	212	11

NOTE: The fisheries habitat condition ratings are based on the following Priority A limiting factors:

- Pool to riffle ratio
- Pool quality
- Stream bottom percent desirable material
- Streambank vegetation cover
- Streambank stability

The condition of riparian vegetation associated with streams are determined from the latter two factors. The overall vegetation condition ratings parallel those for aquatic habitat.



## ALTERNATIVE B

The condition of wild horse habitat would improve with increased water developments, improving the condition of the remaining wild horses.

### WOODLAND PRODUCTS

Woodland product harvest levels would increase.

All forest land within the RMP area would be available for harvest on a sustained-yield basis. This would be a beneficial impact as the full allowable cut would help meet demands for woodland products.

Cedar Ridge and Red Springs WSAs would not be recommended suitable for wilderness designation, releasing about 8,000 forested acres that could be added to the allowable cut base.

The acquisition of legal access into the checkerboard and/or other woodland areas with blocked access would be a significant beneficial impact by making these acres available for harvest.

Land sales in woodland areas would have an adverse impact by removing 1,450 acres of public woodlands from the available area, resulting in a loss of woodland products and reducing the capability of public lands to meet demand.

Corridor segments F-M, F-G, M-K, J-H and S-T would have adverse impacts to forest products due to possible loss of 14,000 acres of forested lands.

Trend of stand condition would improve.

Intensive forest management would be implemented to manage and protect the woodland resources. Woodland productivity, stand health, and vigor would be improved within stands where selective greenwood harvests occur.

By intensively managing the Christmas tree harvest, quality and production on managed sites would be maintained or enhanced.

### MINERALS

Mineral exploration and development would not be adversely impacted by wilderness designation.

A portion of the Little Humboldt River WSA would be recommended as suitable for wilderness designation. The suitable area has low mineral potential or is unfavorable for mineral commodities, hence no unforeseen adverse impact to minerals would occur. With Congressional release of the remaining WSAs from wilderness consideration, the current oil and gas leasing ban would be lifted. Due to high oil and gas potential and substantial industry interest in the Cedar Ridge and Red Spring WSAs, a significant beneficial impact would occur to the minerals industry as a result of allowing lease exploration and development to occur. Although a positive impact would result from release of the Rough Hills WSA from wilderness consideration, the benefit is expected to be minimal due to the low probability of economically feasible mineral development.

Oil/gas and geothermal exploration and development would be limited on .4 percent of the RMP area because of restrictions to protect Special Recreation Management Areas.

No surface occupancy stipulations would continue on areas as discussed in Alternative A. Additional areas of no surface occupancy (3,871 acres) would be added when Rock Creek and South Fork reservoir projects are developed (Special Recreation Management Area Map).



No surface occupancy zones around reservoirs are generally one-quarter to one-half mile wide which would allow drilling operations to be conducted from outside the affected area. Areas wider than one-half mile have low oil and gas potential. Limited and substantially restricted surface use may be allowed at the discretion of the authorized officer. Drilling or other activities involving overland vehicular travel would be prohibited, however, seismic exploration by a crew traveling on foot or a similar operation could be permitted at the discretion of the authorized officer (Appendix 6).

## VEGETATION

Overall 12 percent of the native vegetation within the planning area would move toward the potential native community, one percent would move away from the potential native community, and 87 percent would remain unchanged in the long-term.

Changes in ecological status from the present situation as a result of implementing this alternative are projected to include shifts of 12,938 acres from potential native community to earlier seral stages. Changes toward the potential native community include 300,134 acres shifting from the earlier seral stages (Appendix 5, Table 2). These latter changes, for the most part, would be the result of the 635,003 acres of proposed vegetation manipulation projects which would shift acres toward climax or decrease grazing pressure on native range through the use of seedings (Appendix 3, Table 3).

Changes in ecological status in each allotment would occur both within and between stages. These changes in some cases may be relatively small, but the net results are used to indicate the

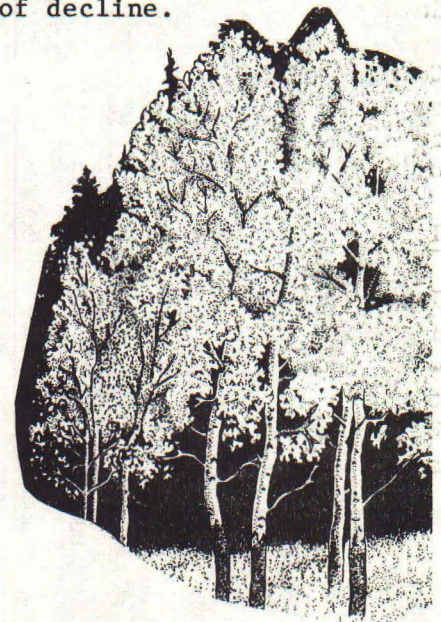
overall trend of the allotment. Based on existing vegetation data, proposed stocking level changes, proposed range improvement projects and the implementation of grazing systems, it is projected that trends in 59 allotments would be toward the potential native community, 35 allotments would move toward earlier seral stages, and no change is expected in the remaining 46 allotments.

Overall, six percent of riparian vegetation would improve in habitat quality and 94 percent would remain unchanged or decline.

Riparian vegetation associated with streams is expected to have good condition on 1,590 acres, fair condition on 780 acres, and to remain poor on 3,990 acres. This change in condition is due to the implementation of aquatic improvement measures.

With the development of an additional 139 springs under this alternative, it is expected that 127 acres of spring type riparian vegetation would improve in habitat quality through fencing, while 1,123 acres would remain unchanged or decline.

Aspen stands would remain the same or decline in overall condition on approximately 14,000 acres. Increased grazing pressure would lead to a faster rate of decline.





## ECONOMIC CONDITIONS

Under this alternative, a total of 58,320 acres of public land, excluding the 5,900 acres proposed for community expansion, have been identified for possible transfer to private ownership.

While it is highly unlikely that the total identified acreage would be successfully transferred within a 20-year period, potential changes within the land ownership pattern could alter the tax base to a significant degree.

Based on estimated fair market value applied to potential highest and best use and assuming that land values would not be affected by the disposal of all or a portion of this acreage, these lands are valued at \$91.5 million. The sale of the total acreage available would add \$32 million to total assessed valuation and provide tax revenues of approximately \$377,000. The loss in BLM payments in lieu of taxes is estimated at \$28,131.

Nevertheless, local governments could suffer adverse financial effects resulting from the transfer of these lands to private ownership, should the tax revenues fall short of the cost of providing public services. The provision of these services to new areas is likely to require greater capital outlay and be less cost-efficient than within existing communities.

### Corridors

The identification of designated corridors and planning corridors would reduce costs to utility companies.

Because the procedures for right-of-way approval are simplified within identified corridors, the level of establishment of corridors in this

alternative would result in some reduction of right-of-way planning costs to utility companies. Conversely, since flexibility in future right-of-way location is channeled within designated corridors, it is possible that transmission lines could be longer. This might result in more frequent power losses and greater operating costs. In addition, utility system reliability might be affected because designated corridors provide limited opportunity for the separation of transmission lines.

### Recreation

Hunter days would increase under this alternative by 11,300 additional days in the short-term and an estimated 59,200 additional days in the long-term. An increase in angler days is anticipated to create an additional 22,700 days in the short-term, expanding to an additional 118,600 days at the end of the long-term.

Total wildlife associated recreation expenditures are estimated at \$3.8 million at the end of the short-term, rising to about \$6.3 million in the long-term. Total income and employment from these expenditures is estimated to be \$1.1 million (1982 dollars) and 101 jobs in the short-term, and \$1.9 million and 169 jobs in the long-term. These projections for long-term income and employment in the recreation-associated industries represent about one percent of income and employment in the present Elko County economy.

### Wilderness

No significant impact to the area economy would occur as a result of wilderness designation.

Economic interest in the wilderness study areas is derived from their use for grazing, recreation, forest products, mineral production, and tax



revenues. Analysis of these productive uses of the potential wilderness resource indicates that no significant alteration of the real economy would be expected to occur due to formal wilderness designations. While there would be some minor trade-offs in income and employment impacts, with particular activities such as recreation being enhanced and mineral extraction being discouraged, the basic structure of the economy would remain intact with no significant impacts.

#### Livestock Grazing

Ranch wealth, net ranch income, livestock industry employment, and area employment would be benefitted under this alternative.

Ranch wealth would increase by \$5.2 million and net ranch income would increase by slightly more than \$298,000. Of greater significance, returns above cash costs would increase by \$876,500, providing more discretion to individual operators in the disposition of capital assets and debt retirement.

Livestock industry employment would increase by approximately 99 jobs (full time equivalents, at 2,000 hours) and total employment in the area economy would increase by about 178 jobs. Area economy income could be expected to increase by slightly more than \$854,000 (Appendix 8).

Additional cost would be incurred by the ranching sector as a result of increased maintenance needs on new as well as existing range improvement projects.

## SOCIAL VALUES AND PUBLIC ATTITUDES

There could be significant impacts at the community level if this alternative were to be implemented due to the emphasis placed on accommodation of mineral, livestock, and other commodity related resources.

Identifying a pool of public lands that could be made available for disposal or exchange in response to various governmental, private sector, or individual applications would probably be seen by those entities and individuals as a beneficial impact.

Long-term community/county planning would be enhanced as a result of 5,900 acres of public land being reserved for future community expansion, meeting the needs of Elko, Carlin and Battle Mountain. Administration of the lands program would probably be more efficient and effective as a result of making 58,320 acres of land available for sale which are either difficult or uneconomic to manage as well as transferring 336,000 acres of scattered and unmanageable parcels through exchange. This could be a beneficial, although unquantifiable impact since this could encourage private sector developmental activities in response to anticipated community needs.

This alternative provides for corridor needs projected to the year 2020. Utility companies would view this alternative as beneficial to their needs due to designation of these corridors, and allowing more ease in their long-range planning efforts.

Acquiring easements on 56 roads (216 miles) of access routes important for the administration of livestock grazing, woodland products, and the minerals program could improve the efficiency and effectiveness of those programs from a planning, cost, and maintenance point of view, since additional alternative routes would



ALTERNATIVE B

not have to be planned for, ultimately developed, or continually maintained in order to assure future access on a continuing basis. However, acquiring legal access for the administration of other multiple-use programs, i.e., recreation, wilderness study areas, wildlife, and accommodating other government agency needs for access, will not be emphasized since those programs are of a lower priority under this alternative. Since legal access would probably not exist, in the long term, on 19 roads (59.5 miles) that currently provide access for the administration of some programs, they would probably become more time consuming and costly to maintain for those public lands to which access would be blocked.

The implementation of this alternative could have a beneficial impact on the ranching sector since it provides a significant AUM increase (61 percent) over the three to five year average licensed use. The potential for more income, increased property values, and perhaps somewhat more ease in obtaining loans would make those individual ranchers feel more positive about their quality of life. This could, in the long-term, contribute to the development of a more positive working relationship between the ranching sector and Bureau employees.

Those conservation, recreation or environmentally oriented persons would probably view this alternative as having a negative impact on the wilderness resource since only 28,386 acres of the Little Humboldt River Wilderness Study Area would be recommended as suitable. Wilderness resource values on the remaining 38,368 acres recommended as nonsuitable may, over a prolonged period of time, be irretrievably lost as a direct result of those acres being recommended as nonsuitable.

The mining sector would probably view the implementation of this alternative as having a beneficial impact on their industry, particularly over the long-term, since minerals exploration could continue in those areas designated as nonsuitable.

Those persons who are hunting or fishing oriented would benefit from this alternative through enhancement of some riparian and aquatic habitat.

The opportunity for local residents to continue to harvest fuelwood would probably be seen as a beneficial impact. Implementing a program providing for competitive commercial fuelwood sales could have a beneficial impact locally, particularly if the competitive award went to a locally owned business.





## ALTERNATIVE C

### LANDS AND REALTY

Community expansion needs would be accommodated and the exchange of 212,480 acres of public lands would enhance public land management.

A total of 5,900 acres of public land would be reserved for future use of the local communities, meeting their needs in the long-term. Land exchanges, by law, must provide the Federal government with equal or greater public value or interest, therefore a net beneficial impact would result to management and administration of public lands from consolidating the fragmented ownership pattern through the exchange process. This would promote more cost effective management primarily in Boulder, Pine and Lamoille Valleys; Dry Hills; and areas north of Battle Mountain and near Jack Creek.

### CORRIDORS

Utility and transportation companies would not benefit fully from long range planning.

The identification of 219 miles of designated corridors would provide minimal opportunity for utility and transportation companies to plan facilities. A route is included for the Thousand Springs Power Project which is beneficial to industry through reduction of siting costs.

North-south corridors are not identified, making long range plans by utility and transportation companies for these routes difficult.

This corridor proposal would partially accommodate the corridor routes as identified in the Western Regional Corridor Study.

### LEGAL ACCESS

Easements would be acquired on important access routes.

This alternative would emphasize acquisition of easements important for BLM administration of wilderness and wildlife resources. The acquisition of public legal access easements on 24 roads (72.5 miles) would have significant long-term beneficial impacts.

Legal access would not exist on roads where easements are not acquired.

This alternative would not emphasize acquisition of easements important for public use and BLM administration of livestock grazing, woodland products, mineral exploration/development, and other government agencies. Hence a significant adverse impact to these resources and public use is expected in the long-term as access across 46 roads (191.5 miles) would not be obtained.

### RECREATION

Recreation use would increase to 2,033,400 recreation days over the long-term.

A 240 percent increase in recreation use is expected from the current level of 596,400 recreation days over the long-term (Appendix 1, Table 1).

Short and long-term recreation demands would be met on the existing SRMAs. The creation of the Wildhorse Special Recreation Management Area, which would include both the existing North Wildhorse SRMA and the proposed West Wildhorse campground, would provide facilities for meeting increasing recreation demand over the long-term.



## ALTERNATIVE C

The South Fork Humboldt River SRMA would provide opportunities for management of the projected intensive recreation use of the river canyon from approximately one mile below the State of Nevada's South Fork Reservoir and Park to the mouth of the canyon.

Impacts from the development of South Fork and Rock Creek Reservoirs would be the same as in Alternative A.

Opportunities for dispersed recreation activities would remain static or improve slightly since no public lands would be sold, other than for community expansion.

Hunting opportunities would improve with a 100 percent increase in big game populations. Recreation days spent in pursuit of game animals would increase from 59,800 to 210,800 over the long-term (Appendix 1, Table 1).

Off-road vehicle use would increase from 39,100 to 77,800 recreation days. The majority of the RMP area (97 percent) would remain open to ORV use. Damage from ORV use in dispersed recreation areas would occur on localized areas.

## WILDERNESS

Wilderness values would be protected on 66,754 acres, all of which would be added to the National Wilderness Preservation System (NWPS).

The natural character of all areas under wilderness review and the opportunity to experience solitude and/or primitive and unconfined recreation in a natural setting within the four WSAs would be preserved. Recreation use is expected to increase from 500 to 2100 days over the long-term with designation of all four WSAs (Appendix 1, Table 1).

Designation of these study areas would expand the ecosystem diversity of the National Wilderness Preservation System, as well as expand the wilderness type of recreation opportunities within a day's drive of the Reno, Salt Lake City, and Boise Standard Metropolitan Statistical Areas.

Designation would serve to protect the wilderness values of the four areas from the negative impacts of mineral and energy exploration and development, range management developments, and casual road creation associated with some types of recreation activity.

### Rough Hills WSA

The entire 6,685 acre unit would receive protection. This would ensure the wilderness integrity of the area as a whole. While the unit has a slight chance of being impacted by mineral exploration on the west and south sides without wilderness designation; with designation all of the wilderness values, wildlife, watershed, cultural resources, outfitting and guiding activities, and various plant communities and ecosystems would be protected in the long-term.

### Little Humboldt River WSA

The entire 42,213 acre unit would receive protection. This would ensure the integrity for the wilderness values of the area as a whole. This would include protection of 12,438 acres judged to be difficult to manage for a variety of reasons including private land inholdings, areas with poorly delineated boundaries, and areas where the activities of man would be evident.

Designation of the area would enhance and protect some habitat of the Lahonton cutthroat trout (a threatened and endangered species) a wild horse herd management area, wildlife, downstream



water quality standards, unique geologic formations, cultural resources, and sensitive plant ecosystems of concern.

#### Cedar Ridge WSA

This 10,009 acre juniper woodland area would be designated wilderness under this alternative. This would protect the wilderness values of solitude and naturalness of this unit.

This unit would continue to be difficult to manage and protect from illegal wood harvesting over the long-term. Illegal wood harvesting has not substantially impacted the wilderness character to date, but continues to erode localized areas.

With the high potential for oil and gas development in this area, outside impacts from exploration and development could be expected close to the unit boundaries. Although it is unlikely that the scale of these operations would be sufficient to permanently destroy the wilderness values of the entire area, it would impact opportunities for solitude over large areas of the unit. This unit would present mineral conflicts and manageability problems over the long-term.

#### Red Spring WSA

Impacts within this 7,847 acre unit would be similar to the Cedar Ridge WSA. With designation the solitude opportunities within this unit would be protected, however, the unit shares manageability concerns from illegal wood cutting activities and outside impacts from oil and gas activities. The topography within the unit and series of roads and trails leading to the unit make control and management of off-road vehicle use and their associated impacts extremely difficult, even with wilderness designation.

This area would present mineral conflicts and manageability problems over the long-term.

### LIVESTOCK GRAZING

Livestock use would be authorized at a level of 193,767 AUMs over the long-term.

Under this alternative all allotments would receive a 50 percent reduction in active preference. This would be a reduction of 37 percent from the current three to five year licensed use level of 305,247 AUMs (Appendix 3, Table 2).

In the long-term, nine AMPs would be developed for Category I allotments. This would improve grazing distribution and provide periods of alternating use and rest. Overall, allotments with AMPs and associated range improvements would result in achieving livestock distribution and a subsequent improvement in vegetation ecological status (See Vegetation discussion under this alternative).

Land sales under this alternative would be confined to community expansion and would not result in a significant loss of forage.

Wilderness designation of 66,754 acres may result in restricting vehicle use which would limit livestock management opportunities. Maintenance of some existing range improvements and salting practices presently being done with vehicles may have to be accomplished by horseback or on foot, causing permittees additional labor and expense.



**WILDLIFE HABITAT**

Overall, reasonable numbers of big game would be attained over the long-term.

The reduction of use by livestock and the management actions for terrestrial wildlife and riparian habitat would combine to generally improve wildlife habitat condition and result in reasonable numbers being met over the long-term.

It is anticipated that the majority of all existing habitats would improve one condition class in all allotments within the planning area. These condition classifications are expected to result in attainment of reasonable numbers and significant long-term beneficial impacts occurring throughout the RMP area.

Additional benefits derived from this alternative involve the protection of riparian habitat as a result of development of springs and seeps; construction of guzzlers; and the availability of forage for reasonable numbers of mule deer, pronghorn antelope, and bighorn sheep and the lack of human disturbance in crucial habitat for woodland product harvest.

The protection of riparian habitat and development of waters would have positive impacts in the short-term and long-term for sage grouse, other upland game, furbearers, and nongame wildlife. The proposed reduction in livestock use would allow meadow and riparian areas presently in poor condition to improve forage production, plant species diversification, and available water for wildlife consumption.

Seasonal restrictions for leaseable mineral exploration and development would apply to 28 percent of the public lands. These seasonal restrictions would apply to crucial big game

use areas, deer winter areas and crucial sage grouse brooding areas. A year-round no surface occupancy restriction would apply to all sage grouse strutting grounds. Therefore, it is anticipated that no adverse impacts would occur to wildlife populations. Reasonable numbers of big game would be reached and sage grouse populations would increase.

Reintroduction proposals by the Nevada Department of Wildlife could be accommodated.

Approximately 192 miles (5,760 acres) of aquatic stream habitat would be in good or excellent condition and 20 miles (600 acres) would be in poor or fair condition.

Approximately 192 miles, including all threatened, endangered, and sensitive species; and high, medium, and low priority habitat as delineated by the Nevada Department of Wildlife would be in good or excellent condition. The enhancement of these miles of stream habitat would be considered a significant beneficial impact to the overall aquatic/riparian resource (see Wildlife Habitat under Alternative B).

The remaining 20 miles of stream and associated riparian habitat would be unchanged in overall quality due to continued grazing pressure but also due to mining and other land use activities. Table 4-1 shows the long-term projected habitat conditions from implementation.

**WILD HORSES**

Wild horse herd numbers would be increased by 100 percent in all herd areas. The free roaming characteristic of wild horses would not be affected.



The proposed 100 percent increase in wild horse numbers in all four herd areas to 660 head is a significant beneficial short and long-term impact.

Impacts to the free roaming character of wild horses would be the same as those under Alternative A.

Wilderness designation of the Little Humboldt River WSA would be beneficial to wild horses by reducing the possibility of harassment by man.

The condition of wild horses would improve.

The impacts would be the same as those of Alternative B. The addition of three developments for the purpose of providing water to wild horses is a beneficial impact.

## WOODLAND PRODUCTS

Woodland product harvest levels would remain static or decrease.

The demand for woodland products (particularly firewood and Christmas trees) would not be met in the short or long-term. Wilderness designation of the Cedar Ridge and Red Springs WSAs would reduce the woodland harvest base by approximately 8,000 acres. These reductions would have a direct impact upon the capability of the public lands to meet the demand for woodland products. This would be a significant adverse impact.

Without acquiring legal access into the checkerboard and/or other woodland areas with blocked access, management problems would continue as well as the possibility of annual sustained yield levels being reduced.

Trend of stand condition would improve.

Intensive woodland management would be

implemented to manage and protect the existing woodland resources. Woodland productivity, stand health, and vigor would be improved within stands where selective greenwood harvests occur. This would be a significant beneficial impact in both the short and long-term. Stand condition would not improve within the 8,000 forested acres identified for wilderness designation.

By intensively managing the Christmas tree harvest on approximately 14,000 acres, quality production on managed sites would be maintained or enhanced. This level would restrict harvest which would not meet local demand for Christmas trees.

## MINERALS

A significant adverse impact to mineral exploration and development would result from wilderness designation.

Since high oil and gas potential and substantial industry interest exist in the Cedar Ridge and Red Spring WSAs, designating these areas as wilderness would be a significant adverse impact to the energy producing industry. An additional adverse impact in these WSAs is the restriction on exploration and development of lands with moderate mineral potential for precious metals, and other minerals.

An adverse impact to mining interests would result from wilderness designation of 6,600 acres having moderate mineral potential for precious metals in the Little Humboldt River WSA. An adverse, but not significant impact would result from restrictions in exploration and development of mineral resources within the Rough Hills WSA. Although the Rough Hills WSA has moderate metallic mineral potential, the



presence of 1000-2000 feet of barren volcanic rock over potentially mineralized zones makes it unlikely that the mineralization would ever be of economic significance.

Oil/gas and geothermal exploration and development would be limited on 28 percent of the planning area because of restrictions to protect terrestrial wildlife habitat and Special Recreation Management Areas.

No surface occupancy stipulations would continue on areas as listed in Alternative B. Additional areas of no surface occupancy (25,780 acres) would be added to protect sage grouse strutting grounds.

An adverse impact is expected due to no surface occupancy restrictions. As discussed in Alternative B, the no surface occupancy zones are narrow enough to allow drilling from outside the area. Seismic exploration activity which does not involve cross-country vehicular travel could be permitted at the discretion of the authorized officer (Appendix 6).

Seasonal restrictions would cause a significant adverse impact due to the extent of the area restricted (877,525 acres) and inclusion of intermontane areas which have the highest oil/gas and geothermal potential.

## VEGETATION

Overall, two percent of the native vegetation within the planning area would move toward the potential native community and the remaining 98 percent would not change over the long term

Shifts in acreage between ecological stages would include 62,149 acres moving from the mid seral stage toward the potential community. Changes from potential would be less than one

percent of the native vegetation within the planning area and are projected to include 3,572 acres shifting from the later seral stages toward the early seral stages (Appendix 5, Table 2).

Changes in ecological status in each allotment would occur both within and between stages. These changes in some cases can be relatively small, but the net results are used to indicate the overall trend of the allotment.

Based on existing vegetation data, proposed range improvement projects and improved management schemes, and decreases in stocking levels, it is projected that upward trend will occur on 89 allotments. Downward trend is expected on 17 allotments and no change would occur on 34 allotments.

Overall, 26 percent of riparian vegetation would improve in habitat quality and 74 percent would remain unchanged or decline.

Riparian vegetation associated with streams is expected to be in excellent condition on 510 acres, good condition on 5,250 acres, to remain in fair condition on 150 acres and poor on 450 acres. This change in condition is due to an overall reduction in grazing pressure, the implementation of activity management plans, range improvements and aquatic improvement measures.

Spring site riparian habitat would improve on 98 acres and remain static or decline on the 1,152 acres of unprotected sites.

Aspen stands would remain static or decline overall, but a decrease in the rate of decline would occur on approximately 14,000 acres from reduced grazing pressure.



## ECONOMIC CONDITIONS

This alternative identifies 5,900 acres as available for potential transfer for community expansion needs over the long-term.

While it is highly unlikely that the total identified acreage would be successfully transferred within the 20-year period, such changes within the land ownership pattern that might occur would not alter the tax base to a significant degree.

### Corridors

The general impacts of corridor designation would be the same for this alternative as discussed under Alternative B. However, fewer routing alternatives would be provided.

### Recreation

Recreational use would increase to 2,033,400 recreation days.

Long-term estimates for hunter and angler days total 632,700 which can be expected to result in expenditures of approximately \$11.1 million. Income estimated on the basis of this level of expenditures amounts to \$3.3 million, with a total of 300 jobs. These figures represent a significant beneficial impact to the economy, amounting to two percent of current (1982) income and 2.7 percent of current employment.

### Wilderness

No significant impacts to the area economy would occur as a result of wilderness designation.

## Livestock Grazing

Impacts under this alternative would be significantly adverse to individuals, to the livestock industry, and to the area economy.

Total forage available to be licensed within the RMP area would decrease by 193,766 AUMs with a resulting loss in ranch income totaling \$309,832, or approximately 16 percent of the RMP areas's estimated total net ranch income of \$1,937,883. Return above cash costs would decline \$910,700, creating further tightening of ranchers' operating discretion.

Employment in the livestock industry would decline by about 103 jobs, and the reduction in economic activity would result in a loss of a total of slightly more than 185 jobs within the area economy. Ranch wealth would decrease by \$9.7 million and income in the area economy by an estimated \$888,000.

In response to the proposed reduction in stocking levels, ranchers in the RMP area would be faced with two options in order to maintain operations: (1) reduce head size, or (2) purchase hay or private grazing to offset the loss of public grazing. Some ranchers are not in a position to adjust their operations in this manner and may be forced out of business due to added costs.

In the long-term, public grazing privileges and ranch operations would probably become consolidated among fewer operators who, with an expanded operation, might be able to maintain a productive and profitable enterprise.



## SOCIAL VALUES AND PUBLIC ATTITUDES

There could be both significant beneficial and adverse impacts if this alternative were to be implemented as a result of grazing, wilderness, access, and wild horse proposals.

Recommending all four wilderness study areas as suitable for wilderness designation would likely be considered a significant adverse impact by some individuals and stakeholder groups, especially those who are supportive of or are involved in the mining sector. This alternative could have, in both the short and long-term, an adverse impact on the community if those areas recommended as suitable for wilderness designation include minerals deposits of viable economic value.

The implementation of this alternative could have an adverse impact on the livestock sector since there would be a 50 percent reduction in active preference on all allotments. This could reduce the level of operations for members of the ranching sector to the point where their continuing in business would probably not be possible. At the individual level, the gravity of a forced lifestyle change could be compounded by significant reductions in the value of the ranches so that the owner's investments would probably not be returned by sale. At the community level, ranching as a family occupation, a family lifestyle and form of community would diminish. In combination, these changes would be disruptive in terms of community satisfaction and functional viability.

Acquiring easements for administration of the wilderness and wildlife programs, while not emphasizing acquisition of easements for the administration of livestock grazing, woodland products, mineral exploration

and development, and accommodating the access needs of other government agencies, would probably continue a controversy that would center on the social and economic values of the wilderness and wildlife programs. If access were to be denied, over the long-term on all 46 roads totaling 191.5 miles that currently provide physical access for these activities, the administration of those programs would probably become more time consuming and costly for the Bureau as well as for those individuals who depend on continued access to public lands in pursuit of their livelihood or their firewood.

Increasing wild horse numbers by 100 percent while decreasing AUMs for livestock could, over the long-term, sustain the animosity that often surfaces between those who advocate additional AUMs for wild horses and those who advocate similar points of view for livestock.

Impacts that may occur as a result of implementing the lands, corridor and woodland products proposals in this alternative would be similar to those in Alternative B. Impacts to recreation and wildlife would be similar to those in Alternative B, but probably of greater intensity since recreational use days would increase and reasonable numbers of big game would be achieved over the long-term. By restricting fuelwood and Christmas tree harvest levels, an adverse impact would occur to those in pursuit of these commodities, especially to those who view the activities as the least costly method to obtain these woodland products.



## ALTERNATIVE D

### (PREFERRED ALTERNATIVE)

#### LANDS AND REALTY

Community expansion needs would be accommodated and management of public lands would be enhanced by taking 8,340 acres out of Federal ownership and exchanging up to 243,200 acres.

A total of 5,900 acres of public land would be reserved for future use of the local communities, and major community needs would be met over the long-term. Under this alternative, 8,340 acres of land that are difficult or uneconomic to manage would be made available for sale. These represent small, isolated and scattered parcels throughout the RMP area. Land exchanges, by law, must provide the Federal government with equal or greater public value or interest, therefore, a net beneficial impact would result to management and administration of public lands from consolidating the fragmented ownership pattern through the exchange process. Overall, this would promote more cost effective management primarily in Boulder, Pine, and Lamoille Valleys; Dry Hills; and areas north of Carlin and Battle Mountain and near Jack Creek.

#### CORRIDORS

Utility and transportation companies would benefit from long range planning.

The identification of 373 miles of designated corridors and planning corridors would provide opportunity for utility and transportation companies to plan facilities. Including routes for the Thousand Springs Power Project would be beneficial to the utility industry. This alternative provides a balance between environmental constraints and industry needs without duplicating

corridor routes. This corridor proposal would partially accommodate the corridor routes identified in the Western Regional Corridor Study. Those segments not included would be: D-E, S-T, U-V, and F-O.

#### LEGAL ACCESS

Easements would be acquired on important access routes.

This alternative would emphasize acquisition of easements identified as important for public use, other government agencies, and BLM administration of resources. The acquisition of access easement on 60 roads (242 miles) would have significant long-term beneficial impacts to all resources.

#### RECREATION

Recreation use would increase to 1,728,600 recreation days over the long-term.

A 190 percent increase in recreation use is expected from the current level of 596,400 recreation days over the long-term (Appendix 1, Table 1).

Impacts to SRMAs would be the same as in Alternative C.

Impacts from the development of South Fork and Rock Creek Reservoirs would be the same as in Alternative A.

Hunting opportunities would improve with an increase in big game to reasonable numbers. Recreation days spent in pursuit of game animals would increase from 59,800 to 174,600 over the long-term (Appendix 1, Table 1).



## ALTERNATIVE D

Off-road vehicle use would increase from 39,100 to 103,600 recreation days. About 98 percent of the RMP area would remain open for ORV use. Damage from ORV use outside of designated SRMAs would continue.

Impacts to the South Fork Owyhee SRMA from corridor proposals would be the same as under Alternative B.

## WILDERNESS

Wilderness values would be protected on 36,460 acres and this acreage would be added to the National Wilderness Preservation System (NWPS).

Overall impacts would be the same as in Alternative C, except on reduced acreage. Recreation use would increase from 500 to 900 days over the long-term in the designated WSAs (Appendix 1, Table 1).

### Rough Hills WSA

Impacts would be the same as in Alternative C.

### Little Humboldt River WSA

Impacts would be similar to those discussed in Alternative C except that designation would be reduced by 12,438 acres eliminating management problems on those acres.

### Cedar Ridge WSA

Impacts would be the same as in Alternative A.

### Red Spring WSA

Impacts would be the same as in Alternative A.

## LIVESTOCK GRAZING

Livestock use would be authorized at a level of 396,989 AUMs over the long-term.

Initially, livestock use would be authorized at the present three to five year average use level of 305,247 AUMs. There would be no initial adjustment in active preference. Before any changes to preference levels would occur, range monitoring data would be necessary to indicate whether an adjustment would be needed. For analysis purposes only, stocking levels were developed using data from the 1984 ecological status inventory. Considering proposed range improvement projects and reasonable wildlife numbers, the projected level of livestock use is 396,989 AUMs, which represents a level that is three percent above active preference and 30 percent above the three to five year average licensed use for the planning area (Appendix 3, Table 2).

In the long-term, 22 AMPs would be developed for the Category I allotments, and six AMPs for Category M allotments. This would improve grazing distribution, promoting more uniform patterns of utilization. These AMPs would provide scheduled use and rest for specific areas within allotments. Range improvements would improve the manageability of the resource and provide subsequent increases in forage production.

Land sales in this alternative would eliminate all Federal lands within the Carlin Canyon, Old Eighty Fenced Federal Range (FFR), Thomas Creek FFR, East Fork FFR, Burger Creek, and Barnes FFR Allotments. This would represent a loss of 93 AUMs from the proposed stocking level.

Wilderness designation of 36,460 acres may result in restricting vehicle use



which would limit livestock management opportunities. Maintenance of some existing range improvements and salting practices presently being done with vehicles may have to be accomplished by horseback or on foot, causing permittees additional labor and expense.

## WILDLIFE HABITAT

Reasonable numbers of big game would be attained over the long-term.

The management actions for livestock grazing and terrestrial wildlife and riparian habitat would combine to generally improve wildlife habitat condition and result in reasonable numbers of big game being met over the long-term.

It is projected that the majority of existing habitats would improve one condition class in all allotments and the planning area as a whole. Beneficial impacts to wildlife habitat conditions would result from implementation of the proposed livestock improvements and rangeland management schemes. Additional beneficial impacts would occur from the development of wildlife habitat improvement projects. As a result of these conditions, attainment of reasonable numbers and significant long-term beneficial impacts occurring throughout the RMP area are expected for big game. The improvements in big game habitat, especially within crucial habitat areas, are expected to result in long-term beneficial impacts for potential reintroduction sites. Impacts from the protection, enhancement, and/or development of spring sources would be the same as under Alternative C.

An improvement in sage grouse brood rearing habitat condition would occur

in the long-term due to riparian area management, development of spring sources, and spring protection. Long-term impacts from improving livestock distribution and alternating use in pastures through AMPs would improve the condition of meadow and riparian habitats, resulting in an increase in sage grouse, other upland game, furbearers, and nongame wildlife populations.

Impacts associated with mineral exploration and development are expected to be similar to those identified under Alternative C, with the exception that non-crucial big game wintering areas would not be subject to seasonal restrictions. Reintroduction proposals by the Nevada Department of Wildlife could be accommodated.

Approximately 117 miles (3,510 acres) of aquatic stream habitat would be in good or excellent condition and 95 miles (2,850 acres) would be in poor or fair condition.

Under this alternative all threatened, endangered, and sensitive species habitat and most habitat of high priority, as delineated by the Nevada Department of Wildlife, would be in good or better condition. The protection and enhancement of 115 miles of stream habitat would be considered a significant beneficial impact to the overall aquatic/riparian resources as described in Alternative B.

The remaining 95 miles of stream and associated riparian habitat, some of which support game fish populations currently, would remain unchanged in habitat quality.

Primarily as a result of grazing, but also due to mining and other land use activities, some of the streams would decline over the long-term. Table 4-1 shows the long-term anticipated condition of aquatic habitat from implementation of this alternative.



## WILD HORSES

No change to wild horse numbers would be expected. The wild and free roaming character of wild horses would not be affected.

Impacts on wild horse herds and their numbers would be the same as those of Alternative A.

Fence construction would be at a level which would not change the free roaming character of wild horses.

The condition of wild horses would improve.

The impacts would be similar to those of Alternative B. The addition of two water developments to provide water for wild horses would be a beneficial impact.

## WOODLAND PRODUCTS

Woodland product harvest levels would increase.

Sixty thousand forested acres would be available for harvesting woodland products. This would be a short and long-term beneficial impact as the allowable harvest would nearly meet the demand for woodland products.

The Cedar Ridge and Red Springs WSAs would not be recommended as suitable for wilderness designation. With Congressional release of these WSAs, about 8,000 forested acres would be added to the allowable cut base.

Loss of 550 forested acres due to land sales would have a negative impact. The ability to meet public demand for woodland products would be impaired by removing woodlands from the allowable cut base.

Reforestation on cutover tracts could shorten the rotation period, thus increasing the yearly allowable cut.

The acquisition of legal access into the checkerboard and other woodland areas with blocked access would open these areas to potential harvesting.

Trend of stand condition would improve.

Intensive forest management would be implemented to manage and protect the woodland resources. Forest productivity, stand health, and vigor would be improved within stands where selective greenwood harvests occur.

Intensive management of the Christmas tree harvest on approximately 23,000 acres would maintain or enhance quality production on managed sites.

## MINERALS

An adverse, but not significant, impact to mineral exploration and development would result from wilderness designation.

An adverse impact would occur due to the inclusion of 1,400 acres within the Little Humboldt River WSA with moderate potential for precious metals as suitable for wilderness designation. However, since the area is very small and the geochemical evidence indicating moderate mineral potential may not be evident from outside the WSA boundary, the impact is not significant. An adverse, but not significant impact would result from wilderness designation of the Rough Hills WSA. Although Rough Hills WSA has moderate metallic mineral potential, the presence of 1000-2000 feet of barren volcanic rock over potentially mineralized zones makes it unlikely that the mineralization would be of economic significance over the long-term.



Oil/gas and geothermal exploration and development would be limited on 16 percent of the RMP area because of restrictions to protect terrestrial wildlife habitat and Special Recreation Management Areas.

No surface occupancy stipulations would apply to the same areas as described in Alternative C. Areas of no surface occupancy and seasonal restrictions are summarized in Appendix 6.

An adverse, but not significant impact is expected in areas of no surface occupancy and seasonal restrictions. No surface occupancy zones are narrow enough to allow drilling from outside the area, or if too large to allow directional drilling, have low oil and gas potential. Seismic exploration such as air shots which do not involve cross-country vehicular travel could be permitted at the discretion of the authorized officer (Appendix 6).

Seasonal restrictions may cause occasional delays, but for the majority of situations would not cause significant adverse impacts.

## VEGETATION

Overall, three percent of the native vegetation within the planning area would move toward the potential native community and the remaining 97 percent would not change over the long-term.

Under this alternative the effects of livestock grazing will be analyzed through vegetation monitoring studies. Livestock and wild horse use adjustments in stocking levels will be implemented to promote trends in ecological status that show native vegetation remains in, or is improving toward, a more desirable ecological stage.

Anticipated changes are expected to result in 83,790 acres of native vegetation moving from the earlier toward the potential native community (Appendix 5, Table 2).

Changes in ecological status in each allotment would occur both within and between stages. These changes in some cases can be relatively small, but the net result is used to indicate the overall trend of the allotment.

Based on existing vegetation data, proposed range improvement projects, and improved management schemes and adjustments in stocking levels, it is projected that 104 allotments would show trend moving toward the potential native community and 36 allotments remaining in their present ecological status.

Overall, 15 percent of riparian vegetation would improve in habitat quality and 85 percent would remain unchanged or decline.

Riparian vegetation associated with streams is expected to have excellent condition on 210 acres, good condition on 3300 acres, fair condition on 420 acres, and poor condition on 2,430 acres. This change in condition is due to implementation of activity management plans, range improvements, and aquatic improvements measures.

Habitat quality would improve on 106 acres of protected spring site riparian vegetation and 1,144 acres would decline or remain unchanged.

Aspen stands would remain unchanged or decline overall on approximately 14,000 acres. Some increase in grazing use would cause an increase in the localized rate of decline.



## ECONOMIC CONDITIONS

### Lands and Realty

The successful disposal of up to 8,340 acres of public land over the long-term could alter the tax base to a significant degree.

The impacts would be the same as those under Alternative B, except of a lower magnitude.

Based on estimated fair market value applied to potential highest and best use, and assuming that land values would not be affected by the disposal of all or a portion of this acreage, these lands are valued at \$87.7 million. With assessed valuation at 35 percent of full cash value, the sale of the total acreage would add \$30.7 million to total assessed valuation. Estimated potential tax revenues amount to \$361,149. The county's receipt of BLM payments in lieu of taxes would be reduced by approximately \$27,000 (Appendix 8).

Adverse financial impacts could occur to local governments, as described in Alternative B.

### Corridors

The general impacts of corridor designation would be the same for this alternative as discussed under Alternative B.

### Recreation

Increases in hunter and angler days, under this alternative, represent a significant beneficial impact to the area economy.

Hunter days are expected to rise to 78,200 in the short-term and 174,600 in the long-term. Angler days are projected to experience a similar growth from 119,900 (current level) to 157,000 at the end of five years,

rising to 350,000 at the end of the long-term.

Total expenditures are expected to increase from a current level of \$3.2 million to \$4.1 million within five years, rising to \$9.2 million within the long-term. Short-term growth in expenditures should create income for the area economy estimated at \$1.2 million and employment of about 111 jobs (full-time equivalent, 2,000 hours) on an annual basis.

The continued growth in wildlife associated recreation activity under this alternative should support an annual income level of approximately \$2.7 million, sustaining 248 jobs at the end of the long-term. This represents an increase of about three times the current levels of income and employment estimates contributed by hunters and fishermen, and amounts to 1.6 percent of current (1982) income and 2.2 percent of current employment.

### Wilderness

No significant impacts to the area economy would occur as a result of wilderness designation. See Alternative B for discussion.

### Livestock Grazing

Long-term effects of this alternative could result in significant beneficial impacts to net ranch income and livestock industry employment within the RMP area.

Net ranch income for the RMP area would increase by 7.3 percent to \$2.1 million. An increase in gross income of \$1.5 million would occur, resulting in an additional 47 jobs in the livestock industry and a total of 84.8 additional jobs in the area economy as the multiplier effect of spending and income takes hold. Ranch wealth would rise by \$281,850 and regional economy



income would increase by slightly more than \$406,000.

## SOCIAL VALUES AND PUBLIC ATTITUDES

There could be both beneficial and adverse impacts if this alternative were to be implemented.

Disposing of approximately 5,900 acres of public lands in response to community expansion needs identified by the communities of Elko, Carlin and Battle Mountain would be a beneficial impact for those communities. The availability of those acreages would permit better control over community growth as well as in the long-term those acreages would perhaps provide a source of additional tax revenues which could be used to defray the cost of providing services to the expanded area. Increasing opportunities for local economic development and community expansion by increasing the amount of non-federally owned and managed lands within the RMP area would be viewed positively by many local residents. It is also consistent with the draft county plans for Elko, Eureka and Lander counties prepared in response to Nevada State Senate Bill 40. Impacts from the land disposal proposals under this alternative would be similar to those under Alternative B but of somewhat less intensity since smaller acreages would be made available.

Meeting selected corridor needs projected to the year 2020 as described in the Western Regional Corridor Study would be considered a beneficial impact by the utilities sector. This could reduce both the time and project funding required for planning long-term major power projects and their associated power distributions systems from that required when planning is done on a case-by-case basis.

Recommending 36,460 acres of two wilderness study areas as suitable for wilderness designation would be a beneficial impact as far as preserving that amount of the area's high quality wilderness resources are concerned. The loss of 30,294 acres as a direct result of those acres being recommended as nonsuitable for wilderness designation may be, over a prolonged period of time, an adverse impact to those wilderness resources. Even though the wilderness proposals under this alternative accommodate both wilderness and mining concerns, these proposals would probably sustain, if not heighten, the level of conflict that exists between wilderness and mining advocates as they both assert that the public interest requires decisions more favorable to their respective constituencies at the local, regional, and national levels.

Since the implementation of this alternative would increase AUMs over the three to five year average licensed use significantly (29%), it would probably, especially in the long term, have a beneficial impact on some ranchers in terms of greater return on their investment as well as satisfaction with their perceived quality of life. This could improve the working relationship between the Bureau and the ranching sector to some degree.

Acquiring easements on 60 roads (242 miles) which currently provide physical access to public lands would be a beneficial impact from both a perceptual point of view as well as from a multiple-use program administration point of view. Acquiring those easements may reduce both the time and costs required in support of multiple-use programs as opposed to the time and cost that would be required if access were to be denied on any or all of these roads.



Since unobstructed access to public lands is perceived to be an inherent right by many local residents, the acquiring of these easements would probably be viewed as a positive management action. Other impacts would be similar to those under Alternatives B and C.

## ALTERNATIVE E

### LANDS AND REALTY

Community expansion needs would be accommodated and the exchange of 212,480 acres of public lands would create a more efficient ownership pattern.

Impacts would be the same as in Alternative C.

### CORRIDORS

Utility and transportation companies would not benefit fully from long range planning.

Impacts would be the same as in Alternative C.

### LEGAL ACCESS

Easements would be acquired on important access routes.

Impacts would be the same as in Alternative C, but to a lesser extent.

### RECREATION

Recreation use would increase to 2,118,800 recreation days, the highest projected level, over the long-term.

A 255 percent increase in recreation use is expected from the current level of 596,400 recreation days over the long-term (Appendix 1, Table 1).

Impacts would be the same as in Alternative C, except that hunting opportunities would increase even more from the current level of 59,800 to 223,000 recreation days over the long-term (Appendix 1, Table 1). This





is a result of the projected increase in big game numbers under this alternative.

Impacts for ORV use would be the same as in Alternative C.

## WILDERNESS

Wilderness values would be protected on 66,754 acres all of which would be added to the National Wilderness Preservation System (NWPS).

Impacts would be the same as in Alternative C.

## LIVESTOCK GRAZING

Livestock grazing would be eliminated on public lands.

Under this alternative all domestic livestock grazing on BLM administered public land within the planning area would be eliminated. This alternative would require permittees to find a new source of forage for the period of time previously used on the RMP area. Some of the options could include reduction of herd size, purchase or lease of additional private land, obtaining additional privileges with other Federal agencies, e.g. U.S. Forest Service or other BLM administered lands, or dispose of the livestock operation. Any of these options would have an adverse impact to the livestock industry in the Elko RMP Area.

## WILDLIFE HABITAT

Reasonable numbers of big game would be exceeded over the long-term.

Under this alternative with the removal of livestock grazing, forage availability would increase allowing big game populations to exceed reasonable numbers on all allotments.

Removal of livestock grazing would allow reintroductions into all the areas identified as potential reintroduction sites by the Nevada Department of Wildlife.

Sage grouse habitat would improve greatly because more forage and plant cover would be available. Eliminating livestock use of riparian areas would improve habitat conditions on key areas, resulting in an overall increase in sage grouse population levels.

Habitat conditions for upland game, furbearers, and non-game wildlife would improve due to reduced use of the forage resource, particularly riparian vegetation.

Impacts from mineral activities associated with this alternative would be the same as Alternative C.

Approximately 37 miles (1,110 acres) of aquatic stream habitat would be in excellent condition and 175 miles (5,250 acres) would be in good condition.

In the absence of livestock grazing, aquatic and riparian habitat would improve, including the 212 miles of streams considered priority fisheries habitat. This alternative would comply with the Endangered Species Act of 1973, as amended. Table 4-1 shows the long-term projected habitat conditions from implementation.



## WILD HORSES

Wild horse herd numbers would be increased by 100 percent in all herd areas.

The proposed 100 percent increase in wild horse populations in all four herd areas is a significant beneficial short and long-term impact.

The condition of wild horses would improve over.

Wild horses would benefit from unrestricted access to increased water sources. Their overall condition would improve.

## WOODLAND PRODUCTS

Woodland product harvest levels would remain static or decrease.

Impacts would be the same as in Alternative C.

Trend of stand condition would improve.

Impacts would be the same as in Alternative C.

## MINERALS

A significant adverse impact to mineral exploration and development would result from wilderness designation.

Impacts would be the same as in Alternative C.

Oil/gas and geothermal exploration and development would be limited because of restrictions to protect terrestrial wildlife habitat and high use recreation areas.

Impacts would be the same as in Alternative C.

## VEGETATION

Overall, seven percent of the native vegetation within the planning area would move toward the potential native community and 93 percent would remain unchanged.

Changes in ecological status under this alternative are predicted to show shifts of 221,451 acres from the earlier seral stages toward the potential native community (Appendix 5, Table 2).

Changes in ecological status in each allotment would occur both within and between stages. These changes in some cases can be relatively small, but the net result is used to indicate the overall trend of the allotments.

The trend in almost all allotments is projected to move toward the potential native community in ecological status. Those acreages that would reflect no change in trend, are for the most part at the highest natural ecological status attainable for the planning period.

Over the short and long-term, there would be a significant increase in fire hazard due to the high level of ground fuel accumulation expected.

Overall, riparian vegetation would improve in habitat quality under this alternative.

Riparian vegetation is expected to improve in habitat quality on 6,030



acres of aquatic stream habitat and on approximately 1,200 acres of terrestrial riparian habitat. These changes are due to a reduction of grazing pressure.

Approximately 14,000 acres of aspen stands would improve in condition due to the elimination of livestock grazing. Over the long-term, forested acres would increase.

## ECONOMIC CONDITIONS

### Lands and Realty

Impacts resulting from potential transfer of lands under this alternative are the same as those included in Alternative C.

### Corridors

The general impacts of corridor designation would be the same for this alternative as discussed under Alternative C.

### Recreation

Recreation hunting and fishing would reach their highest levels under this alternative and provide a significant beneficial impact to the regional economy. Projections for hunter and fisherman days are estimated to total 249,700 recreation days in the short-term and 670,100 in the long-term.

Wildlife associated recreation expenditures should rise to \$4.4 million in the first five years, reaching an estimated \$11.8 million at the end of the 20 year period. Annual income may be expected to grow to \$3.5 million, with a sustained employment level of 317 jobs in the long-term.

### Wilderness

No significant impacts to the area economy would occur as a result of wilderness designation. See Alternative B for discussion.

### Livestock Grazing

Implementation of this alternative would result in the loss of 305,247 AUMs of existing grazing use on the public lands. Economic effects upon ranch operations would be significant and severely adverse. Gross sales would decline by at least \$5 million annually, with a corresponding loss in returns after cash costs of more than \$1.4 million and a decline in net ranch income of approximately \$490,000.

Ranch wealth would decline by \$19.4 million, based on the loss of active preference, and there would be a loss of an estimated 161.7 jobs in the livestock industry.

The multiplier effect of spending within the area economy would create a loss of about \$1.4 million in regional income and a total of 291.6 jobs.

Area permittees rely on BLM rangeland for 22 percent of their forage requirements. Dependence on BLM land is even higher for those without Forest Service grazing privileges. This alternative would leave permittees who wish to remain in the livestock business with no options other than reducing herd size or acquiring additional forage.

Additional forage could be obtained through the purchase or lease of additional private acreage, the purchase of hay, or the intensification of production on currently owned acreage. However, private lands presently owned, leased, or available for leasing would not be adequate to maintain existing herd sizes. Consequently, herd size



reductions and/or the purchase of hay are the only feasible options available.

Due to the costs imposed by either of these options, a number of area permittees are likely to be forced out of business. No quantification of this group is possible due to the myriad of variables involved. It is likely however, that those ranches which have employed the highest levels of debt financing, those which have the highest degree of dependency on BLM vegetation, and those which command the smallest reserves of capital would be affected the most.

Many area ranchers have stayed in the livestock business despite relatively low rates of return due to the lifestyle involved. This alternative would force reevaluation of the trade-off between further income reduction and lifestyle retention. Many ranchers would undoubtedly halt their livestock operations; others would be forced to cease their reliance on ranching as a primary source of income.

## SOCIAL VALUES AND PUBLIC ATTITUDES

The consequences of implementing this alternative would be the most adverse of all the alternatives for ranching operations within the RMP area.

The impacts on the economic, psychological, and social wellbeing of the ranching sector would be significantly adverse, perhaps irreparably so. In the most extreme case, some of the ranching operations may go out of business if all grazing privileges on public lands were withdrawn. The gravity of lifestyle change could be compounded by significant reductions in the value of

the ranches so that owner's investments would probably not be returned by sale. In addition, ranching as a family occupation, a family lifestyle and form of community would be minimized if not eliminated from the area.

Implementation of this alternative would result in strong opposition from the local nonranching community. Loss of business activity and possible out-migration of some ranchers would contribute to community instability, a potential leadership vacuum, and the disruption of established interactional patterns within the community. Valued lifestyles derived from the ranching character of the area would be disrupted, and it could be expected that intense animosity toward BLM would emerge. In combination, these changes would be disruptive in terms of community satisfaction and functional viability.

Impacts as a result of the recommendation that all 66,754 acres in all four wilderness study areas be recommended as suitable for wilderness designation are similar to those in Alternative C. However, because of the removal of grazing under this alternative, opposition at the local level to the wilderness recommendation would be much stronger. It is very likely that the preception would evolve that the wilderness recommendation is responsible, at least in part, for the No Grazing recommendation. It could be expected that community coalitions would firmly oppose the wilderness recommendations. Implementation of this alternative would probably further strain relationships between the ranching sector and the conservation and preservation sectors.

Providing habitat improvements for wildlife and continuing to manage four wild horse herds with the goal of enhancing habitat conditions for wild



horses and increasing horse numbers would be perceived as a significant adverse impact by the ranching community, since no livestock grazing would be allowed. This could further strain relations between wild horse interests and the livestock sector, and perhaps to a lesser degree between wildlife interests and the livestock sector.

Other impacts are similar to those in Alternative C.

#### UNAVOIDABLE ADVERSE IMPACTS

All adverse impacts identified are considered unavoidable since mitigating measures are integrated into all alternatives except where noted.

#### IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

Loss of wilderness values in the WSAs as a result of a management actions would be an irreversible impact on wilderness values.

All fossil fuels, labor, capital, and salvageable construction materials used to implement the RMP constitute an irretrievable commitment of resources.

Loss of access to mineral potential as a result of implementing a management action is considered an irretrievable commitment.

Disposal of lands from Federal ownership would be an irreversible commitment of public lands to nonpublic uses.

Loss of human resources such as a ranching operation going out of business as a result of implementation of a management action would be an irretrievable loss.

Loss of woodlands from vegetative type conversions would be an irretrievable commitment.

Loss or disruption of habitat through construction of roads or construction of transmission lines which may result from corridor designation would be an irreversible and irretrievable impact on disturbance-intolerant species.

#### RELATIONSHIP BETWEEN SHORT-TERM USE OF THE HUMAN ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The short-term disposal of lands from Federal ownership would preclude long term public use of those lands. However, it would provide for long term community expansion and agricultural development.

Actions which result in the maintenance of the current situation in terms of livestock grazing management causing resource damage would result in a long-term loss in productivity of livestock, riparian/stream and wildlife habitat. Actions which improve the vegetation resource would result in an increase in long-term productivity of the resources.



# CHAPTER FIVE

## LIST OF PREPARERS

<u>Core Team</u>	<u>RMP Assignment</u>	<u>Experience</u>
Steve Ashworth	Recreation/Wilderness	B.S., Renewable Natural Resources, Experience: Recreation Technician (2 years), Outdoor Recreation Planner (3 years) - Bureau of Land Management.
Burton Bresch	Sociology Nevada State Office Coordinator	B.A. Sociology, M.S., Counseling, Experience: Sociologist (6 years) - Bureau of Land Management.
Steve Brooks	Minerals/Geology	B.A., Geology, M.A., Geology Experience: Geologist (3 years); Geologist (5 years) - Bureau of Land Management.
Jeffrey M. Gardetto	Wildlife	B.S., Wildlife, Experience: Wildlife Biologist (3 years), Range Conservationist (4 years), Wildlife Biologist (1 year) - Bureau of Land Management.
Linda Hansen	Editor	A.A., Social Science, Experience: Administration/Personnel (6 years); Editor (5 years) - Bureau of Land Management
Joseph D. Lemons	Realty	B.S., Forestry, Experience: Forester (9 years), Administration (8 years), Realty Specialist (4 years) - Bureau of Land Management.
Roy Masinton	Fisheries	B.S., Fisheries Biology, Experience: Assistant Hatchery Manager; Fisheries Technician - State of Colorado; Fisheries Biologist (6 years) - Bureau of Land Management.
Paul Meyers	Economics	B.S., Economics, Experience: Economist (12 years) - various federal agencies; Economist (5 years) - Bureau of Land Management.



Nancy Phelps	Team Leader	B.S., Range Management, M.S., Forest & Range Ecology, Experience: Range Conservationist (5 years); Planning & Environmental Coordinator (2 years) - Bureau of Land Management.
Bruce E. Portwood	Wild Horses	B.S., Range Management, Experience: Range Conservationist (19 years); Wild Horse Specialist (4 years) - Bureau of Land Management.
Hank Riek	Range	B.S., Renewable Natural Resources Experience: Range Conservationist (5 years) - Bureau of Land Management.
Norman Ritter	Forestry	B.S., Forestry, Experience: Range Conservationist (1 year); Forester (4 years) - Bureau of Land Management.
David J. Vandenberg	Realty	B.S., History, Experience: Range Technician (4 years) Realty Specialist (8 years) - Bureau of Land Management. Graduate work in Range Science (1½ years).

Reviewers

Kurtis J. Ballantyne	Wildlife	B.S., Wildlife Management, Experience: Watershed Technician (1 year), Recreation Technician (1 year), Wildlife Biologist (10 years) - Bureau of Land Management; Certified Wildlife Biologist - Wildlife Society.
Dave Curtis	Range	B.S., Wildlife Management, Experience: Range Conservationist (5 years) - Bureau of Land Management.
Gene L. Drais	Recreation/Wilderness	B.S., Zoology, Experience: Outdoor Recreation Planner (4 years) Heritage Conservation and Recreation Service; Outdoor Recreation Planner (6 years) - Bureau of Land Management.



Tim Hartzell	Elko Resource Area Manager	B.S., Geography, M.S., Natural Resource Management, Experience: Land Husbandry Officer (2 years) - Government of Malawi (Central Africa); Surface Protection Specialist (2 years), Environmental Specialist (1½ years), Environmental Staff Leader (7 years), Elko Resource Area Manager (2 years) - Bureau of Land Management.
Stanley Jaynes	Archaeology	B.A., Anthropology, M.A., Anthropology, Experience: Archaeologist (4 years); Archaeologist (5 years) - Bureau of Land Management.
Bonnie J. Martiartu	Word Processor Operator	High School, Experience: Clerk/typist (2½ years) Bureau of Land Management (Wells RMP/EIS and Wells EIS), (10 years) typist, general.
Dorothy Mason	Range	B.S., Natural Resource, Management Experience: Range Conservationist (4 years); Wildlife Biologist (5½ years); Recreation Planner (2 years) Bureau of Land Management.
Nick Rieger	Soils	B.S., Range Management, M.S., Range Management, Experience: Soil Scientist and Surface Protection Specialist (5 years) - Bureau of Land Management.
Nevada State Office Specialist Review		Specialists in all fields from the Nevada State Office have reviewed this document for technical accuracy and consistency with Federal law and BLM policy.



## CHAPTER SIX

### CONSULTATION AND COORDINATION

The land use planning process for the Elko Resource Management Plan (RMP) began with a Notice of Intent published in the Federal Register on November 9, 1983. On the same day news releases announcing the beginning of Issue Identification, the first step in the process, were published in local and regional newspapers. Letters requesting public input on issues and concerns were also sent to approximately 500 interest groups and individuals on November 9. Comments were received until April 2, 1984. A total of 37 comment letters and one telephone comment were received.

Representatives from BLM met with the Elko, Lander, and Eureka County Commissioners or county planning boards throughout the next six months to discuss the planning process and identify their concerns regarding resource uses in their areas.

This process resulted in the identification of 11 issues. Ten issues were retained with one issue being eliminated as the result of further study. The issues analyzed were: Lands and Realty, Rights-of-way Corridors, Legal Access, Recreation, Wilderness, Livestock Grazing, Wildlife Habitat, Wild Horses, Woodlands, and Minerals.

On April 19, 1984 a packet was distributed to about 450 groups and individuals requesting comments on the draft planning criteria and issues proposed for the RMP. A total of 19 comment letters were received between April 27 to June 11, 1984. These responses generally supported the proposed planning criteria and these guidelines were retained.

On October 19, 1984 a packet describing the draft alternatives was sent to approximately 500 individuals and groups, requesting their comments on the proposals. The public was requested to consider which management options were preferred, what criteria should be used in the development of the preferred alternative, and what significant impacts they felt would occur from implementing any of the alternatives. A total of 21 responses were received.

Bureau personnel also met with the county commissioners for Elko, Lander and Eureka counties during December 1984 to discuss the management actions associated with each alternative. Briefings were held for the District Grazing Board No. 1 and for representatives of specific interest groups.

Of those expressing a preference for a particular alternative; two specifically identified A (no change), six identified parts of A they preferred; two specifically identified B (emphasize commodity production), four identified parts (for livestock, wildlife habitat, wild horses, woodlands, and minerals) of B they preferred; three wanted C (emphasize protection of fragile and unique resources), five identified parts of C (wilderness) they preferred; five specifically identified D (balanced use), seven identified parts of D they preferred; and one specifically identified Alternative E (no livestock grazing). Although the scoping process is not a vote count and the number of responses does not necessarily affect the selection process, Alternative D with some modifications including clarification of land tenure adjustment actions, corridor placement, refinement of wildlife habitat, and livestock management proposals, was selected as the preferred alternative during the analysis of the environmental objectives and policy guidance.



Changes were made to corridors as a result of consistency reviews with contiguous planning documents, specifically the Draft Owyhee Canyonlands Wilderness EIS. In response to comments on proposed alternatives in this draft wilderness EIS, a modification was made to their preferred alternative during the later stages of development. This change was integrated into the preferred alternative of the Draft Elko RMP/EIS to ensure consistency.

After considering public comment, Alternative B added a planning corridor along the same route as the proposed designated corridor segment E-L.

Public comments resulted in providing a wider range of wilderness alternatives. An additional level of wilderness recommendations was added to Alternative B.

AVAILABILITY OF THE DRAFT RMP/EIS

The Draft Elko RMP/EIS will be made available to the public for review. Agencies, organizations, and persons to whom copies of the Draft RMP/EIS will be sent include, but are not limited to, the following:

I. GOVERNMENTAL AGENCIES AND INDIVIDUALS

A. Federal Agencies

- Advisory Council on Historic Preservation
- Department of Agriculture
  - Forest Service
  - Soil Conservation Service
- Department of Defense
  - Army Corps of Engineers
  - Bolling Air Force Base
  - Hill Air Force Base
- Department of Energy
  - Bonneville Power Administration
  - Office of Environmental Compliance

- Department of the Interior
  - Bureau of Indian Affairs
  - Bureau of Mines
  - Bureau of Reclamation
  - Environmental Protection Agency
  - Fish & Wildlife Service
  - Geological Survey
  - National Park Service
  - Office of Environmental Project Review
  - Offshore Environmental Assessment Division

B. Congressional Delegation

- Senator Chic Hecht, Nevada
- Senator Paul Laxalt, Nevada
- Representative Harry Reid, Nevada
- Representative Barbara Vucanovich, Nevada

C. State of Nevada

- Governor Richard Bryan
- State Assemblyman Byron Bilyeu
- State Assemblyman John Marvel
- State Senator Dean Rhodes

- Department of Minerals
- Division of Agriculture
- Division of Environmental Protection
- Division of Historical Preservation & Archaeology
- Division of State Parks
- Division of Water Resources
- Division of Wildlife
- Land Use Planning Advisory Council
- Multiple Use Advisory Board
- Office of Community Services
- State Communications Board

D. Local Governments

- Carlin City Mayor
- Carlin City Planning Board
- Elko City Manager
- Elko City Mayor
- Elko City Planning Board



Elko County Manager  
Elko County Commissioners  
Eureka County Commissioners  
Lander County Commissioners  
Lander County Planning  
Commission  
Jackpot Advisory Council

Copies of the Draft RMP are available  
for review at the following libraries  
and BLM offices:

II. PUBLIC LIBRARIES

U.S. Department of the Interior  
Natural Resources Library  
Gifts and Exchange Section  
18th and "C" Streets, N.W.  
Washington, D.C. 20240

Library, BLM  
Denver Service Center  
Denver Federal Center Bldg. 50  
Denver, CO 80225

James Dickinson Library  
University of Nevada, Las Vegas  
4505 Maryland Parkway  
Las Vegas, NV 89154

Government Publications Dept.  
University of Nevada, Reno  
Getchell Library  
Reno, NV 89557

Nevada State Library  
Library Building  
401 N. Carson Street  
Carson City, NV 89710

Elko County Library  
720 Court Street  
Elko, NV 89801

Eureka County Library  
P.O. Box 21  
Eureka, NV 89316

Lander County Library  
Battle Mountain, NV 89820

White Pine County Library  
Campton Street  
Ely, NV 89301

III. BUREAU OF LAND MANAGEMENT OFFICES

Office of Public Affairs  
18th and "C" Streets, N.W.  
Washington, D.C. 20240

Nevada State Office  
300 Booth Street  
Reno, NV 89520

Battle Mountain District Office  
P.O. Box 194  
Battle Mountain, NV 89820

Carson City District Office  
1050 E. William No. 335  
Carson City, NV 89701

Elko District Office  
P.O. Box 831  
Elko, NV 89801

Ely District Office  
Star Route 5, Box 1  
Ely, NV 89301

Las Vegas District Office  
P.O. Box 26569  
Las Vegas, NV 89102

Winnemucca District Office  
705 East 4th St.  
Winnemucca, NV 89445

Idaho State Office  
P.O. Box 042  
Boise, ID 83724

Boise District Office  
3948 Development Ave.  
Boise, ID 83705

Burley District  
Route 3, Box 1  
Burley, ID 83318

Idaho Falls District  
940 Lincoln Road  
Idaho Falls, ID 83401

Salt Lake District  
136 East South Temple  
Salt Lake City, Utah 84111



**APPENDIX ONE**  
**RECREATION MANAGEMENT**



APPENDIX 1  
TABLE 1  
ESTIMATED CURRENT AND PROJECTED RECREATION DAYS <sup>1/</sup>  
ELKO RMP AREA

Activity	Current	Alternative A		Alternative B		Alternative C		Alternative D		Alternative E	
		Short-Term	20 YR.	Short-Term	20 YR.	Short-Term	20 YR.	Short-Term	20 YR.	Short-Term	20 YR.
Hunting	59,800	74,600	144,300	71,100	119,000	82,000	210,800	78,200	174,600	83,100	223,000
Fur Trapping	3,900	4,800	9,300	4,600	7,700	5,300	13,600	5,100	11,300	5,400	14,500
Fishing	119,900	149,800	288,900	142,600	238,500	164,200	421,900	157,000	350,000	166,600	447,100
Boating	21,900	27,400	52,800	26,100	43,600	30,000	77,100	28,700	63,900	30,000	77,100
River Floating	2,400	3,000	5,800	2,900	4,800	3,300	8,500	3,200	7,000	3,300	8,500
Swimming	18,900	23,700	45,700	22,500	37,700	26,000	66,700	24,800	55,300	26,000	66,700
Camping	37,300	46,700	90,000	44,400	74,300	51,200	131,400	49,000	109,000	51,900	139,300
Picnicking	39,300	49,100	94,700	46,700	78,100	53,800	138,200	51,400	114,600	54,600	146,400
ORVs	39,100	48,900	94,200	53,500	137,600	46,500	77,800	50,000	103,600	46,500	77,800
Snowmobiling	4,200	5,200	10,100	5,800	14,800	5,000	8,400	5,400	11,100	5,000	8,400
Snow Play	3,700	4,600	8,800	4,400	7,300	5,000	12,900	4,800	10,700	5,000	12,900
Horseback Riding	33,500	41,800	80,700	39,800	66,600	45,900	117,800	43,900	97,700	46,500	124,800
Hiking/Walking	15,200	19,000	36,700	18,100	30,300	20,900	53,700	20,000	44,500	21,200	56,900
Wilderness Area Hiking <sup>2/</sup>	500	0	0	200	400	700	2,100	400	900	700	2,100
Sightseeing	88,900	111,200	214,300	105,800	177,000	121,800	313,100	116,500	259,700	123,600	331,700
Photography	10,500	13,100	25,200	12,500	20,800	14,300	36,900	13,700	30,600	14,600	39,100
Rock Collecting	4,700	5,800	11,200	5,500	9,300	6,400	16,400	6,100	13,600	6,400	16,400
Target Shooting	10,500	13,100	25,200	12,400	20,800	14,300	36,800	13,700	30,500	14,300	36,800
Wood Harvest	5,600	7,000	13,400	6,600	11,100	7,600	19,600	7,300	16,300	7,600	19,600
Other Uses	76,600	95,800	184,700	91,200	152,500	105,000	269,700	100,400	223,700	105,000	269,700
TOTAL	596,400	744,600	1,436,000	716,700	1,252,200	809,200	2,033,400	779,600	1,728,600	817,300	2,118,800

<sup>1/</sup> A recreation day is defined as participation in a particular recreation activity by an individual of any portion or all of a 24-hour period. Source: Estimates derived from information contained within the Nevada Statewide Comprehensive Outdoor Recreation Plan (1982), Elko District Recreation Visitation Files, and professional judgement.

<sup>2/</sup> This represents the estimated current use within the Rough Hills, Little Humboldt River, Cedar Ridge and Red Spring WSAs (Table 3-1).



**APPENDIX TWO**  
**THE BLM WILDERNESS REVIEW PROCESS**



## APPENDIX 2

### THE BLM WILDERNESS REVIEW PROCESS

The BLM wilderness review consists of three phases: (1) inventory, (2) study, and (3) reporting.

#### Inventory

The four wilderness study areas addressed in this study were identified using the wilderness inventory procedures described in the BLM's Wilderness Inventory Handbook of September 27, 1978. The results of the intensive wilderness inventory were announced on November 15, 1980. Copies of the booklet Wilderness Study Area Decisions: Nevada BLM Intensive Wilderness Inventory are available at all BLM offices in Nevada.

In order to qualify for wilderness study area status, an area was required to contain the following wilderness characteristics described in the Wilderness Act of 1964: (1) have at least 5,000 acres or more of contiguous public land or be of a size to make practical its preservation and use in an unimpaired condition; (2) generally appear to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; and (3) have outstanding opportunities for solitude or a primitive and unconfined type of recreation. In addition, areas qualifying for wilderness study area status may contain supplemental values which include ecological, geological, or other features of scientific, educational, scenic, or historic value. The BLM wilderness inventory determined that four wilderness study areas within the Elko Resource Area contain these minimum wilderness characteristics.

#### Study

The primary goal of the BLM wilderness study process is to recommend for

wilderness designation those areas where wilderness is determined to be the most appropriate use of the land and its resources.

It is the policy of BLM that each wilderness study area be studied through the BLM planning system to analyze all values, resources, and land uses. The findings of the study, including public participation, determine whether an area will be recommended as preliminarily suitable or nonsuitable for designation as wilderness. In practice, determining an area's "suitability or nonsuitability... for preservation as wilderness", in the words of the Federal Land Policy and Management Act, means determining whether the area is more suitable for wilderness designation or more suitable for other uses.

#### Reporting

The reporting phase consists of actually forwarding or reporting suitable and nonsuitable recommendations through the Secretary of the Interior and the President to Congress. Mineral surveys required by the Wilderness Act of 1964, environmental statements, and other data will be submitted with the recommendations.



**APPENDIX THREE**  
**LIVESTOCK MANAGEMENT**



APPENDIX 3  
TABLE 1  
GRAZING ALLOTMENT DATA  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT NAME	INVENTORIED PUBLIC LAND AC.	TOTAL PREFERENCE AUMS	EXISTING PERIODS OF USE	ACTIVE GRAZING PREFERENCE AUMS	AVERAGE LICENSED USE AUMS <sup>1/</sup>	APPARENT TREND <sup>2/</sup>
1	Owyhee	371,431	31,917	03/01-02/28	30,225	18,381	Upward
2	YP	94,857	13,023	04/16-12/15	13,023	10,878	Not apparent
3	Owyhee-Petan	10,221	2,094	08/21-10/10	2,094	2,018	Not apparent
4	Indian Creek FFR	4,924	854	05/01-02/21	854	854	Downward
5	VN Pocket Petan	6,082	983	05/01-07/31	983	595	Not apparent
6	VN Pocket Allied	7,444	1,311	04/16-06/15	1,311	1,024	Downward
7	Cornucopia	15,758	3,772	05/01-02/28	2,634	1,964	Downward
8	Andrae	17,063	4,658	04/16-10/31	4,564	4,369	Downward
9	Wilson Mountain	2,362	308	06/01-06/30	308	307	Upward
10	Lime Mountain	9,094	2,645	05/01-10/31	1,832	1,180	Upward
11	Mori	10,436	2,245	03/01-02/28	2,245	2,410	Upward
12	Bucket Flat	1,536	301	05/01-11/30	188	140	Upward
13	Rock Creek	353,860	68,674	04/15-11/15	48,997	41,859	Upward
14	Midas	4,417	948	04/20-09/19	711	711	Downward
15	Little Humboldt	64,075	10,256	04/10-10/15	7,656	7,654	Downward
16	Twenty-five	284,626	48,008	03/01-02/28	34,179	18,830	Upward
17	Tuscarora	56,869	21,237	04/01-02/29	14,267	14,091	Downward
18	Six Mile	946	263	05/01-07/30	184	198	Downward
19	Taylor Canyon	9,134	2,829	04/16-02/15	2,340	2,136	Upward
20	Eagle Rock	29,359	7,089	04/16-02/28	5,824	5,909	Upward
21	Wildhorse Group	26,258	5,201	04/20-11/20	5,201	3,788	Upward
22	Rough Hills	4,902	887	05/01-09/30	887	669	Upward
23	Stone Flat FFR	311	41	05/01-05/31	41	41	Not apparent
24	Annie Creek	2,954	592	05/01-10/15	592	592	Downward
25	Bruneau River	3,347	838	05/01-08/15	838	444	Upward
26	Rattlesnake Canyon	10,365	2,591	05/03-09/07	2,591	2,218	Downward
27	Stone Flat	2,561	717	05/01-09/15	717	595	Downward
28	Four Mile	36,187	6,979	04/15-10/31	6,979	5,315	Downward
29	Beaver Creek	75,579	17,631	04/15-10/14	15,037	3,200	Upward
30	Mason Mountain	2,774	370	05/10-10/31	370	370	Not apparent
31	Mexican Field	2,989	546	06/01-09/15	546	400	Not apparent
32	Cotant	3,383	832	05/01-06/30	832	636	Downward
33	Double Mountain	38,662	5,126	04/21-09/30	5,126	5,126	Downward
34	Sheep Creek	8,461	1,572	04/16-08/31	1,572	936	Upward
35	Mahala Creek	13,100	2,100	05/15-11/01	1,825	1,022	Upward
36	Eagle Rock 1	8,043	1,682	05/01-10/16	1,391	1,170	Not apparent
37	Lone Mountain	31,895	9,398	04/15-10/15	7,202	5,431	Not apparent
38	Fox Springs	4,592	829	04/16-09/30	626	625	Not apparent
39	Coal Mine Basin	7,686	1,471	04/21-09/30	1,471	414	Upward
40	North Fork Group	96,049	15,964	04/10-10/30	15,964	7,100	Not apparent
41	Dorsey	3,782	1,024	04/10-07/27	1,024	1,270	Not apparent



APPENDIX 3  
TABLE 1 (Continued)  
GRAZING ALLOTMENT DATA  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT NAME	INVENTORIED PUBLIC LAND AC.	TOTAL PREFERENCE AUMS	EXISTING PERIODS OF USE	ACTIVE GRAZING PREFERENCE AUMS	AVERAGE LICENSED USE AUMS <sup>1/</sup>	APPARENT TREND <sup>2/</sup>
42	Long Field	2,566	209	05/01-07/04	209	209	Downward
43	Halleck	3,831	643	05/01-07/15	643	419	Downward
44	Adobe Hills	33,573	3,526	04/16-11/15	3,526	3,665	Not apparent
45	White Rock	5,232	795	04/01-10/01	795	849	Not apparent
46	Adobe	2,898	750	05/01-11/15	526	525	Downward
47	Blue Basin	36,254	9,241	04/01-11/15	6467	4,648	Upward
48	Dry Susie	5,630	929	08/01-09/30	929	929	Upward
49	Carlin Canyon	275	74	05/01-02/28	51	52	Downward
50	Carlin Field	17,394	3,891	05/01-05/31	2,445	1,768	Upward
51	Hadley	30,257	5,528	07/01-11/01	5,528	3,748	Downward
52	Taylor's Carlin	62	36	04/16-10/05	28	28	Downward
53	Mary's Mountain	16,651	2,620	04/16-10/15	1,893	1,761	Downward
54	T Lazy S	72,928	18,486	03/16-12/31	15,250	15,250	Downward
55	Horseshoe	15,339	1,630	04/01-08/31	1,630	1,434	Downward
56	Palisade	11,238	2,127	04/16-12/03	1,336	1,085	Downward
57	Pine Mountain	28,034	8,099	04/15-11/15	5,554	5,187	Downward
58	Iron Blossom	7,573	2,114	04/16-10/31	1,539	1,475	Downward
59	Safford Canyon	8,628	1,525	04/16-11/30	1,392	1,392	Downward
60	Scotts Gulch	10,313	1,213	04/10-08/04	1,213	1,211	Downward
61	Geyser	46,635	2,061	04/01-09/30	2,061	1,952	Not apparent
62	Thomas Creek	4,762	4,706	04/16-09/15	1,078	1,078	Downward
63	Thomas Creek FFR	130	60	04/16-02/15	60	60	Downward
64	Devils Gate	2,987	528	04/16-11/21	374	374	Downward
65	South Buckhorn	226,004	21,546	04/16-12/15	20,654	15,852	Not apparent
66	Potato Patch	3,479	764	04/01-11/24	764	764	Upward
67	Pine Creek	12,601	150	12/01-12/31	150	150	Upward
68	Mineral Hill	24,423	2,012	04/01-12/31	1,555	1,590	Upward
69	Union Mountain	22,986	2,256	05/01-09/30	1,759	2,256	Not apparent
70	Bruffy	18,474	2,260	04/16-11/15	1,806	1,856	Downward
71	Pony Creek	15,219	2,352	04/16-11/12	1,629	1,678	Downward
72	Indian Springs	18,708	5,266	04/01-11/10	2,669	3,209	Not apparent
73	Dixie Flats	21,171	2,442	05/01-10/31	1,737	1,545	Upward
74	Emmigrant Springs	14,294	1,948	05/01-05/30	1,458	1,456	Downward
75	Tonka	19,894	2,380	05/01-10/31	1,626	1,391	Upward
76	Old Eighty FFR	93	12	09/01-11/30	12	12	Downward
77	Grindstone Mountain	5,181	894	05/01-05/30	894	946	Downward
78	Cut-Off	2,258	511	05/16-07/30	349	99	Not apparent
79	Bullion Road	4,674	218	05/01-08/28	218	255	Upward
80	Ten Mile	5,775	363	05/01-05/30	363	423	Upward
81	Four Mile Canyon	4,557	1,010	05/01-11/30	595	595	Downward
82	Burner Basin	1,275	264	05/01-08/01	164	164	Downward
83	Elko Hills	7,106	1,705	04/01-11/16	966	937	Upward
84	East Fork	10,461	2,025	04/15-09/15	1,205	788	Upward



APPENDIX 3  
TABLE 1 (Continued)  
GRAZING ALLOTMENT DATA  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT NAME	INVENTORIED PUBLIC LAND AC.	TOTAL PREFERENCE AUMS	EXISTING PERIODS OF USE	ACTIVE GRAZING PREFERENCE AUMS	AVERAGE LICENSED USE AUMS <sup>1/</sup>	APPARENT TREND <sup>2/</sup>
85	East Fork FFR	39	17	05/01-05/31	17	17	Downward
86	Burger Creek	240	11	03/01-12/31	11	11	Upward
87	Smiraldo	2,885	747	06/01-07/31	747	659	Not apparent
88	King Seeding	2,283	521	06/17-08/05	521	520	Not apparent
89	Horse Fly	3,328	472	05/01-09/07	465	807	Upward
90	Heelfly	378	66	04/15-06/01	66	90	Not apparent
91	Secret	467	142	05/01-05/31	142	216	Not apparent
92	Rabbit Creek	4,889	655	04/16-08/02	655	1,013	Upward
93	Kennedy Seeding	1,534	254	05/01-06/30	254	565	Not apparent
94	Walther	136	47	06/01-10/12	47	47	Not apparent
95	Palacio Seeding	1,031	326	05/01-07/29	326	369	Not apparent
96	Sandhill North	1,279	560	05/01-08/15	330	331	Not apparent
97	Sandhill South	593	74	05/03-08/14	74	91	Not apparent
98	Bellinger	2,344	278	05/01-07/25	278	392	Not apparent
99	Hog Tommy	1,898	167	05/15-10/14	167	167	Downward
100	Bottari Seeding	2,390	511	05/01-07/15	511	585	Not apparent
101	Olgivie - Orbe	8,091	1,553	05/01-08/09	1,553	2,184	Not apparent
102	LDS FFR	294	119	06/02-07/11	119	119	Downward
103	Shoshone	8,473	3,998	05/01-12/16	3,443	1,884	Upward
104	Chimney Creek	5,488	2,098	05/01-11/30	2,098	2,192	Not apparent
105	Twin Bridges	3,359	611	04/16-11/08	338	479	Not apparent
106	River	4,299	432	05/01-05/30	210	209	Upward
107	LDS	1,102	160	04/16-06/01	89	89	Not apparent
108	McMullen FFR	108	39	04/15-05/15	39	31	Not apparent
109	South Fork	2,883	592	05/01-07/31	592	591	Not apparent
110	Crane Springs	22,304	2,120	05/01-09/30	1,281	768	Upward
111	Dixie Creek	44,796	6,526	06/01-11/17	4,105	5,145	Not apparent
112	Sleeman	5,433	1,392	05/01-09/20	1,392	1,014	Downward
113	Hansel	11,169	1,533	05/10-10/01	1,553	1,677	Not apparent
114	Wilson FFR	985	153	05/01-07/23	153	153	Downward
115	Willow	4,772	546	04/15-05/31	546	404	Upward
116	Willow Creek Pockets	6,260	2,113	05/01-10/03	675	579	Upward
117	Cottonwood FFR	293	204	06/30-10/31	204	204	Downward
118	Merkley-Zunino	2,038	239	05/01-06/16	139	312	Not apparent
119	Achurra	2,176	757	05/09-08/27	757	724	Upward
120	Barnes Seeding	3,860	399	04/20-05/30	399	379	Upward
121	Barnes FFR	164	32	04/16-11/30	32	32	Downward
122	Little Porter FFR	97	24	05/01-05/31	24	25	Downward
123	Robinson Mountain FFR	155	36	05/01-05/31	36	36	Downward
124	Robinson Mountain	18,409	3,540	04/20-10/27	3,002	2,097	Upward



APPENDIX 3  
TABLE 1 (Continued)  
GRAZING ALLOTMENT DATA  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT NAME	INVENTORIED PUBLIC LAND AC.	TOTAL PREFERENCE AUMS	EXISTING PERIODS OF USE	ACTIVE GRAZING PREFERENCE AUMS	AVERAGE LICENSED USE AUMS <sup>1/</sup>	APPARENT TREND <sup>2/</sup>
125	Little Porter	3,512	288	04/16-06/30	288	230	Upward
126	Robinson Creek	15,549	3,434	05/01-10/31	2,743	1,982	Upward
127	Frost Creek	10,058	1,976	04/15-06/30	1,976	1,857	Upward
128	Corta FFR	144	92	05/16-09/10	92	92	Downward
129	Corral Canyon	2,006	525	05/01-08/31	525	346	Upward
130	Forest FFR	480	64	05/01-06/30	64	64	Not apparent
131	Pearl Creek	1,485	468	04/16-10/30	468	468	Not apparent
132	Rattlesnake Mtn.	641	145	05/15-09/30	145	145	Downward
133	Lindsay Creek	9,172	1,817	05/01-10/30	1,349	1,310	Upward
134	Twin Creek North	2,974	747	06/01-09/09	747	747	Not apparent
135	Twin Creek East	2,036	646	04/16-07/01	646	630	Downward
136	Twin Creek South	1,138	390	04/23-09/22	390	390	Not apparent
137	Merkley FFR	3,464	250	09/18-12/02	250	250	Upward
138	Red Rock	65,230	8,851	04/18-12/04	7,503	6,558	Upward
139	Browne	19,113	1,980	05/16-09/15	1,307	92	Upward
140	Mitchell Creek	18,789	1,407	04/16-10/30	1,301	938	Upward
SUBTOTAL		2,878,710	478,467		387,533	305,247	
Little Owyhee <sup>3/</sup>		199,957	13,370		13,370	13,370	Downward
Bullhead <sup>3/</sup>		50,137	9,039		6,779	6,779	Downward
Jiggs <sup>3/</sup>		4,575	806	03/01-11/30	806	806	Not Apparent
Pearl Forest <sup>3/</sup>		640	159	05/01-09/30	159	159	Not Apparent
TOTAL <sup>4/</sup>		3,134,019	501,841		408,649	326,361	

<sup>1/</sup> Values were averaged for the period 1979 to 1983. Total includes only those allotments with Elko District Grazing Administration.

<sup>2/</sup> Apparent trend analysis represents an overall allotment average and may not reflect certain localized situations.

<sup>3/</sup> Allotments are within the boundaries of the Elko Planning Area, but grazing management is administered by other BLM Districts.

<sup>4/</sup> Total includes all lands within Elko District boundaries.



APPENDIX 3  
TABLE 2  
PROJECTED LIVESTOCK STOCKING LEVEL  
(AUMs) BY ALTERNATIVE 1/  
ELKO RMP AREA

Map Ref. Number	Allotment Name	ALT. "B"	ALT. "C"	ALT. "D"
1	Owyhee	52,173	15,112	36,667
2	YP Allotment	14,716	6,512	15,402
3	Petan Owyhee Unit	2,094	1,047	2,140
4	Indian Creek FFR	854	427	113
5	VN Pocket Petan	983	492	1,095
6	VN Pocket Allied	2,066	656	1,002
7	Cornucopia	3,815	1,317	2,016
8	Andrae	5,711	2,282	4,549
9	Wilson Mtn.	308	154	427
10	Lime Mtn.	2,072	916	2,792
11	Mori	2,725	1,122	3,979
12	Bucket Flat	188	94	335
13	Rock Creek	57,578	24,498	59,304
14	Midas	711	356	562
15	Little Humboldt	10,207	3,827	3,884
16	Twenty Five	34,443	17,090	26,612
17	Tuscarora	14,831	7,134	14,325
18	Six Mile	319	92	107
19	Taylor Canyon	2,762	1,170	3,059
20	Eagle Rock	6,139	2,912	10,847
21	Wildhorse Group	6,096	2,600	6,474
22	Rough Hills	887	444	777
23	Stone Flat FFR	41	20	18
24	Annie Creek	735	296	531
25	Bruneau River	1,146	419	974
26	Rattlesnake Canyon	2,779	1,296	1,721
27	Stone Flat	863	358	318
28	Four Mile	8,076	3,490	5,236
29	Beaver Creek	17,154	7,518	14,931
30	Mason Mtn.	370	185	264
31	Mexican Field	666	273	367
32	Cotant	939	416	451
33	Double Mtn.	5,792	2,563	4,192
34	Sheep Creek	1,702	786	2,015
35	Mahala Creek	2,138	912	2,279
36	Eagle Rock 1	1,900	696	1,609
37	Lone Mountain	8,502	3,601	6,915
38	Fox Springs	626	313	729
39	Coal Mine Basin	2,356	736	1,314
40	North Fork Group	24,405	7,982	11,136
41	Dorsey	1,446	512	1,035
42	Long Field	236	104	117
43	Halleck	643	322	155



APPENDIX 3  
 TABLE 2 (Continued)  
 PROJECTED LIVESTOCK STOCKING LEVEL  
 (AUMs) BY ALTERNATIVE 1/  
 ELKO RMP AREA

Map Ref. Number	Allotment Name	ALT. "B"	ALT. "C"	ALT. "D"
44	Adobe Hills	3,848	1,763	4,058
45	White Rock	1,050	398	1,204
46	Adobe	526	263	351
47	Blue Basin	7,113	3,234	7,935
48	Dry Susie	1,112	464	1,225
49	Carlin Canyon	51	25	42
50	Carlin Field	2,763	1,222	2,414
51	Hadley	7,850	2,764	4,527
52	Taylor's Carlin	28	14	4
53	Marys Mountain	2,157	946	1,463
54	T Lazy S	20,021	7,625	12,935
55	Horseshoe	2,090	815	1,096
56	Palisade	1,336	668	710
57	Pine Mountain	6,506	2,777	3,048
58	Iron Blossom	1,558	770	817
59	Safford Canyon	1,482	696	1,045
60	Scotts Gulch	1,781	606	1,140
61	Geysers	3,167	1,030	1,892
62	Thomas Creek	1,078	539	1,049
63	Thomas Creek FFR	60	30	9
64	Devils Gate	401	187	217
65	South Buckhorn	25,782	10,327	20,175
66	Potato Patch	764	382	843
67	Pine Creek	150	75	824
68	Mineral Hill	2,285	778	1,943
69	Union Mountain	2,789	880	499
70	Bruffy	2,042	903	713
71	Pony Creek	1,692	814	807
72	Indian Springs	3,050	1,334	2,630
73	Dixie Flats	1,737	868	2,411
74	Emigrant Spring	3,265	729	1,163
75	Tonka	1,626	813	1,552
76	Old Eighty FFR	12	6	6
77	Grindstone	1,010	447	453
78	Cut Off	349	174	67
79	Bullion Road	218	109	603
80	Ten Mile	363	182	524
81	Four Mile Canyon	775	298	410
82	Burner Basin	164	82	85
83	Elko Hills	2,226	483	1,300
84	East Fork	2,265	602	1,366
85	East Fork FFR	17	8	4
86	Burger Creek	11	6	18
87	Smiraldo	844	374	1,154



APPENDIX 3  
 TABLE 2 (Continued)  
 PROJECTED LIVESTOCK STOCKING LEVEL  
 (AUMs) BY ALTERNATIVE 1/  
 ELKO RMP AREA

Map Ref. Number	Allotment Name	ALT. "B"	ALT. "C"	ALT. "D"
88	King Seeding	589	260	913
89	Horse Fly	609	232	1,103
90	Heelfly	66	33	146
91	Secret	258	71	184
92	Rabbit Creek	655	328	1,695
93	Kennedy Seeding	514	127	614
94	Walther	47	24	54
95	Palacio Seeding	373	163	412
96	Sandhill North	683	165	444
97	Sandhill South	74	37	237
98	Bellinger	675	139	974
99	Hog Tommy	566	84	198
100	Bottari Seeding	885	256	829
101	Olgivie-Orbe	2,538	776	3,417
102	LDS FFR	119	60	26
103	Shoshone	3,891	1,722	3,557
104	Chimney Creek	2,371	1,049	2,402
105	Twin Bridges	963	169	659
106	River	1,303	105	245
107	LDS	89	44	90
108	McMullen FFR	39	20	39
109	South Fork	1,031	296	541
110	Crane Springs	1,448	640	501
111	Dixie Creek	4,639	2,052	5,174
112	Sleeman	1,392	696	205
113	Hansel	1,553	776	1,411
114	Wilson FFR	153	76	20
115	Willow	1,746	273	1,210
116	Willow Creek Pockets	1,313	338	1,539
117	Cottonwood FFR	314	102	34
118	Merkley Zunino	557	70	702
119	Achurra	757	378	886
120	Barnes Seeding	451	200	1,126
121	Barnes FFR	32	16	14
122	Little Porter FFR	24	12	20
123	Robinson Mtn. FFR	36	18	30
124	Robinson Mtn.	3,392	1,501	3,148
125	Little Porter	1,075	144	242
126	Robinson Creek	3,487	1,372	2,902
127	Frost Creek	2,236	988	2,222
128	Corta FFR	92	46	12
129	Corral Canyon	668	262	467
130	Forest FFR	64	32	69
131	Pearl Creek	528	234	661



APPENDIX 3  
 TABLE 2 (Continued)  
 PROJECTED LIVESTOCK STOCKING LEVEL  
 (AUMs) BY ALTERNATIVE 1/  
 ELKO RMP AREA

Map Ref. <u>Number</u>	<u>Allotment Name</u>	<u>ALT. "B"</u>	<u>ALT. "C"</u>	<u>ALT. "D"</u>
132	Rattlesnake Mtn.	145	72	129
133	Lindsay Creek	1,524	674	1,943
134	Twin Creek North	908	374	1,006
135	Twin Creek East	646	323	528
136	Twin Creek South	390	195	370
137	Merkley FFR	250	125	412
138	Red Rock	12,004	3,752	7,475
139	Browne	1,895	654	1,357
140	Mitchell Creek	<u>6,077</u>	<u>650</u>	<u>2,889</u>
GRAND TOTALS		491,741	193,767	396,989
<u>2/</u>	Little Owyhee	13,370	6,685	15,246
<u>2/</u>	Bullhead	6,779	3,390	4,116
<u>2/</u>	Jiggs	806	403	291
<u>2/</u>	Pearl Forest	159	79	69

1/ Alternative E is the No Livestock Alternative, all livestock would be eliminated from public land.

2/ Allotment is within the Elko Planning Area but administered by other Federal agencies or BLM Districts.



APPENDIX 3  
TABLE 3  
PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
ELKO RMP AREA  
ALTERNATIVE B 1/

Map Ref. Number	Allotment Number	Allotment Name	Spring	Reser-	Pipe-	Cattle-	Other		Veg Mani-		
			Develop- ments Number	voirs Number	Wells Number	lines Miles	Fences Miles	guard Number	Type Number	pulations Acres	
1	1024	Owyhee	0	35	1	10	30	6	—	0	309,687
2	1037	YP Allotment	1	3	0	0	14	0	—	0	0
3	1019	Petan Owyhee Unit	0	2	0	0	0	0	—	0	0
4	1015	Indian Creek FFR	0	0	0	0	0	0	—	0	0
5	1039	VN Pocket Petan	0	2	0	0	0	0	—	0	0
6	1033	VN Pocket Allied	1	4	1	2	2	0	—	0	7,700
7	1006	Coinucopia	1	5	0	0	0	0	—	0	9,600
8	1001	Andrae	0	6	0	0	2	1	—	0	3,500
9	1035	Wilson Mountain	0	0	0	0	0	0	—	0	0
10	1017	Lime Mountain	2	2	0	0	0	0	—	0	3,200
11	1002	Mori	4	2	1	1	0	0	—	0	3,200
12	1002	Bucket Flat	0	0	0	0	0	0	—	0	0
13	1025	Rock Creek	10	15	3	10	30	2	—	0	11,950
14	1038	Midas	4	4	0	1	2	3	—	0	0
15	1018	Little Humboldt	4	6	2	2	12	3	—	0	17,950
16	1032	Twenty Five	3	14	0	9	14	2	—	0	1,000
17	1031	Tuscarora	15	12	4	7	4	2	—	0	3,500
18	1026	Six Mile	0	0	0	0	0	0	—	0	900
19	1014	Taylor Canyon	2	4	0	3	1	0	—	0	2,600
20	1008	Eagle Rock	4	4	2	2	2	2	—	0	2,000
21	2125	Wildhorse Group	1	10	1	2	0	2	—	0	5,000
22	2121	Rough Hills	0	0	0	0	0	0	—	0	0
23	2130	Stone Flat FFR	0	0	0	0	0	0	—	0	0
24	2102	Annie Creek	3	2	0	2	3	0	—	0	1,500
25	2105	Bruneau River	0	1	0	0	0	0	—	0	2,200
26	2119	Rattlesnake Canyon	0	3	0	0	0	0	—	0	1,000
27	2123	Stone Flat	0	2	0	0	0	1	—	0	1,000
28	2110	Four Mile	2	8	0	0	2	1	—	0	2,000
29	2103	Beaver Creek	5	6	0	0	0	3	—	0	1,500
30	2115	Mason Mountain	0	0	0	0	0	0	—	0	0
31	2117	Mexican Field	0	0	0	0	2	0	—	0	500
32	2107	Cotant	0	3	0	0	2	1	—	0	1,000
33	2109	Double Mountain	0	8	0	0	0	0	—	0	0
34	2122	Sheep Creek	0	2	0	0	0	0	—	0	1,000
35	2114	Mahala Creek	0	2	0	0	0	0	—	0	2,000
36	2108	Eagle Rock 1	0	3	0	0	1	1	—	0	2,000
37	2113	Lone Mountain	2	10	1	2	4	0	<u>3/</u>	1	7,000
38	2111	Fox Springs	0	2	0	0	0	0	—	0	0



APPENDIX 3  
 TABLE 3 (Continued)  
 PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
 ELKO RMP AREA  
 ALTERNATIVE B 1/

Map Reference Number	Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe-lines Miles	Fences Miles	Cattle-guard Number	Other Type Number	Veg Manipulations Acres <sup>2/</sup>	
39	2106	Coal Mine Basin	0	2	0	0	3	2	—	0	1,000
40	2118	North Fork Group	4	12	2	10	25	1	3/	2	53,000
41	2134	Dorsey	0	2	0	0	0	0	—	0	3,000
42	2133	Long Field	0	2	0	0	2	1	—	0	1,000
43	2112	Halleck	0	0	0	0	0	0	—	0	0
44	2101	Adobe Hills	2	3	1	2	0	0	—	0	2,000
45	2124	White Rock	1	1	0	0	4	2	—	0	1,000
46	2129	Adobe	0	2	0	0	0	0	—	0	0
47	2104	Blue Basin	1	4	1	2	5	2	—	0	3,200
48	2128	Dry Susie	3	0	0	0	0	0	—	0	200
49	2126	Carlin Canyon	0	0	0	0	0	0	—	0	0
50	1005	Carlin Field	1	0	1	0	0	0	—	0	0
51	1011	Hadley	4	3	2	7	8	2	—	0	6,000
52	1003	Taylor's Carlin	0	0	0	0	0	0	—	0	0
53	1020	Marys Mountain	1	0	0	8	7	0	3/	1	120
54	1027	T Lazy S	8	0	0	7	0	1	3/	2	12,000
55	1012	Horseshoe	2	0	1	0	4	0	—	0	900
56	1021	Palisade	0	0	0	0	0	0	—	0	0
57	5446	Pine Mountain	8	0	0	2	10	2	3/	1	1,000
58	5430	Iron Blossom	1	0	0	1	2	2	—	0	250
59	5456	Safford Canyon	0	0	0	0	0	0	—	0	450
60	5459	Scotts Gulch	0	0	0	4	5	3	—	0	1,500
61	5423	Geyser	1	1	2	10	50	0	—	0	3,000
62	5467	Thomas Creek	0	0	0	0	0	0	—	0	0
63	5483	Thomas Creek FFR	0	0	0	0	0	0	—	0	0
64	5412	Devils Gate	1	2	0	4	2	1	—	0	160
65	5465	South Buckhorn	10	10	4	16	80	10	3/	4	9,600
66	5448	Potato Patch	0	0	0	0	0	0	—	0	0
67	5445	Pine Creek	0	0	0	0	0	0	—	0	0
68	5439	Mineral Hill	0	0	0	2	0	3	—	0	2,000
69	5473	Union Mountain	4	0	0	6	3	1	3/	2	4,000
70	5405	Bruffy	2	0	0	2	0	0	—	0	1,000
71	5447	Pony Creek	4	0	0	0	0	1	—	0	900
72	5429	Indian Springs	1	1	0	0	0	0	—	0	1,500
73	5414	Dixie Flats	0	1	1	0	0	0	—	0	0
74	5417	Emmigrant Springs	5	2	0	1	5	1	—	0	6,000
75	5468	Tonka	3	2	0	0	0	1	—	0	0
76	5442	Old Eighty FFR	0	0	0	0	0	0	—	0	0
77	5422	Grindstone	0	0	1	0	0	0	—	0	0



APPENDIX 3  
 TABLE 3 (Continued)  
 PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
 ELKO RMP AREA  
 ALTERNATIVE B 1/

Map Reference Number	Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe lines Miles	Fences Miles	Cattle-guard Number	Other Type	Other Number	Veg Manipulations Acres <sup>2/</sup>
78	5411	Cut Off	0	0	1	0	0	0	—	0	0
79	5406	Bullion Road	1	1	0	0	0	0	—	0	0
80	5466	Ten Mile	0	2	0	0	0	0	—	0	0
81	5420	Four Mile Canyon	0	1	0	0	0	0	—	0	640
82	5408	Burner Basin	0	0	0	0	0	0	—	0	0
83	5416	Elko Hills	0	2	0	1	4	0	—	0	4,800
84	5415	East Fork	0	0	2	4	12	1	—	0	3,600
85	2131	East Fork FFR	0	0	0	0	0	0	—	0	0
86	5407	Burger Creek	0	0	0	0	0	0	—	0	0
87	5463	Smiraldo	0	0	1	5	2	0	3/	1	0
88	5432	King Seeding	0	0	1	3	2	0	3/	1	0
89	5427	Horsefly	0	0	0	0	0	0	—	0	1,200
90	5425	Heelfly	0	0	0	0	0	0	—	0	0
91	5460	Secret	0	0	0	0	0	1	—	0	776
92	5449	Rabbit Creek	0	0	0	0	0	0	—	0	0
93	5431	Kennedy Seeding	0	0	1	2	3	0	—	0	1,500
94	5474	Walther	0	0	1	0	0	0	—	0	0
95	5443	Palacio Seeding	0	0	1	0	0	0	—	0	1,120
96	5457	Sandhill North	0	0	0	0	0	0	—	0	1,800
97	5458	Sandhill South	0	0	1	0	0	0	—	0	0
98	5403	Bellinger	0	0	0	1	0	0	—	0	1,800
99	5426	Hog Tommy	0	0	0	0	0	0	—	0	1,600
100	5404	Bottari Seeding	0	0	0	1	0	0	—	0	2,400
101	5441	Olgivie-Orbe	0	0	0	0	0	0	—	0	7,000
102	5485	LDS FFR	0	0	0	0	0	0	—	0	0
103	4561	Shoshone	0	1	1	4	0	0	3/	1	0
104	5409	Chimney Creek	0	0	0	0	0	0	—	0	0
105	5469	Twin Bridges	0	0	0	0	0	0	3/	1	2,500
106	5453	River	0	0	1	0	0	0	3/	1	3,600
107	5433	LDS	0	0	0	1	0	0	—	0	0
108	5436	McMullen FFR	0	0	0	0	0	0	—	0	0
109	5464	South Fork	0	0	0	1	0	0	—	0	2,500
110	5438	Crane Springs	1	0	2	3	10	0	3/	1	0
111	5413	Dixie Creek	0	2	0	1	0	1	—	0	0
112	5462	Sleeman	0	0	0	4	0	0	3/	1	0
113	5424	Hansel	0	0	0	6	3	0	—	0	0
114	5484	Wilson FFR	0	0	0	0	0	0	—	0	0
115	5475	Willow	0	0	0	0	0	0	—	0	4,800
116	5477	Willow Creek Pockets	0	0	1	0	0	0	—	0	2,560



APPENDIX 3  
TABLE 3 (Continued)  
PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
ELKO RMP AREA  
ALTERNATIVE B 1/

Map Reference Number	Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe-lines Miles	Fences Miles	Cattle-guard Number	Other Type Number	Veg Mani-pulations Acres <sup>2/</sup>	
117	5480	Cottonwood FFR	0	0	0	0	0	0	—	0	640
118	5437	Merkley-Zunino	0	0	1	1	2	2	—	0	1,500
119	5401	Achurra	0	0	0	0	0	0	—	0	0
120	5402	Barnes Seeding	0	0	0	0	0	0	—	0	0
121	5418	Barnes FFR	0	0	0	0	0	0	—	0	0
122	5478	Little Porter FFR	0	0	0	0	0	0	—	0	0
123	5486	Robinson Mtn FFR	0	0	0	0	0	0	—	0	0
124	5455	Robinson Mountain	1	0	0	3	0	0	3/	1	0
125	5435	Little Porter	0	0	1	1	0	0	3/	1	3,000
126	5454	Robinson Creek	2	0	1	0	3	0	3/	1	3,000
127	5421	Frost Creek	0	0	0	0	0	0	—	0	1,800
128	5479	Corta FFR	0	0	0	0	0	0	—	0	0
129	5410	Corral Canyon	0	0	0	1	0	0	—	0	1,600
130	5482	Forest FFR	0	0	0	0	0	0	—	0	0
131	5444	Pearl Creek	0	0	0	0	2	0	—	0	0
132	5451	Rattlesnake Mtn	0	0	0	0	0	0	—	0	0
133	5434	Lindsay Creek	0	1	0	0	0	0	—	0	0
134	5471	Twin Creek North	0	0	0	0	0	0	—	0	1,800
135	5470	Twin Creek East	0	0	0	0	0	0	—	0	0
136	5472	Twin Creek South	1	0	0	1	0	0	—	0	0
137	5419	Merkley FFR	0	0	0	0	0	0	—	0	0
138	5452	Red Rock	0	1	1	2	12	0	3/	1	30,000
139	5450	Browne	1	0	0	4	8	0	3/	1	10,200
140	5440	Mitchell	1	0	0	0	0	0	—	0	18,000
TOTAL			139	243	50	187	405	71	25	635,003	

1/ This level of range improvement development resulted primarily through consultation with individual livestock permittees.

2/ Seeding and treatments acres are for public land only

3/ Storage Tank



APPENDIX 3  
TABLE 3  
PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
ELKO RMP AREA  
ALTERNATIVE C

Map Reference Number	Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe lines Miles	Fences Miles	Cattle guard Number	Other Type Number	Veg Manipulations Acres
1	1024	Owyhee	0	35	0	0	16	0	— 0	0
2	1037	YP Allotment	0	0	0	0	0	0	— 0	0
3	1019	Petan Owyhee Unit	0	0	0	0	0	0	— 0	0
4	1015	Indian Creek FFR	0	0	0	0	0	0	— 0	0
5	1039	VN Pocket Petan	0	0	0	0	0	0	— 0	0
6	1033	VN Pocket Allied	0	0	0	0	0	0	— 0	0
7	1006	Coinucopia	0	0	0	0	0	0	— 0	0
8	1001	Andrae	0	0	0	0	0	0	— 0	0
9	1035	Wilson Mountain	0	0	0	0	0	0	— 0	0
10	1017	Lime Mountain	0	0	0	0	0	0	— 0	0
11	1002	Mori	0	0	0	0	0	0	— 0	0
12	1002	Bucket Flat	0	0	0	0	0	0	— 0	0
13	1025	Rock Creek	10	15	0	10	28	0	— 0	0
14	1038	Midas	0	0	0	0	0	0	— 0	0
15	1018	Little Humboldt	0	0	0	0	0	0	— 0	0
16	1032	Twenty Five	0	0	0	0	0	0	— 0	0
17	1031	Tuscarora	0	0	0	0	0	0	— 0	0
18	1026	Six Mile	0	0	0	0	0	0	— 0	0
19	1014	Taylor Canyon	0	0	0	0	0	0	— 0	0
20	1008	Eagle Rock	0	0	0	0	0	0	— 0	0
21	2125	Wildhorse Group	1	10	0	2	0	2	— 0	0
22	2121	Rough Hills	0	0	0	0	0	0	— 0	0
23	2130	Stone Flat FFR	0	0	0	0	0	0	— 0	0
24	2102	Annie Creek	0	0	0	0	0	0	— 0	0
25	2105	Bruneau River	0	0	0	0	0	0	— 0	0
26	2119	Rattlesnake Canyon	0	0	0	0	0	0	— 0	0
27	2123	Stone Flat	0	0	0	0	0	0	— 0	0
28	2110	Four Mile	0	0	0	0	0	0	— 0	0
29	2103	Beaver Creek	0	0	0	0	0	0	— 0	0
30	2115	Mason Mountain	0	0	0	0	0	0	— 0	0
31	2117	Mexican Field	0	0	0	0	2	0	— 0	0
32	2107	Cotant	0	3	0	0	2	1	— 0	0
33	2109	Double Mountain	0	8	0	0	0	0	— 0	0
34	2122	Sheep Creek	0	2	0	0	0	0	— 0	0
35	2114	Mahala Creek	0	0	0	0	0	0	— 0	0
36	2108	Eagle Rock 1	0	3	0	0	0	1	— 0	0
37	2113	Lone Mountain	0	0	0	0	0	0	— 0	0
38	2111	Fox Springs	0	0	0	0	0	0	— 0	0



APPENDIX 3  
 TABLE 3 (Continued)  
 PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
 ELKO RMP AREA  
 ALTERNATIVE C

Map Reference Number	Allotment Number	Allotment Name	Spring	Reser-	Pipe-	Cattle-		Veg Mani-			
			Develop- ments Number	voirs Number	Wells Number	lines Miles	Fences Miles	guard Number	Other Type Number	pulations Acres	
39	2106	Coal Mine Basin	0	0	0	0	3	0	—	0	0
40	2118	North Fork Group	4	12	0	10	22	1	—	0	0
41	2134	Dorsey	0	0	0	0	0	0	—	0	0
42	2133	Long Field	0	0	0	0	0	0	—	0	0
43	2112	Halleck	0	0	0	0	0	0	—	0	0
44	2101	Adobe Hills	2	3	0	2	8	3	—	0	0
45	2124	White Rock	0	0	0	0	0	0	—	0	0
46	2129	Adobe	0	0	0	0	0	0	—	0	0
47	2104	Blue Basin	1	4	0	2	3	2	—	0	0
48	2128	Dry Susie	0	0	0	0	0	0	—	0	0
49	2126	Carlin Canyon	0	0	0	0	0	0	—	0	0
50	1005	Carlin Field	1	0	0	0	0	0	—	0	0
51	1011	Hadley	4	3	0	7	8	2	<u>1/</u>	3	0
52	1003	Taylor's Carlin	0	0	0	0	0	0	—	0	0
53	1020	Marys Mountain	0	0	0	0	0	0	—	0	0
54	1027	T Lazy S	8	0	0	7	0	1	<u>1/</u>	1	0
55	1012	Horseshoe	2	0	0	0	4	0	—	0	0
56	1021	Palisade	0	0	0	0	0	0	—	0	0
57	5446	Pine Mountain	8	0	0	2	8	2	<u>1/</u>	1	0
58	5430	Iron Blossom	0	0	0	0	0	0	—	0	0
59	5456	Safford Canyon	0	0	0	0	0	0	—	0	0
60	5459	Scotts Gulch	0	0	0	0	5	0	—	0	0
61	5423	Geyser	0	0	0	0	0	0	—	0	0
62	5467	Thomas Creek	0	0	0	0	0	0	—	0	0
63	5483	Thomas Creek FFR	0	0	0	0	0	0	—	0	0
64	5412	Devils Gate	0	0	0	0	0	0	—	0	0
65	5465	South Buckhorn	10	10	0	16	80	10	<u>1/</u>	4	0
66	5448	Potato Patch	0	0	0	0	0	0	—	0	0
67	5445	Pine Creek	0	0	0	0	0	0	—	0	0
68	5439	Mineral Hill	0	0	0	0	0	0	—	0	0
69	5473	Union Mountain	4	0	0	0	1	1	<u>1/</u>	2	0
70	5405	Bruffy	0	0	0	0	0	0	—	0	0
71	5447	Pony Creek	0	0	0	0	0	0	—	0	0
72	5429	Indian Springs	1	1	0	0	0	0	—	0	0
73	5414	Dixie Flats	0	1	0	0	0	0	—	0	0
74	5417	Emmigrant Springs	5	2	0	1	5	1	—	0	0
75	5468	Tonka	3	2	0	0	0	1	—	0	0
76	5442	Old Eighty FFR	0	0	0	0	0	0	—	0	0
77	5422	Grindstone	0	0	0	0	0	0	—	0	0
78	5411	Cut Off	1	1	0	0	0	0	—	0	0
79	5406	Bullion Road	0	1	0	0	0	0	—	0	0



APPENDIX 3  
 TABLE 3 (Continued)  
 PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
 ELKO RMP AREA  
 ALTERNATIVE C

Map Reference Number	Allotment Number	Allotment Name	Spring	Reser-	Pipe-	Cattle-	Other		Veg Mani- pulations Acres	
			Develop- ments Number	voirs Number	Wells Number	lines Miles	Fences Miles	guard Number		Type Number
80	5466	Ten Mile	0	2	0	0	0	—	0	0
81	5420	Four Mile Canyon	0	0	0	0	0	—	0	0
82	5408	Burner Basin	0	0	0	0	0	—	0	0
83	5416	Elko Hills	0	2	0	0	4	—	0	0
84	5415	East Fork	0	0	0	0	12	—	0	0
85	2131	East Fork FFR	0	0	0	0	0	—	0	0
86	5407	Burger Creek	0	0	0	0	0	—	0	0
87	5463	Smiraldo	0	0	0	5	2	—	0	0
88	5432	King Seeding	0	0	0	0	0	—	0	0
89	5427	Horsefly	0	0	0	0	0	—	0	0
90	5425	Heelfly	0	0	0	0	0	—	0	0
91	5460	Secret	0	0	0	0	0	—	0	0
92	5449	Rabbit Creek	0	0	0	0	0	—	0	0
93	5431	Kennedy Seeding	0	0	0	0	3	—	0	0
94	5474	Walther	0	0	0	0	0	—	0	0
95	5443	Palacio Seeding	0	0	0	0	0	—	0	0
96	5457	Sandhill North	0	0	0	0	0	—	0	0
97	5458	Sandhill South	0	0	0	0	0	—	0	0
98	5403	Bellinger	0	0	0	0	0	—	0	0
99	5426	Hog Tommy	0	0	0	0	0	—	0	0
100	5404	Bottari Seeding	0	0	0	1	0	—	0	0
101	5441	Olgivie-Orbe	0	0	0	0	0	—	0	0
102	5485	LDS FFR	0	0	0	0	0	—	0	0
103	4561	Shoshone	0	0	0	0	0	—	0	0
104	5409	Chimney Creek	0	0	0	0	0	—	0	0
105	5469	Twin Bridges	0	0	0	0	0	—	0	0
106	5453	River	0	0	0	0	0	—	0	0
107	5433	LDS	0	0	0	1	0	—	0	0
108	5436	McMullen FFR	0	0	0	0	0	—	0	0
109	5464	South Fork	0	0	0	1	0	—	0	0
110	5438	Crane Springs	1	0	0	0	10	—	0	0
111	5413	Dixie Creek	0	2	0	1	0	—	0	0
112	5462	Sleeman	4	0	0	2	0	—	0	0
113	5424	Hansel	6	0	0	5	3	—	0	0
114	5484	Wilson FFR	0	0	0	0	0	—	0	0
115	5475	Willow	0	0	0	0	0	—	0	0
116	5477	Willow Creek Pockets	0	0	0	0	0	—	0	0
117	5480	Cottonwood FFR	0	0	0	0	0	—	0	0
118	5437	Merkley-Zunino	0	0	0	0	2	—	0	0
119	5401	Achurra	0	0	0	0	0	—	0	0
120	5402	Barnes Seeding	0	0	0	0	0	—	0	0



APPENDIX 3  
TABLE 3 (Continued)  
PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
ELKO RMP AREA  
ALTERNATIVE C

Map Reference Number	Re-Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe-lines Miles	Fences Miles	Cattle-guard Number	Other Type Number	Veg Manipulations Acres
121	5418	Barnes FFR	0	0	0	0	0	0	—	0
122	5478	Little Porter FFR	0	0	0	0	0	0	—	0
123	5486	Robinson Mtn FFR	0	0	0	0	0	0	—	0
124	5455	Robinson Mountain	1	0	0	3	0	0	1/	1
125	5435	Little Porter	0	0	0	0	0	0	—	0
126	5454	Robinson Creek	2	0	0	0	3	0	—	0
127	5421	Frost Creek	0	0	0	0	0	0	—	0
128	5479	Corta FFR	0	0	0	0	0	0	—	0
129	5410	Corral Canyon	0	0	0	1	0	0	—	0
130	5482	Forest FFR	0	0	0	0	0	0	—	0
131	5444	Pearl Creek	0	0	0	0	2	0	—	0
132	5451	Rattlesnake Mtn	0	0	0	0	0	0	—	0
133	5434	Lindsay Creek	0	1	0	0	0	0	—	0
134	5471	Twin Creek North	0	0	0	0	0	0	—	0
135	5470	Twin Creek East	0	0	0	0	0	0	—	0
136	5472	Twin Creek South	0	0	0	0	0	0	—	0
137	5419	Merkley FFR	0	0	0	0	0	0	—	0
138	5452	Red Rock	0	0	0	0	12	0	—	0
139	5450	Browne	1	0	0	4	8	0	1/	1
140	5440	Mitchell	1	0	0	0	0	0	—	0
TOTAL			81	123	0	83	256	29	13	0

1/ Storage Tank



APPENDIX 3  
TABLE 3  
PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
ELKO RMP AREA  
ALTERNATIVE D

Map Reference Number	Allotment Number	Allotment Name	Spring	Reser-	Pipe-	Cattle-	Other		Veg Mani- pulations Acres <sup>1/</sup>		
			Develop- ments Number	voirs Number	Wells Number	lines Miles	Fences Miles	guard Number		Type Number	
1	1024	Owyhee	0	0	0	0	30	6	—	0	12,526
2	1037	YP Allotment	0	0	0	0	14	0	—	0	1,160
3	1019	Petan Owyhee Unit	0	2	0	0	0	0	—	0	0
4	1015	Indian Creek FFR	0	0	0	0	0	0	—	0	0
5	1039	VN Pocket Petan	0	2	0	0	0	0	—	0	3,000
6	1033	VN Pocket Allied	1	2	0	0	0	0	—	0	1,500
7	1006	Coinucopia	1	2	0	0	0	0	—	0	0
8	1001	Andrae	0	3	0	0	0	1	—	0	0
9	1035	Wilson Mountain	0	0	0	0	0	0	—	0	0
10	1017	Lime Mountain	2	1	0	0	0	0	—	0	0
11	1002	Mori	4	2	1	1	0	0	—	0	0
12	1002	Bucket Flat	0	0	0	0	0	0	—	0	0
13	1025	Rock Creek	10	7	1	2	30	0	—	0	1,000
14	1038	Midas	1	1	0	0	2	3	—	0	0
15	1018	Little Humboldt	4	6	1	0	12	3	—	0	3,850
16	1032	Twenty Five	3	5	0	12	14	0	2/	2	3,000
17	1031	Tuscarora	7	6	2	3	4	2	—	0	1,500
18	1026	Six Mile	0	0	0	0	0	0	—	0	300
19	1014	Taylor Canyon	2	2	0	0	0	0	—	0	2,300
20	1008	Eagle Rock	2	4	0	0	0	0	—	0	1,200
21	2125	Wildhorse Group	2	1	0	2	0	0	—	0	2,000
22	2121	Rough Hills	0	0	0	0	0	0	—	0	0
23	2130	Stone Flat FFR	0	0	0	0	0	0	—	0	0
24	2102	Annie Creek	0	0	0	0	0	0	—	0	0
25	2105	Bruneau River	0	2	0	0	0	0	—	0	0
26	2119	Rattlesnake Canyon	0	0	0	0	0	0	—	0	5,760
27	2123	Stone Flat	0	0	0	0	0	0	—	0	0
28	2110	Four Mile	0	0	0	0	2	0	—	0	1,500
29	2103	Beaver Creek	0	3	0	0	0	0	—	0	3,000
30	2115	Mason Mountain	0	0	0	0	0	0	—	0	0
31	2117	Mexican Field	0	0	0	0	0	0	—	0	250
32	2107	Cotant	0	3	0	0	2	0	—	0	250
33	2109	Double Mountain	0	8	0	0	9	0	—	0	800
34	2122	Sheep Creek	0	0	0	0	0	0	—	0	0
35	2114	Mahala Creek	0	0	0	0	0	0	—	0	0
36	2108	Eagle Rock 1	0	0	0	0	1	1	—	0	660
37	2113	Lone Mountain	0	0	0	0	0	0	—	0	9,157
38	2111	Fox Springs	0	0	0	0	0	0	—	0	0



APPENDIX 3  
 TABLE 3 (Continued)  
 PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
 ELKO RMP AREA  
 ALTERNATIVE D

Map Reference Number	Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe lines Miles	Fences Miles	Cattle-guard Number	Other Type	Other Number	Veg Manipulations Acres <sup>1/</sup>
39	2106	Coal Mine Basin	0	2	0	0	5	0	—	0	2,000
40	2118	North Fork Group	4	6	0	13	25	1	2/	2	12,905
41	2134	Dorsey	0	0	0	0	0	0	—	0	0
42	2133	Long Field	0	0	0	0	0	0	—	0	0
43	2112	Halleck	0	0	0	0	0	0	—	0	0
44	2101	Adobe Hills	3	0	0	7	0	0	—	0	2,000
45	2124	White Rock	0	0	0	0	0	0	—	0	0
46	2129	Adobe	0	0	0	0	0	0	—	0	0
47	2104	Blue Basin	1	4	0	2	2	2	—	0	2,000
48	2128	Dry Susie	0	0	0	0	0	0	—	0	0
49	2126	Carlin Canyon	0	0	0	0	0	0	—	0	0
50	1005	Carlin Field	1	0	1	0	0	0	—	0	1,000
51	1011	Hadley	4	2	2	7	8	2	2/	3	4,500
52	1003	Taylor's Carlin	0	0	0	0	0	0	—	0	0
53	1020	Marys Mountain	0	0	0	0	0	0	—	0	400
54	1027	T Lazy S	8	0	0	7	0	1	2/	2	9,900
55	1012	Horseshoe	2	0	1	0	4	0	—	0	1,500
56	1021	Palisade	0	0	0	0	0	0	—	0	0
57	5446	Pine Mountain	8	0	0	2	10	2	2/	1	3,000
58	5430	Iron Blossom	1	1	0	1	2	0	—	0	850
59	5456	Safford Canyon	0	0	0	0	0	0	—	0	0
60	5459	Scotts Gulch	0	0	0	4	5	0	—	0	1,000
61	5423	Geyser	0	0	0	0	0	0	—	0	0
62	5467	Thomas Creek	0	0	0	0	0	0	—	0	600
63	5483	Thomas Creek FFR	0	0	0	0	0	0	—	0	0
64	5412	Devils Gate	0	0	0	0	0	0	—	0	0
65	5465	South Buckhorn	10	8	4	15	61	10	2/	4	0
66	5448	Potato Patch	0	0	0	0	2	0	—	0	0
67	5445	Pine Creek	0	0	0	0	0	0	—	0	0
68	5439	Mineral Hill	0	0	0	0	0	0	—	0	0
69	5473	Union Mountain	0	0	0	0	0	0	—	0	600
70	5405	Bruffy	0	0	0	0	0	0	—	0	0
71	5447	Pony Creek	4	0	0	0	0	1	—	0	960
72	5429	Indian Springs	0	0	0	0	4	0	—	0	0
73	5414	Dixie Flats	0	1	1	0	0	0	—	0	0
74	5417	Emmigrant Springs	2	2	0	0	5	0	—	0	0
75	5468	Tonka	1	1	0	0	0	0	—	0	0
76	5442	Old Eighty FFR	0	0	0	0	0	0	—	0	0



APPENDIX 3  
 TABLE 3 (Continued)  
 PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
 ELKO RMP AREA  
 ALTERNATIVE D

Map Reference Number	Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe Lines Miles	Fences Miles	Cattle-guard Number	Other Type	Other Number	Veg Manipulations Acres <sup>1/</sup>
77	5422	Grindstone	0	0	0	0	0	0	—	0	0
78	5411	Cut Off	0	0	0	0	0	0	—	0	0
79	5406	Bullion Road	1	1	0	0	0	0	—	0	0
80	5466	Ten Mile	0	2	0	0	0	0	—	0	0
81	5420	Four Mile Canyon	0	0	0	0	0	0	—	0	0
82	5408	Burner Basin	0	0	0	0	0	0	—	0	0
83	5416	Elko Hills	0	2	0	0	0	0	—	0	0
84	5415	East Fork	0	0	0	4	0	1	—	0	0
85	2131	East Fork FFR	0	0	0	0	0	0	—	0	0
86	5407	Burger Creek	0	0	0	0	0	0	—	0	0
87	5463	Smiraldo	0	0	0	5	0	0	<u>2/</u>	1	0
88	5432	King Seeding	0	0	1	3	0	0	<u>2/</u>	1	0
89	5427	Horsefly	0	0	0	0	0	0	—	0	1,200
90	5425	Heelfly	0	0	0	0	0	0	—	0	0
91	5460	Secret	0	0	0	0	0	0	—	0	0
92	5449	Rabbit Creek	0	0	0	0	0	0	—	0	0
93	5431	Kennedy Seeding	0	0	1	2	0	0	—	0	500
94	5474	Walther	0	0	0	0	0	0	—	0	0
95	5443	Palacio Seeding	0	0	1	0	0	0	—	0	350
96	5457	Sandhill North	0	0	0	0	0	0	—	0	0
97	5458	Sandhill South	0	0	1	0	0	0	—	0	0
98	5403	Bellinger	0	0	0	1	0	0	—	0	0
99	5426	Hog Tommy	0	0	0	0	0	0	—	0	800
100	5404	Bottari Seeding	0	0	0	1	0	0	—	0	1,800
101	5441	Olgivie-Orbe	0	0	0	0	0	0	—	0	1,000
102	5485	LDS FFR	0	0	0	0	0	0	—	0	0
103	4561	Shoshone	0	0	1	4	0	0	<u>2/</u>	1	2,500
104	5409	Chimney Creek	0	0	0	0	0	0	—	0	2,100
105	5469	Twin Bridges	0	0	0	4	0	0	<u>2/</u>	1	0
106	5453	River	0	0	1	0	0	0	<u>2/</u>	1	0
107	5433	LDS	0	0	0	1	0	0	—	0	0
108	5436	McMillen FFR	0	0	0	0	0	0	—	0	0
109	5464	South Fork	0	0	0	1	0	0	—	0	0
110	5438	Crane Springs	1	0	2	3	0	0	—	0	0
111	5413	Dixie Creek	0	2	0	1	0	1	—	0	0
112	5462	Sleeman	0	0	0	4	0	0	<u>2/</u>	1	0
113	5424	Hansel	0	0	0	6	3	0	—	0	1,440



APPENDIX 3  
 TABLE 3 (Continued)  
 PROPOSED RANGE IMPROVEMENTS BY ALLOTMENT  
 ELKO RMP AREA  
 ALTERNATIVE D

Map Reference Number	Allotment Number	Allotment Name	Spring Developments Number	Reservoirs Number	Wells Number	Pipe lines Miles	Fences Miles	Cattle guard Number	Other Type	Other Number	Veg Manipulations Acres <sup>1/</sup>
114	5484	Wilson FFR	0	0	0	0	0	0	—	0	0
115	5475	Willow	0	0	0	0	0	0	—	0	0
116	5477	Willow Creek Pockets	0	0	1	0	0	0	—	0	0
117	5480	Cottonwood FFR	0	0	0	0	0	0	—	0	0
118	5437	Merkley-Zunino	0	0	1	1	2	0	—	0	860
119	5401	Achurra	0	0	0	0	0	0	3/	1	0
120	5402	Barnes Seeding	0	0	0	0	0	0	—	0	0
121	5418	Barnes FFR	0	0	0	0	0	0	—	0	0
122	5478	Little Porter FFR	0	0	0	0	0	0	—	0	0
123	5486	Robinson Mtn FFR	0	0	0	0	0	0	—	0	0
124	5455	Robinson Mountain	1	0	0	3	0	0	2/	1	0
125	5435	Little Porter	1	0	1	2	0	0	—	0	0
126	5454	Robinson Creek	2	0	1	0	0	0	2/	1	0
127	5421	Frost Creek	0	0	0	0	0	0	—	0	0
128	5479	Corta FFR	0	0	0	0	0	0	—	0	0
129	5410	Corral Canyon	0	0	0	1	0	0	—	0	0
130	5482	Forest FFR	0	0	0	0	0	0	—	0	0
131	5444	Pearl Creek	0	0	0	0	0	0	—	0	0
132	5451	Rattlesnake Mtn	0	0	0	0	0	0	—	0	0
133	5434	Lindsay Creek	0	1	0	0	0	0	—	0	0
134	5471	Twin Creek North	0	0	0	0	0	0	—	0	0
135	5470	Twin Creek East	0	0	0	0	0	0	—	0	0
136	5472	Twin Creek South	1	0	1	1	0	0	—	0	0
137	5419	Merkley FFR	0	0	0	0	0	0	—	0	0
138	5452	Red Rock	0	0	1	2	0	0	2/	1	0
139	5450	Browne	1	0	0	4	0	0	2/	1	8,000
140	5440	Mitchell	1	0	0	0	0	0	—	0	2,500
TOTAL			97	97	28	132	258	37	—	25	120,978

<sup>1/</sup> Seeding and treatments acres are for public land only

<sup>2/</sup> Storage Tank

<sup>3/</sup> Culvert



APPENDIX 3  
TABLE 4

SELECTIVE MANAGEMENT CATEGORIZATION BY INDIVIDUAL CRITERIA BY ALLOTMENT  
ELKO RMP AREA

Map Ref. Number	Allotment Name	Adequacy	Potential	Degree	Land-	Management	Need	Existing	Final
		of Existing Projects	Economic Returns for new R.I. Work	of Resource Conflicts	ownership Objectives	vs Objectives	for MGT Plan	Ecological Condition	
		<u>1/</u>	<u>2/</u>	<u>3/</u>	<u>4/</u>	<u>5/</u>	<u>6/</u>	<u>7/</u>	
1	Owyhee	I	I	I	I	C	I	I	I
2	YP	I	I	C	I	M	I	M	M
3	Owyhee Petan	I	I	C	I	I	M	M	M
4	Indian Creek FFR	C	C	C	C	I	C	C	C
5	VN Pocket Petan	I	I	C	I	M	M	M	M
6	VN Pocket Allied	I	I	M	I	I	I	I	I
7	Cornucopia	I	M	M	I	M	I	I	M
8	Andrae	I	I	M	I	M	I	M	M
9	Wilson Mountain	C	I	C	I	M	M	M	M
10	Lime Mountain	I	I	M	I	M	I	M	M
11	Mori	I	I	C	I	M	M	M	M
12	Bucket Flat	C	C	C	I	C	I	M	C
13	Rock Creek	I	I	M	I	I	I	I	I
14	Midas	M	M	M	I	C	C	M	M
15	Little Humboldt	I	I	I	I	I	M	I	I
16	Twenty Five	I	I	M	I	I	I	I	I
17	Tuscarora	I	I	M	I	I	I	M	I
18	Six Mile	M	I	C	I	I	M	I	I
19	Taylor Canyon	I	I	M	I	M	M	M	M
20	Eagle Rock	I	I	M	I	M	M	M	M
21	Wildhorse Group	I	I	M	C	M	M	M	I
22	Rough Hills	C	C	C	I	M	C	C	C
23	Stone Flat FFR	C	C	C	I	C	C	C	C
24	Annie Creek	M	M	C	I	M	M	M	M
25	Bruneau River	M	M	C	I	M	C	C	M
26	Rattlesnake Canyon	I	I	M	I	I	M	I	M
27	Stone Flat	C	C	C	I	I	M	I	C
28	Four Mile	I	M	M	I	I	I	I	I
29	Beaver Creek	I	I	M	I	M	I	M	M
30	Mason Mountain	M	C	M	I	M	M	I	M
31	Mexican Field	M	M	M	I	M	I	M	I
32	Cotant	I	I	M	I	I	I	I	I
33	Double Mountain	I	I	M	I	I	I	M	I
34	Sheep Creek	M	I	M	I	M	M	M	M
35	Mahala Creek	C	C	M	I	M	M	I	C
36	Eagle Rock 1	I	M	I	I	I	M	I	I
37	Lone Mountain	I	I	M	I	M	M	I	M



APPENDIX 3  
TABLE 4 (Continued)

SELECTIVE MANAGEMENT CATEGORIZATION BY INDIVIDUAL CRITERIA BY ALLOTMENT  
ELKO RMP AREA

Allot. No.	Allotment Name	Adequacy of Existing Projects	Potential Economic Returns for new R.I. Work	Degree of Resource Conflicts	Land-ownership Objectives	Management vs Objectives	Need for MGT Plan	Existing Ecological Condition	Final Category
		1/	2/	3/	4/	5/	6/	7/	
38	Fox Springs	C	C	C	I	I	I	I	M
39	Coal Mine Basin	I	I	M	I	I	I	I	I
40	North Fork Group	I	I	I	I	I	I	I	I
41	Dorsey	M	M	C	I	I	M	M	M
42	Long Field	C	C	C	I	C	C	I	C
43	Halleck	C	C	C	C	I	C	I	C
44	Adobe Hills	I	I	M	I	C	M	M	M
45	White Rock	M	C	C	I	M	C	I	C
46	Adobe	C	C	C	I	C	C	I	C
47	Blue Basin	I	I	M	I	I	I	M	I
48	Dry Susie	C	C	C	I	M	I	M	C
49	Carlin Canyon	C	C	C	C	M	C	C	C
50	Carlin Field	I	I	M	I	I	I	M	I
51	Hadley	I	I	M	I	I	I	I	I
52	Taylor's Carlin	C	C	C	C	I	C	I	C
53	Mary's Mountain	I	M	I	C	I	I	I	C
54	T Lazy S	I	I	M	C	I	I	I	I
55	Horseshoe	I	I	M	C	I	I	I	I
56	Palisade	M	C	M	C	I	C	I	C
57	Pine Mountain	I	I	M	I	I	I	I	I
58	Iron Blossom	I	I	M	C	I	M	I	M
59	Safford Canyon	M	M	C	I	M	M	I	M
60	Scotts Gulch	I	I	M	I	I	M	I	I
61	Geyser	M	C	C	C	M	M	I	C
62	Thomas Creek	I	I	C	C	I	M	I	M
63	Thomas Creek FFR	C	C	C	C	I	C	I	C
64	Devils Gate	C	C	C	C	I	C	I	C
65	South Buckhorn	I	I	I	I	I	I	I	I
66	Potato Patch	I	M	C	I	M	I	I	M
67	Pine Creek	C	C	C	I	C	C	I	C
68	Mineral Hill	M	I	I	I	M	I	I	I
69	Union Mountain	M	I	I	I	M	I	I	I
70	Bruffy	M	M	M	I	I	M	I	M
71	Pony Creek	I	I	M	I	I	M	I	M
72	Indian Springs	I	I	I	I	M	I	M	I
73	Dixie Flats	I	M	M	C	I	M	I	I
74	Emmigrant Springs	I	I	M	I	I	M	I	I
75	Tonka	I	I	M	I	I	M	I	I



APPENDIX 3  
TABLE 4 (Continued)

SELECTIVE MANAGEMENT CATEGORIZATION BY INDIVIDUAL CRITERIA BY ALLOTMENT  
ELKO RMP AREA

Allot. No.	Allotment Name	Adequacy of Existing Projects	Potential	Degree of Resource Conflicts	Land- ownership Objectives	Management vs Objectives	Need for MGT Plan	Existing Ecological Condition	Final Category
			Returns for new R.I. Work						
		1/	2/	3/	4/	5/	6/	7/	
76	Old Eight FFR	C	C	C	I	I	C	I	C
77	Grindstone Mountain	C	I	M	I	I	M	I	I
78	Cut Off	C	C	I	I	I	M	I	C
79	Bullion Road	I	I	I	I	M	I	I	I
80	Ten Mile	I	I	M	I	M	M	I	I
81	Four Mile Canyon	C	C	M	I	I	C	I	C
82	Burner Basin	C	C	C	I	I	C	I	C
83	Elko Hills	I	I	M	I	M	M	I	I
84	East Fork	I	I	M	I	M	I	I	I
85	East Fork FFR	C	C	C	C	I	C	C	C
86	Burger Creek	C	C	C	C	C	C	I	C
87	Smiraldo	I	I	C	C	M	M	C	I
88	King Seeding	M	M	C	C	M	M	C	M
89	Horsefly	M	I	C	C	C	I	M	M
90	Heelfly	C	C	C	C	M	C	M	C
91	Secret	C	I	C	C	M	C	M	C
92	Rabbit Creek	M	I	C	C	M	C	M	C
93	Kennedy Seeding	I	I	C	C	C	M	M	I
94	Walther	M	C	C	C	M	C	M	C
95	Palacio Seeding	I	I	C	I	C	M	M	M
96	Sandhill North	M	C	C	I	M	M	M	C
97	Sandhill South	I	I	C	I	M	C	M	C
98	Bellinger	M	I	C	I	M	I	C	M
99	Hog Tommy	I	I	M	I	I	M	I	I
100	Bottari Seeding	I	I	M	I	I	M	M	I
101	Olgivie - Orbe	I	I	M	I	M	I	C	I
102	LDS FFR	C	C	C	C	I	C	I	C
103	Shoshone	I	I	M	C	I	I	I	I
104	Chimney Creek	M	C	C	C	M	I	C	M
105	Twin Bridges	I	I	M	C	C	M	I	I
106	River	I	I	M	I	I	M	I	I
107	LDS	I	I	C	C	M	M	I	I
108	McMullen FFR	C	C	C	C	M	C	M	C
109	South Fork	M	I	I	C	I	M	I	I
110	Crane Springs	I	I	I	I	I	M	I	I
111	Dixie Creek	I	I	M	I	I	M	I	I
112	Sleeman	I	I	I	I	I	M	I	I
113	Hansel	I	I	M	I	M	I	I	I



APPENDIX 3  
TABLE 4 (Continued)

SELECTIVE MANAGEMENT CATEGORIZATION BY INDIVIDUAL CRITERIA BY ALLOTMENT  
ELKO RMP AREA

Allot. No.	Allotment Name	Adequacy of Existing Projects	Potential Economic Returns		Degree of Resource Conflicts	Land-ownership Objectives	Management vs Objectives	Need for MGT Plan	Existing Ecological Condition	Final Category
			1/	2/						
114	Wilson FFR	C	C	C	C	I	C	I	C	
115	Willow	M	C	M	C	C	M	I	M	
116	Willow Creek Pockets	I	I	M	I	I	M	I	I	
117	Cottonwood FFR	M	C	M	C	I	C	I	C	
118	Merkley-Zunino	I	I	C	I	M	I	M	I	
119	Achurra	M	M	C	I	M	M	M	M	
120	Barnes Seeding	M	M	C	I	M	I	M	M	
121	Barnes FFR	C	C	C	C	C	C	I	C	
122	Little Porter FFR	C	C	C	I	C	C	C	C	
123	Robinson Mtn. FFR	C	C	C	I	C	C	C	C	
124	Robinson Mountain	I	I	M	I	M	M	M	I	
125	Little Porter	I	I	M	I	I	M	I	I	
126	Robinson Creek	I	I	M	I	I	M	I	I	
127	Frost Creek	M	C	C	I	M	M	M	M	
128	Corta FFR	C	C	C	I	C	C	I	C	
129	Corral Canyon	M	M	C	I	M	M	M	M	
130	Forest FFR	C	C	C	I	M	C	C	C	
131	Pearl Creek	M	C	C	I	M	M	M	M	
132	Rattlesnake Mtn.	M	C	C	I	I	C	C	C	
133	Lindsay Creek	M	M	M	I	M	M	M	M	
134	Twin Creek North	M	C	M	I	M	M	M	M	
135	Twin Creek East	M	C	M	I	I	M	M	M	
136	Twin Creek South	I	I	M	I	M	M	M	M	
137	Merkley FFR	C	C	C	I	C	C	I	C	
138	Red Rock	I	I	M	I	I	M	I	I	
139	Browne	I	I	M	I	I	M	I	I	
140	Mitchel Creek	I	I	M	I	I	I	I	I	

1./ Existing Range Improvements.

- M. Existing range improvements are adequate or essentially so. The primary concern is with maintaining existing projects.
- I. Existing range improvements are inadequate. Redesign and/or removal of existing projects and development of new ones is required.
- C. Due to management objectives, existing projects will be maintained or removed with no new projects planned.



2./ Potential New Range Improvements and Vegetation Manipulations

- M. The potential is moderate to high for a positive economic return on public investment and it is cost effective.
- I. The potential is moderate to high for a positive economic return on public investment and it is cost effective.
- C. A low or no potential exists for a positive economic return on public investment.

3./ Resource Conflicts.

- M. There are resource conflicts but they can be corrected with minimal effort.
- I. There are one or more major resource conflicts present and they must be responsive to or correctible through management.
- C. Due to management objectives, resource conflicts are minor or not an issue.

4./ Land Ownership Objectives.

- M. The public lands will be maintained at this present state.
- I. When called for in the planning system, public lands will be retained/consolidated to meet future management goals.
- C. When called for in the planning system, the allotments where all or a major portion of the public lands have been identified for disposal, will be disposed of by exchange, sale or other appropriate land laws.

5./ Present Management.

- M. Livestock distribution is good. All areas are being used proportionately. The current level of use by all grazing animals is satisfactory.
- I. Livestock distribution is poor to fair. Not all of the areas are being used proportionately. The current level of use by all grazing animals may exceed what the resource can support.
- C. Livestock distribution is poor to good. All areas with the potential for use, may or may not be used proportionately. The current level of use by all grazing animals may or may not be satisfactory.

6./ Activity Plans.

- M. The present plan if implemented is acceptable or generally acceptable as it exists. Minor modifications to resolve resource conflicts may be required. No physical problems exist to implement a new plan at the present time if one is required.
- I. The present plan if implemented is deficient and requires modification to resolve resource conflicts. There are physical problems such as range improvements that are inhibiting implementation of a new plan at the present time if one is required.
- C. The present plan if implemented should remain as exists unless minor modifications to resolve resource conflicts are required. Resource objectives inhibit new plans to be implemented.



7./ Existing Ecological Range Condition, Trend, Watershed Condition, and Climax Potential.

- M. The current condition is satisfactory. The primary concern is with maintaining existing conditions that are static or improving. The average potential is moderate to high.
- I. The current condition is unsatisfactory. The primary concern is with stabilizing any downward trends and improve where cost effective. The average potential is moderate to high.
- C. The present condition is not a factor. The average potential is low to moderate.



**APPENDIX FOUR**

**WILDLIFE**







APPENDIX 4  
TABLE 1 (Continued)  
BIG GAME NUMBERS BY ALLOTMENT  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT	PERCENT OF BIG GAME USE AREA	REASONABLE NUMBERS <sup>1/</sup>	EXISTING NUMBERS	SEASON-OF USE (MONTHS)	REASONABLE NO. AUM DEMAND	EXISTING NO. AUM DEMAND
18	Six Mile						
19	Taylor Canyon	DY-2=1%	64	32	01/01-12/31(12)	129	64
		DS-1=1%	28	14	03/16-11/15(8)	38	19
		CDS-1=1%					
		CDS-3=14%	140	70	11/15-03/16(4)	94	47
20	Eagle Rock	CDW-3=3%	30	15	11/15-03/16(4)	24	12
		DS-1=3%	86	43	03/16-11/15(8)	138	69
		CDS-1=3%					
21	Wildhorse Group	CDW-1=1%	5	3	11/15-03/16(4)	2	1
		DS-1=5%	128	64	03/16-11/15(8)	100	57
		CDS-1=4%					
22	Rough Hills	DS-1=1%	32	18	04/01-10/30(7)	48	27
		CDS-1=1%					
23	Stone Flat FFR	DS-1=1%	32	18	04/01-10/30(7)	56	32
		CDS-1=1%					
24	Annie Cr.	DS-1=1%	16	9	04/01-10/30(7)	22	13
25	Bruneau River	DS-1=1%	16	9	04/01-10/30(7)	21	12
26	Rattlesnake Cyn.	DS-1=1%	16	9	04/01-10/30(7)	27	15
27	Stone Flat	DS-1=1%	16	9	04/01-10/30(7)	19	11
		CDS-1=1%					
28	Four Mile	DY-1=4%	108	62	01/01-12/31(12)	275	158
		DS-1=4%	63	36	04/01-10/30(7)	94	54
29	Beaver Creek	DY-1=19%	515	294	01/01-12/31(12)	1375	784
30	Mason Mtn.	DY-1=3%	81	46	01/01-12/31(12)	137	78
31	Mexican Field	DY-1=3%	81	46	01/01-12/31(12)	211	120
32	Cotant	DY-1=3%	81	46	01/01-12/31(12)	207	118
33	Double Mtn.	DY-1=7%	190	108	01/01-12/31(12)	519	296
		CDW-2=40%	1056	602	11/01-03/30(5)	1201	685
34	Sheep Creek	DS-1=1%	28	14	03/16-11/15(8)	44	22
		CDS-1=1%					
35	Mahala Creek	DS-1=2%	43	22	03/16-11/15(8)	52	26
		CDS-1=1%					
36	Eagle Rock 1	DS-1=1%	28	14	03/16-11/15(8)	48	24
		CDS-1=1%					
37	Lone Mtn.	DS-1=5%	114	57	03/16-11/15(8)	148	74
		CDS-1=3%					
38	Fox Springs	DS-1=1%	28	14	03/16-11/15(8)	25	13
		CDS-1=1%					



APPENDIX 4  
TABLE 1 (Continued)  
BIG GAME NUMBERS BY ALLOTMENT  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT	PERCENT OF BIG GAME USE AREA	REASONABLE NUMBERS <sup>1/</sup>	EXISTING NUMBERS	SEASON-OF USE (MONTHS)	REASONABLE NO. ALM DEMAND	EXISTING NO. ALM DEMAND
39	Coal Mine Basin	DY-1=3%	81	46	01/01-12/31(12)	114	65
		CDW-2=7%	185	105	11/01-03/30(5)	109	62
40	North Fork Group	DY-1=38%	1031	588	01/01-12/31(12)	1608	917
		CDW-2=53%	1399	797	11/01-03/30(5)	909	518
41	Dorsey	DY-1=3%	81	46	01/01-12/31(12)	112	64
42	Long Field	DY-1=3%	81	46	01/01-12/31(12)	114	65
43	Halleck	CDW-1=14%	380	217	11/01-03/30(5)	105	28
44	Adobe Hills	DY-1=14%	380	217	01/01-12/31(12)	513	292
		CDW-1=18%	2508	1430	11/01-03/30(5)	1411	804
45	White Rock	CDW-1=8%	211	120	11/01-03/30(5)	135	77
46	Adobe	DS-1=1%	16	9	04/01-10/30(7)	20	11
47	Blue Basin	DS-1=6%	100	50	03/16-11/15(8)	142	71
		CDS-1=1%					
48	Dry Susie	DW-4=1%	88	44	11/15-03/16(4)	9	5
		CDW-4=8%					
		DS-1=6%	86	43	03/16-11/15(8)	17	9
49	Carlin Canyon	CDW-4=1%	10	5	11/15-03/16(4)	2	1
50	Carlin Field	DW-4=20%	245	123	11/15-03/16(4)	189	95
		CDW-4=5%					
		DS-1=1%	14	7	03/16-11/15(8)	22	11
51	Hadley	DY-2=2%	62	31	01/01=12/31(12)	60	30
		DW-4=50%	490	245	11/15-03/16(4)	157	79
		DS-2=43%	301	151	03/16-11/15(8)	193	97
52	Taylor's Carlin	DW-4=1%	10	5	11/15-03/16(4)	2	1
53	Mary's Mtn.	DW-4=15%	147	74	11/15-03/16(4)	69	35
		DY-2=2%	62	31	01/01-12/31(12)	87	44
54	T Lazy S	DY-2=5%	189	95	01/01-12/31(12)	238	119
		CDY-2=1%					
		DW-5=10%					
		CDW-5=3%	659	330	11/15-03/16(4)	277	139
	Argenta (include w/Geyser)	CDS-3=11%	493	247	03/16-11/15(8)	414	207
		DY-2=2%	62	31	01/01-12/31(12)	87	37
55	Horseshoe	DY-2=1%	32	16	01/01-12/31(12)	45	23
		DW-5=5%	508	254	11/15-03/16(4)	239	120
56	Palisade	CDW-5=5%					
		DW-5=3%	253	127	11/15-03/16(4)	129	65
		CDW-5=2%					
		DY-2=1%	32	16	01/01-12/31(12)	49	25
57	Pine Mtn.	DY-1=14%	252	126	01/01-12/31(12)	363	182
58	Iron Blossom	DY-1=14%	178	75	01/01-12/31(12)	267	112
59	Safford Canyon	DW-5=4%	406	171	11/01-03/30(5)	447	188
		CDW-5=4%					



APPENDIX 4  
TABLE 1 (Continued)  
BIG GAME NUMBERS BY ALLOTMENT  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT	PERCENT OF BIG GAME USE AREA	REASONABLE NUMBERS <sup>1/</sup>	EXISTING NUMBERS	SEASON-OF USE (MONTHS)	REASONABLE NO. AUM DEMAND	EXISTING NO. AUM DEMAND
60	Scotts Gulch	CDW-5=2%	101	42	11/01-03/30(5)	57	24
61	Geyser	DY-2=1%	32	13	01/01-12/31(12)	45	19
62	Thomas Cr.	—	—	—	—	—	—
63	Thomas Cr. FFR	—	—	—	—	—	—
64	Devils Gate	DY-1=7%	89	37	01/01-12/31(12)	53	22
65	South Buckhorn	DY-1=75%	953	400	01/01-12/31(12)	2058	865
66	Potato Patch	DY-1=4%	51	21	01/01-12/31(12)	150	63
67	Pine Cr.	—	—	—	—	—	—
68	Mineral Hill	CDW-1=20%	288	144	11/15-03/16(4)	274	137
69	Union Mtn.	DY-1=4%	72	36	01/01-12/31(12)	214	90
		CDW-1=60%	863	362	11/01-03/30(5)	1066	448
70	Bruffy	DY-1=10%	40	20	01/01-12/31(12)	118	59
		CDS-2=10%	40	20	03/16-11/15(8)	78	39
		CDW-1=20%	288	144	11/15-03/16(4)	282	141
71	Pony Creek	DY-1=7%	14	7	01/01-12/31(12)	39	20
		CDS-2=13%	91	46	03/16-11/15(8)	167	84
72	Indian Springs	DY-1=18%	36	18	01/01-12/31(12)	60	30
		CDS-2=22%	154	77	03/16-11/15(8)	172	86
73	Dixie Flats	DY-1=4%	72	36	01/01-12/31(12)	151	76
		CDS-2=3%	21	11	03/16-11/15(8)	29	15
74	Emigrant Spr.	DY-1=6%	108	54	01/01-12/31(12)	188	94
75	Tonka	DY-1=4%	72	36	01/01-12/31(12)	175	87
		CDW-4=2%	32	16	11/15-03/16(4)	26	13
76	Old Eighty FFR	—	—	—	—	—	—
77	Grindstone Mtn.	DY-1=4%	72	36	01/01-12/31(12)	86	43
		CDW-4=1%	10	5	11/15-03/16(4)	4	2
78	Cut-off	DY-1=4%	72	36	01/01-12/31(12)	89	45
79	Bullion Rd.	DY-1=2%	36	18	01/01-12/31(12)	66	33
		CDW-4=1%	40	20	11/15-03/16(4)	24	12
80	Ten Mile	DY-1=2%	36	18	01/01-12/31(12)	63	32
81	Four Mile Cny.	DY-1=3%	54	27	01/01-12/31(12)	68	34
		DW-4=1%	10	5	11/15-03/16(4)	4	2
82	Burner Basin	DW-4=1%	2	1	11/15-03/16(4)	1	1
		DS-1=2%	4	2	03/16-11/15(8)	1	1
83	Elko Hills	DW-4=4%	8	2	11/15-03/15(4)	4	1
		DS-1=2%	4	1	05/01-11/15(6.5)	4	1
84	East Fork	DW-4=3%	6	2	11/15-03/15(4)	4	1
		DS-1=2%	4	1	05/01-11/15(6.5)	4	1



APPENDIX 4  
TABLE 1 (Continued)  
BIG GAME NUMBERS BY ALLOTMENT  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT	PERCENT OF BIG GAME USE AREA	REASONABLE NUMBERS <sup>1/</sup>	EXISTING NUMBERS	SEASON-OF USE (MONTHS)	REASONABLE NO. ALUM DEMAND	EXISTING NO. ALUM DEMAND
85	East Fork FFR	DS-1=2%	4	1	05/01-11/15(6.5)	7	2
86	Burger Cr.	CDW-4=1%	2	1	11/15-03/15(4)	2	1
87	Smiraldo	—	—	—	—	—	—
88	King Seeding	—	—	—	—	—	—
89	Horse Fly	DS-1=2%	4	1	05/01-11/15(6.5)	6	2
90	Heel Fly	DS-1=2%	4	1	05/01-11/15(6.5)	5	1
91	Secret	DS-1=2%	4	1	05/01-11/15(6.5)	4	1
92	Rabbit Cr.	DS-1=2%	4	1	05/01-11/15(6.5)	4	1
		DY-1=8%	92	25	01/01-12/31(12)	152	41
93	Kennedy Seeding	—	—	—	—	—	—
94	Walther	—	—	—	—	—	—
95	Palacio Seeding	—	—	—	—	—	—
96	Sandhill North	—	—	—	—	—	—
97	Sandhill South	—	—	—	—	—	—
98	Bellinger	—	—	—	—	—	—
99	Hog Tommy	—	—	—	—	—	—
100	Bottari Seeding	—	—	—	—	—	—
101	Olgivie Orbe	—	—	—	—	—	—
102	LDS FFR	—	—	—	—	—	—
103	Shoshone	DY-1=1%	12	3	01/01-12/31(12)	28	7
104	ChimneyCr.	DY-2=2%	23	6	01/01-12/31(12)	66	18
105	Twin Bridges	DY-1=2%	36	18	01/01-12/31(12)	92	46
106	River	DY-1=2%	36	18	01/01-12/31(12)	69	35
107	LDS	—	—	—	—	—	—
108	McMillen FFR	—	—	—	—	—	—
109	South Fork	DY-1=3%	35	9	01/01-12/31(12)	85	43
110	Crane Springs	DY-1=6%	308	154	01/01-12/31(12)	767	383
		QDY-1=14%					
111	Dixie Cr.	DY-1=14%	252	126	01/01-12/31(12)	491	246
		QDS-2=17%	119	60	03/16-11/15(8)	155	78
112	Sleeman	QDY-1=3%	54	27	01/01-12/31(12)	162	81
113	Hansel	DY-1=1%	391	196	01/01-12/31(12)	1091	547
		QDY-1=20%					
114	Wilson FFR	DY-1=1%	18	9	01/01-12/31(12)	54	27
115	Willow	DY-1=2%	30	8	01/01-12/31(12)	66	18
116	Willow Cr.	DY-1=2%	58	29	01/01-12/31(12)	142	71
	Pockets						
117	Cottonwood FFR	DY-1=2%	18	9	01/01-12/31(12)	54	27
118	Merkley-Zunino Seeding	—	—	—	—	—	—



APPENDIX 4  
TABLE 1 (Continued)  
BIG GAME NUMBERS BY ALLOTMENT  
ELKO RMP AREA

MAP REF. NO.	ALLOTMENT	PERCENT OF BIG GAME USE AREA	REASONABLE NUMBERS <sup>1/</sup>	EXISTING NUMBERS	SEASON-OF USE (MONTHS)	REASONABLE NO. AUM DEMAND	EXISTING NO. AUM DEMAND
119	Achurra	DY-1=1%	12	3	01/01-12/31(12)	36	9
120	Barnes Seeding	—	—	—	—	—	—
121	Barnes FFR	—	—	—	—	—	—
122	Little Porter FFR	—	—	—	—	—	—
123	Robinson Mtn. FFR	DY-1=1%	18	9	01/01-12/31(12)	54	27
124	Robinson Mtn.	CDS-2=8%	56	28	03/15-11/15(8)	108	54
		CDY-1=3%	54	27	01/01-12/31(12)	156	78
125	Little Porter	DY-1=1%	36	18	01/01-12/31(12)	107	54
126	Robinson Cr.	CDS-2=6%	42	21	03/16-11/15(8)	81	41
		DY-1=2%	23	12	01/01-12/31(12)	67	34
127	Frost Cr.	DY-1=2%	23	6	01/01-12/31(12)	66	18
128	Corta FFR	DSP=1%	8	2	03/15-04/30(1.5)	2	1
129	Corral Cyn.	DY-1=2%	23	6	01/01-12/31(12)	63	17
130	Forest FFR	CDS-1=2%	4	1	04/01-11/15(6.5)	7	2
131	Pearl Cr.	DW-4=1%	2	1	11/15-03/15(4)	2	1
132	Rattlesnake Mtn.	DW-4=1%	2	1	11/15-03/15(4)	2	1
133	Lindsay Cr.	DW-4=1%	10	3	11/15-03/15(4)	10	3
		DY-1=9%	104	28	01/01-12/31(12)	312	84
134	Twin Cr. North	DY-1=1%	18	9	01/01-12/31(12)	48	24
135	Twin Cr. East	DY-1=2%	36	18	01/01-12/31(12)	108	49
136	Twin Cr. South	DY-1=2%	36	18	01/01-12/31(12)	85	42
137	Merkley FFR	DY-1=1%	18	9	01/01-12/31(12)	29	15
138	Red Rock	DY-1=11%	198	99	01/01-12/31(12)	582	291
		CDS-2=20%	140	70	05/01-11/15(6.5)	223	112
139	Browne	DY-1=4%	46	12	01/01-12/31(12)	135	36
140	Mitchell Cr.	DW-4=2%	4	1	11/15-03/15(4)	5	1
		DY-1=16%	184	50	01/01-12/31(12)	530	143
141	Allotment A (Little Owyhee)	DW-6=48%	24	12	11/15-03/16(4)	24	12
142	Allotment B (Bullhead)	DY-2=3%	126	63	01/01-12/31(12)	374	187
		CDY-2=1%					
		DS-4=4%	70	35	03/16-11/15(8)	139	70
		CDS-4=3%	N/A <sup>2/</sup>	N/A		40,782	20,338



APPENDIX 4  
TABLE 1 (Continued)  
BIG GAME NUMBERS BY ALLOTMENT  
ELKO RMP AREA

Map Ref. No.	ALLOTMENT	PERCENT OF BIG GAME USE AREA	REASONABLE NUMBERS <sup>1/</sup>	EXISTING NUMBERS	SEASON-OF USE (MONTHS)	REASONABLE NO. AUM DEMAND	EXISTING NO. AUM DEMAND
<u>ANTELOPE</u>							
1	Owyhee	AW-1=36% CAY-1=14%	204	102	01/01-12/31(12)	485	243
2	YP	AY-2=97%	97	49	01/01-12/31(12)	228	114
4	Indian Cr. FFR	AY-2=3%	3	1	01/01-12/31(12)	7	2
13	Rock Cr.	AY-1=14%	56	28	01/01-12/31(12)	101	51
15	Little Humboldt	AY-1=3%	12	6	01/01-12/31(12)	23	12
141	Allotment A	AY-1=29%	132	66	01/01-12/31(12)	314	157
	(Little Owyhee)	CA-1=4%					
142	Allotment B	AY-1=6%	24	12	01/01-12/31(12)	57	29
	(Bullhead)		<u>N/A</u> <sup>2/</sup>	<u>N/A</u>		<u>1215</u>	<u>608</u>
<u>CALIFORNIA BIGHORN SHEEP</u>							
15	Little Humboldt	CBS=90%	18	—	01/01-12/31(12)	34	—
13	Allotment B	CBS=10%	2	—	01/01-12/31(12)	5	—
	(Bullhead)						
16	Twenty Five		20	—	01/01-12/31(12)	29	—
9	Lime Mountain		20	—	01/01-12/31(12)	24	—
2	Owyhee		10	—	01/01-12/31(12)	24	—
3	YP		10	—	01/01-12/31(12)	24	—
			<u>N/A</u> <sup>2/</sup>			<u>140</u>	

<sup>1/</sup> Reasonable and existing numbers, as determined in conjunction with Nevada Department of Wildlife (NDOW), were provided by big game use areas (i.e., DW-1). Reasonable and existing numbers by allotment are mathematical calculations based on the percent of big game use areas occurrence within each allotment. This includes the assumption that reasonable numbers are random and evenly distributed throughout the use area (biologically, this does not occur in big game populations). AUM demand is provided for analysis purposes only.

<sup>2/</sup> Reasonable numbers cannot be added, since this may result in multiple counting of individual animals. Animals that summer on public lands may also winter on public lands while some animals may move/migrate to public lands outside of the planning area.



APPENDIX 4  
 TABLE 2  
 SUMMARY OF STREAMS INVENTORIED  
 ELKO RMP AREA

Water Name	Location		Land Status of Miles Inventoried		Year Inventoried	Habitat Condition		Fish Species Present		Maximum Angler Day/Year <sup>2</sup>
	Township	Range	Private	Public		% of Optimum	Rating	Game <sup>1</sup>	Non-Game	
Beaver Cr.	37N	52E	7.0	3.5	77	53.5	Fair	LCT	X	178
Big Cotton- wood Crk.	41N	51E	8.0	2.0	77	45.2	Poor	RT	X	ND
Bull Run Cr.	43N	52E		1.5	80	66.7	Good	BT, RT	X	693
Chino Cr.	42N	49E	10.5	0.5	77	44.6	Poor	Red		67
Coyote Cr.	36N	51E	3.5	4.0	77	57.1	Fair	LCT	X	357
Evans Cr.	39N	45E	2.9	0.3	80	52.7	Fair	BT	X	ND
Frazer Cr.	39N	46E	1.5	1.0	77	46.5	Poor	LCT	X	68
Humboldt R.	31N	49E	9.5	8.0	77	41.4	Poor			1,398
Indian Cr.	38N	51E	5.5	0.5	77	45.1	Poor			ND
Jack Cr.	35N	51E	4.5		77	35.4	Poor		X	ND
Jack Cr. (Little)	35N	51E	8.0	2.0	77	51.2	Fair		X	ND
Jake Cr. N.F.	39N	45E	10.0	2.5	77	55.7	Fair	BT, RT	X	217
Jake Cr. S.F.	39N	45E	4.0	5.0	77	63.4	Good			
James Cr.	34N	51E	2.0	3.0	77	34.4	Poor			ND
Kelly Cr.	39N	43E	6.0	1.0	77	58.7	Fair	BT, RT		273
Lewis Cr.	39N	49E	4.0		77	58.5	Fair	LCT	X	35
Little Humboldt River S.F.	40N	45E	6.5	0.5	77	52.4	Fair	LCT		ND
Lynn Cr.	35N	51E	1.0	0.5	77	35.8	Poor			ND
Maggie Cr.	33N	52E	25.0		80	34.0	Poor	BRT, LCT	X	323
Marys Cr.	32N	51E	2.5	2.0	78	22.1	Poor			ND
McCann Cr.	39N	51E	5.0	1.5	77	55.0	Fair	RT		384
Nelson Cr.	39N	49E	4.5		77	57.1	Fair	LCT	X	28
Owyhee R. S.F.	47N	47E	11.0	25.0	77	41.6	Poor	RT	X	114
Red Cow Cr.	42N	50E	3.7	5.6	80	45.8	Poor	RT	X	ND
Rock Cr. (Upper)	40N	50E	8.5	1.0	77	44.0	Poor	LCT	X	800
Rock Cr. (Mid)	38N	47E	0.5	6.0	77	30.8	Poor			
Rock Cr. (Lower)	35N	47E	5.0	6.0	77	40.6	Poor			
Secret Cr.	39N	45E	3.0		77	44.8	Poor	LCT		ND
Sheep Cr.	39N	45E	3.0	1.0	77	55.2	Fair	LCT		ND
Six Mile Canyon	40N	51E		0.7	80	57.3	Fair			ND



APPENDIX 4  
TABLE 2 (Continued)  
SUMMARY OF STREAMS INVENTORIED  
ELKO RMP AREA

Water Name	Location		Land Status of		Year Inventoried	Habitat Condition		Fish Species Present		Maximum Angler Day/Year <sup>2</sup>
	Township	Range	Private	Public		% of Optimum	Rating	Game <sup>1</sup>	Non-Game	
Taylor Canyon	39N	53E	7.8		80	37.8	Poor	BT, RT	X	ND
Toe Jam Cr.	40N	48E	14.0	1.5	77	48.0	Poor	LCT	X	227
Toro Canyon	36N	51E	3.0		77	50.0	Fair			ND
Waterpipe Canyon	39N	53E	3.0	1.5	77	51.5	Fair	RT		20
Williams Canyon	37N	51E	3.0		77	37.7	Poor			
Willow Cr. (Upper)	39N	49E	4.5	1.0	77	51.0	Fair	LCT	X	251
Willow Cr. (Lower)	39N	48E	3.0		77	33.2	Poor	LCT	X	
Wilson Cr.	44N	50E		3.0	77	55.4	Fair			ND
Winters Cr.	41N	49E	4.0	1.0	77	45.7	Poor	Red		ND
Annie Cr.	44N	56E	8.5		77	28.8	Poor			ND
Beaver Cr. W.F.	43N	56E	6.5	19.5	77	47.0	Poor			ND
Beaver Cr. E.F.	40N	56E	4.0	14.0	78	48.9	Poor		X	178
Bruneau R. (Upper)	42N	57E	11.5	2.5	77	40.2	Poor		X	891
Bruneau R. (Lower)	42N	57E	2.5	1.5	77	29.5	Poor			
Cabin Cr.	41N	57E		5.2	80	40.1	Poor		X	ND
Copper Cr.	44N	57E	1.0	0.8	77	61.6	Good	RT	X	250
Dolly Cr.	43N	56E	7.0	0.5	77	42.0	Poor		X	ND
Dorsey Cr.	38N	55E	2.0	3.5	78	25.7	Poor		X	ND
Gance	40N	53E		1.5	uninventoried			LCT		
Gold Cr.	44N	56E	3.0		77	52.7	Fair	RT	X	465
Hay Meadow Cr.	44N	56E	4.5	2.5	77	47.9	Poor		X	ND
Humboldt R. (Middle)	33N	53E	3.0	4.0	78	31.2	Poor	BT, LCT		ND
Humboldt R. N.F.	39N	57E	12.0	16.0	78	31.7	Poor	BT, LCT	X	ND
Humboldt R. (Upper)	35N	56E	5.0	3.0	78	19.5	Poor			ND
Jackstone Cr.	36N	56E	2.5	5.5	78	45.0	Poor			ND
Mason Cr.	43N	57E	5.5	1.0	77	47.7	Poor			ND
Penrod Cr.	44N	55E	8.5	0.5	77	52.9	Fair	RT	X	174
Pie Cr.	39N	56E	1.5	3.0	78	22.7	Poor		X	ND
Rose Bud Cr.	44N	56E	1.5		77	37.6	Poor			ND



APPENDIX 4  
TABLE 2 (Continued)  
SUMMARY OF STREAMS INVENTORIED  
ELKO RMP AREA

Water Name	Location		Land Status of Miles Inventoried		Year Inventoried	Habitat Condition		Fish Species Present		Maximum Angler Day/Year <sup>2</sup>
	Township	Range	Private	Public		% of Optimum	Rating	Game <sup>1</sup>	Non-Game	
Seventy-Six Cr.	44N	57E	3.5		77	64.5	Good	RT	X	168
Sherman Cr. E.F.	35N	55E	1.0	2.0	78	47.2	Poor			ND
Sherman Cr. W.F.	35N	56E	3.0	3.0	78	52.8	Fair	LCT		ND
Susie Cr.	33N	52E		8.0	78	33.8	Poor		X	ND
Sweet Cr.	44N	56E	2.0		77	59.0	Fair	RT	X	ND
Thompson Cr.	44N	56E	4.0		77	31.6	Poor			ND
Willow Cr.	44N	58E	2.0	3.0	77	64.0	Good	RT	X	10
Dixie Cr.	30N	45E	7.0	1.5	80	30.5	Poor	LCT	X	20
Humboldt R. S.F.	33N	54E	17.6	0.4	80	38.7	Poor	RT	X	3,819
Huntington Creek	32N	55E	16.3	7.0	80	22.7	Poor	RT, BRT	X	
Little Porter Cr.	29N	54E	1.0	3.9	80	38.9	Poor			
Mitchell	27N	56E	0.5	2.5	uninventoried			LCT		
Pearl Cr.	28N	56E		1.5	80	36.1	Poor	BT		755
Smith Cr.	30N	52E	1.5	1.2	80	41.4	Poor			36
Ten Mile Cr.	32N	55E	14.4	1.3	80	16.4	Poor		X	
Trout Cr.	30N	52E	3.5	3.9	80	37.1	Poor	RT	X	
TOTALS			375.7	216.3						12,199

<sup>1</sup> BT = Brook Trout

BT = Brown Trout

LCT = Lahontan Cutthroat Trout

RT = Rainbow Trout

Red = Redband Trout

<sup>2</sup> Angler Use is the maximum value recorded over the 10 years (1970-1980)

ND = Not determined

<sup>3</sup> These values are averages, localized areas of better or worse condition than the average may be found on each stream.

Aquatic and riparian inventories were conducted by NDOW and BLM jointly during 1977 and 1980 on all streams known to support or having the potential to support fish populations. The inventory conformed to procedures in the Nevada State Office Supplement (Release NSO 6-38, dated 1/25/78) to BLM Manual 6671. Both public and private segments were inventoried to provide overall information about each stream and its watershed. This information provides for a complete understanding of the stream and the surrounding riparian community necessary for effective public land management. Owners of inventoried stream segments were contacted prior to evaluation and all individuals gave their consent.

The riparian habitat condition rating is derived from an average of ratings for streambank vegetation cover and streambank stability. This rating is expressed as a percentage of optimum. The resulting rating of excellent, good, fair, or poor corresponds to classes I, II, III and IV, respectively as shown in Appendix I of BLM Manual 6740.

NOTE: 70% - above = Excellent, 60% - 69% = Good, 50% - 59% = Fair, 49% - below = Poor.



**APPENDIX FIVE**  
**VEGETATION AND ECOLOGICAL CONDITION**



## APPENDIX 5

### METHODOLOGY FOR ESTIMATING CURRENT ECOLOGICAL STATUS AND APPARENT TREND FOR THE ELKO PLANNING AREA

An inventory of I category allotments was conducted between June 1 and September 30, 1984 on approximately 2.6 million acres. The use of Soil Conservation Service stocking level guides and professional judgement, in conjunction with the ecological status of all allotments was the basis for establishing an initial (or reference point) stocking level upon which subsequent analyses could be based. Appropriate use levels for each allotment will be determined following this EIS from the results of sufficient monitoring studies.

The intensity of inventory varied by allotment categorization.

#### "I" Category Allotments

The ecological status for "I" or Improve category allotments was determined through the use of an Order III soil survey and methods outlined in the USDA, SCS National Range Handbook (NRH), and BLM manual handbook H-4410-1. Apparent trend of the plant communities was estimated using criteria developed by the Nevada Range and Monitoring Task Group (1984).

#### "M" & "C" Category Allotments

With the same soil and ecological site information available as for the "I" category allotments, a survey was conducted on the "M" or Maintain and "C" or Custodial category allotments using the professional judgement of the resource area range conservationists and SCS personnel familiar with the study area. For analysis purposes an overall apparent trend rating was assigned to each of these allotments.

### Methodology for Determining Available AUMs

Based on inventory results (present situation) the allotments were first summarized into acres by ecological site by seral stage. Then, using an SCS stocking level guide, total AUMs were calculated. (Note: the SCS provided values for sites in late and potential seral stages only). Values for the early and mid seral stages were based on professional judgement.

### Methodology for Determining the Total AUM Demand and Total AUMs Available by Alternative for Each Allotment

Alt. "A": Demand = 3-5 yr average licensed use + AUMs for existing numbers of wildlife and wild horses.

Available = AUMs from inventory results only.

Alt. "B": Demand = Active preference + AUMs for existing numbers of wildlife AUMs for wild horses (decreased by one third) + AUMs from proposed range improvements.

Available = AUMs from proposed improvements + AUMs from inventory results.

Alt. "C": Demand = One-half active preference + AUMs for reasonable numbers of wildlife + AUMs for wild horses (doubled).

Available = AUMs from proposed improvements + AUMs from inventory results.

Alt. "D": Because of the Bureau's commitment to the Nevada Department of Wildlife to support reasonable numbers of wildlife, in this alternative our calculations of demand and available AUMs are as follows: Demand = Inventory Results + AUMs from proposed improvements - AUMs for reasonable numbers of wildlife and present



numbers of wild horses. The remaining AUMs became the initial stocking level.

$$\frac{\text{Available}}{\text{results}} = \text{AUMs from inventory} + \text{AUMs from proposed improvements.}$$

Alt. "E": 
$$\text{Demand} = \text{AUMs for Reasonable numbers of wildlife} + \text{AUMs for wild horses (doubled).}$$

Available = Inventory results only.

#### Methodology for Predicting Shifts in Seral Stage Acreages by Alternatives

The following considerations were made for each allotment before predicting acreage shifts:

1. AUM demand (see above)
2. AUM availability (see above)
3. Grazing systems and range improvements (existing and proposed)
4. Accessibility of the ecological sites to livestock and big game species
5. Present seral stage of each ecological site
6. Vegetation composition of the ecological sites
7. Ecological site response potential (following)
8. Utilization (if available)
9. Apparent trend

Limits of the shifts were set through consultations with SCS personnel, the inventory project leader, resource area range conservationists, staff wildlife biologists, and interested consultants.

#### Methodology for Determining Response Potential for Ecological Sites

Ecological sites can be grouped as low response potential, moderate response potential, and high response potential sites based upon their capability to improve in condition in response to grazing and/or mechanical treatments. The following defining characteristics

were used as general guides to determine the response potential of each ecological site encountered in the Elko planning area vegetation condition inventory. To qualify for one of the three potential ratings, an ecological site could meet all or a combination of the characteristics defining a response potential category. In a few cases conflicting characteristics existed and best professional judgment was used to make a category assignment.

The defining characteristics are as follows:

- 1) Low Response Potential Sites:
  - a) harsh growing conditions i.e.: shallow soil or soil with restrictive layer limiting root penetration, alkaline soil, eroded soil, etc.;
  - b) range seedings are impossible because of rugged topography and/or will not succeed due to growing conditions;
  - c) annual precipitation generally ranges from six to eight inches. On sites with greater than eight inches of precipitation annually, the effective moisture available is less than this because of harsh growing conditions;
  - d) potential total annual biomass production generally is less than or equal to 600 pounds (even in favorable years);
  - e) potential vegetative cover generally ranges from 15 to 25 percent with a maximum value of 30 percent on the most productive sites.

Improvement in ecological condition through increases in production, litter cover, density, and cover of desirable climax plant species takes a



great deal of time on the low potential sites. Changes would be slow on the shrub dominated sites (Holmgren and Hutchings, 1972).

2) Moderate Response Potential Sites:

a) range seedings with suitable native or introduced forage species will succeed if slope and topography allow a seeding;

b) soils are generally moderately deep to deep;

c) annual precipitation generally ranges from 8 to 12 inches or the effective moisture available is equivalent to this precipitation zone during the growing season;

d) total annual biomass production generally ranges from 400 to 800 pounds (some sites with annual precipitation values significantly higher than this were assigned to the moderate category, rather than the high potential category, due to site domination by mountain mahogany);

e) vegetative cover generally ranges from 20 percent to 30 percent with a maximum value of 40 percent on the most productive sites.

3) High Response Potential Sites:

a) range seedings will succeed if slope and topography allow a seeding;

b) soils are generally moderately deep to very deep;

c) annual precipitation generally ranges from 12 inches to 16 inches, or extra moisture is available from runoff or high water table;

d) total annual biomass production generally ranges from 700 to 1600 pounds,

e) vegetative cover generally ranges from 30 percent to 60 percent with a maximum value of 80 percent on the most productive sites.

Improvement in ecological condition on the moderate and high potential sites would occur at a much faster rate, but would be affected by initial condition and management practices.

These category characteristics were developed and the category assignments determined by BLM and SCS range specialists familiar with the sites, their potential, and responses to management.

Note: For the purposes of this ecological status inventory, riparian areas were considered inclusions.



APPENDIX 5  
 TABLE 1  
 MAJOR ECOLOGICAL SITES

<u>Major Ecological Sites</u>	<u>Dominant Plant Species</u>
Moist Floodplain 6-10" p.z. <u>1/</u>	creeping wildrye, Great Basin wildrye, willow
Loamy Bottom 8-14" p.z.	Great Basin wildrye, basin big sagebrush, Nevada Bluegrass
Wet Meadow 10-16" p.z.	hairgrass, Nevada bluegrass, willow
Dry Meadow 10-16" p.z.	Nevada bluegrass, timothy, willow
Upland Browse 12-16" p.z.	antelope bitterbrush, bluebunch wheatgrass, Idaho fescue
South Slope 12-14" p.z.	bluebunch wheatgrass, antelope bitterbrush, mountain big sagebrush
Steep North Slope 16+" p.z.	Idaho fescue, bluebunch wheatgrass, antelope bitterbrush, mountain big sagebrush
Loamy Slope 10-16" p.z.	bluebunch wheatgrass, Idaho fescue, antelope bitterbrush, mountain big sagebrush
Loamy 10-12" p.z.	bluebunch wheatgrass, Thurber's needlegrass, basin big sagebrush
South Slope 8-12" p.z.	bluebunch wheatgrass, Thurber's needlegrass, Wyoming big sagebrush
Claypan 12-16" p.z.	bluebunch wheatgrass, Idaho fescue, low sagebrush
Claypan 10-12" p.z.	bluebunch wheatgrass, Webber's ricegrass, Thurber's needlegrass, early or low sagebrush
Loamy 8-10" p.z.	bluebunch wheatgrass, Thurber's needlegrass, Wyoming big sagebrush
Mountain Ridge 16+" p.z.	Idaho fescue, Webber's ricegrass, low or black sagebrush
Chalky Knoll 8-10" p.z.	Indian ricegrass, black sagebrush, Wyoming big sagebrush
Dry Floodplain 6-10" p.z.	Great Basin wildrye, basin big sagebrush
Saline Bottom 6-10" p.z.	Great Basin wildrye, alkali sacaton, greasewood
Quaking Aspen - grass	Quaking Aspen, Idaho fescue, mountain brome
Pinyon Pine - Juniper	Singleleaf pinyon pine, Utah juniper, bluebunch wheatgrass, basin wildrye

1/ p.z. = precipitation zone. Sites as described by the Soil Conservation Service



## APPENDIX 5

TABLE 2

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE A  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE A <sup>2/</sup>			
			E	M	L	P		E	M	L	P
1	Owyhee	371,431	9,798	320,184	31,130	951	9,368	9,798	312,000	38,614	1,651
2	YP Allotment	94,857	0	26,105	67,728	0	1,024	0	26,105	67,728	0
3	Petan Owyhee	10,221	0	253	4,988	4,852	128	0	253	4,988	4,852
4	Indian Creek FFR	4,924	0	0	3,423	0	1,501	0	808	2,615	0
5	VN Pocket Petan	6,082	0	58	6,024	0	0	0	58	6,024	0
6	VN Pocket Allied	7,444	0	4,030	3,414	0	0	430	4,600	2,414	0
7	Cornucopia	15,758	2,781	8,938	3,789	0	250	3,535	8,963	3,010	0
8	Andrae	17,063	0	1,329	15,696	0	38	75	2,959	13,991	0
9	Wilson Mountain	2,362	0	0	1,983	0	379	0	0	1,923	60
10	Lime Mountain	9,094	0	409	8,564	0	121	0	409	8,478	86
11	Mori	10,436	0	256	10,180	0	0	0	256	9,926	254
12	Bucket Flat	1,536	0	0	1,536	0	0	0	0	1,459	77
13	Rock Creek	353,860	18,005	150,606	138,895	20,488	25,866	18,005	148,347	140,182	21,460
14	Midas	4,417	0	997	3,420	0	0	99	1,193	3,125	0
15	Little Humboldt	64,075	19,711	25,761	14,388	0	4,215	19,955	27,973	11,932	0
16	Twenty Five	284,626	11,533	223,463	37,725	0	11,905	11,533	222,143	38,440	605
17	Tuscarora	56,869	0	10,629	22,507	17,788	5,945	200	11,979	22,081	16,664
18	Six Mile	946	0	946	0	0	0	55	891	0	0
19	Taylor Canyon	9,134	0	539	6,690	0	1,905	0	519	6,610	100
20	Eagle Rock	29,359	0	101	29,258	0	0	0	101	28,819	439
21	Wildhorse Group	26,258	0	901	22,736	1,694	927	0	856	21,775	2,700
22	Rough Hills	4,902	0	0	4,654	248	0	0	0	4,561	341
23	Stone Flat FFR	311	0	0	311	0	0	0	0	311	0
24	Annie Creek	2,954	0	1,164	1,790	0	0	14	1,298	1,642	0
25	Bruneau River	3,347	0	79	3,268	0	0	0	71	3,112	164
26	Rattlesnake Canyon	10,365	0	6,362	3,370	0	633	0	7,362	2,370	0



APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE A  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE A <sup>2/</sup>			
			E	M	L	P		E	M	L	P
27	Stone Flat	2,561	0	1,858	703	0	0	223	2,096	242	0
28	Four Mile	36,187	0	24,662	9,716	1,809	0	274	24,788	9,316	1,809
29	Beaver Creek	75,579	0	23,189	52,058	332	0	0	21,589	51,990	2,000
30	Mason Mountain	2,774	0	1,768	1,006	0	0	0	1,768	1,006	0
31	Mexican Field	2,989	0	231	2,416	139	203	0	231	2,416	139
32	Cotant	3,383	1,604	809	0	0	970	1,674	739	0	0
33	Double Mountain	38,662	1,229	15,139	20,534	0	1,760	1,259	15,909	19,734	0
34	Sheep Creek	8,461	0	2,853	3,133	0	2,475	0	2,581	3,207	198
35	Mahala Creek	13,100	5	7,541	2,415	0	3,139	5	7,164	2,745	47
36	Eagle Rock 1	8,043	1,194	3,651	1,000	0	2,198	1,194	3,651	1,000	0
37	Lone Mountain	31,895	0	22,393	8,330	724	448	0	22,393	8,330	724
38	Fox Springs	4,592	0	3,674	0	0	918	0	3,674	0	0
39	Coal Mine Basins	7,686	0	6,504	1,182	0	0	0	6,114	1,572	0
40	North Fork Group	96,049	27,100	44,986	17,687	750	5,526	27,100	44,986	17,687	750
41	Dorsey	3,782	0	502	1,433	0	1,847	0	502	1,433	0
42	Long Field	2,566	0	2,566	0	0	0	15	2,551	0	0
43	Halleck	3,831	42	3,789	0	0	0	67	3,764	0	0
44	Adobe Hills	33,573	6,797	7,076	13,110	0	6,590	6,797	7,076	13,110	0
45	White Rock	5,232	0	2,433	0	0	2,799	0	2,433	0	0
46	Adobe	2,898	0	2,506	392	0	0	134	2,390	374	0
47	Blue Basin	36,254	2,712	8,531	19,433	0	5,578	2,712	8,275	19,495	194
48	Dry Susie	5,630	0	1,806	3,824	0	0	0	1,726	3,854	50
49	Carlin Canyon	275	0	0	275	0	0	0	7	268	0
50	Carlin Field	17,394	1,640	5,456	9,066	0	1,232	1,640	5,351	9,096	75
51	Hadley	30,257	10,353	10,020	8,046	989	849	10,588	10,001	7,830	989
52	Taylors Carlin	62	0	62	0	0	0	5	57	0	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE A  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE A <sup>2/</sup>			
			E	M	L	P		E	M	L	P
53	Marys Mountain	16,651	0	16,436	215	0	0	574	15,950	127	0
54	T Lazy S	72,928	20,725	22,515	12,851	763	16,074	21,608	22,374	12,109	763
55	Horseshoe	15,339	2,770	12,166	0	0	403	3,135	11,801	0	0
56	Palisade	11,238	0	10,472	0	0	766	383	10,089	0	0
57	Pine Mountain	28,034	9,341	13,127	723	0	4,843	9,841	12,687	663	0
58	Iron Blossom	7,573	0	5,260	1,932	0	381	252	5,201	1,739	0
59	Safford Canyon	8,628	2,370	1,705	666	0	3,887	2,395	1,706	640	0
60	Scotts Gulch	10,313	3,574	6,455	252	0	32	3,874	6,180	227	0
61	Geyser	46,635	16,795	20,763	3,132	783	5,162	16,795	20,763	3,132	783
62	Thomas Creek	4,762	0	3,082	193	0	1,487	0	3,234	41	0
63	Thomas Creek FFR	130	12	118	0	0	0	10	120	0	0
64	Devils Gate	2,987	0	1,985	524	0	478	73	1,964	472	0
65	South Buckhorn	226,004	55,356	92,014	55,817	4,189	18,628	55,356	90,519	57,033	4,468
66	Potato Patch	3,479	0	1,240	0	0	2,239	0	1,228	12	0
67	Pine Creek	12,601	0	12,601	0	0	0	0	11,593	1,008	0
68	Mineral Hill	24,423	3,714	6,976	3,855	0	9,878	3,714	6,892	3,939	0
69	Union Mountain	22,986	3,854	7,740	774	0	10,618	4,136	7,458	774	0
70	Bruffy	18,474	0	6,013	366	0	12,095	301	5,728	350	0
71	Pony Creek	15,219	0	6,265	306	0	8,648	0	6,418	153	0
72	Indian Springs	18,708	471	6,543	5,907	441	5,346	576	6,476	5,869	441
73	Dixie Flats	21,171	954	12,476	1,942	0	5,799	954	12,177	2,241	0
74	Emmigrant	14,294	297	11,814	737	0	1,446	425	11,686	737	0
75	Tonka	19,894	3,080	9,150	6,154	0	1,510	3,080	9,013	6,260	31
76	Old 80 FFR	93	0	93	0	0	0	5	88	0	0
77	Grindstone	5,181	1,517	702	1,372	0	1,590	1,542	742	1,307	0
78	Cut Off	2,258	0	1,079	808	0	371	0	1,079	808	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE A  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE A <sup>2/</sup>			
			E	M	L	P		E	M	L	P
79	Bullion Road	4,674	72	3,113	110	0	1,379	72	2,957	264	2
80	Ten Mile	5,775	223	3,383	21	0	2,148	223	3,315	89	0
81	Four Mile Canyon	4,557	0	3,778	0	0	779	157	3,621	0	0
82	Burner Basin	1,275	0	889	0	0	386	60	829	0	0
83	Elko Hills	7,106	0	4,088	1,798	0	1,220	0	3,965	1,885	36
84	East Fork	10,461	477	6,727	2,291	0	966	477	6,323	2,638	57
85	East Fork FFR	39	0	0	39	0	0	0	3	36	0
86	Burger Creek	240	0	240	0	0	0	0	230	10	0
87	Smiraldo	2,885	0	0	0	0	2,885	0	0	0	0
88	King Seeding	2,283	0	0	0	0	2,283	0	0	0	0
89	Horsefly	3,328	3	698	0	0	2,627	3	678	20	0
90	Heelfly	378	0	0	0	0	378	0	0	0	0
91	Secret	467	0	79	0	0	388	4	75	0	0
92	Rabbit Creek	4,889	0	309	0	0	4,580	0	295	14	0
93	Kennedy Seeding	1,534	0	0	0	0	1,534	0	0	0	0
94	Walther	136	0	0	0	0	136	0	0	0	0
95	Palacio	1,031	0	0	0	0	1,031	0	0	0	0
96	Sandhill North	1,279	0	47	0	0	1,232	0	47	0	0
97	Sandhill South	593	0	0	0	0	593	0	0	0	0
98	Bellinger	2,344	0	0	0	0	2,344	0	0	0	0
99	Hog Tommy	1,898	0	1,813	85	0	0	36	1,777	85	0
100	Bottari	2,390	0	1,403	0	0	987	100	1,303	0	0
101	Olgvie Orbe	8,091	0	0	59	0	8,032	0	0	59	0
102	LDS FFR	294	0	294	0	0	0	52	242	0	0
103	Shoshone	8,473	37	3,857	0	0	4,579	37	3,626	231	0
104	Chimney Creek	5,488	0	0	0	0	5,488	0	0	0	0



APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE A  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <u>1/</u>	ALTERNATIVE A <sup>2/</sup>			
			E	M	L	P		E	M	L	P
105	Twin Bridges	3,359	0	1,837	0	0	1,522	0	1,837	0	0
106	River	4,299	118	2,259	1,497	0	425	118	2,214	1,542	0
107	LDS	1,102	0	1,102	0	0	0	0	1,102	0	0
108	McMullen	108	0	0	0	0	108	0	0	0	0
109	South Fork	2,883	0	1,034	0	0	1,849	0	1,034	0	0
110	Crane Springs	22,304	425	9,332	44	0	12,503	425	9,239	137	0
111	Dixie Creek	44,796	9,275	11,229	9,917	231	14,144	9,275	11,229	9,917	231
112	Sleeman	5,433	27	3,098	187	0	2,121	227	3,023	62	0
113	Hansel	11,169	0	3,686	250	0	7,233	0	3,686	250	0
114	Wilson FFR	985	0	765	0	0	220	46	719	0	0
115	Willow	4,772	0	1,913	0	0	2,859	0	1,779	134	0
116	Willow Crk Pockets	6,260	0	2,700	0	0	3,560	0	2,565	135	0
117	Cottonwood	293	0	95	0	0	198	22	73	0	0
118	Merkley Zumino	2,038	0	348	3	0	1,687	0	318	33	0
119	Achurra	2,176	0	549	0	0	1,627	0	523	26	0
120	Barnes Seeding	3,860	0	885	0	0	2,975	0	820	65	0
121	Barnes FFR	164	0	164	0	0	0	16	148	0	0
122	Little Porter FFR	97	0	0	97	0	0	0	3	94	0
123	Robinson Mountain FFR	155	0	0	155	0	0	0	4	151	0
124	Robinson Mountain	18,409	2,725	4,009	7,248	0	4,427	2,725	3,909	7,242	106
125	Little Porter	3,512	2,799	232	0	0	481	2,799	227	5	0
126	Robinson Creek	15,549	3,577	3,722	3,266	381	4,603	3,577	3,517	3,373	479
127	Frost Creek	10,058	229	4,740	0	0	5,089	229	4,586	154	0
128	Corta FFR	144	0	144	0	0	0	14	130	0	0
129	Corral Canyon	2,006	0	458	0	0	1,548	0	444	14	0
130	Forest FFR	480	0	0	480	0	0	0	0	480	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE A  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE A <sup>2/</sup>			
			E	M	L	P		E	M	L	P
131	Pearl Creek	1,485	40	0	0	0	1,445	40	0	0	0
132	Rattlesnake Mountain	641	0	11	630	0	0	0	32	609	0
133	Lindsay Creek	9,172	206	3,464	4	0	5,498	206	3,326	142	0
134	Twin Creek North	2,974	353	27	23	0	2,571	353	27	23	0
135	Twin Creek East	2,036	0	673	0	0	1,363	11	662	0	0
136	Twin Creek South	1,138	0	0	0	0	1,138	0	0	0	0
137	Merkley FFR	3,464	0	3,464	0	0	0	0	3,364	100	0
138	Red Rock	65,230	6,209	28,715	8,746	320	21,240	6,209	28,141	9,320	320
139	Browne	19,113	13,915	5,198	0	0	0	13,915	4,262	936	0
140	Mitchell Creek	18,789	5,876	6,607	316	0	5,990	5,876	6,277	646	0
TOTALS		2,878,710	285,908	1,409,083	759,030	57,872	366,817	293,719	1,392,631	761,398	64,145
Native Range Acres			2,511,893				2,511,893				
	Bullhead	50,137	14,267	35,870	0	0	0	14,267	35,870	0	0
	Little Owyhee	199,957	30,355	160,844	0	0	8,758	30,355	160,844	0	0
	Pearl Forest	640	0	542	98	0	0	0	542	98	0
	Table Mountain	4,575	1,837	2,537	0	0	201	1,837	2,537	0	0

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<sup>1/</sup> These acres represent seeded, woodland and unclassified acres for both present situation and Alternative A.

<sup>2/</sup> E = Early Seral, M = Mid Seral, L = Late Seral, P = Potential Native Community Classes.

Note: These rates of change are supported in other areas within the sagebrush dominated communities of the Great Basin (French and Mitchell, 1983 and Rice and Westoby, 1978).



APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE B  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <u>1/</u>	ALTERNATIVE B <sup>2/</sup>				MISC ACRES <u>3/</u>
			E	M	L	P		E	M	L	P	
1	Owyhee	371,431	9,798	320,184	31,130	951	9,368	5,798	105,806	225,659	20,800	13,368
2	YP Allotment	94,857	0	26,105	67,728	0	1,024	0	26,105	67,728	0	1,024
3	Petan Owyhee	10,221	0	253	4,988	4,852	128	0	253	4,988	4,852	128
4	Indian Creek FFR	4,924	0	0	3,423	0	1,501	0	808	2,615	0	1,501
5	VN Pocket Petan	6,082	0	58	6,024	0	0	0	58	6,024	0	0
6	VN Pocket Allied	7,444	0	4,030	3,414	0	0	0	2,071	2,738	2,635	0
7	Cornucopia	15,758	2,781	8,938	3,789	0	250	3,517	3,265	6,742	1,984	250
8	Andrae	17,063	0	1,329	15,696	0	38	100	3,629	11,596	1,700	38
9	Wilson Mountain	2,362	0	0	1,983	0	379	0	0	1,923	60	379
10	Lime Mountain	9,094	0	409	8,564	0	121	0	409	6,004	2,560	121
11	Mori	10,436	0	256	10,180	0	0	0	256	7,620	2,560	0
12	Bucket Flat	1,536	0	0	1,536	0	0	0	0	1,459	77	0
13	Rock Creek	353,860	18,005	150,606	138,895	20,488	25,866	18,005	133,576	144,365	22,048	35,866
14	Midas	4,417	0	997	3,420	0	0	99	1,193	3,125	0	0
15	Little Humboldt	64,075	19,711	25,761	14,388	0	4,215	9,705	25,517	10,538	3,850	14,465
16	Twenty Five	284,626	11,533	223,463	37,725	0	11,905	11,533	229,810	31,378	0	11,905
17	Tuscarora	56,869	0	10,629	22,507	17,788	5,945	75	11,254	20,957	18,638	6,945
18	Six Mile	946	0	946	0	0	0	20	420	506	0	0
19	Taylor Canyon	9,134	0	539	6,690	0	1,905	0	238	4,451	240	4,205
20	Eagle Rock	29,359	0	101	29,258	0	0	0	101	28,778	480	0
21	Wildhorse Group	26,258	0	901	22,736	1,694	927	0	876	19,011	5,444	927
22	Rough Hills	4,902	0	0	4,654	248	0	0	283	4,403	216	0
23	Stone Flat FFR	311	0	0	311	0	0	0	0	311	0	0
24	Annie Creek	2,954	0	1,164	1,790	0	0	0	1,184	870	900	0
25	Bruneau River	3,347	0	79	3,268	0	0	0	75	1,622	1,650	0
26	Rattlesnake Canyon	10,365	0	6,362	3,370	0	633	0	6,862	2,570	300	633

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE B  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE B <sup>2/</sup>				MISC ACRES <sup>3/</sup>
			E	M	L	P		E	M	L	P	
27	Stone Flat	2,561	0	1,858	703	0	0	150	1,708	603	100	0
28	Four Mile	36,187	0	24,662	9,716	1,809	0	0	24,562	9,116	2,509	0
29	Beaver Creek	75,579	0	23,189	52,058	332	0	0	23,039	51,708	832	0
30	Mason Mountain	2,774	0	1,768	1,006	0	0	0	1,768	1,006	0	0
31	Mexican Field	2,989	0	231	2,416	139	203	0	331	2,241	214	203
32	Cotant	3,383	1,604	809	0	0	970	1,604	809	0	0	970
33	Double Mountain	38,662	1,229	15,139	20,534	0	1,760	1,239	15,539	20,124	0	1,760
34	Sheep Creek	8,461	0	2,853	3,133	0	2,475	0	2,711	2,775	500	2475
35	Mahala Creek	13,100	5	7,541	2,415	0	3,139	5	7,315	2,141	500	3,139
36	Eagle Rock 1	8,043	1,194	3,651	1,000	0	2,198	1,194	3,578	1,063	10	2,198
37	Lone Mountain	31,895	0	22,393	8,330	724	448	0	17,373	8,600	3,474	2,448
38	Fox Springs	4,592	0	3,674	0	0	918	0	3,674	0	0	918
39	Coal Mine Basins	7,686	0	6,504	1,182	0	0	0	6,024	1,662	0	0
40	North Fork Group	96,049	27,100	44,986	17,687	750	5,526	5,898	28,143	30,732	750	30,526
41	Dorsey	3,782	0	502	1,433	0	1,847	0	437	1,198	300	1,847
42	Long Field	2,566	0	2,566	0	0	0	15	1,951	600	0	0
43	Halleck	3,831	42	3,789	0	0	0	72	3,759	0	0	0
44	Adobe Hills	33,573	6,797	7,076	13,110	0	6,590	6,797	6,722	12,812	652	6,590
45	White Rock	5,232	0	2,433	0	0	2,799	0	2,433	0	0	2,799
46	Adobe	2,898	0	2,506	392	0	0	134	2,390	374	0	0
47	Blue Basin	36,254	2,712	8,531	19,433	0	5,578	1,564	6,895	19,433	0	8,362
48	Dry Susie	5,630	0	1,806	3,824	0	0	0	1,806	3,624	200	0
49	Carlin Canyon	275	0	0	275	0	0	0	7	268	0	0
50	Carlin Field	17,394	1,640	5,456	9,066	0	1,232	1,640	5,456	9,066	0	1,232
51	Hadley	30,257	10,353	10,020	8,046	989	849	4,453	10,136	7,895	924	6,849
52	Taylors Carlin	62	0	62	0	0	0	5	57	0	0	0

A-57



APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE B  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <u>1/</u>	ALTERNATIVE B <sup>2/</sup>				MISC ACRES <u>3/</u>
			E	M	L	P		E	M	L	P	
53	Marys Mountain	16,651	0	16,436	215	0	0	280	16,140	171	0	60
54	T Lazy S	72,928	20,725	22,515	12,851	763	16,074	15,166	22,445	12,862	381	22,074
55	Horseshoe	15,339	2,770	12,166	0	0	403	2,235	11,801	0	0	1,303
56	Palisade	11,238	0	10,472	0	0	766	383	10,089	0	0	766
57	Pine Mountain	28,034	9,341	13,127	723	0	4,843	8,841	12,687	663	0	5,843
58	Iron Blossom	7,573	0	5,260	1,932	0	381	252	5,140	1,800	0	381
59	Safford Canyon	8,628	2,370	1,705	666	0	3,887	2,395	1,706	640	0	3,887
60	Scotts Gulch	10,313	3,574	6,455	252	0	32	2,074	6,480	227	0	1,532
61	Geyser	46,635	16,795	20,763	3,132	783	5,162	15,355	19,023	3,132	783	8,342
62	Thomas Creek	4,762	0	3,082	193	0	1,487	0	3,234	41	0	1,487
63	Thomas Creek FFR	130	12	118	0	0	0	10	120	0	0	0
64	Devils Gate	2,987	0	1,985	524	0	478	0	1,905	524	0	558
65	South Buckhorn	226,004	55,356	92,014	55,817	4,189	18,628	46,356	92,014	55,817	4,189	27,628
66	Potato Patch	3,479	0	1,240	0	0	2,239	0	1,228	12	0	2,239
67	Pine Creek	12,601	0	12,601	0	0	0	0	11,593	1,008	0	0
68	Mineral Hill	24,423	3,714	6,976	3,855	0	9,878	2,714	6,767	4,064	0	10,878
69	Union Mountain	22,986	3,854	7,740	774	0	11,618	2,854	6,802	1,554	158	11,618
70	Bruffy	18,474	0	6,013	366	0	12,095	200	5,826	353	0	12,095
71	Pony Creek	15,219	0	6,265	306	0	8,648	0	5,365	1,206	0	8,648
72	Indian Springs	18,708	471	6,543	5,907	441	5,346	471	6,438	6,012	441	5,346
73	Dixie Flats	21,171	954	12,476	1,942	0	5,799	954	12,177	2,241	0	5,799
74	Emmigrant	14,294	297	11,814	737	0	1,446	297	5,814	737	0	7,446
75	Tonka	19,894	3,080	9,150	6,154	0	1,510	3,080	9,150	6,154	0	1,510
76	Old 80 FFR	93	0	93	0	0	0	5	88	0	0	0
77	Grindstone	5,181	1,517	702	1,372	0	1,590	1,517	702	1,372	0	1,590
78	Cut Off	2,258	0	1,079	808	0	371	78	1,046	763	0	371

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE B  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE B <sup>2/</sup>				MISC ACRES <sup>3/</sup>
			E	M	L	P		E	M	L	P	
79	Bullion Road	4,674	72	3,113	110	0	1,379	72	2,957	264	2	1,379
80	Ten Mile	5,775	223	3,383	21	0	2,148	223	3,315	89	0	2,148
81	Four Mile Canyon	4,557	0	3,778	0	0	779	0	3,628	150	0	779
82	Burner Basin	1,275	0	889	0	0	386	60	829	0	0	386
83	Elko Hills	7,106	0	4,088	1,798	0	1,220	0	1,249	1,801	36	4,020
84	East Fork	10,461	447	6,727	2,291	0	966	477	3,765	2,496	57	3,666
85	East Fork FFR	39	0	0	39	0	0	0	3	36	0	0
86	Burger Creek	240	0	240	0	0	0	0	230	10	0	0
87	Smiraldo	2,885	0	0	0	0	2,885	0	0	0	0	2,885
88	King Seeding	2,283	0	0	0	0	2,283	0	0	0	0	2,283
89	Horsefly	3,328	3	698	0	0	2,627	3	349	349	0	2,627
90	Heelfly	378	0	0	0	0	378	0	0	0	0	378
91	Secret	467	0	79	0	0	388	0	65	14	0	388
92	Rabbit Creek	4,889	0	309	0	0	4,580	0	285	24	0	4,580
93	Kennedy Seeding	1,534	0	0	0	0	1,534	0	0	0	0	1,534
94	Walther	136	0	0	0	0	136	0	0	0	0	136
95	Palacio	1,031	0	0	0	0	1,031	0	0	0	0	1,031
96	Sandhill North	1,279	0	47	0	0	1,232	0	47	0	0	1,232
97	Sandhill South	593	0	0	0	0	593	0	0	0	0	593
98	Bellinger	2,344	0	0	0	0	2,344	0	0	0	0	2,344
99	Hog Tommy	1,898	0	1,813	85	0	0	0	1,813	85	0	0
100	Bottari	2,390	0	1,403	0	0	987	0	97	0	0	2,293
101	Olgivie Orbe	8,091	0	0	59	0	8,032	0	0	59	0	8,032
102	LDS FFR	294	0	294	0	0	0	52	242	0	0	0
103	Shoshone	8,473	37	3,857	0	0	4,579	37	3,857	0	0	4,579
104	Chimney Creek	5,488	0	0	0	0	5,488	0	0	0	0	5,488

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE B  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	E	PRESENT SITUATION <sup>2/</sup>			MISC ACRES <sub>1/</sub>	E	ALTERNATIVE B <sup>2/</sup>			MISC ACRES <sub>3/</sub>
				M	L	P			M	L	P	
105	Twin Bridges	3,359	0	1,837	0	0	1,522	0	1,837	0	0	1,522
106	River	4,299	118	2,259	1,497	0	425	118	0	1,497	0	2,684
107	LDS	1,102	0	1,102	0	0	0	0	1,102	0	0	0
108	McMullen	108	0	0	0	0	108	0	0	0	0	108
109	South Fork	2,883	0	1,034	0	0	1,849	0	933	41	0	1,849
110	Crane Springs	22,304	425	9,332	44	0	12,503	511	9,246	44	0	12,503
111	Dixie Creek	44,796	9,275	11,229	9,917	231	14,144	9,275	11,061	10,085	231	14,144
112	Sleeman	5,433	27	3,098	187	0	2,121	252	3,060	0	0	2,121
113	Hansel	11,169	0	3,686	250	0	7,233	184	3,577	175	0	7,233
114	Wilson FFR	985	0	765	0	0	220	46	719	0	0	220
115	Willow	4,772	0	1,913	0	0	2,859	0	63	0	0	4,709
116	Willow Crk Pockets	6,260	0	2,700	0	0	3,560	0	251	0	0	6,009
117	Cottonwood	293	0	95	0	0	198	0	20	0	0	273
118	Merkley Zamino	2,038	0	348	3	0	1,687	0	318	33	0	1,687
119	Achurra	2,176	0	549	0	0	1,627	0	523	26	0	1,627
120	Barnes Seeding	3,860	0	885	0	0	2,975	0	830	55	0	2,975
121	Barnes FFR	164	0	164	0	0	0	16	148	0	0	0
122	Little Porter FFR	97	0	0	97	0	0	0	3	94	0	0
123	Robinson Mountain FFR	155	0	0	155	0	0	0	4	151	0	0
124	Robinson Mountain	18,409	2,725	4,009	7,248	0	4,427	2,725	3,929	7,328	0	4,427
125	Little Porter	3,512	2,799	232	0	0	481	0	232	0	0	3,280
126	Robinson Creek	15,549	3,577	3,722	3,266	381	4,603	656	3,545	3,364	381	7,603
127	Frost Creek	10,058	229	4,740	0	0	5,089	229	3,840	900	0	5,089
128	Corta FFR	144	0	144	0	0	0	14	130	0	0	0
129	Corral Canyon	2,006	0	458	0	0	1,548	0	458	0	0	1,548
130	Forest FFR	480	0	0	480	0	0	0	0	480	0	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE B  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE B <sup>2/</sup>				MISC ACRES <sup>3/</sup>
			E	M	L	P		E	M	L	P	
131	Pearl Creek	1,485	40	0	0	0	1,445	40	0	0	0	1,445
132	Rattlesnake Mountain	641	0	11	630	0	0	0	32	609	0	0
133	Lindsay Creek	9,172	206	3,464	4	0	5,498	206	3,356	212	0	5,498
134	Twin Creek North	2,974	353	27	23	0	2,571	11	27	23	0	2,913
135	Twin Creek East	2,036	0	673	0	0	1,363	11	662	0	0	1,363
136	Twin Creek South	1,138	0	0	0	0	1,138	0	0	0	0	1,138
137	Merkley FFR	3,464	0	3,464	0	0	0	0	3,364	100	0	0
138	Red Rock	65,230	6,209	28,715	8,746	320	21,240	3,952	15,530	10,800	1,708	33,240
139	Browne	19,113	13,915	5,198	0	0	0	13,915	3,972	1,226	0	0
140	Mitchell Creek	18,789	5,876	6,607	316	0	5,990	1,620	225	326	0	16,618
TOTALS		2,878,710	285,908	1,409,083	759,030	57,872	366,817	213,844	1,103,140	949,321	110,326	502,079
Native Range Acres			2,511,893				2,376,631					
	Bullhead	50,137	14,267	35,870	0	0	0	14,267	32,830	3,587	0	
	Little Owyhee	199,957	30,355	160,844	0	0	8,758	30,355	144,760	16,084	0	
	Pearl Forest	640	0	542	98	0	0	0	488	150	2	
	Table Mountain	4,575	1,837	2,537	0	0	201	1,837	2,283	254	0	

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<sup>1/</sup> Acreage figures include seedings, woodlands, and unclassified acres for present situation.

<sup>2/</sup> E = Early Seral, M = Mid Seral, L = Late Seral, P = Potential Native Community Classes.

<sup>3/</sup> Acreage figures include seedings, woodlands, and unclassified acres for Alternative B.

Note: These rates of change are supported in other areas within the sagebrush dominated communities of the Great Basin (French and Mitchell, 1983 and Rice and Westoby, 1978).



APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE C  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE C <sup>2/</sup>			
			E	M	L	P		E	M	L	P
1	Owyhee	371,431	9,798	320,184	31,130	951	9,368	9,798	309,954	40,485	1,826
2	YP Allotment	94,857	0	26,105	67,728	0	1,024	0	24,871	67,612	1,350
3	Petan Owyhee	10,221	0	253	4,988	4,852	128	0	253	4,988	4,852
4	Indian Creek FFR	4,924	0	0	3,423	0	1,501	0	0	3,423	0
5	VN Pocket Petan	6,082	0	58	6,024	0	0	0	58	5,808	216
6	VN Pocket Allied	7,444	0	4,030	3,414	0	0	0	3,828	3,616	0
7	Cornucopia	15,758	2,781	8,938	3,789	0	250	2,781	8,738	3,989	0
8	Andrae	17,063	0	1,329	15,696	0	38	0	1,329	15,569	127
9	Wilson Mountain	2,362	0	0	1,983	0	379	0	0	1,898	85
10	Lime Mountain	9,094	0	409	8,564	0	121	0	399	8,399	175
11	Mori	10,436	0	256	10,180	0	0	0	230	9,697	509
12	Bucket Flat	1,536	0	0	1,536	0	0	0	0	1,459	77
13	Rock Creek	353,860	18,005	150,606	138,895	20,488	25,866	18,005	142,699	143,399	23,891
14	Midas	4,417	0	997	3,420	0	0	0	922	3,495	0
15	Little Humboldt	64,075	19,711	25,761	14,388	0	4,215	19,955	26,813	13,092	0
16	Twenty Five	284,626	11,533	223,463	37,725	0	11,905	11,533	222,143	38,440	605
17	Tuscarora	56,869	0	10,629	22,507	17,788	5,945	0	9,849	22,837	18,238
18	Six Mile	946	0	946	0	0	0	0	946	0	0
19	Taylor Canyon	9,134	0	539	6,690	0	1,905	0	499	6,530	200
20	Eagle Rock	29,359	0	101	29,258	0	0	0	101	28,380	878
21	Wildhorse Group	26,258	0	901	22,736	1,694	927	0	811	21,234	3,286
22	Rough Hills	4,902	0	0	4,654	248	0	0	0	4,468	434
23	Stone Flat FFR	311	0	0	311	0	0	0	0	311	0
24	Annie Creek	2,954	0	1,164	1,790	0	0	0	1,081	1,794	79
25	Bruneau River	3,347	0	79	3,268	0	0	0	71	3,112	164
26	Rattlesnake Canyon	10,365	0	6,362	3,370	0	633	182	6,298	3,252	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE C  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sub>1/</sub>	ALTERNATIVE C <sup>2/</sup>			
			E	M	L	P		E	M	L	P
27	Stone Flat	2,561	0	1,858	703	0	0	86	1,841	634	0
28	Four Mile	36,187	0	24,662	9,716	1,809	0	0	24,016	10,231	1,940
29	Beaver Creek	75,579	0	23,189	52,058	332	0	0	23,050	52,072	457
30	Mason Mountain	2,774	0	1,768	1,006	0	0	0	1,697	1,027	50
31	Mexican Field	2,989	0	231	2,416	139	203	0	200	2,286	300
32	Cotant	3,383	1,604	809	0	0	970	1,604	769	40	0
33	Double Mountain	38,662	1,229	15,139	20,534	0	1,760	1,229	14,535	20,728	410
34	Sheep Creek	8,461	0	2,853	3,133	0	2,475	0	2,581	3,207	198
35	Mahala Creek	13,100	5	7,541	2,415	0	3,139	5	7,164	2,745	47
36	Eagle Rock 1	8,043	1,194	3,651	1,000	0	2,198	1,194	3,541	1,060	50
37	Lone Mountain	31,895	0	22,393	8,330	724	448	0	20,714	9,681	1,052
38	Fox Springs	4,592	0	3,674	0	0	918	0	3,417	257	0
39	Coal Mine Basins	7,686	0	6,504	1,182	0	0	0	6,504	1,182	0
40	North Fork Group	96,049	27,100	44,986	17,687	750	5,526	27,100	44,986	17,687	750
41	Dorsey	3,782	0	502	1,433	0	1,847	0	467	1,398	70
42	Long Field	2,566	0	2,566	0	0	0	0	2,541	25	0
43	Halleck	3,831	42	3,789	0	0	0	67	3,764	0	0
44	Adobe Hills	33,573	6,797	7,076	13,110	0	6,590	6,797	6,475	12,662	1,049
45	White Rock	5,232	0	2,433	0	0	2,799	0	2,283	150	0
46	Adobe	2,898	0	2,506	392	0	0	0	2,255	623	20
47	Blue Basin	36,254	2,712	8,531	19,433	0	5,578	2,712	7,763	19,229	972
48	Dry Susie	5,630	0	1,806	3,824	0	0	0	1,643	3,815	172
49	Carlin Canyon	275	0	0	275	0	0	0	0	275	0
50	Carlin Field	17,394	1,640	5,456	9,066	0	1,232	1,640	5,204	9,138	180
51	Hadley	30,257	10,353	10,020	8,046	989	849	10,353	9,268	8,557	1,230
52	Taylor's Carlin	62	0	62	0	0	0	5	57	0	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE C  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <u>2/</u>				MISC ACRES <u>1/</u>	ALTERNATIVE C <u>2/</u>			
			E	M	L	P		E	M	L	P
53	Marys Mountain	16,651	0	16,436	215	0	0	0	15,936	715	0
54	T Lazy S	72,928	20,725	22,515	12,851	763	16,074	20,725	21,840	13,398	891
55	Horseshoe	15,339	2,770	12,166	0	0	403	3,013	11,923	0	0
56	Palisade	11,238	0	10,472	0	0	766	0	10,472	0	0
57	Pine Mountain	28,034	9,341	13,127	723	0	4,843	9,804	12,720	667	0
58	Iron Blossom	7,573	0	5,260	1,932	0	381	67	5,290	1,835	0
59	Safford Canyon	8,628	2,370	1,705	666	0	3,887	2,370	1,630	741	0
60	Scotts Gulch	10,313	3,574	6,455	252	0	32	3,574	6,275	432	0
61	Geyser	46,635	16,795	20,763	3,132	783	5,162	16,795	19,313	4,567	798
62	Thomas Creek	4,762	0	3,082	193	0	1,487	0	3,082	193	0
63	Thomas Creek FFR	130	12	118	0	0	0	6	118	6	0
64	Devils Gate	2,987	0	1,985	524	0	478	0	1,910	599	0
65	South Buckhorn	226,004	55,356	92,014	55,817	4,189	18,628	55,356	87,528	59,466	5,026
66	Potato Patch	3,479	0	1,240	0	0	2,239	0	1,190	50	0
67	Pine Creek	12,601	0	12,601	0	0	0	0	11,341	1,260	0
68	Mineral Hill	24,423	3,714	6,976	3,855	0	9,878	3,714	6,697	4,018	116
69	Union Mountain	22,986	3,854	7,740	774	0	10,618	3,854	7,740	774	0
70	Bruffy	18,474	0	6,013	366	0	12,095	150	5,873	356	0
71	Pony Creek	15,219	0	6,265	306	0	8,648	0	6,265	306	0
72	Indian Springs	18,708	471	6,543	5,907	441	5,346	471	6,118	6,155	618
73	Dixie Flats	21,171	954	12,476	1,942	0	5,799	954	11,977	2,441	0
74	Emmigrant	14,294	297	11,814	737	0	1,446	297	11,342	1,209	0
75	Tonka	19,894	3,080	9,150	6,154	0	1,510	3,080	8,729	6,452	123
76	Old 80 FFR	93	0	93	0	0	0	0	93	0	0
77	Grindstone	5,181	1,517	702	1,372	0	1,590	1,517	702	1,372	0
78	Cut Off	2,258	0	1,079	808	0	371	45	1,064	778	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE C  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sub>1/</sub>	ALTERNATIVE C <sup>2/</sup>			
			E	M	L	P		E	M	L	P
79	Bullion Road	4,674	72	3,113	110	0	1,379	72	2,708	512	3
80	Ten Mile	5,775	223	3,383	21	0	2,148	223	3,214	190	0
81	Four Mile Canyon	4,557	0	3,778	0	0	779	0	3,665	113	0
82	Burner Basin	1,275	0	889	0	0	386	0	889	0	0
83	Elko Hills	7,106	0	4,088	1,798	0	1,220	0	3,802	1,994	90
84	East Fork	10,461	447	6,727	2,291	0	966	447	6,290	2,689	69
85	East Fork FFR	39	0	0	39	0	0	0	2	37	0
86	Burger Creek	240	0	240	0	0	0	0	226	14	0
87	Smiraldo	2,885	0	0	0	0	2,885	0	0	0	0
88	King Seeding	2,283	0	0	0	0	2,283	0	0	0	0
89	Horsefly	3,328	3	698	0	0	2,627	3	614	84	0
90	Heelfly	378	0	0	0	0	378	0	0	0	0
91	Secret	467	0	79	0	0	388	0	65	14	0
92	Rabbit Creek	4,889	0	309	0	0	4,580	0	284	25	0
93	Kennedy Seeding	1,534	0	0	0	0	1,534	0	0	0	0
94	Walther	136	0	0	0	0	136	0	0	0	0
95	Palacio	1,031	0	0	0	0	1,031	0	0	0	0
96	Sandhill North	1,279	0	47	0	0	1,232	0	47	0	0
97	Sandhill South	593	0	0	0	0	593	0	0	0	0
98	Bellinger	2,344	0	0	0	0	2,344	0	0	0	0
99	Hog Tommy	1,898	0	1,813	85	0	0	0	1,746	152	0
100	Bottari	2,390	0	1,403	0	0	987	0	1,347	56	0
101	Olgvie Orbe	8,091	0	0	59	0	8,032	0	0	59	0
102	LDS FFR	294	0	294	0	0	0	42	252	0	0
103	Shoshone	8,473	37	3,857	0	0	4,579	37	3,626	231	0
104	Chimney Creek	5,488	0	0	0	0	5,488	0	0	0	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE C  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE C <sup>2/</sup>			
			E	M	L	P		E	M	L	P
105	Twin Bridges	3,359	0	1,837	0	0	1,522	0	1,764	73	0
106	River	4,299	118	2,259	1,497	0	425	118	2,169	1,587	0
107	LDS	1,102	0	1,102	0	0	0	0	1,032	70	0
108	McMullen	108	0	0	0	0	108	0	0	0	0
109	South Fork	2,883	0	1,034	0	0	1,849	0	982	52	0
110	Crane Springs	22,304	425	9,332	44	0	12,503	425	9,332	44	0
111	Dixie Creek	44,796	9,275	11,229	9,917	231	14,144	9,275	10,574	10,325	478
112	Sleeman	5,433	27	3,098	187	0	2,121	195	3,029	88	0
113	Hansel	11,169	0	3,686	250	0	7,233	0	3,546	378	12
114	Wilson FFR	985	0	765	0	0	220	38	727	0	0
115	Willow	4,772	0	1,913	0	0	2,859	0	1,722	191	0
116	Willow Crk Pockets	6,260	0	2,700	0	0	3,560	0	2,511	189	0
117	Cottonwood	293	0	95	0	0	198	17	78	0	0
118	Merkley Zunino	2,038	0	348	3	0	1,687	0	308	43	0
119	Achurra	2,176	0	549	0	0	1,627	0	489	60	0
120	Barnes Seeding	3,860	0	885	0	0	2,975	0	810	75	0
121	Barnes FFR	164	0	164	0	0	0	0	164	0	0
122	Little Porter FFR	97	0	0	97	0	0	0	0	92	5
123	Robinson Mountain FFR	155	0	0	155	0	0	0	0	151	4
124	Robinson Mountain	18,409	2,725	4,009	7,248	0	4,427	2,725	3,809	7,236	212
125	Little Porter	3,512	2,799	232	0	0	481	2,799	225	7	0
126	Robinson Creek	15,549	3,577	3,722	3,266	381	4,603	3,577	3,499	3,375	495
127	Frost Creek	10,058	229	4,740	0	0	5,089	229	4,432	308	0
128	Corta FFR	144	0	144	0	0	0	14	130	0	0
129	Corral Canyon	2,006	0	458	0	0	1,548	0	444	14	0
130	Forest FFR	480	0	0	480	0	0	0	0	472	8

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE C  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE C <sup>2/</sup>			
			E	M	L	P		E	M	L	P
131	Pearl Creek	1,485	40	0	0	0	1,445	40	0	0	0
132	Rattlesnake Mountain	641	0	11	630	0	0	0	11	630	0
133	Lindsay Creek	9,172	206	3,464	4	0	5,498	206	3,256	212	0
134	Twin Creek North	2,974	353	27	23	0	2,571	353	27	23	0
135	Twin Creek East	2,036	0	673	0	0	1,363	0	673	0	0
136	Twin Creek South	1,138	0	0	0	0	1,138	0	0	0	0
137	Merkley FFR	3,464	0	3,464	0	0	0	0	3,315	149	0
138	Red Rock	65,230	6,209	28,715	8,746	320	21,240	6,209	27,715	9,746	320
139	Browne	19,113	13,915	0	0	0	0	13,915	5,042	156	0
140	Mitchell Creek	18,789	5,876	6,607	316	0	5,990	5,876	6,277	646	0
TOTALS		2,878,710	285,908	1,409,083	759,030	57,872	366,817	287,673	1,362,665	786,348	75,207
Native Range Acres			2,511,893				2,511,893				
	Bullhead	50,137	14,267	35,870	0	0	0	14,626	35,152	359	0
	Little Owyhee	199,957	30,355	160,844	0	0	8,758	31,963	157,628	1,608	0
	Pearl Forest	640	0	542	98	0	0	54	434	152	0
	Table Mountain	4,575	1,837	2,537	0	0	201	1,862	2,487	25	0

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<sup>1/</sup> Acreages include seedings, woodland, and unclassified acres for the present situation and Alternative C.

<sup>2/</sup> E = Early Seral, M = Mid Seral, L = Late Seral, P = Potential Native Community Classes.

Note: These rates of change are supported in other areas within the sagebrush dominated communities of the Great Basin (French and Mitchell, 1983 and Rice and Westoby, 1978).



## APPENDIX 5

## TABLE 2

## ECOLOGICAL STATUS CHANGES BY ALLOTMENT

## ALTERNATIVE D

(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	E	PRESENT SITUATION <sup>2/</sup>			P	MISC ACRES <sup>1/</sup>	ALTERNATIVE D <sup>2/</sup>				MISC ACRES <sup>3/</sup>
				M	L				E	M	L	P	
1	Owyhee	371,431	9,798	320,184	31,130		951	9,368	9,798	315,054	23,734	13,477	9,368
2	YP Allotment	94,857	0	26,105	67,728		0	1,024	0	24,345	67,728	600	2,184
3	Petan Owyhee	10,221	0	253	4,988		4,852	128	0	253	4,988	4,852	128
4	Indian Creek FFR	4,924	0	0	3,423		0	1,501	0	0	3,273	150	1,501
5	VN Pocket Petan	6,082	0	58	6,024		0	0	0	58	3,624	2,400	0
6	VN Pocket Allied	7,444	0	4,030	3,414		0	0	0	4,030	2,214	1,200	0
7	Cornucopia	15,758	2,781	8,938	3,789		0	250	2,781	8,938	3,789	0	250
8	Andrae	17,063	0	1,329	15,696		0	38	0	1,329	15,696	0	38
9	Wilson Mountain	2,362	0	0	1,983		0	379	0	0	1,923	60	379
10	Lime Mountain	9,094	0	409	8,564		0	121	0	409	8,564	0	121
11	Mori	10,436	0	256	10,180		0	0	0	256	10,180	0	0
12	Bucket Flat	1,536	0	0	1,536		0	0	0	0	1,536	0	0
13	Rock Creek	353,860	18,005	150,606	138,895		20,488	25,866	18,005	150,606	138,095	21,288	25,866
14	Midas	4,417	0	997	3,420		0	0	0	922	3,495	0	0
15	Little Humboldt	64,075	19,711	25,761	14,388		0	4,215	19,711	24,215	12,854	3,080	4,215
16	Twenty Five	284,626	11,533	223,463	37,725		0	11,905	9,818	216,203	43,323	377	14,905
17	Tuscarora	56,869	0	10,629	22,507		17,788	5,945	0	10,129	22,807	17,988	5,945
18	Six Mile	946	0	946	0		0	0	0	766	180	0	0
19	Taylor Canyon	9,134	0	539	6,690		0	1,905	0	539	4,850	1,840	1,905
20	Eagle Rock	29,359	0	101	29,258		0	0	0	101	28,538	720	0
21	Wildhorse Group	26,258	0	901	22,736		1,694	927	0	901	21,236	3,194	927
22	Rough Hills	4,902	0	0	4,654		248	0	0	0	4,654	248	0
23	Stone Flat FFR	311	0	0	311		0	0	0	0	311	0	0
24	Annie Creek	2,954	0	1,164	1,790		0	0	0	1,136	1,818	0	0
25	Bruneau River	3,347	0	79	3,268		0	0	0	75	3,191	81	0
26	Rattlesnake Canyon	10,365	0	6,362	3,370		0	633	0	4,418	3,780	1,534	633

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## APPENDIX 5

TABLE 2

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE D  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	E	PRESENT SITUATION <sup>2/</sup>			MISC ACRES <u>1/</u>	E	ALTERNATIVE D <sup>2/</sup>			MISC ACRES <u>3/</u>
				M	L	P			M	L	P	
27	Stone Flat	2,561	0	1,858	703	0	0	0	1,621	888	52	0
28	Four Mile	36,187	0	24,662	9,716	1,809	0	0	22,692	10,225	3,270	0
29	Beaver Creek	75,579	0	23,189	52,058	332	0	0	22,958	50,489	2,132	0
30	Mason Mountain	2,774	0	1,768	1,006	0	0	0	1,733	1,021	20	0
31	Mexican Field	2,989	0	231	2,416	139	203	0	231	2,366	189	203
32	Cotant	3,383	1,604	809	0	0	970	1,604	789	20	0	970
33	Double Mountain	38,662	1,229	15,139	20,534	0	1,760	1,229	14,139	20,534	1,000	1,760
34	Sheep Creek	8,461	0	2,853	3,133	0	2,475	0	2,853	3,133	0	2,475
35	Mahala Creek	13,100	5	7,541	2,415	0	3,139	5	7,541	2,415	0	3,139
36	Eagle Rock 1	8,043	1,194	3,651	1,000	0	2,198	1,194	3,578	1,063	10	2,198
37	Lone Mountain	31,895	0	22,393	8,330	724	448	0	16,139	13,056	2,252	448
38	Fox Springs	4,592	0	3,674	0	0	918	0	3,674	0	0	918
39	Coal Mine Basins	7,686	0	6,504	1,182	0	0	0	4,054	1,632	0	2,000
40	North Fork Group	96,049	27,100	44,986	17,687	750	5,526	18,815	42,087	20,586	750	13,811
41	Dorsey	3,782	0	502	1,433	0	1,847	0	502	1,433	0	1,847
42	Long Field	2,566	0	2,566	0	0	0	0	2,541	25	0	0
43	Halleck	3,831	42	3,789	0	0	0	42	3,642	147	0	0
44	Adobe Hills	33,573	6,797	7,076	13,110	0	6,590	6,797	6,722	12,064	1,400	6,590
45	White Rock	5,232	0	2,433	0	0	2,799	0	2,433	0	0	2,799
46	Adobe	2,898	0	2,506	392	0	0	0	2,381	517	0	0
47	Blue Basin	36,254	2,712	8,531	19,433	0	5,578	1,564	7,372	19,546	194	7,578
48	Dry Susie	5,630	0	1,806	3,824	0	0	0	1,726	3,854	50	0
49	Carlin Canyon	275	0	0	275	0	0	0	0	275	0	0
50	Carlin Field	17,394	1,640	5,456	9,066	0	1,232	1,268	4,588	9,231	75	2,232
51	Hadley	30,257	10,353	10,020	8,046	989	849	5,853	9,644	8,302	1,109	5,349
52	Taylor's Carlin	62	0	62	0	0	0	0	62	0	0	0

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## APPENDIX 5

TABLE 2

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE D  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE D <sup>2/</sup>				MISC ACRES <sup>3/</sup>
			E	M	L	P		E	M	L	P	
53	Marys Mountain	16,651	0	16,436	215	0	0	0	15,951	300	0	400
54	T Lazy S	72,928	20,725	22,515	12,851	763	16,074	16,225	20,601	13,150	1,974	20,978
55	Horseshoe	15,339	2,770	12,166	0	0	403	1,270	12,066	100	0	1,903
56	Palisade	11,238	0	10,472	0	0	766	0	9,972	500	0	766
57	Pine Mountain	28,034	9,341	13,127	723	0	4,843	6,341	12,867	983	0	7,843
58	Iron Blossom	7,573	0	5,260	1,932	0	381	0	4,334	2,143	115	981
59	Safford Canyon	8,628	2,370	1,705	666	0	3,887	2,370	1,630	741	0	3,887
60	Scotts Gulch	10,313	3,574	6,455	252	0	32	2,574	6,197	510	0	1,032
61	Geyser	46,635	16,795	20,763	3,132	783	5,162	16,795	20,663	3,232	783	5,162
62	Thomas Creek	4,762	0	3,082	193	1,487	1,487	0	2,482	193	0	2,087
63	Thomas Creek FFR	130	12	118	0	0	0	0	114	16	0	0
64	Devils Gate	2,987	0	1,985	524	0	478	0	1,906	603	0	478
65	South Buckhorn	226,004	55,356	92,014	55,817	4,189	18,628	55,356	90,519	57,033	4,468	18,628
66	Potato Patch	3,479	0	1,240	0	0	2,239	0	1,228	12	0	2,239
67	Pine Creek	12,601	0	12,601	0	0	0	0	12,286	315	0	0
68	Mineral Hill	24,423	3,714	6,976	3,855	0	9,878	3,714	6,697	4,134	0	9,878
69	Union Mountain	22,986	3,854	7,740	774	0	10,618	3,854	7,260	1,254	0	10,618
70	Bruffy	18,474	0	6,013	366	0	12,095	0	5,773	593	13	12,095
71	Pony Creek	15,219	0	6,265	306	0	8,648	0	5,305	1,266	0	8,648
72	Indian Springs	18,708	471	6,543	5,907	441	5,346	471	6,347	6,103	441	5,346
73	Dixie Flats	21,171	954	12,476	1,942	0	5,799	954	12,226	2,192	0	5,799
74	Emigrant	14,294	297	11,814	737	0	1,446	297	11,342	1,209	0	1,446
75	Tonka	19,894	3,080	9,150	6,154	0	1,510	3,080	9,013	6,260	31	1,510
76	Old 80 FFR	93	0	93	0	0	0	0	91	2	0	0
77	Grindstone	5,181	1,517	702	1,372	0	1,590	1,517	681	1,393	0	1,590
78	Cut Off	2,258	0	1,079	808	0	371	0	1,058	829	0	371

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## APPENDIX 5

TABLE 2

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE D  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	E	PRESENT SITUATION <sup>2/</sup>			MISC ACRES <u>1/</u>	E	ALTERNATIVE D <sup>2/</sup>			MISC ACRES <u>3/</u>
				M	L	P			M	L	P	
79	Bullion Road	4,674	72	3,113	110	0	1,379	72	2,926	294	3	1,379
80	Ten Mile	5,775	223	3,383	21	0	2,148	223	3,282	122	0	2,148
81	Four Mile Canyon	4,557	0	3,778	0	0	779	0	3,608	170	0	779
82	Burner Basin	1,275	0	889	0	0	386	60	845	44	0	386
83	Elko Hills	7,106	0	4,088	1,798	0	1,220	0	3,965	1,885	36	1,220
84	East Fork	10,461	447	6,727	2,291	0	966	477	6,525	2,468	25	966
85	East Fork FFR	39	0	0	39	0	0	0	0	39	0	0
86	Burger Creek	240	0	240	0	0	0	0	228	12	0	0
87	Smiraldo	2,885	0	0	0	0	2,885	0	0	0	0	2,885
88	King Seeding	2,283	0	0	0	0	2,283	0	0	0	0	2,283
89	Horsefly	3,328	3	698	0	0	2,627	3	349	349	0	2,627
90	Heelfly	378	0	0	0	0	378	0	0	0	0	378
91	Secret	467	0	79	0	0	388	0	72	7	0	388
92	Rabbit Creek	4,889	0	309	0	0	4,580	0	295	14	0	4,580
93	Kennedy Seeding	1,534	0	0	0	0	1,534	0	0	0	0	1,534
94	Walther	136	0	0	0	0	136	0	0	0	0	136
95	Palacio	1,031	0	0	0	0	1,031	0	0	0	0	1,031
96	Sandhill North	1,279	0	47	0	0	1,232	0	47	0	0	1,232
97	Sandhill South	593	0	0	0	0	593	0	0	0	0	593
98	Bellinger	2,344	0	0	0	0	2,344	0	0	0	0	2,344
99	Hog Tommy	1,898	0	1,813	85	0	0	0	1,413	485	0	0
100	Bottari	2,390	0	1,403	0	0	987	0	103	0	0	2,287
101	Olgivie Orbe	8,091	0	0	59	0	8,032	0	0	59	0	8,032
102	LDS FFR	294	0	294	0	0	0	0	280	14	0	0
103	Shoshone	8,473	37	3,857	0	0	4,579	37	3,082	775	0	4,579
104	Chimney Creek	5,488	0	0	0	0	5,488	0	0	0	0	5,488



## APPENDIX 5

TABLE 2

## ECOLOGICAL STATUS CHANGES BY ALLOTMENT

## ALTERNATIVE D

(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <u>1/</u>	ALTERNATIVE D <sup>2/</sup>				MISC ACRES <u>3/</u>
			E	M	L	P		E	M	L	P	
105	Twin Bridges	3,359	0	1,837	0	0	1,522	0	1,764	73	0	1,522
106	River	4,299	118	2,259	1,497	0	425	118	2,185	1,571	0	425
107	LDS	1,102	0	1,102	0	0	0	0	1,102	0	0	0
108	McMillen	108	0	0	0	0	108	0	0	0	0	108
109	South Fork	2,883	0	1,034	0	0	1,849	0	1,013	21	0	1,849
110	Crane Springs	22,304	425	9,332	44	0	12,503	425	9,152	224	0	12,503
111	Dixie Creek	44,796	9,275	11,229	9,917	231	14,144	9,275	10,892	10,254	231	14,144
112	Sleeman	5,433	27	3,098	187	0	2,121	27	2,974	305	6	2,121
113	Hansel	11,169	0	3,686	250	0	7,233	0	2,143	353	0	8,673
114	Wilson FFR	985	0	765	0	0	220	0	719	46	0	220
115	Willow	4,772	0	1,913	0	0	2,859	0	1,837	76	0	2,859
116	Willow Crk Pockets	6,260	0	2,700	0	0	3,560	0	2,592	108	0	3,560
117	Cottonwood	293	0	95	0	0	198	0	90	5	0	198
118	Merkley Zunino	2,038	0	348	3	0	1,687	0	334	17	0	1,687
119	Achurra	2,176	0	549	0	0	1,627	0	537	12	0	1,627
120	Barnes Seeding	3,860	0	885	0	0	2,975	0	850	35	0	2,975
121	Barnes FFR	164	0	164	0	0	0	0	156	8	0	0
122	Little Porter FFR	97	0	0	97	0	0	0	0	92	5	0
123	Robinson Mountain FFR	155	0	0	155	0	0	0	0	147	8	0
124	Robinson Mountain	18,409	2,725	4,009	7,248	0	4,427	2,725	3,889	7,368	0	4,427
125	Little Porter	3,512	2,799	232	0	0	481	2,799	232	0	0	481
126	Robinson Creek	15,549	3,577	3,722	3,266	381	4,603	3,577	3,649	3,339	381	4,603
127	Frost Creek	10,058	229	4,740	0	0	5,089	229	4,645	95	0	5,089
128	Corta FFR	144	0	144	0	0	0	0	141	3	0	0
129	Corral Canyon	2,006	0	458	0	0	1,548	0	444	14	0	1,548
130	Forest FFR	480	0	0	480	0	0	0	0	480	0	0

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APPENDIX 5

TABLE 2

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE D  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE D <sup>2/</sup>				MISC ACRES <sup>3/</sup>	
			E	M	L	P		E	M	L	P		
131	Pearl Creek	1,485	40	0	0	0	1,445	40	0	0	0	1,445	
132	Rattlesnake Mountain	641	0	11	630	0	0	0	11	630	0	0	
133	Lindsay Creek	9,172	206	3,464	4	0	5,498	206	3,014	454	0	5,498	
134	Twin Creek North	2,974	353	27	23	0	2,571	353	27	23	0	2,571	
135	Twin Creek East	2,036	0	673	0	0	1,363	0	656	17	0	1,363	
136	Twin Creek South	1,138	0	0	0	0	1,138	0	0	0	0	1,138	
137	Merkley FFR	3,464	0	3,464	0	0	0	0	3,429	35	0	0	
138	Red Rock	65,230	6,209	28,715	8,746	320	21,240	6,209	28,461	9,000	320	21,240	
139	Browne	19,113	13,915	5,198	0	0	0	13,915	2,746	2,452	0	0	
140	Mitchell Creek	18,789	5,876	6,607	316	0	5,990	3,376	6,541	382	0	8,490	
TOTALS		2,878,710	285,908	1,409,083	759,030	57,872	366,817	257,388	1,352,239	768,645	94,432	406,006	
Native Range Acres		- 2,511,893 -						2,472,704					
	Bullhead	50,137	14,267	35,870	0	0	0	0	30,489	5,381	0	0	
	Little Owyhee	199,957	30,355	160,844	0	0	8,758	30,355	144,717	24,127	0	8,758	
	Pearl Forest	640	0	542	98	0	0	0	461	179	0	0	
	Table Mountain	4,575	1,837	2,537	0	0	201	1,837	2,156	381	0	201	

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<sup>1/</sup> Acreages include seedings, woodlands, and unclassified acres for the present situation.

<sup>2/</sup> E = Early Seral, M = Mid Seral, L = Late Seral, P = Potential Native Community Classes.

<sup>3/</sup> Acreages include seedings, woodlands, and unclassified acres for Alternative D.

Note: These rates of change are supported in other areas within the sagebrush dominated communities of the Great Basin (French and Mitchell, 1983 and Rice and Westoby, 1978).



APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE E  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <u>1/</u>	ALTERNATIVE E <sup>2/</sup>			
			E	M	L	P		E	M	L	P
1	Owyhee	371,431	9,798	320,184	31,130	951	9,368	9,798	299,723	49,841	2,701
2	YP Allotment	94,857	0	26,105	67,728	0	1,024	0	24,871	64,925	4,037
3	Petan Owyhee	10,221	0	253	4,988	4,852	128	0	253	4,988	4,852
4	Indian Creek FFR	4,924	0	0	3,423	0	1,501	0	0	3,099	324
5	VN Pocket Petan	6,082	0	58	6,024	0	0	0	58	5,572	452
6	VN Pocket Allied	7,444	0	4,030	3,414	0	0	0	3,404	3,910	130
7	Cornucopia	15,758	2,781	8,938	3,789	0	250	2,781	8,324	4,195	208
8	Andrae	17,063	0	1,329	15,696	0	38	0	1,223	15,238	564
9	Wilson Mountain	2,362	0	0	1,983	0	379	0	0	1,812	171
10	Lime Mountain	9,094	0	409	8,564	0	121	0	351	8,014	608
11	Mori	10,436	0	256	10,180	0	0	0	214	9,378	844
12	Bucket Flat	1,536	0	0	1,536	0	0	0	0	1,413	123
13	Rock Creek	353,860	18,005	150,606	138,895	20,488	25,866	18,005	128,015	151,763	30,211
14	Midas	4,417	0	997	3,420	0	0	0	801	3,384	232
15	Little Humboldt	64,075	19,711	25,761	14,388	0	4,215	19,711	24,440	14,858	852
16	Twenty Five	284,626	11,533	223,463	37,725	0	11,905	11,533	187,709	70,461	3,018
17	Tuscarora	56,869	0	10,629	22,507	17,788	5,945	0	8,829	23,107	18,988
18	Six Mile	946	0	946	0	0	0	0	804	142	0
19	Taylor Canyon	9,134	0	539	6,690	0	1,905	0	446	6,214	569
20	Eagle Rock	29,359	0	101	29,258	0	0	0	81	27,084	2,194
21	Wildhorse Group	26,258	0	901	22,736	1,694	927	0	724	20,867	3,740
22	Rough Hills	4,902	0	0	4,654	248	0	0	0	4,282	620
23	Stone Flat FFR	311	0	0	311	0	0	0	0	281	30
24	Annie Creek	2,954	0	1,164	1,790	0	0	0	989	1,786	179
25	Bruneau River	3,347	0	79	3,268	0	0	0	64	2,956	327
26	Rattlesnake Canyon	10,365	0	6,362	3,370	0	633	0	5,344	4,132	256

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE E  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE E <sup>2/</sup>			
			E	M	L	P		E	M	L	P
27	Stone Flat	2,561	0	1,858	703	0	0	0	1,542	949	70
28	Four Mile	36,187	0	24,662	9,716	1,809	0	0	20,354	13,150	2,683
29	Beaver Creek	75,579	0	23,189	52,058	332	0	0	19,716	51,366	4,497
30	Mason Mountain	2,774	0	1,768	1,006	0	0	0	1,441	1,232	101
31	Mexican Field	2,989	0	231	2,416	139	203	0	197	2,233	356
32	Cotant	3,383	1,604	809	0	0	970	1,604	688	121	0
33	Double Mountain	38,662	1,229	15,139	20,534	0	1,760	1,229	13,175	21,061	1,437
34	Sheep Creek	8,461	0	2,853	3,133	0	2,475	0	2,513	3,225	248
35	Mahala Creek	13,100	5	7,541	2,415	0	3,139	5	6,561	3,226	169
36	Eagle Rock 1	8,043	1,194	3,651	1,000	0	2,198	1,194	3,140	1,411	100
37	Lone Mountain	31,895	0	22,393	8,330	724	448	0	19,034	10,992	1,421
38	Fox Springs	4,592	0	3,674	0	0	918	0	3,123	551	0
39	Coal Mine Basins	7,686	0	6,504	1,182	0	0	0	5,652	1,928	106
40	North Fork Group	96,049	27,100	44,986	17,687	750	5,526	27,100	38,700	22,918	1,805
41	Dorsey	3,782	0	502	1,433	0	1,847	0	432	1,374	129
42	Long Field	2,566	0	2,566	0	0	0	0	2,233	333	0
43	Halleck	3,831	42	3,789	0	0	0	42	3,353	436	0
44	Adobe Hills	33,573	6,797	7,076	13,110	0	6,590	6,797	5,873	13,133	1,180
45	White Rock	5,232	0	2,433	0	0	2,799	0	2,092	341	0
46	Adobe	2,898	0	2,506	392	0	0	0	2,005	858	35
47	Blue Basin	36,254	2,712	8,531	19,433	0	5,578	2,712	7,081	19,134	1,749
48	Dry Susie	5,630	0	1,806	3,824	0	0	0	1,481	3,805	344
49	Carlin Canyon	275	0	0	275	0	0	0	0	268	7
50	Carlin Field	17,394	1,640	5,456	9,066	0	1,232	1,640	4,692	9,286	544
51	Hadley	30,257	10,353	10,020	8,046	989	849	10,353	8,517	9,066	1,472
52	Taylors Carlin	62	0	62	0	0	0	0	57	5	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE E  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <u>1/</u>	ALTERNATIVE E <sup>2/</sup>			
			E	M	L	P		E	M	L	P
53	Marys Mountain	16,651	0	16,436	215	0	0	0	14,217	2,412	22
54	T Lazy S	72,928	20,725	22,515	12,851	763	16,074	20,725	18,237	16,229	1,663
55	Horseshoe	15,339	2,770	12,166	0	0	403	2,770	11,558	608	0
56	Palisade	11,238	0	10,472	0	0	766	0	9,425	1,047	0
57	Pine Mountain	28,034	9,341	13,127	723	0	4,843	9,341	10,895	2,897	58
58	Iron Blossom	7,573	0	5,260	1,932	0	381	0	4,524	2,475	193
59	Safford Canyon	8,628	2,370	1,705	666	0	3,887	2,370	1,548	823	0
60	Scotts Gulch	10,313	3,574	6,455	252	0	32	3,574	5,487	1,195	25
61	Geyser	46,635	16,795	20,763	3,132	783	5,162	16,795	18,271	5,423	984
62	Thomas Creek	4,762	0	3,082	183	1,487	1,487	0	2,712	556	7
63	Thomas Creek FFR	130	12	118	0	0	0	0	108	22	0
64	Devils Gate	2,987	0	1,985	524	0	478	0	1,677	780	52
65	South Buckhorn	226,004	55,356	92,014	55,817	4,189	18,628	55,356	79,868	65,563	6,589
66	Potato Patch	3,479	0	1,240	0	0	2,239	0	1,091	149	0
67	Pine Creek	12,601	0	12,601	0	0	0	0	11,341	1,260	0
68	Mineral Hill	24,423	3,714	6,976	3,855	0	9,878	3,714	6,139	4,388	304
69	Union Mountain	22,986	3,854	7,740	774	0	10,618	3,854	6,424	2,090	0
70	Bruffy	18,474	0	6,013	366	0	12,095	0	5,291	1,051	37
71	Pony Creek	15,219	0	6,265	306	0	8,648	0	6,051	520	0
72	Indian Springs	18,708	471	6,543	5,907	441	5,346	471	5,562	6,475	854
73	Dixie Flats	21,171	954	12,476	1,942	0	5,799	954	10,729	3,611	78
74	Emmigrant	14,294	297	11,814	737	0	1,446	297	9,924	2,627	0
75	Tonka	19,894	3,080	9,150	6,154	0	1,510	3,080	7,869	7,066	369
76	Old 80 FFR	93	0	93	0	0	0	0	88	5	0
77	Grindstone	5,181	1,517	702	1,372	0	1,590	1,517	597	1,408	69
78	Cut Off	2,258	0	1,079	808	0	371	0	950	905	32

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE E  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MLSC ACRES <sup>1/</sup>	ALTERNATIVE E <sup>2/</sup>			
			E	M	L	P		E	M	L	P
79	Bullion Road	4,674	72	3,113	110	0	1,379	72	2,708	512	3
80	Ten Mile	5,775	223	3,383	21	0	2,148	223	2,977	426	1
81	Four Mile Canyon	4,557	0	3,778	0	0	779	0	3,249	529	0
82	Burner Basin	1,275	0	889	0	0	386	0	782	107	0
83	Elko Hills	7,106	0	4,088	1,798	0	1,220	0	3,598	2,144	144
84	East Fork	10,461	447	6,727	2,291	0	966	477	5,853	3,028	137
85	East Fork FFR	39	0	0	39	0	0	0	0	37	2
86	Burger Creek	240	0	240	0	0	0	0	211	29	0
87	Smiraldo	2,885	0	0	0	0	2,885	0	0	0	0
88	King Seeding	2,283	0	0	0	0	2,283	0	0	0	0
89	Horsefly	3,328	3	698	0	0	2,627	3	614	84	0
90	Heelfly	378	0	0	0	0	378	0	0	0	0
91	Secret	467	0	79	0	0	388	0	65	14	0
92	Rabbit Creek	4,889	0	309	0	0	4,580	0	281	28	0
93	Kennedy Seeding	1,534	0	0	0	0	1,534	0	0	0	0
94	Walther	136	0	0	0	0	136	0	0	0	0
95	Palacio	1,031	0	0	0	0	1,031	0	0	0	0
96	Sandhill North	1,279	0	47	0	0	1,232	0	38	9	0
97	Sandhill South	593	0	0	0	0	593	0	0	0	0
98	Bellinger	2,344	0	0	0	0	2,344	0	0	0	0
99	Hog Tommy	1,898	0	1,813	85	0	0	0	1,595	303	0
100	Bottari	2,390	0	1,403	0	0	987	0	1,249	154	0
101	Olgivie Orbe	8,091	0	0	59	0	8,032	0	0	59	0
102	LDS FFR	294	0	294	0	0	0	0	261	33	0
103	Shoshone	8,473	37	3,857	0	0	4,579	37	3,239	617	0
104	Chimney Creek	5,488	0	0	0	0	5,488	0	0	0	0

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE E  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE E <sup>2/</sup>			
			E	M	L	P		E	M	L	P
105	Twin Bridges	3,359	0	1,837	0	0	1,522	0	1,672	165	0
106	River	4,299	118	2,259	1,497	0	425	118	1,988	1,732	36
107	LDS	1,102	0	1,102	0	0	0	0	981	121	0
108	McMillen	108	0	0	0	0	108	0	0	0	0
109	South Fork	2,883	0	1,034	0	0	1,849	0	900	134	0
110	Crane Springs	22,304	425	9,332	44	0	12,503	425	8,119	1,257	0
111	Dixie Creek	44,796	9,275	11,229	9,917	231	14,144	9,275	9,657	10,894	826
112	Sleeman	5,433	27	3,098	187	0	2,121	27	2,726	540	19
113	Hansel	11,169	0	3,686	250	0	7,233	0	3,244	667	25
114	Wilson FFR	985	0	765	0	0	220	0	650	115	0
115	Willow	4,772	0	1,913	0	0	2,859	0	1,645	268	0
116	Willow Crk Pockets	6,260	0	2,700	0	0	3,560	0	2,376	324	0
117	Cottonwood	293	0	95	0	0	198	0	85	10	0
118	Merkley Zunino	2,038	0	348	3	0	1,687	0	308	43	0
119	Achurra	2,176	0	549	0	0	1,627	0	489	60	0
120	Barnes Seeding	3,860	0	885	0	0	2,975	0	770	115	0
121	Barnes FFR	164	0	164	0	0	0	0	144	20	0
122	Little Porter FFR	97	0	0	97	0	0	0	0	87	10
123	Robinson Mountain FFR	155	0	0	155	0	0	0	0	141	14
124	Robinson Mountain	18,409	2,725	4,009	7,248	0	4,427	2,725	3,488	7,202	567
125	Little Porter	3,512	2,799	232	0	0	481	2,799	200	32	0
126	Robinson Creek	15,549	3,577	3,722	3,266	381	4,603	3,577	3,201	3,526	642
127	Frost Creek	10,058	229	4,740	0	0	5,089	229	4,124	616	0
128	Corta FFR	144	0	144	0	0	0	0	117	27	0
129	Corral Canyon	2,006	0	458	0	0	1,548	0	394	64	0
130	Forest FFR	480	0	0	480	0	0	0	0	456	24

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APPENDIX 5  
TABLE 2 (Continued)

ECOLOGICAL STATUS CHANGES BY ALLOTMENT  
ALTERNATIVE E  
(acres)

MAP REF. NUMBER	ALLOTMENT NAME	TOTAL PUBLIC ALLOTMENT ACRES	PRESENT SITUATION <sup>2/</sup>				MISC ACRES <sup>1/</sup>	ALTERNATIVE E <sup>2/</sup>			
			E	M	L	P		E	M	L	P
131	Pearl Creek	1,485	40	0	0	0	1,445	40	0	0	0
132	Rattlesnake Mountain	641	0	11	630	0	0	0	9	569	63
133	Lindsay Creek	9,172	206	3,464	4	0	5,498	206	3,014	454	0
134	Twin Creek North	2,974	353	27	23	0	2,571	353	24	24	2
135	Twin Creek East	2,036	0	673	0	0	1,363	0	592	81	0
136	Twin Creek South	1,138	0	0	0	0	1,138	0	0	0	0
137	Merkley FFR	3,464	0	3,464	0	0	0	0	2,979	485	0
138	Red Rock	65,230	6,209	28,715	8,746	320	21,240	6,209	24,695	12,241	845
139	Browne	19,113	13,915	0	0	0	0	13,915	4,262	936	0
140	Mitchell Creek	18,789	5,876	6,607	316	0	5,990	5,876	5,814	1,084	25
TOTALS		2,878,710	285,908	1,409,083	759,030	57,872	366,817	285,908	1,236,289	880,292	109,404
Native Range Acres			- 2,511,893 -				2,511,893				
	Bullhead	50,137	14,267	35,870	0	0	0	14,626	29,772	6,098	0
	Little Owyhee	199,957	30,355	160,844	0	0	8,758	30,355	141,010	19,834	0
	Pearl Forest	640	0	542	98	0	0	0	434	196	0
	Table Mountain	4,575	1,837	2,537	0	0	201	1,837	2,258	279	0

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<sup>1/</sup> These acreages include seedings, woodlands, and unclassified areas for both the present situation and Alternative E.

<sup>2/</sup> E = Early Seral, M = Mid Seral, L = Late Seral, P = Potential Native Community Classes.

Note: These rates of change are supported in other areas within the sagebrush dominated communities of the Great Basin (French and Mitchell, 1983 and Rice and Westoby, 1978).



APPENDIX 5  
TABLE 3

THREATENED, ENDANGERED AND SENSITIVE PLANT SPECIES IN THE ELKO RMP AREA

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
Federally Listed Species Currently Under Review		
<u>Antennaria arcuata</u>	Arching or Meadow pussytoes	<u>1/</u> Candidate; Currently under Review
<u>Erigeron latus</u>	Broad fleabane	<u>1/</u> , <u>3/</u>
<u>Ivesia rhypara</u>	Grimy ivesia	<u>1/</u> , <u>3/</u>
<u>Mentzelia packardiae</u>	Packard's mentzelia	<u>1/</u> Candidate; Informa- tion indicates species should be added as threatened
Nevada Listed Sensitive Species		
<u>Artemisia packardiae</u>	Packard's sagebrush	<u>3/</u> Rare
<u>Artemisia papposa</u>	Fuzzy sandwort	<u>3/</u> Rare
<u>Astragalus pterocarpus</u>	Winged milkvetch	<u>3/</u> Rare
<u>Hackelia ophiobia</u>	Owyhee River stickseed	<u>3/</u> Watch
<u>Lepidium nanum</u>	Pulvinate pepperweed	<u>3/</u> Rare
Federally Listed or Sensitive Species <u>2/</u>		
<u>Arabis falcifruca</u>	None	<u>3/</u> Watch
<u>Astragalus robbinsii</u>	Lamoille Canyon (Robbins)	<u>1/</u> Candidate:
var. <u>occidentalis</u>	milkvetch	Currently Under Review
<u>Coryphanta vivipara</u>	Broadpod freckled	
var. <u>rosea</u>	milkvetch	<u>3/</u> Watch
<u>Cymopterus nivalis</u>	None	<u>1/</u> , <u>3/</u> Watch
<u>Eriogonum argophyllum</u>	Silverleaf buckwheat	<u>1/</u> Candidate: Currently Under Review
		<u>4/</u> Critically Endangered NRS 527.270
<u>Penstemon procerus</u>	Ruby Mountain	<u>3/</u> Rare
var. <u>modestus</u>	penstemon	
<u>Phacelia nevadensis</u>	None	<u>1/</u> Candidate: Currently Under Review
<u>Primula capillaris</u>	Ruby Mountain primrose	<u>1/</u> Candidate; Currently Under Review
		<u>4/</u> Critically Endangered NRS 527.270
<u>Thelypodium sagittatum</u>	Ovalleaf thelypody	<u>3/</u> Watch
var. <u>ovalifolium</u>		

- 1/ Federally listed (F.R. VOL. 45, NO. 242, 12/15/80 and F.R. VOL. 48, NO. 229, 11/28/83) category 1 and 2 species.
- 2/ These species could occur within the planning area, but to date have not been documented as such.
- 3/ Sensitive plant list for Nevada, developed by the T/E Plant Workshop and coordinated by the Nevada State Museum. Watch species are those species of uncertain abundance and distribution and/or those for which threats cannot be defined to a reasonable degree. Rare or "Other Rare" species include plants not considered to be under any threats.
- 4/ State listed (NRS 527.270) fully protected as critically Endangered by the Division of Forestry, Department of Conservation and Natural Resources



**APPENDIX SIX**  
**MINERALS MANAGEMENT**



APPENDIX 6

SPECIAL OIL AND GAS AND GEOTHERMAL  
LEASING STIPULATIONS FOR THE ELKO  
PLANNING AREA

1) Sage Grouse Special Stipulation

When described lands have been identified as critical habitat for mating, nesting, and brood-rearing of sage grouse; prior to entry onto the lands, the lessee (operator) will discuss the proposed activities jointly with the BLM's authorized officer and the surface management agency's authorized officer who may require additional measures for the protection of sage grouse. Such measures may include:

- a) No surface occupancy on the actual strutting grounds, and
- b) No surface occupancy within one mile of the actual strutting grounds for a period between February 1 and May 15.

2) Special Surface Disturbance Stipulations for High Use Recreational Areas

The lessee, his representative, assignee, or operator is not permitted to use the surface of described lands for oil and gas exploration, development work, construction or operations, or for any other use of the surface which the lessee may have considered to have gained by the issuance of this lease. The lessee continues to have the right to extract oil and gas from beneath the surface of these lands so long as the extraction does not disturb the surface.

3) Antelope Special Stipulation

For areas described as supporting pronghorn antelope populations, and which contain specific habitat types and conditions utilized by antelope as kidding areas; prior to entry onto these lands the lessee (operator) will discuss the proposed activities jointly with the appropriate BLM authorized officer who may require additional measures for the protection of antelope. Such measures may include:

- a) No surface occupancy on actual kidding grounds; or
- b) Restriction of activity in kidding ground areas for the months of June and July.

4) Crucial Deer Habitat Special Stipulation

For lands described which have been identified as crucial winter deer habitat, during the period of winter concentration (December 1 - March 31) these sections will be closed to surface occupancy by any activities related to oil and gas exploration, including seismic lines, off-road vehicle use, road construction, equipment movement and drilling. This limitation does not apply to maintenance and operations of producing wells.

The provisions of this stipulation may be modified only with the mutual consent of the Lessee and the BLMs authorized officer.



**APPENDIX SEVEN**  
**SOILS OF THE ELKO RMP AREA**



## APPENDIX 7

### SOILS IN THE ELKO PLANNING AREA

Soils in the Elko RMP area can be subdivided into five broad groups based on physiographic position. Using SCS soil surveys and information generated from SCS general soil maps, descriptions for the five soil group is as follows:

#### 1. Soils on bolson and semi-bolson floors

Soils in this unit occur within internally drained basins (bolsons) and lowlands or flats within externally drained valleys. Slopes are nearly level to gently sloping. Soils are characterized by some degree of saline-alkali accumulations in some or all parts of their profile. Elevations range from about 4700 to 5300 feet. Water tables are seasonally high and the areas subject to flooding. Soil texture is medium to moderately fine through the whole profile. Soils are very deep and young, and exhibit little profile development. These soils are unsuitable for rangeland seedings because of elevated salt accumulations. Crescent and Diamond Valleys are the only internally drained basins within the RMP Area, with many parts in southern Pine Valley and the Owhyee Desert both externally drained, being characterized by lowlands or flats.

#### 2. Wet soils on floodplains

These soils occur on floodplains of rivers and streams. Elevation ranges from about 4300 to 6000 feet. The soils are nearly level and very deep. Except for their very dark, organically enriched surface horizons, they tend to be

young soils with little horizon development. Soil texture is fine to moderately coarse throughout the profile. These soils have seasonally high water tables and are subject to flooding. They can be saline and alkali affected in some or all parts of their profile. They occur throughout the planning area wherever large or axial streams occur.

These soils have the highest potential for producing forage. The larger floodplains are used for pasture and meadow hay. Because these areas are near water and produce more palatable plants they tend to be overused, resulting in deterioration of the plant community and increased soil erosion. Many of these floodplains have undergone historical stream entrenchment. This lowers the water table, often allowing big sagebrush to invade former meadow sites.

#### 3. Well drained soils on terraces and piedmont slopes

These soils occur on piedmont slopes and terraces situated between floodplains and foothills or mountainsides. Elevation ranges from about 4800 to 6500 feet. Soils can be from nearly level to strongly sloping on the tops of fans and terraces, to moderately steep and very steep on the side slopes of eroded fans and terraces. Soil texture ranges from moderately coarse to moderately fine. Many of the older soils located on the tops of fans and terraces have either silica cemented hardpans or clay subsoils, or both. The water and wind erosion hazard is generally slight except on steep sideslopes where the water erosion hazard increases to moderate.



These areas are used predominantly for grazing. They generally are suitable for rangeland seedings if drought resistant plants are used. Most of the large scale range seedings of the 1950's took place in these units. Limitations to seeding include lack of adequate moisture, limited rooting depth to a hardpan, low available water holding capacity, and obstacles to mechanical operations such as surface rocks and steep slopes.

In areas where the soils are deep and level they can be used for irrigated agriculture, mainly producing alfalfa. Limitations in these areas to irrigation include rough topography, limited soil depth, availability of irrigable water, salt affected soils, and a short growing season.

#### 4. Soils on mountains and hills

According to Peterson (1981) roughly 35 percent of the northern Great Basin physiographic region is occupied by mountain ranges. These ranges, "are characteristically many tens of miles long, are narrow and fairly linear, and rise steeply thousands of feet to continuous though sometimes jagged crests." These ranges roughly parallel each other in north-south trends. Elevation is generally between 5000 to 8000 feet. Most of the soils are well drained and strongly sloping to very steep, and are shallow to deep over bedrock. Soil texture ranges from coarse to fine and rock fragments from few to many.

These areas are most suited for range use, recreation, and wildlife. Rangeland improvements or seedings are mostly prohibited because of steep slopes and

surface rock fragments. However, where watershed protection becomes necessary because of devastating wildfires, they may be aerially seeded. The wind erosion hazard is slight and the water erosion hazard is moderate to severe, depending on the degree of slope.

#### 5. Soils on Plateaus

This area is restricted to the Owyhee Desert which is part of the Columbia Plateau physiographic region. The area is characterized by a high rolling plateau underlain by basalt flows which are occasionally cut by deep vertically walled canyons. Elevation ranges from about 5100 to 5600 feet. Soils formed in mixed alluvium with some degree of loess and volcanic ash. Weak to strong to indurated silica and lime cemented hardpans have developed within most soils. Wind and water erosion hazards are generally slight.

This area is used mostly for grazing by domestic livestock and wildlife, including deer, antelope, and wild horses. The area is generally suitable for rangeland seedings using drought resistant plants, but limitations occur from shallow soil depth to a hardpan or bedrock and mechanical limitations from surface cobbles or stones.



**APPENDIX EIGHT**  
**ECONOMICS**



APPENDIX 8  
TABLE 1  
ECONOMIC DATA FOR THE ELKO RMP AREA  
COSTS AND RETURNS FOR CATTLE OPERATIONS  
(Values are in \$ Per Cow)

Sales

Steer Calves	101.74
Heifer Calves	38.79
Cull cows	56.69
Cull Bulls	8.31
Total Sales	205.53

Production Costs

A.	<u>Cash Costs</u>	
	Hay Production	31.32
	Government Grazing Fees	8.56
	Private Range Lease	8.83
	Protein Supplement	7.71
	Hired Labor	38.86
	Veterinary Expenses	6.00
	Hired Trucking	3.19
	Marketing Commission	1.55
	Fuel	12.86
	Repairs and Maintenance	12.04
	Accounting	0.97
	Brand Inspection	0.35
	Salt and Minerals	2.04
	Fencing	2.02
	Taxes	5.59
	Dues	0.41
	Other Cash Costs	6.83
	Total Cash Costs	149.13

B.	<u>Other Costs</u>	
	Family Labor	37.34
	Depreciation	37.21
	Interest on Equipment and Buildings	37.93
	Interest on Brood Stock	73.42
	Interest on Bulls	8.57
	Interest on Horses	2.45
	Total Other Costs	196.92

Total Costs 346.05

Return above cash costs	56.40
Return above cash costs and family labor	19.06
Return to total investment <sup>1/</sup>	-18.15
Net ranch income <sup>2/</sup>	19.19

<sup>1/</sup> Return to total investment equals sales (gross income) minus cash costs, depreciation, and family labor. No estimate is included for interest on land or for opportunity cost.

<sup>2/</sup> Net ranch income is calculated by deducting cash costs and depreciation from sales (gross income). The remaining revenue (net ranch income) is available to service long-term debts on land and capital, to provide income to family labor, and to provide a return to risk and management.



APPENDIX 8  
TABLE 2  
ESTIMATED VALUE OF LANDS PROPOSED FOR DISPOSAL (\$)   
ELKO RMP AREA

Classification Highest & Best Use (Judgement)	Per Acre Value (Judgement)	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Residential	14,000	0	45,080,000	45,080,000	45,080,000	45,080,000
Commercial	30,000	0	22,800,000	22,800,000	22,800,000	22,800,000
Grazing	75	0	4,365,000	0	625,500	0
Grass	90	0	10,800	0	0	0
Industrial	30,000	0	19,200,000	19,200,000	19,200,000	19,200,000
R & PP <u>1/</u>	0	0	0	0	0	0
<b>TOTAL</b>		0	91,455,800	87,080,000	87,705,500	87,080,000
Estimated Assessed Valuation (35%)		0	32,009,530	30,478,000	30,696,925	30,478,000
Estimated Potential Tax Revenue <u>2/</u>		0	376,592	358,574	361,149	358,574
Estimated Offset of BLM Payments in Lieu of Taxes <u>3/</u>		0	28,131	26,785	26,978	26,785

1/ No estimate of value is included for potential R&PP land transfers because of high variability and in consideration of the fact that these lands will provide no addition to the tax base.

2/ Based on FY 1983 average tax rate of 1.1765 per \$100 of assessed valuation.

3/ With 7,838,025 entitlement acres in Elko County, calculated at \$0.10 per acre, and subject to a population limitation of 22,025, payments in lieu of taxes for FY 1985 are estimated at \$585,865: \$585,865 divided by 7,838,025 = \$0.0747 per acre.



## GLOSSARY

**ACTIVE GRAZING PREFERENCE:** The total number of Animal Unit Months that can be licensed on a given allotment.

**ALLOTMENT:** An area allocated for the use of livestock of one or more qualified grazing permittees which includes prescribed numbers and kinds of livestock under one plan of management.

**ALLOTMENT MANAGEMENT PLAN (AMP):** A documented program which applies to livestock operations on the public lands, which is prepared in consultation with the permittee(s) or lessee(s) involved, and which: 1) prescribes the manner in and extent to which livestock operations will be conducted in order to meet the multiple-use, sustained-yield, economic, and other needs and objectives as determined for the public lands through land use planning; 2) describes the type, location, ownership, and general specifications for the range improvements to be installed and maintained on the public lands to meet the livestock grazing and other objectives of land management; and 3) contains such other provisions relating to livestock grazing and other objectives as may be prescribed by the authorized officer consistent with applicable law.

**ANIMAL UNIT MONTH (AUM):** The amount of forage necessary for the sustenance of one cow or its equivalent for one month.

**ANGLER DAY:** One fisherman spending 12 hours fishing on BLM administered waters, or 12 fishermen spending 1 hour each, or any combination of these.

**AQUATIC:** Living or growing in or on a stream or other water body or source.

**BROWSE:** That part of the current leaf and twig growth of shrubs, woody vines and trees available for animal consumption.

**CHERRYSTEM:** A boundary configuration in which the boundary of a wilderness study area or proposed wilderness is drawn around a linear feature so as to exclude that feature from the wilderness study area or proposed wilderness.

**CHERRYSTEM ROAD:** A road that penetrates the interior of a WSA but does not divide it into two separate areas.

**COMMUNITY EXPANSION LANDS:** Those public lands generally located within or near corporate city limits that have been identified through consultation with municipal planning representatives as having value for residential, commercial, industrial, recreational, or other public purposes in the growth of that community. The method of disposal could be either sales under FLPMA or through the Recreation and Public Purposes Act.

**COMPETITION:** Competition results when two animal species require component of their environment (food, water, cover or space) and the supply of that component is limited. If in attaining or utilizing the limited habitat component they inhibit each others growth or survival, or if populations are below what they would be without each other's presence, interspecific competition occurs. Intraspecific competition occurs between individuals or populations of the same species.



**CORRIDOR:** A preferred location through which major utility transmission (powerlines, gas pipelines, etc.) facilities, both existing and proposed, are or will be located.

**CRITICAL GROWTH PERIOD:** The period in a plant's growth cycle when food reserves are lowest and grazing is most harmful; for example, in grass species this period begins with the boot (prebud stage) and closes with complete maturation of the fruit.

**CRITICAL HABITAT:** Any or all habitat element(s), the loss of which, would appreciably decrease the likelihood of the survival and recovery of an officially listed threatened and endangered species. It may represent any portion of the present habitat of an officially listed species and may include additional areas for population expansion.

**CRUCIAL HABITAT (Range):** Habitat on which a species depends for survival; there are no alternative ranges or habitats available. May also be called "key range or habitat."

**CULTURAL RESOURCES:** Those fragile and nonrenewable remains of human activity representing lifestyles, events, or periods of the past as reflected in sites, districts, structures, artifacts, architecture, or places. These resources may consist of 1) physical remains such as artifacts, structures, or historic trails, 2) places associated with a historic event or, 3) areas important to the beliefs of a particular group of people.

**DESIGNATED CORRIDOR:** a 3 mile wide (where possible) passage on which existing utility transmission or transportation facilities are located for which a future need may be accommodated.

**DESIGNATED CORRIDOR - LOW VISIBILITY:** A 3 mile wide (where possible) passage on which existing utility transmission or transportation facilities are located for which a future need may be accommodated if the facility is not evident in the characteristic landscape.

**ECOLOGICAL STATUS:** The present state of native vegetation of a ecological site in relation to the climax plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in the present plant community resemble that of other native plant communities for that site. Four ecological status classes are used to express the degree to which the composition of the present plant community reflects that of the potential native: Potential Native (76-100%), Late (51-75%), Mid (26-50%), Early (0-25%).

**ENVIRONMENTAL ASSESSMENT (EA):** A concise public document prepared to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact. It includes a brief discussion of the need for the proposal, alternatives considered, environmental impact of the proposed action and alternatives, and a list of agencies and persons consulted.

**EROSION:** Detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

**ESSENTIAL HABITAT:** Any or all habitat element(s) that possess the same characteristics as critical habitat, but which has not yet been officially designated. It is the responsibility of each Federal agency to conduct the appropriate studies and to provide the biological information necessary to delineate essential habitat.



**EXTENSIVE RECREATION MANAGEMENT AREA:** Areas where recreation is not a principal management objective, and where limited needs or responsibilities require minimal recreation investments. These areas, which constitute the bulk of the public lands, give recreation visitors the freedom of recreational choice with minimal regulatory constraint.

**FORAGE:** All browse and herbaceous foods that are available to grazing animals. It may be grazed or harvested for feeding.

**FORB:** A nongrass seed-producing plant that does not develop persistent woody tissue.

**GRAZING PREFERENCE:** The total number (active and suspended nonuse) of animal unit months of livestock grazing on public land apportioned and attached to base property owned or controlled by a permittee.

**GRAZING PRESSURE:** A situation which may occur when livestock use on vegetation during critical growth periods for plants, or utilization of vegetation is above allowable use levels. This can be relieved by additional forage availability or through a change in grazing use sequence.

**GRAZING SYSTEM:** A systematic sequence of grazing treatments applied to an allotment to reach identified multiple-use goals or objectives by improving the quality and quantity of the vegetation.

**GRAZING TREATMENT:** A prescription under a grazing system which grazes or rests a unit of land at particular times each year to attain specific vegetation goals.

**GROSS RANCH INCOME:** Is equal to gross sales for an individual ranch or group of ranches.

**HABITAT CONDITION (BIG GAME):** The condition of seasonal habitat(s) as they relate to the habitat needs of a particular big game species. Habitat components include such factors as browse vigor rating, forage quality, cover factors, human interference and water distribution for mule deer; as well as water distribution, vegetation quality and quantity, and vegetation height for antelope. These habitat components are evaluated independently and are somewhat related to, but are not the same as, existing or potential ecological range condition.

**HABITAT MANAGEMENT PLAN:** A written and officially approved plan for a specific geographic area which identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

**HUNTER DAY:** One hunter spending 12 hours hunting on BLM administered land, or 12 hunters spending one hour each, or any combination of these.

**IMPROPER UTILIZATION:** Grazing of the vegetation resource at levels other than those recommended in the 1984 Nevada Range Studies Task Group monitoring procedures. Includes overutilization, underutilization, and inefficient distribution of grazing.

**INCOME MULTIPLIER:** An indicator of how much income is stimulated in the economy of a region by an economic sector above and beyond the initial income produced by a sector.

**KEY FORAGE AND BROWSE SPECIES:** (1) Forage species whose use serves as an indicator to the degree of use of associated species; (2) those species which must, because of their importance, be considered in the management program.



**LEASABLE MINERALS:** Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, potassium and sodium minerals, oil, and gas. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

**LEGAL ACCESS:** Roads/trails over which the public and BLM have the right to access public lands.

**LICENSED USE:** Active use AUMs that a permittee has paid for during a given grazing period.

**LIMITED ORV DESIGNATION:** Areas on public lands where the use of motor vehicles may be limited. Examples of limitations could include time of year restrictions or use on existing or designated roads and trails.

**LOCATABLE MINERAL:** A mineral subject to location under the 1872 mining laws. Examples of such minerals would be gold, silver, copper, and lead as compared to oil and natural gas, which are leasable minerals.

**LONG-TERM:** A point in time from five to 20 years following the beginning of the implementation phase for the RMP.

**MICROCLIMATE:** A small localized environment differing significantly from the surrounding area in climatic features such as temperature and humidity.

**MAJOR FACILITIES:** (in relation to corridors) Major transmission facilities generally include 69 KV or larger electric lines, interstate land communication lines, and pipelines of ten inches or larger diameter. Major transportation facilities include all interstate transportation lines.

**MINERAL POTENTIALS:** (as defined for planning purposes)

High Potential - High potential is assigned to areas that contain or are extensions of active or inactive properties which show evidence of ore, mineralization, and favorable geologic characteristics. All producing properties fall within this category.

Moderate Potential - Moderate potential is assigned to areas with several geologic characteristics indicative of mineralization, relatively lower, economic value of past production, and similar environments but at greater distance from known ore and mineral occurrences. This category may include areas adjacent to known districts or in mineral belts.

Low Potential - Low potential is assigned to areas that are outside any construed favorable geologic and mineral trend projections or are buried by substantial thicknesses of barren material.

**MULTIPLE-USE:** The management of public lands and their various resource values so that they are utilized in a combination that will best meet present and future needs.

**MULTIPLIER EFFECTS:** The individual effects which spread throughout an economy as the result of a one unit change in an element of a sector directly impacted by an action, e.g., an income multiplier of 2.1021 for the meat animals and poultry sector means that for a \$1 change in income within the sector the overall impact on the economy will be a change in income of \$2.10. The indirect effect is the total impact (\$2.10) minus the direct impact (\$1.00) resulting in an indirect effect of (\$1.10).



**OFF-ROAD VEHICLE: (ORV)** Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain excluding: (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies.

**OPEN DESIGNATION (ORV):** Areas on public lands where motor vehicles may be operated, subject only to standard operating regulations.

**PERMITTEE:** One who holds a permit to graze livestock on public land.

**PHENOLOGY:** The study of periodic biological phenomenon such as flowering or breeding, as correlated with season and weather.

**PLANNING CORRIDOR:** A five-mile wide area on which no existing transportation or utility facilities exist, but for which a future need has been identified.

**PLANT VIGOR:** The state of health of a plant. The capability of a plant to respond to growing conditions, to make and store food, and to complete the reproductive stages.

**PRIMITIVE RECREATION:** Nonmotorized and nondeveloped types of outdoor recreational activities in a natural setting featuring a maximum degree of solitude and challenge.

**PRIORITY "A" LIMITING FACTORS:** Five crucial factors averaged to provide overall fishery habitat condition on a stream. These include pool to riffle ratio, pool quality, desirable bottom material, bank cover, and bank stability.

**PRIORITY "B" LIMITING FACTORS:** Those important factors of fishery habitat not used to figure overall condition. These include average depth and width, percent stream shaded at midday, sedimentation, and water temperature.

**PUBLIC LAND:** Vacant, unappropriated, and unreserved lands which have never left Federal ownership; also, lands in Federal ownership which were obtained by the Government in exchange for public lands or for timber on public lands. Land administered by the Bureau of Land Management.

**RANGE IMPROVEMENT:** A structure, development, or treatment used to rehabilitate, protect, or improve the public lands to advance range betterment.

**RANGELAND MONITORING PROGRAM:** A program designed to measure changes in plant composition, ground cover, animal populations, and climatic conditions on the public rangeland. Vegetation measurements will be used to measure attainment or nonattainment of rangeland objectives and to determine the reason for any changes that are occurring. The vegetation measurements consist of actual use, utilization, trend, and climatic conditions.

**REASONABLE NUMBERS:** The long-term (15 to 17 years) average of big game populations (mule deer, antelope, elk, and bighorn sheep) or the number of animals historical habitat could support if reintroduction were to occur. These numbers have been cooperatively developed and agreed upon by the Bureau of Land Management and the Nevada Department of Wildlife.

**RECREATION DAY:** Participation in a particular recreation activity by an individual for any portion of, or all of a 24-hour period.



RECREATION OPPORTUNITY SPECTRUM: A continuum used to characterize recreation opportunities in terms of setting, activity, and experience opportunities.

RIPARIAN HABITAT, AQUATIC (STREAMSIDE): Vegetative communities found in association with streams (both perennial and intermittent), lakes, ponds, and other open water. Habitat crucial to the continued existence of the fish species known to occur in the Elko District. It is also essential to most terrestrial wildlife species.

RIPARIAN HABITAT, TERRESTRIAL: Vegetative communities found in association with either open water or water close to the surface; includes such habitat features as seeps, springs, small wet meadows, aspen stands and/or other hydrophilic trees and shrubs. Habitat crucial to the continued existence of the majority of the terrestrial wildlife species known to occur in the Elko District.

ROAD: Vehicle routes which have been improved and maintained by mechanical means to insure relatively regular and continued use.

SEEDING RATING: Estimations were made of relative composition for each plant species within a seeding, including any native species. Then, to rate that seeding, a value was applied to the relative composition of the crested wheatgrass only (0-25%, poor; 26-50%, fair; 51-75%, good; and 76-100%, excellent).

SHORT-TERM: The period of time following the completion of the EIS, approximately zero to five years.

SOLITUDE: The state of being alone or remote from habitations; isolation. A lonely, unfrequented, or secluded place.

SPECIAL RECREATION MANAGEMENT AREA: Areas which require greater recreation investment, where more intensive recreation management is needed, and recreation is a principal management objective for which the Bureau plans and manages.

SPECIES, CANDIDATE: (1) Designation applied to species not yet officially listed as threatened or endangered but which are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce, or according to comparable state documents published by state officials; (2) applied to species whose populations are consistently small and widely dispersed or whose ranges are restricted to a few localities, such that any appreciable reduction in numbers, habitat availability, or habitat condition might lead toward extinction; or (3) applied to species whose numbers are declining so rapidly that official listing as threatened or endangered may become necessary as a conservation measure.

SPECIES, ENDANGERED: An animal or plant whose prospects for survival and reproduction are in immediate jeopardy, and as further defined by The Endangered Species Act of 1973.

SPECIES, SENSITIVE: An animal or plant classified by a state government pursuant to state laws and/or regulations, which is faced with potential extinction throughout all or a significant portion of its range, especially within the respective state.

SPECIES, THREATENED: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range, and as further defined by the Endangered Species Act of 1973.



**SUITABLE FOR PRESERVATION AS WILDERNESS:** Refers to a recommendation that certain Federal lands satisfy the definition of wilderness in The Wilderness Act and have been found appropriate for designation as wilderness on the basis of an analysis of the existing and potential uses of the land.

**SUPPLEMENTAL VALUES:** Values that may be present in an area under consideration for wilderness, such as ecological, geological, or other features of scientific, educational, scenic, or historical value. They are not required for wilderness designation, but their presence will enhance an area's wilderness quality.

**SUSTAINED YIELD:** The achievement and maintenance in perpetuity of a high level of annual or regular periodic output of the various renewable resources of the public lands consistent with multiple-use.

**TREND:** The direction of change in range condition or wildlife habitat over a period of time, expressed as upward, not apparent, or downward.

**UNDERSTORY:** Plants growing beneath the canopy of other plants. Usually refers to grasses, forbs, and low shrubs under a tree or brush canopy.

**UTILIZATION:** The portion of the current year's forage production that is consumed or destroyed by grazing animals. May refer either to a single species or to the vegetation as a whole.

**VEGETATIVE MANIPULATION PROJECTS:** Man-made actions which alter the existing natural plant communities to achieve the goals of management in a particular area. There are several ways in which vegetation can be altered: (1) with fire; (2) mechanically, which includes chaining, plowing, or crushing; (3) chemically; and (4) biologically.

**VISUAL RESOURCE MANAGEMENT (VRM):** The planning, design, and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities.

**WAYS:** A vehicle route established and maintained solely by the passage of motor vehicles.

**WILDERNESS:** An uncultivated, uninhabited, and usually roadless area set aside for preservation of natural conditions according to Section 2(c) of the Wilderness Act of 1964.

**WILDERNESS AREA:** An area formally designated by an Act of Congress as part of the National Wilderness Preservation System.

**WILDERNESS CHARACTERISTICS:** Identified by Congress in the 1964 Wilderness Act: namely size, naturalness, outstanding opportunities for solitude or a primitive and unconfined type of recreation, and supplemental values such as geological, archaeological, historical, ecological, scenic, or other features.

**WILDERNESS MANAGEMENT POLICY:** This policy document prescribes the general objectives, policies, and specific activity guidance applicable to all designated BLM wilderness areas. Specific management objectives, requirements, and decisions implementing administrative practices and visitor activities in individual wilderness areas are developed and described in the wilderness management plan for each unit.

**WILDERNESS RECOMMENDATION:** A recommendation by the Bureau of Land Management, the Secretary of the Interior, or the President with respect to WSAs suitability or nonsuitability for preservation as wilderness.



WILDERNESS STUDY AREA (WSA): A roadless area or island that has been inventoried and found to have wilderness characteristics as described in The Wilderness Act of 1964.

WILDERNESS STUDY CRITERIA: The criteria and quality standards developed in the Wilderness Study Policy to guide planning efforts in wilderness EISs.

WILD HORSE HERD AREA: A designated area of public lands that provides habitat for one or more wild horse herds.

WILD HORSES: All unbranded and unclaimed horses and their progeny that have used public lands on or after December 15, 1971, or that use these lands as all or part of their habitat.

WOODLAND CONDITION: Depending on the amount of preferred and desirable species present, a forage rating was given based on SCS Woodland Suitability Group Site descriptions.

#### ACRONYMS

AMP: Allotment Management Plan  
AUM: Animal Unit Month  
BLM: Bureau of Land Management  
CEQ: Council on Environmental Quality  
CFR: Code of Federal Regulations  
CRMP: Coordinated Resource Management and Planning  
EIS: Environmental Impact Statement  
FFR: Fenced Federal Range  
FLPMA: Federal Land Policy and Management Act  
FY: Fiscal Year  
GEM: Geology, Energy, and Minerals Report (as related to wilderness)

HMP: Habitat Management Plan  
IMP: Interim Management Policy (as related to wilderness)  
MRI: Mineral Resource Inventory  
NDOW: Nevada Department of Wildlife  
NEPA: National Environment Policy Act  
NPS: National Park Service  
NWPS: National Wilderness Preservation System  
ORV: Off-Road Vehicle  
ROWs: Rights-of-way  
RMP: Resource Management Plan  
ROS: Recreation Opportunity Spectrum  
SCORP: Statewide Comprehensive Outdoor Recreation Plan  
SRMA: Special Recreation Management Area  
T&E: Threatened and Endangered Species  
USDA: U.S. Department of Agriculture  
USDI: U.S. Department of Interior  
USFS: U.S. Forest Service  
USFWS: U.S. Fish and Wildlife Service  
WSA: Wilderness Study Area



## REFERENCES

- Ames, C.R. 1977. "Wildlife Conflicts In Riparian Management": Grazing. In: Importance, Preservation and Management of Riparian Habitat. USDA Forest Serv. Gen. Tech. Rep. RM-43:39-51.
- Armour, Carl L. 1977. Effects of Deteriorated Range Streams on Trout. Bureau of Land Management, Boise, ID. 7 pp.
- Behnke, R.J., and M. Zarn. 1976. "Biology and Management of Threatened and Endangered Western Trout." USDA Forest Serv. GTR RM-28.
- Behnke, R.J., and R.F. Raleigh. 1978. "Grazing and the Riparain Zone: Impact and Management Perspectives" In: Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystems. USDA Forest Serv. GTR-WO-12. p. 184-189.
- Behnke, R.J., 1979. Monograph Of The Native Trouts Of The Genus Salmo Of Western North America. USFS/BLM/USF and WS. 163 pp.
- Bonham, H.F. Jr. 1982. "Reserves, Host Rocks, and Ages of Bulk-Mineable Precious Metal Deposits in Nevada," NBMG Open-File Report 82-9, Bureau of Mines and Geology, UNR, Reno, Nevada 3pps.
- Bowers, W., B. Hosford, A. Oakley, and C. Bond. 1979. "Wildlife Habitats in Managed Rangelands -- The Great Basin of Southeastern Oregon: Native Trout." USDA, Forest Serv. GTR PNW-84.
- Bureau of Business and Economic Research. 1982. "Nevada Review of Business and Economics". UNR, Reno, NV. 66 pp.
- Bureau of Business and Economic Research, John L. Dobra 1984 "Nevada Population Projections: 1983-2000". College of Business Administration, UNR, Reno, NV
- Chapman, D.W., and E. Knudsen. 1980. "Channelization and Livestock Impacts on Salmonid Habitat and Biomass in Western Washington." Trans. Amer. Fish Society 109pp.
- Claire, E.W., and R.L. Storch. 1977. "Streamside Management and Livestock Grazing: An Objective Look at the Situation." In: Symposium on Livestock Interactions with Wildlife, Fish, and Their Environments. Sparks, Nevada. Unpublished.
- Corbett, James A. 1977. "Grazing Fees on the Public Lands and Their Place in Range Improvements". National Public Lands Task Force, NV. Unpublished.
- Dahlem, E.A. 1979. "The Mahogany Creek Watershed - With and Without Grazing" In: Proceedings, Forum-Grazing and Riparian/Stream Ecosystems. Trout Unlimited, Inc., p31-35.



- Duff, D.A. 1979. "Riparian Habitat Recovery on Big Creek, Rich County, Utah." In: Proceedings, Forum-Grazing and Riparian/Stream Ecosystems. Trout Unlimited, Inc., p. 91.
- Falk, Robert. 1980. Federal Land Bank, Personal Communication, Reno, NV.
- Fillo, Frank D.; Radtke, Hans D., and Lewis, E.P. 1978. "The Economy of Humboldt and Lander Counties: A Working Model For Evaluating Economic Change" Max C. Fleishman College of Agriculture, UNR Reno, NV. Unpublished.
- French, Norman R. and John E. Mitchell. 1983. "Long Term Vegetation Change in Permanent Quadrats at the Idaho National Engineering Laboratory Site." Univ. of Idaho, Forest, Wildlife and Range Exper. Stn. Bul. No. 36. 42 pp.
- Gallizioli, Steve. 1977. "Improving Fish and Wildlife Benefits in Range Management": Proceedings of Seminar. USDI, Fish and Wildlife Service. Washington, D.C. 118 pp.
- Geoscientific Systems and Consulting. 1980. "Nevada Air Quality and Climatological Atlas, Final Report." USDI, Bureau of Land Management, Reno, NV 417 pp.
- Hamilton, Andrew. 1965. "A matter of A Pinyon." American Forests 71:60-61,74.
- Hickey, Joseph. 1969. "Peregrine Falcon Populations, Their Biology and Decline". University of Wisconsin Press, Madison, Wisc.
- Holberger, R. et al. 1975. "Resource and Land Investigations Program; Coordination in Evaluating Utility Line Proposals." For the Bureau of Land Management, Washington, D.C. Unpublished.
- Holmgren, Ralph and S.S. Hutchings. 1972. "Salt Desert Shrub Response to Grazing Use." In Wildland Shrubs - Their Biology and Utilization, McKell, et al editors. USDA, Forest Service GTR INT-1.
- Johnson, S.R., H.L. Gary, and S.L. Ponce. 1978. "Range Cattle Impacts On Stream Water in the Colorado Front Range." USDA Forest Service Note RM-359.
- Kauffman, J.B. and W.C. Krueger, 1984. "Livestock Impacts on Riparian Ecosystems and Streamside Management Implications... A Review." Journal of Range Management 37:430-438.
- Keller, C., L. Anderson, and P. Tappel. 1979. "Fish Habitat Changes in Summit Creek, Idaho, After Fencing." In: Proc., Forum-Grazing and Riparian/Stream Ecosystems. Trout Unlimited, Inc. p 46-52.
- Kesting, Joseph E. and Steven J. Susmilch. 1980. Sage Grouse Strutting Ground Inventory, Wells Resource Area, Elko District, Nevada. Bureau of Land Management, Elko, NV. 28 pp.



- Mackie, Richard J. 1978. "Impacts of Grazing On Wild Ungulates." Presented at N. American Wildlife and Natural Resources Conf., Phoenix, AZ. 21 pp.
- Marcuson, P.E. 1977. "The Effect of Cattle Grazing On Brown Trout in Rock Creek, Montana." Fish and Game Fed. Aid Pro. F-20-R-21-11a.
- Myer, Gordon L. and Hackett, Irving E. 1981. "Costs and Returns For Cow-Calf Enterprise in Elko County, Nevada." Max C. Fleishman College of Agriculture, UNR, Reno, NV E-29-81.
- National Park Service. 1982. The Nationwide River Inventory, Nevada Component. Washington, D.C.
- Neilson, Darwin B. and Workman, John P. 1971. "The Importance of Renewable Grazing Resources on Federal Lands in the 11 Western States." Utah Agricultural Experiment Station, Circular 155, Logan, UT.
- Nevada Bureau of Economic Research. 1985. "Preliminary Nevada Population Forecasts: 1980-2000.", UNR, Reno, Nv.
- Nevada Bureau of Mines and Geology. 1983. Mineral Inventory, Elko Resource Area, Elko County, Nevada. Bureau of Land Management, Elko, NV. unpagued.
- Nevada Bureau of Mines and Geology. 1983. "The Mineral Industry - 1982." Special Publication MI-1982.
- Nevada Dept. of Conservation and Natural Resources. 1982. Recreation in Nevada, Statewide Comprehensive Outdoor Recreation Plan, Div. of State Parks, Capitol Complex, Carson City, NV. 130 pp.
- Nevada Department of Conservation and Natural Resources, State Water Engineer. 1971. Water Quality Criteria For Beneficial Uses. Carson City, NV.
- Nevada Department of Wildlife. 1982. Lahontan Cutthroat Trout Fishery Management Plan For The Humboldt River Drainage Basin. Elko District, Elko, NV. Federal Aid Project F-20-17. 33 pp.
- Nevada Department of Wildlife. 1983. Wildlife Habitat Plans for the Future, In: Input Into Land Management Agencies Planning Systems - Elko Resource Area. Project FW-3-T Study I Job 2. Series Number HRM. 83-26.
- Nevada Employment Security Department. 1985. Nevada Labor Force Summary Carson City, NV.
- Nevada Rangeland Task Force, Nevada Rangeland Monitoring Handbook. Cooperative SCS, USFS, BLM, UNR, Agricultural Research Service, Reno, NV.
- Nevada State Office of Community Services. 1982. Elko County Nevada, Profile. Carson City, NV.



- Nevada State Office of Community Services. 1985. Population of Nevada's Counties and Incorporated Cities, 1980 Actuals 1981 through 1984 Official State Estimates. Carson City, NV.
- Platts, W.S. 1979. "Livestock Grazing and Riparian/Stream Ecosystems." In: Proc., Forum-Grazing and Riparian/Stream Ecosystems. Trout Unlimited, Inc. p. 39-45.
- Platts, W.S. 1981. "Influence of Forest and Rangeland Management On Anadromous Fish Habitat In Western North America. Effects of Livestock Grazing." USDA Forest Serv. GTR PNW-124.
- Platts, W.S. and R.L. Nelson. 1982. Progress Report 4 - Livestock-Fishery Interaction Studies, Gance Creek, Nevada. Forest Service Intermountain Forest and Range Exp. Stn. Boise, Idaho. 49 pp.
- Platts, William S. 1984. Compatibility of Livestock Grazing Strategies With Riparian-Stream Systems. Management Short Course: Range Watersheds, Riparian Zones and Economics: Interrelationships In Management and Use, Corvallis, OR, Oregon State Univ. 1984: 67-74.
- Reid, E.H., and G.D. Pickford. 1946. "Judging Mountain Meadow Range Condition in Eastern Oregon and Eastern Washington." USDA Circ. No. 748.
- Resource Concepts, Inc. 1981. "Potential Impacts of MX Deployment on Ranch Management and Ranch Economics." For U.S. Air Force, Carson City, NV. Unpublished.
- Rice, B. and M. Westoby. 1978. "Vegetation Responses of Some Great Basin Shrub Communities Protected Against Jackrabbits and Domestic Stock." Journal of Range Management. 31:28-34.
- State of Montana, USDA Forest Service, and USDI Bureau of Land Management. 1981. "Utility - Transportation Corridor Study in Montana." Cooperative Report, Ray Brueninger, Editor, 74 pp.
- Stoddard Laurence A., Arthur D. Smith and Thadis W. Box. 1975. Range Management. McGraw-Hill, Inc. p. 166-168.
- Storch, R. 1979. "Livestock/Streamside Management Programs in Eastern Oregon." In: Proc. Forum-Grazing and Riparian/Stream Ecosystems. Trout Unlimited, Inc. p. 56-59.
- Thomas, J.W., C. Maser, and J.E. Rodiek. 1979. "Wildlife Habitats in Managed Rangelands - The Great Basin of Southeastern Oregon, Riparian Zones." USDA Forest Service GTR PNW-80.
- Tingley, J.V. and Quade, J. 1984. Reconnaissance Geochemical Assessment of Mineral Resources in the South Fork, Little Humboldt, Rough Hills, Cedar Ridge, and Red Spring Wilderness Study Areas. Nevada Bureau of Mine and Geol. 68 p. Unpublished.



- Townsend, J.E., and P.J. Smith. 1977. Proceedings Of A Seminar On Improving Fish and Wildlife Benefits In Range Management. USDI, Fish and Wildlife Serv. Prog. Washington, D.C. FWS/OBS-77/1.
- U.S. Dept. of Commerce, Bureau of Economic Analysis. 1977. "Industry Specific Gross Output Multipliers For BEA Economic Areas." U.S. Government Printing Office, Washington, D.C.
- U.S. Dept. of Commerce, Bureau of Economic Analysis. 1983. Regional Economic Information System: Personal Income by Major Source. Washington, D.C.
- U.S. Dept. of Commerce, Bureau of Economic Analysis. 1983. Regional Economic Information System: Employment By Type and Broad Industrial Sources. Washington, D.C.
- U.S. Dept. of Commerce, Bureau of Economic Analysis. 1983. Regional Economic Information System: Farm Income and Expenditures. Washington, D.C.
- USDA, Forest Service. 1978. Proceedings of the Western Juniper Ecology and Management Workshop, R.E. Martin, J.E. Dealy, and D.L. Caraher, ed. Forest Service GTR PNW-74, Pacific Northwest Forest and Range Exp. Stn., Portland, OR. 177 pp.
- USDI, Bureau of Land Management. 1979. Interim Management Policy and Guidelines For Lands Under Wilderness Review. U.S. Government Printing Office, Washington, D.C. 32 pp.
- USDI, Bureau of Land Management. 1978. Wilderness Inventory Handbook. U.S. Government Printing Office, Washington D.C. 30 pp.
- USDI, Bureau of Land Management. 1979-81. Saval Animal Reports, Elko District Data Area 6 Binder. Elko, NV. Unpaged.
- USDI, Bureau of Land Management (Nevada). 1980. Wilderness Study Area Decisions: Nevada BLM Intensive Wilderness Inventory. Reno, NV pp. 30-148.
- USDI, Bureau of Land Management. 1980. Wilderness Inventory Files. Elko District, Elko, NV. Unpaged.
- USDI, Bureau of Land Management. 1980, Riparian Inventory, Elko District. Elko, NV.
- USDI, Bureau of Land Management. 1981. Wilderness Management Policy. U.S. Government Printing Office, Washington, D.C. 36 pp.
- USDI, Bureau of Land Management. 1982. Wilderness Study Policy: Policies, Criteria, and Guidelines For Conducting Wilderness Studies On The Public Lands. U.S. Government Printing Office. Washington, D.C. 97 pp.
- USDI, Bureau of Land Management. 1983. Wells Resource Management Plan. Elko District, Elko, NV. 300 pp.



- USDI, Bureau of Land Management. 1983. Woodland Inventory, Elko District. Elko, NV.
- USDI, Bureau of Land Management. 1984. Nevada Progress Report, 1983. Nevada State Office, Reno, NV.
- USDI, Fish and Wildlife Service "1980 National Survey of Fishing, Hunting, and Wildlife Associated Recreation - Nevada." Washington, D.C.
- USDI, Fish and Wildlife Service and National Marine Fisheries Service. 1981. "Eastern Oregon Adadromous Fish Habitat Restoration Project; Low Stream Flows and Degraded Riparian Zone." Portland, OR. pp. 7-10.
- Van Poolen, H.W. and J.R. Lacey. 1979. "Herbage response to grazing systems and stocking intensities." Journal of Range Management. 30(4):
- Vale, Thomas R. 1979. "Use of Public Rangelands in the American West." Environmental Conservation, Vol. 6, No. 1.
- Weller, Gene. 1985. Personal Communication, May 10. Regional Fisheries Assistant. NDOW.
- Winegar, H.H. 1977. "Camp Creek Channel Fencing -- Plant, Wildlife, Soil and Water Response." Rangeman's Journal Vol. 4:10-12.



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