FINAL

JACKS CREEK WILDERNESS ENVIRONMENTAL IMPACT STATEMENT

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

BOISE DISTRICT

IDAHO

1989

BLM MISSION STATEMENT

"The Bureau of Land Management is responsible for the balanced management of the Public Lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American People. Management is based upon the principles of multiple-use and sustained yield; a combination of uses that takes into account the long term needs of future generations for renewable and non-renewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness and natural, scenic, scientific and cultural values."

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
BOISE DISTRICT OFFICE
3948 DEVELOPMENT AVENUE
BOISE, IDAHO 83705

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

May 1989

Dear Public Land User:

This Final Jacks Creek Wilderness Environmental Impact Statement (EIS) is presented for your information. It was prepared following consideration of public comments received on our draft document.

The Jacks Creek Wilderness EIS provides recommendations and analyses concerning the suitability and nonsuitability of wilderness designation for a total of 175,672 acres of WSA lands within seven WSAs and 1,030 acres of adjoining non-WSA lands in southwestern Idaho's Owyhee county. The EIS was prepared in conformance with the BLM Wilderness Study Policy.

The Bureau of Land Management recommends that a total of 99,605 acres (including 1,030 acres of adjoining non-WSA lands and a 640-acre inholding) are suitable for wilderness designation. It further recommends that 77,692 acres are nonsuitable for wilderenss designation. This EIS analyzes the environmental consequences of these recommendations and alternatives.

The recommendations will be forwarded to the Secretary of the Interior for review and further recommendation to the President. The President will then make recommendations to the Congress of the United States. Congress will make the final decision on whether or not any of these areas are designated as wilderness.

Thank you for your continuing interest and assistance in our effort to manage the public lands.

Sincerely yours,

J. David Brunner
District Manager

JACKS CREEK WILDERNESS

FINAL

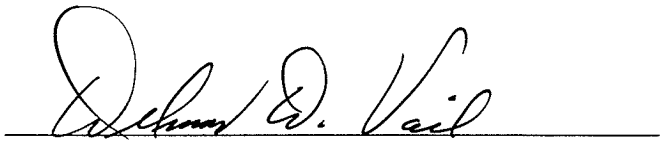
ENVIRONMENTAL IMPACT STATEMENT

Prepared By

Department of the Interior

Bureau of Land Management

Boise District Office



Idaho State Director

JACKS CREEK WILDERNESS EIS

( ) DRAFT (X) FINAL
( ) ADMINISTRATIVE (X) LEGISLATIVE

Responsible Agency: Dept. of Interior, Bureau of Land Management

Abstract: The Proposed Action recommends 99,605 acres suitable for wilderness designation and 77,692 acres nonsuitable for wilderness. One state-owned 604-acre inholding within the Duncan Creek WSA is included in this suitable acreage. These lands are located in seven wilderness study areas (WSAs) in southwestern Idaho's Owyhee County, 60 to 100 miles south of Boise, Idaho. This document analyzes the environmental consequences of the proposal and alternatives ranging from no wilderness to all wilderness for each WSA. The seven WSAs considered in this document are:

ID-111-6	Little Jacks Creek WSA
ID-111-7B	Duncan Creek WSA
ID-111-7C	Big Jacks Creek WSA
ID-111-18	Pole Creek WSA
ID-111-36A	Sheep Creek West WSA
ID-111-36B	Sheep Creek East WSA
ID-111-44	Upper Deep Creek WSA

Comments Have Been Requested From The Following:

A representative list of organizations/individuals from whom comments were requested and a log of all public comment received in response to the Draft EIS is included in Chapter V. Substantive comments are also reproduced and responded to in Chapter V.

Date Draft Environmental Impact Statement made available to EPA and the public:

Draft - July 27, 1984

For Further Information Contact:

District Manager
Bureau of Land Management
Boise District Office
3948 Development Avenue
Boise, Idaho 83705

SUMMARY

This environmental impact statement (EIS) evaluates the environmental consequences of: 1) managing lands as part of the National Wilderness Preservation System (NWPS); or 2) opening lands for resource development activities not permitted in designated wilderness. This consideration of wilderness "suitability" is mandated by the Federal Land Policy and Management Act of 1976 (FLPMA).

The affected lands include 175,627 acres of WSA and 1,030 acres of non-WSA public land managed by the Bureau of Land Management (BLM) and a 640-acre state inholding in southwestern Idaho's Owyhee County. These lands are divided into seven separate parcels called wilderness study areas (WSAs).

Wilderness study areas are areas the BLM has identified that meet the minimum statutory requirements to be designated wilderness under the Wilderness Act of 1964. The seven WSAs evaluated in this EIS are:

WSA Name	WSA #	BLM Acres
Little Jacks Creek WSA	111-6	58,040
Duncan Creek WSA	111-7B	10,005
Big Jacks Creek WSA	111-7C	54,833
Pole Creek WSA	111-18	24,509
Sheep Creek West WSA	111-36A	11,680
Sheep Creek East WSA	111-36B	5,050
Upper Deep Creek WSA	111-44	11,510

Public meetings, informational mailings, and numerous informal contacts were used to solicit information from the public about issues and alternatives that should be addressed in this EIS. Five major issues that could have significant environmental impacts were identified during this public participation process. These issues are:

1. Impacts on wilderness values. This issue reflects public concern about the impact the wilderness allocation decision would have on wilderness values of the WSAs. The wilderness characteristics and values of the WSAs that could be affected by a wilderness decision include naturalness, opportunities for solitude and/or primitive recreation, and supplemental values. Supplemental values include California bighorn sheep, redband trout, good/excellent condition Sagebrush Steppe rangeland, cultural resource values, and scenic values. These wilderness values and characteristics could be affected by both direct or indirect actions including road closures, increased recreation use, increased domestic livestock grazing, restrictions on recreation use, new range developments, underground utility construction, development of adjacent private lands, riparian fencing, implementation of new grazing management systems, and federal acquisition of private and state lands.

2. Impacts on the levels of recreation use. Concerns were expressed about the effects that wilderness designation would have on the use levels of

2. Impacts on the levels of recreation use. Concerns were expressed about the effects that wilderness designation would have on the use levels of specific recreation activities particularly off-road vehicle (ORV) use by residents of southwestern Idaho, hunting, and for backcountry uses such as hiking, backpacking, fishing, and nature study. Concern was also expressed about the secondary impacts of recreation use on the local economy, an impact addressed under the analyses for Issue 5, Impacts on Income and Jobs.

3. Impacts on Jacks Creek Livestock Watering Pipeline Extensions. This issue applies only to Big Jacks Creek WSA. The current land use plan calls for construction of the 19-mile Jacks Creek livestock watering pipeline between Little Jacks Creek WSA and Big Jacks Creek WSA. Several extensions have been proposed that would expand the pipeline system into the Big Jacks Creek WSA. These pipeline extensions would not be permitted if the area were designated wilderness. Livestock operators are concerned about future opportunities to increase livestock grazing and improve grazing management that could be foregone if construction of these laterals is blocked by wilderness designation. Conservationists are concerned about the impacts these pipeline proposals could have on wilderness characteristics and potential bighorn sheep habitat in Big Jacks Creek WSA.

4. Impacts on Selected Wildlife Species. This issue is included to address concerns with impacts to wildlife inhabiting the WSAs. The wildlife species selected for analysis are California bighorn sheep, mule deer, pronghorn antelope, sage grouse and redband trout. The analysis for bighorn sheep and redband trout, both sensitive species, is included under supplemental wilderness values. Analysis is focused on the selected key species since they have the highest level of public (including agency) interest and are specifically managed through habitat modification or protection and through state regulations. The selected species are also the most likely to be measurably affected by management actions. The amount and reliability of information for these species is greater than for other species as is the confidence level for projecting impacts. Preliminary analysis indicated that although other wildlife species may change over time, the projected changes would be highly subjective and independent of wilderness designation.

5. Impacts on Income and Jobs. Both opponents and proponents of wilderness have expressed concern about the anticipated economic impacts that would occur with wilderness designation. Livestock permittees are concerned about wilderness restrictions on grazing and the impact this could have on the economic viability of their operations. Other Owyhee County residents are concerned about the secondary impacts on the Owyhee County economy resulting from loss of grazing revenue to the permittees. Wilderness proponents suggest that revenues generated by increased recreation use and increased wildlife numbers will offset any economic losses to the livestock industry resulting from wilderness designation. Wilderness proponents also believe that an economic analysis should include consideration of non-market values associated with wilderness and wildlife.

LITTLE JACKS CREEK WSA (ID-111-6)

Proposed Action - 34,000 acres suitable for wilderness (includes 1,030 non-WSA acres) and 25,070 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 120 acres. About 13.6 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 2,100 acres of good condition Sagebrush Steppe rangeland. Bighorn sheep populations would remain at or near the habitat carrying capacity of approximately 200 animals within the WSA.

Nonsuitable Area - Naturalness would be lost on 9,200 acres. Opportunities for solitude/primitive recreation would be diminished on about 8,800 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 1,650 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. Bighorn sheep populations would remain at or near the habitat carrying capacity.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be 2,575 visitor days, an increase of 1,375 annual visitor days over current use. The major use areas would be Little Jacks Creek Canyon with use about 30% hunting and 70% non-hunting. There would no no significant impact on opportunities to participate in ORV use or hunting.

Nonsuitable Area - Annual recreation use would be 1,475 visitor days, an increase of 1,025 annual visitor days over current use. The major use areas would be Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $89,502 of additional annual income and six new jobs. Implementation costs would total $71,200 for range improvements and $4,600 annually for wilderness management.

All Wilderness Alternative - 58,040 acres suitable for wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 230 acres. About 17.9 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ ecological values could be diminished on 2,100 acres of good condition Sagebrush Steppe rangeland. Vandalism (illegal excavations) of archaeological sites would be reduced and vehicle damage to Shoofly Rock Alignments would be halted. Bighorn sheep populations would remain at or near the habitat carrying capacity of approximately 200 animals within the WSA.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be 4,100 visitor days, an increase of 2,450 annual visitor days over current use. The major use areas would be Little Jacks Creek and Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting are not expected to be significantly impacted, although there could be displacement of some sage grouse hunters.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $71,626 of additional annual income and 5.8 new jobs. Implementation costs would total $32,900 for range improvements and $4,600 annually for wilderness management.

No Wilderness/No Action Alternative - 58,040 acres nonsuitable for wilderness

Impacts on Wilderness Values:

Nonsuitable Area - Naturalness would be lost on 9,800 acres. Opportunities for solitude/primitive recreation would be diminished on about 8,800 acres. About 17.9 (76%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 3,750 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. Construction of new underground utilities outside the 1/4 mile corridor could result in loss of naturalness and diminished opportunities for solitude/ primitive recreation in areas visible from new utility paths and associated service roads. Bighorn sheep populations would remain at or near the habitat carrying capacity of 200 animals within the WSA.

Impacts on Recreation Use:

Nonsuitable Area - Annual recreation use would be 4,050 visitor days, an increase of 2,400 annual visitor days over current use. The major use areas would be Little Jacks Creek and Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $106,750 of additional annual income and 6.4 new jobs. Implementation costs would total $86,200 for range improvements.

All Manageable Wilderness Alternative - 50,690 acres suitable for wilderness and 8,380 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 230 acres. About 17.9 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 2,100 acres of good condition Sagebrush Steppe rangeland. Vandalism (illegal excavations) of archaeological sites would be reduced and vehicle damage to Shoofly Rock Alignments would be halted. Bighorn sheep populations would remain at or near the habitat carrying capacity of 200 animals within the WSA.

Nonsuitable Area - Naturalness would be lost on 240 acres. Bighorn sheep populations would remain at or near the habitat carrying capacity.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the All Wilderness Alternative.

Nonsuitable Area - There would be no significant impact.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $86,124 of additional annual income and 5.7 new jobs. Implementation costs would total $40,200 for range improvements and $4,600 annually for wilderness management.

Minimum Resource Conflict Alternative - 32,240 acres suitable for wilderness and 25,830 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Nonsuitable Area - Naturalness would be lost on 9,800 acres. Opportunities for solitude/primitive recreation would be diminished on about 8,800 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 1,650 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. Bighorn sheep populations would remain at or near the habitat carrying capacity.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Nonsuitable Area - Impacts would be the same as described for the nonsuitable area in the Proposed Action.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $94,734 of additional annual income and 6.2 new jobs. Implementation costs would total $86,200 for range improvements and $4,600 annually for wilderness management.

Rim to Rim Wilderness Alternative - 6,350 acres suitable for wilderness and 51,690 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be maintained on 6,350 acres. About 13.6 miles redband trout habitat would benefit from improved riparian condition. Bighorn sheep populations would remain at or near the habitat carrying capacity of 200 animals within the WSA.

Nonsuitable Area - Naturalness would be lost on 9,800 acres. Opportunities for solitude/primitive recreation would be diminished on about 8,800 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ ecological values could be diminished on 3,750 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. Construction of new underground utilities outside the 1/4 mile corridor could also result in loss of naturalness and diminished opportunities for solitude/primitive recreation in areas visible from new utility paths and associated service roads. Bighorn sheep populations would remain at or near the habitat carrying capacity.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be 2,475 visitor days, an increase of 1,325 annual visitor days over current use. The major use areas would be Little Jacks Creek Canyon with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.

Nonsuitable Area - Annual recreation use would be 1,575 visitor days, an increase of 1,175 annual visitor days over current use. The major use areas would be Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer, pronghorn and sage grouse populations would remain stable.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $106,750 of additional annual income and 6.4 new jobs. Implementation costs would total $86,200 for range improvements and $4,600 annually for wilderness management.

DUNCAN CREEK WSA (ID-111-7B)

Proposed Action - 9,400 acres suitable for wilderness (including 640 acres of State of Idaho lands) and 1,245 acres nonsuitable. Acquisition of the state inholding is essential for effective management of the area as wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be maintained on 9,400 acres. The bighorn sheep populations would expand and fully occupy available habitat.

Nonsuitable Area - Scientific/ecological values could be diminished on 450 acres of good condition Sagebrush Steppe rangeland.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be 1,600 visitor days, an increase of 1,225 annual visitor days over current use. The major use areas would be Duncan Creek Canyon with use about 30% hunting and 70% non-hunting. There would be no significant impact on opportunities to participate in ORV use or hunting.

Nonsuitable Area - There would be no significant impact.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%.

Impacts on Income and Jobs:

There would be $31,079 of additional annual income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.

All Wilderness Alternative - 10,645 acres suitable for wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 120 acres affected by the closure of primitive vehicle routes. The bighorn sheep populations would expand and fully occupy available habitat.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%.

Impacts on Income and Jobs:

There would be $30,316 of additional annual income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.

No Wilderness/No Action Alternative - 10,005 acres nonsuitable for wilderness

Impacts on Wilderness Value:

Nonsuitable Area - Unregulated increases in recreation use could preclude use of up to 13% of the potential habitat for the Big Jacks Creek Complex sheep transplant. The significance of this impact is not known since the sheep have not been reintroduced into this habitat yet and therefore critical use areas are not known. The bighorn sheep population would expand and partially occupy available habitat. Scientific/ecological values could be diminished on 450 acres of good condition Sagebrush Steppe rangeland.

Impact on Recreation Use:

Nonsuitable Area - Annual recreation use would be 1,245 visitor days, an increase of 1,050 annual visitor days over current use. The major use areas would be Duncan Creek Canyon with use about 35% hunting and 65% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Nonsuitable Area - Mule deer and pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%.

Impacts on Income and Jobs:

There would be $27,155 of additional annual income and 2.4 new jobs. There would be no implementation costs.

All Manageable Wilderness Alternative - 10,085 acres suitable for wilderness and 560 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 25 acres affected by the closure of primitive vehicle routes. The bighorn sheep population would expand and fully occupy available habitat.

Nonsuitable Area - Scientific/ecological values could be diminished on 100 acres of good condition Sagebrush Steppe rangeland.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Nonsuitable Area - There would be no significant impact.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%.

Impacts on Income and Jobs:

There would be $30,874 of additional annual income and 2.75 new jobs. Implementation costs would be $1,700 annually for wildernesss management.

BIG JACKS CREEK WSA (ID-111-7C)

Proposed Action - 44,525 acres suitable for wilderness, 10,308 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 110 acres. Increases in recreation use would diminish solitude in the canyons. About 19 miles of redband trout habitat would benefit from improved riparian condition. Another three miles of redband trout habitat would decline in condition because of increased livestock grazing. The bighorn sheep population would expand and fully occupy available habitat.

Nonsuitable Area - Naturalness would be lost on 5,350 acres. Opportunities for solitude/primitive recreation would be diminished on 9,750 acres. Underground utility construction could also affect naturalness of about 550 acres. Scientific/ecological values could be diminished on 11,200 acres of good condition Sagebrush Steppe rangeland.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be 7,975 visitor days, an increase of 7,225 annual visitor days over current use. The major use areas would be Big Jacks Creek Canyon with use about 10% hunting and 90% non-hunting. There would no no significant impact on opportunities to participate in ORV use or hunting.

Nonsuitable Area - There would be no significant impact.

Impacts of Jacks Creek Pipeline Extensions:

Suitable Area - Three miles of redband trout habitat would decline in condition.

Nonsuitable Area - Naturalness would be lost and opportunities for solitude/primitive recreation diminished on 5,350 acres. Scientific values (supplemental wilderness values) could be diminished on 4,400 acres of good condition rangeland affected by increased livestock grazing. There would be a slight improvement in wildlife habitat.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $192,968 of additional annual income and 16.25 new jobs. Implementation costs would total $63,850 for range improvements and $4,500 annually for wilderness management.

All Wilderness Alternative - 54,833 acres suitable for wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 225 acres. Increased recreation use would diminish solitude in the canyons. Opportunities for solitude and primitive recreation could be diminished on 4,400 acres. About 19 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 5,800 acres of good condition Sagebrush Steppe rangeland. The bighorn sheep population would expand and fully occupy available habitat.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Impacts of Jacks Creek Pipeline Extensions:

Suitable Area - There would be no impact since the project would not be constructed under this alternative.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $182,110 of additional annual income and 16 new jobs. Implementation costs would total $48,100 for range improvements and $4,500 annually for wilderness management.

No Wilderness/No Action Alternative - 54,833 acres nonsuitable for wilderness

Impacts on Wilderness Values:

Nonsuitable Area - Naturalness would be lost on 5,350 acres. Underground utility construction could also affect naturalness of about 550 acres. Outstanding opportunities for solitude and primitive recreation could be diminished on 9,750 acres. Increased recreation use would diminish solitude in the canyons. Nineteen miles of redband trout habitat would improve but another three miles would decline in condition. Scientific/ecological values could be diminished on 11,300 acres of good condition Sagebrush Steppe rangeland. The bighorn sheep population would expand and fully occupy available habitat.

Impacts on Recreation Use:

Nonsuitable Area - Annual recreation use would be 3,665 visitor days, an increase of 2,915 annual visitor days over current use. The major use areas would be Big Jacks Creek Canyon with use about 25% hunting and 75% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.

Impacts of Jacks Creek Pipeline Extensions:

Nonsuitable Area - Naturalness would be lost and opportunities for solitude/primitive recreation diminished on 5,350 acres. Scientific values (supplemental wilderness values) could be diminished on 4,400 acres of good condition rangeland affected by increased livestock grazing. Three miles of redband trout habitat would decline in condition. There would be a slight improvement in wildlife habitat.

Impacts on Selected Wildlife Species:

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $96,812 of additional annual income and 7.1 new jobs. Implementation costs would toatl $63,850.

All Manageable Wilderness Alternative - 49,875 acres suitable for wilderness and 4,958 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 200 acres. Increased recreation use would diminish solitude in the canyons. About 19 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 5,800 acres of good condition Sagebrush Steppe rangeland. The bighorn sheep population would expand and fully occupy available habitat.

Nonsuitable Area - Underground utility construction could reduce naturalness of about 550 acres. Opportunities for solitude and primitive recreation could be diminished on about 4,400 acres affected by increased ORV use.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Nonsuitable Area - There would be no significant impact.

Impacts of Jacks Creek Pipeline Extensions:

Suitable Area - There would be no impact since the project would not be constructed under this alternative.

Nonsuitable Area - There would be no impact since the project would not be constructed under this alternative.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Nonsuitable Area - Mule deer, pronghorn and sage grouse populations would remain stable.

Impacts on Income and Jobs:

There would be $182,110 of additional annual income and 16 new jobs. Implementation costs would total $48,100 for range improvements and $4,500 annually for wilderness management.

Rim to Rim Wilderness Alternative - 10,800 acres suitable for wilderness and 44,033 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - About 19 miles of redband trout habitat would benefit from improved riparian condition. Increased recreation use would diminish solitude in the canyons. Another three miles of redband trout habitat would decline in condition. The bighorn sheep population would expand and fully occupy available habitat.

Nonsuitable Area - Naturalness would be lost on 5,350 acres. Underground utility construction could also reduce naturalness of about 550 acres. Outstanding opportunities for solitude and primitive recreation could be diminished on 9,750 acres. Scientific/ecological values could be diminished on 11,300 acres of good condition Sagebrush Steppe rangeland. Scenic values could be degraded on 200 acres within Big Jacks Creek Canyon. The bighorn sheep population would expand and fully occupy available habitat.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Nonsuitable Area - There would be no significant impact.

Impacts of Jacks Creek Pipeline Extensions:

Suitable Area - Impacts would be the same as described for the suitable area in the Proposed Action.

Nonsuitable Area - Impacts are the same as described for the nonsuitable area in the Proposed Action.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer, pronghorn and sage grouse populations would remain stable.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $196,933 of additional annual income and 16.35 new jobs. Implementation costs would total $63,850 for range improvements and $4,500 annually for wilderness management.

POLE CREEK WSA (ID-111-18)

Proposed Action: 24,509 acres nonsuitable for wilderness.

Impacts on Wilderness Values:

Nonsuitable Area - Naturalness would be lost and opportunities for primitive recreation would be diminished on 4,400 acres. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District.

Impacts on Recreation Use:

Nonsuitable Area - Annual recreation use would be about 550 visitor days, an increase of 225 annual visitor days over current use. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $21,793 of additional annual income and .8 new jobs. Implementation costs would total $11,000 for range improvements.

All Wilderness Alternative - 24,509 acres nonsuitable for wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 85 acres affected by road closures. Ongoing archaeological research could be adversely affected and archaeological site stabilization could be impeded.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be about 475 visitor days, an increase of 150 annual visitor days over current use. Some sage grouse hunters could be displaced. There would be no significant impact on opportunities to participate in ORV use.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $8,124 of additional annual income and .5 new jobs. Implementation costs would be $4,400 annually for wilderness management.

SHEEP CREEK WEST WSA (ID-111-36A)

Proposed Action - 11,680 acres suitable for wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 50 acres affected by road closures. Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. There would be no significant impact on opportunities to participate in ORV use or hunting.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer, pronghorn and sage grouse would increase by up to 5%.

Impacts on Income and Jobs:

There would be $4,705 of additional annual income and .3 new jobs. Implementation costs would be $1,800 annually for wilderness management.

No Wilderness/No Action Alternative - 11,680 acres nonsuitable for wilderness

Impacts on Wilderness Values:

Nonsuitable Area - Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.

Impacts on Recreation Use:

Nonsuitable Area - Annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Nonsuitable Area - Mule deer, pronghorn and sage grouse would increase by up to 5%.

Impacts on Income and Jobs:

There would be $4,705 of additional annual income and .3 new jobs. There are no implementation costs.

SHEEP CREEK EAST WSA (ID-111-36B)

Proposed Action - 5,050 acres nonsuitable for wilderness.

Impacts on Wilderness Values:

Nonsuitable Area - Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.

Impacts on Recreation Use:

Nonsuitable Area - Annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $6,803 of additional annual income and .4 new jobs. There are no implementation costs.

All Wilderness Alternative - 5,050 acres suitable for wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about five acres affected by road closures.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. There would be no significant impact on opportunities to participate in ORV use or hunting.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $4,105 of additional annual income and .3 new jobs. Implementation costs would be $5,500 annually for wilderness management.

UPPER DEEP CREEK WSA (ID-111-44)

Proposed Action - 11,510 acres nonsuitable for wilderness.

Impacts on Wilderness Values:

Nonsuitable Area - Naturalness would be lost and opportunities for primitive recreation would be diminished on 640 acres affected by firewood cutting. Opportunities for primitive recreation and solitude would also be diminished on 1,150 acres affected by increased ORV use. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District.

Impacts on Recreation Use:

Nonsuitable Area - Annual recreation use would be about 600 visitor days, an increase of 275 annual visitor days over current use. Opportunities to participate in ORV use or hunting would not be affected.

Impacts on Selected Wildlife Species:

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $14,791 of additional annual income and .8 new jobs. There are no implementation costs.

All Wilderness Alternative - 11,510 acres suitable for wilderness.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 40 acres. Opportunities for solitude and primitive recreation could be diminished on 1,150 acres affected by increased vehicle traffic. Ongoing archaeological research could be adversely affected and archaeological site stabilization could be impeded.

Impacts on Recreation Use:

Suitable Area - Annual recreation use would be about 600 visitor days, an increase of 275 annual visitor days over current use. There would be no significant impact on opportunities to participate in ORV use or hunting.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer, pronghorn and sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $8,524 of additional annual income and .7 new jobs. Implementation costs would be $1,800 annually for wilderness management.

All Manageable Wilderness Alternative - 10,355 acres suitable for wilderness and 1,155 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 40 acres. Ongoing archaeological research could be adversely affected and archaeological site stabilization could be impeded.

Nonsuitable Area - Opportunities for solitude and primitive recreation would be diminished by increased ORV use.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the All Wilderness Alternative.

Nonsuitable Area - There would be no significant impact.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer, pronghorn and sage grouse would increase by up to 10%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $9,014 of additional annual income and .7 new jobs. Implementation costs would be $1,800 annually for wilderness management.

Minimum Resource Conflict Alternative - 5,700 acres suitable for wilderness and 5,810 acres nonsuitable.

Impacts on Wilderness Values:

Suitable Area - There would be no significant impact.

Nonsuitable Area - Opportunities for primitive recreation and solitude would be diminished on 1,150 acres affected by increased ORV use. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District.

Impacts on Recreation Use:

Suitable Area - Impacts would be the same as described for the suitable area in the All Wilderness Alternative.

Nonsuitable Area - There would be no significant impact.

Impacts on Selected Wildlife Species:

Suitable Area - Mule deer, pronghorn and sage grouse would increase by up to 10%.

Nonsuitable Area - Mule deer and pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.

Impacts on Income and Jobs:

There would be $14,696 of additional annual income and .8 new jobs. Implementation costs would be $1,800 annually for wilderness management.

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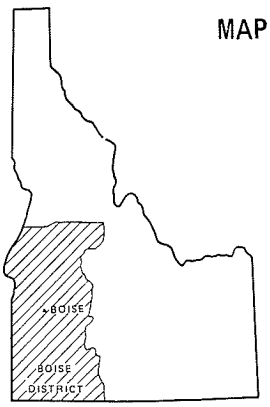
JACKS CREEK WILDERNESS E.I.S.
GENERAL LOCATION MAP

MAP 1



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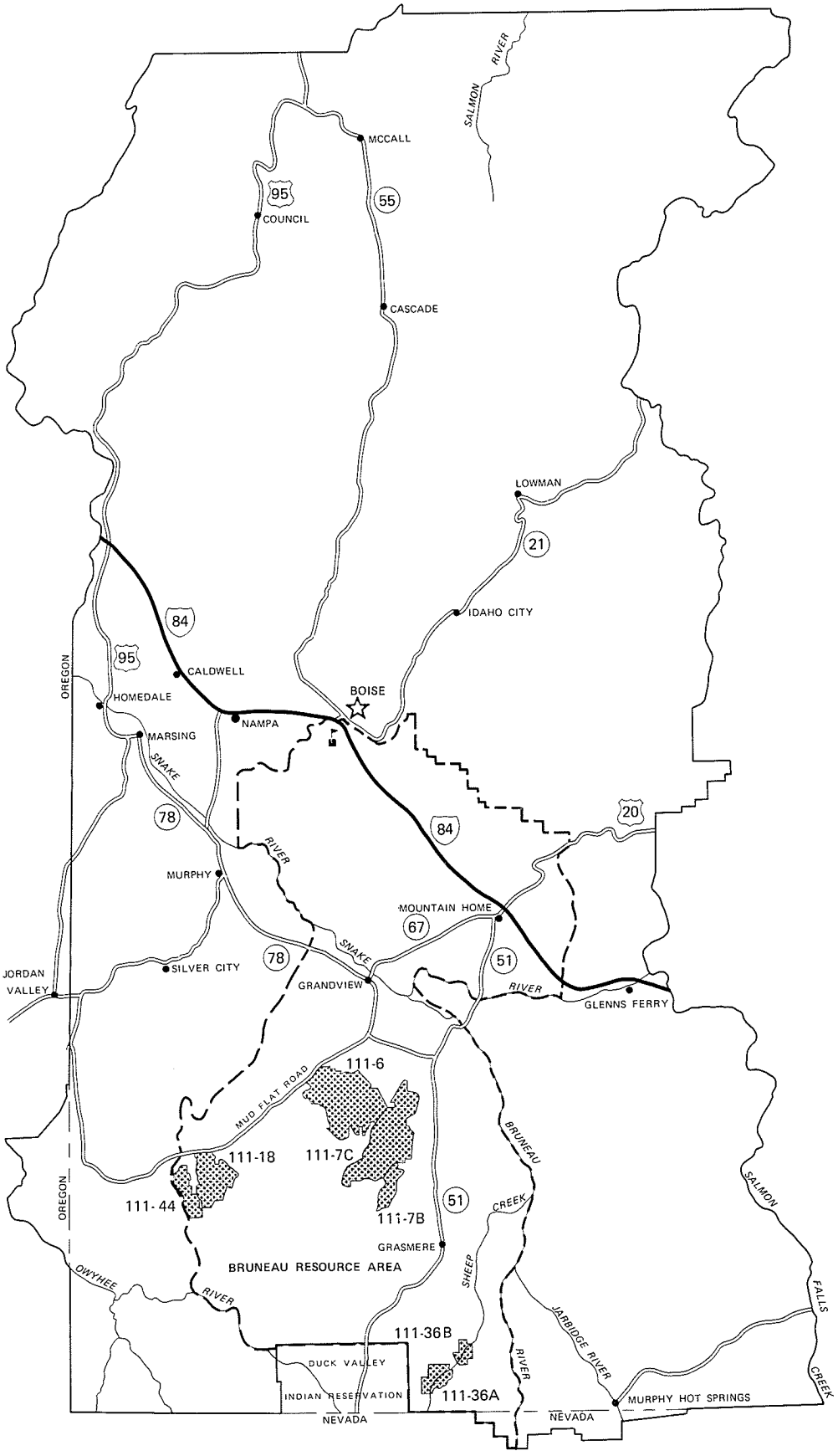


WILDERNESS STUDY AREA (WSA) UNITS

UNIT NO.	WSA NAME	ACRES
111 - 6	Little Jacks Creek	58,040
111 - 7B	Duncan Creek	10,005
111 - 7C	Big Jacks Creek	54,833
111 - 18	Pole Creek	24,509
111 - 36A	Sheep Creek West	11,680
111 - 36B	Sheep Creek East	5,050
111 - 44	Upper Deep Creek	11,510
	TOTAL	175,627

- STATE CAPITOL
- BLM DISTRICT OFFICE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- DISTRICT BOUNDARY
- RESOURCE AREA BOUNDARY
- WILDERNESS STUDY AREA (WSA)

CHAPTER ONE
PURPOSE AND NEED

INTRODUCTION

This environmental impact statement (EIS) evaluates the environmental consequences of: 1) managing lands as part of the National Wilderness Preservation System (NWPS); or 2) opening lands for resource development activities not permitted in designated wilderness. The affected lands include 175,627 acres of WSA and 1,030 acres of non-WSA public land managed by the Bureau of Land Management (BLM) in southwestern Idaho's Owyhee County. They are located 60 to 100 miles south of Boise.

These lands are divided into seven separate parcels called wilderness study areas (WSAs). Wilderness study areas are areas the BLM has identified that meet the minimum statutory requirements to be designated wilderness under the Wilderness Act of 1964. The seven WSAs evaluated in this EIS are:

WSA Name	WSA #	Acres
Little Jacks Creek WSA	111-6	58,040
Duncan Creek WSA	111-7B	10,005
Big Jacks Creek WSA	111-7C	54,833
Pole Creek WSA	111-18	24,509
Sheep Creek West WSA	111-36A	11,680
Sheep Creek East WSA	111-36B	5,050
Upper Deep Creek WSA	111-44	11,510

PURPOSE AND NEED FOR ACTION

The purpose of the Proposed Action is 1) to ensure long-term preservation of wilderness values and characteristics on 99,605 acres recommended as suitable for wilderness and 2) allow activities not compatible with wilderness designation on 77,692 acres recommended as nonsuitable for wilderness. This action is needed because 1) irretrievable wilderness characteristics could be lost if some areas are not designated wilderness and 2) many uses are currently restricted on these lands pending a wilderness decision. These wilderness suitability recommendations are based on analysis of existing and potential uses of the land. This review of potential wilderness areas is required by the Federal Land Policy and Management Act of 1976 (FLPMA). This law identifies wilderness as one of the public values to be considered in BLM land use planning and management of the public lands.

Following completion of this environmental impact statement, a wilderness study report will be prepared. This report will contain the Bureau's recommendation to the Secretary of the Interior on the wilderness suitability of the seven WSAs. The Secretary of the Interior will make a recommendation to the President who will make a recommendation to Congress. Only Congress can designate an area wilderness. Until Congress acts, the BLM is required by FLPMA to manage all WSAs so as to preserve their suitability for wilderness designation.

THE BLM PLANNING PROCESS

This EIS is part of the Bruneau Resource Area land use planning process. The final land use plan is called a "Management Framework Plan" (MFP). This plan has been completed for all activities except wilderness. This evaluation of wilderness suitability is a continuation of this multiple use planning process.

SELECTION OF THE PROPOSED ACTION

The Proposed Action/Preferred Alternative for the Final EIS is the BLM's recommendation following consideration of impacts identified in the Draft EIS and evaluation of public comment. For five of the wilderness study areas (Little Jacks Creek, Duncan Creek, Pole Creek, Sheep Creek West, and Sheep Creek East WSAs) the proposed action is the same as in the Draft EIS. For the other two WSAs (Big Jacks Creek and Upper Deep Creek WSA) other alternatives that were addressed in the Draft EIS have been selected as the Proposed Action/Preferred Alternative for the Final EIS. The principle factors affecting the selection of the proposed action/preferred alternative were 1) manageability as wilderness, 2) quality of the wilderness values and characteristics, 3) conflicts with other existing or potential resource uses, and 4) public input.

LITTLE JACKS CREEK WSA (ID-111-6) - The Proposed Action/Preferred Alternative for the Final EIS is the same as the proposed action in the Draft EIS (34,000 acres suitable for wilderness (including 1,030 non-WSA acres), and 25,070 nonsuitable for wilderness). Suitable areas were recommended for wilderness designation because of the quality of their wilderness values (primitive recreation, solitude, and naturalness), supplemental wildlife and scientific values (California bighorn sheep population and relict Sagebrush Steppe ecosystem), and lack of wilderness manageability problems. Portions of the WSA recommended nonsuitable for wilderness would allow existing access roads to remain open, permit construction of an underground utility line and an 8-mile livestock watering pipeline, and would allow for more intensive use by domestic livestock.

DUNCAN CREEK WSA (ID-111-7B) - The Proposed Action/Preferred Alternative for the Final EIS is the same as the proposed action in the Draft EIS (9,400 acres suitable for wilderness (including 640 acres of State of Idaho lands), and 1,245 nonsuitable for wilderness). Suitable areas were recommended for wilderness designation because of the quality of their wilderness values (primitive recreation, solitude, and naturalness), supplemental wildlife and scientific values (California bighorn sheep habitat and relict Sagebrush Steppe ecosystem), lack of wilderness manageability problems, and lack of conflict with other existing or potential resource uses. Portions of the WSA recommended nonsuitable for wilderness would allow more intensive use by domestic livestock.

BIG JACKS CREEK WSA (ID-111-7C) - The Proposed Action/Preferred Alternative for the Final EIS is the Minimum Resource Conflict Alternative from the Draft EIS (44,525 acres suitable for wilderness and 10,308 acres nonsuitable for wilderness). Suitable areas were recommended for wilderness because of the quality of their wilderness values (primitive recreation, solitude, and naturalness), supplemental wildlife and scientific values (California bighorn sheep habitat and relict Sagebrush Steppe ecosystem), lack of wilderness manageability problems, and lack of conflict with other existing or potential resource uses. Portions of the WSA recommended nonsuitable for wilderness include 4,400 acres where wilderness restrictions on ORV use would be difficult to enforce, 5,350 acres where wilderness designation would prevent construction of a 4.5 mile livestock watering pipeline, and 558 acres which would allow for an underground utility line between Little Jacks Creek and Big Jacks Creek WSAs. The Minimum Resource Conflict Alternative was selected as the Preferred Alternative for the Final EIS to accommodate construction of the 4.5 mile livestock watering pipeline and to allow for more intensive use by domestic livestock.

POLE CREEK WSA (ID-111-18) - The Proposed Action/Preferred Alternative for the Final EIS is the same as the proposed action in the Draft EIS (all 24,509 acres recommended nonsuitable for wilderness). The WSA is being recommended nonsuitable because of anticipated wilderness management problems (private inholdings) and to allow for more intensive use by domestic livestock.

SHEEP CREEK WEST WSA (ID-111-36A) - The Proposed Action/Preferred Alternative for the Final EIS is the same as the proposed action in the Draft EIS (all 11,680 acres recommended suitable for wilderness). The WSA is being recommended suitable for wilderness designation because of the quality of it's supplemental scientific values (relict Sagebrush Steppe ecosystem), lack of wilderness manageability problems, and lack of conflict with other existing or potential resource uses.

SHEEP CREEK East WSA (ID-111-36B) - The Proposed Action/Preferred Alternative for the Final EIS is the same as the proposed action in the Draft EIS (all 5,050 acres recommended nonsuitable for wilderness). The WSA is being recommended nonsuitable because of the marginal quality of its wilderness values (primitive recreation and solitude), anticipated wilderness management problems, (small size combined with configuration), and to allow for more intensive use by domestic livestock.

UPPER DEEP CREEK WSA (ID-111-44) - The Proposed Action/Preferred Alternative for the Final EIS is the No Wilderness/No Action Alternative from the Draft EIS (all 11,510 acres recommended nonsuitable for wilderness). The WSA is being recommended nonsuitable because of anticipated wilderness management problems (lack of natural ORV barriers and poor configuration) and to allow for more intensive use by domestic livestock. The No Wilderness/No Action Alternative was selected as the Preferred Alternative after review of public comment and reconsideration of potential wilderness management problems (configuration).

SCOPING (ISSUE IDENTIFICATION)

Scoping is the process of identifying issues and alternatives to be addressed in the environmental impact statement. The Bruneau Resource Area's initial wilderness recommendations were introduced to the public at an open house in Boise on December 2, 1981 during the land use planning process. The public was encouraged to begin considering alternatives and issues to be addressed in the Jacks Creek Wilderness EIS.

The formal EIS scoping process began on March 30, 1983 with an informational mailing to 570 individuals and organizations who had expressed an interest in the affected WSAs. It included information about preliminary wilderness alternatives, issue identification, and upcoming public meetings. Public meetings were held in Bruneau on April 20 and in Boise on April 21, 1983. About 130 individuals attended these meetings. The formal public comment period for input on EIS issue identification and alternative development closed on May 13. Eighty-nine written comments were received. The Boise District BLM Multiple-Use Advisory Council met on May 23 to provide additional input on issues and alternatives.

The Draft Jacks Creek Wilderness EIS was released for public review in July, 1984. Notice of public hearings and availability of the draft EIS was published in the Federal Register on July 27, 1984. Copies of the draft were distributed to about 450 interested individuals and organizations. Public hearings were held in Grand View, Idaho on September 4, 1984 and in Boise, Idaho on September 5, 1984. A 90-day public comment period ended on November 2, 1984. The Boise District BLM Multiple-Use Advisory Council met on January 15, 1985 to provide additional public input.

A total of 151 individuals/organizations provided formal public comment to the Draft EIS. One-hundred and sixteen written comments were received while 46 individuals provided oral testimony at public hearings (11 individuals provided both written and oral testimony). Many of these comments have been incorporated into the Final EIS. A summation of public comments and response to substantive comments is included in Chapter Five.

OPPORTUNITIES, ISSUES AND CONCERNS

The BLM has the opportunity to recommend expansion of the National Wilderness Preservation System by 175,627 acres. It has the opportunity to recommend Congressional protection for: (1) California bighorn sheep habitat; (2) examples of Sagebrush Steppe and Salt Desert Shrub ecological communities; and (3) primitive recreation opportunities.

Following evaluation of public comment received throughout the scoping and EIS development process, the following issues were selected for detailed analysis in the Final EIS.

1. Impacts on wilderness values. This issue reflects public concern about the impact a wilderness decision would have on wilderness values of the WSAs. The wilderness characteristics and values of the WSAs that could be affected by the wilderness allocation decision include naturalness, opportunities for solitude and/or primitive recreation, and supplemental values. Supplemental values include California bighorn sheep, redband trout, good/ excellent condition Sagebrush Steppe rangeland, cultural resource values, and scenic values. These wilderness values and characteristics could be affected by both direct or indirect actions including road closures, increased recreation use, increased domestic livestock grazing, restrictions on recreation use, new range developments, underground utility construction, development of adjacent private lands, riparian fencing, implementation of new grazing management systems, and federal acquisition of private and state lands.

2. Impacts on the levels of recreation use. Concerns were expressed about the effects that wilderness designation would have on the use levels of specific recreation activities particularly off-road vehicle (ORV) use by residents of southwestern Idaho, hunting, and for backcountry uses such as hiking, backpacking, fishing, and nature study. Concern was also expressed about the secondary impacts of recreation use on the local economy, an impact addressed under the analyses for Issue 5, Impacts on Income and Jobs.

3. Impacts on Jacks Creek Livestock Watering Pipeline Extensions. This issue applies only to Big Jacks Creek WSA. The current land use plan calls for construction of the 19-mile Jacks Creek livestock watering pipeline between Little Jacks Creek WSA and Big Jacks Creek WSA. Several extensions have been proposed that would expand the pipeline system into the Big Jacks Creek WSA. These pipeline extensions would not be permitted if the area were designated wilderness. Livestock operators are concerned about future opportunities to increase livestock grazing and improve grazing management that could be foregone if construction of these laterals is precluded by wilderness designation. Conservationists are concerned about the impacts these pipeline proposals could have on wilderness characteristics and potential bighorn sheep habitat in Big Jacks Creek WSA.

4. Impacts on Selected Wildlife Species. This issue is included to address concerns with impacts to wildlife inhabiting the WSAs. The wildlife species selected for analyses are California bighorn sheep, mule deer, pronghorn antelope, sage grouse and redband trout. The analysis for bighorn sheep and redband trout, both sensitive species, are included under supplemental wilderness values. Analysis is focused on the selected key species since they have the highest level of public (including agency) interest and are specifically managed through habitat modification or protection and through State regulations. The selected species are also the most likely to be measurably affected by management actions. The amount and reliability of information for these species is greater than for other species as is the confidence level for projecting impacts. Preliminary analysis indicated that although other wildlife species may change over time, the projected changes would be highly subjective and independent of wilderness designation.

5. Impacts on Income and Jobs. Both opponents and proponents of wilderness have expressed concern about the anticipated economic impacts that would occur with wilderness designation. Livestock permittees are concerned about wilderness restrictions on grazing and the impact this could have on the economic viability of their operations. Other Owyhee County residents are concerned about the secondary impacts on the Owyhee County economy resulting from loss of grazing revenue to the permittees. Wilderness proponents suggest that revenues generated by increased recreation use and increased wildlife numbers will offset any economic losses to the livestock industry resulting from wilderness designation. Wilderness proponents also believe that an economic analysis should include consideration of non-market values associated with wilderness and wildlife.

ISSUES NOT ADDRESSED

During the scoping process and public review of the Draft EIS, several issues were raised which lie outside the scope of this EIS. The primary objective of this EIS is to consider the environmental consequences of a wilderness decision, therefore issues that are independent of the wilderness allocation decisions or that would not have any significant environmental impact are not specifically addressed in this EIS. The following discussion briefly addresses those issues that were not selected for detailed analysis in this EIS.

1. Impacts of the 19-mile portion of the Jacks Creek livestock watering pipeline that lies outside the boundaries of the WSAs. A tentative decision has already been made to allow construction of this portion of the pipeline. The environmental consequences of this action were addressed as a major issue in the Draft and Final Bruneau-Kuna Grazing Environmental Impact Statements (USDI 1982a and 1982b). In the Jacks Creek Wilderness EIS it is assumed that this portion of the pipeline will be constructed regardless of the wilderness decision, therefore the impacts related to this action are included in the Proposed Action and all other alternatives.

2. The appropriate level of livestock grazing and particularly the impacts of increased livestock grazing on wildlife habitat potential. This issue is not addressed in detail in this EIS because it was a major focus of the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b). Decisions have already been made regarding the appropriate levels of livestock grazing in areas designated wilderness, and the appropriate levels of livestock grazing for areas if they are not designated wilderness. The levels of grazing use are described for each WSA in Chapter II under descriptions of the Proposed Action and Alternatives. Any proposed increases in domestic livestock grazing would not be implemented until after monitoring assured that adequate forage is available without compromising wildlife forage and other needs. Within WSAs, increased levels of livestock grazing would not be allowed which would cause more than negligible adverse impacts to: (1) natural ecological condition of the vegetation; (2) aesthetic and visual condition of the lands and waters; (3) soil stability; (4) numbers or natural diversity of fish and

wildlife; or (5) would result in other possible effects that could affect wilderness suitability. Within designated wilderness, increased levels of livestock grazing would not be permitted which would have any adverse impact on wilderness values such as plant communities, primitive recreation, and wildlife populations or habitat. The impact assessment in this EIS is limited to an evaluation of two levels of livestock grazing, i.e. with wilderness or without wilderness designation. For a complete discussion of a full range of alternatives addressing various livestock grazing levels and their relationship to wildlife habitat potential, please refer to the Bruneau-Kuna Grazing EISs.

3. Impacts of wilderness designation on development of mineral or energy resources. Preliminary analysis indicated that a wilderness allocation decision would have no impact on the development of mineral or energy resources. There are no known mineral or energy resources in the WSAs and geologic environments are not favorable for the discovery of any significant marketable energy or mineral resources.

4. Impacts of wilderness designation on maintenance of existing livestock management facilities. Preliminary analysis indicated that wilderness designation would not have any significant impact on the maintenance of livestock management facilities. Several of the WSAs have fences, spring developments, and livestock reservoirs within their boundaries. Annual inspection of these facilities and repair of fences is normally done on horseback. The use of horses would not be affected by wilderness designation. The BLM's Wilderness Management Policy (USDI 1981) permits the occasional use of motorized equipment for maintenance of livestock management facilities when practical alternatives do not exist. Livestock reservoirs require maintenance using mechanized equipment about every 10 years while spring developments can require mechanized maintenance as often as every five years. It is anticipated that this infrequent use of mechanized equipment would continue to be authorized following wilderness designation.

FORMULATION OF ALTERNATIVES

Alternatives have been developed for each WSA to provide the public and decision makers with a spectrum of viable options ranging from all wilderness to no wilderness. The specific alternatives were selected to assure decision makers have ample opportunity to review an evaluation of a reasonable range of alternatives for comparison of potential impacts. The analysis of environmental impacts assures that decisions are made with full knowledge of their environmental consequences.

A range of alternatives has been developed for each WSA based on the issues that were applicable to the individual WSA and potential or existing conflicts with other resource uses. These are the same alternatives that were reviewed in the Draft EIS, however in the Final EIS these alternatives are displayed individually for each WSA. Listed below are the alternatives evaluated for each WSA.

LITTLE JACKS CREEK WSA (ID-111-6) - The Proposed Action and five alternatives were analyzed for Little Jacks Creek WSA.

Proposed Action - The Proposed Action recommends 34,000 acres, including 1,030 acres of federal land not in the WSA, suitable for wilderness. The remaining 25,070 acres would be recommended nonsuitable for wilderness. This was the multiple use recommendation from the Bruneau Resource Area land use plan.

All Wilderness Alternative - All 58,040 acres in the WSA would be recommended suitable for wilderness.

No Wilderness/No Action Alternative - All 58,040 acres in the WSA would be recommended nonsuitable for wilderness.

All Manageable Wilderness Alternative - About 50,690 acres would be recommended suitable for wilderness while 8,380 acres would be recommended nonsuitable. This alternative includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. It differs from the All Wilderness Alternative by adding the element of efficiency and considers only areas that realistically could be maintained as wilderness.

Minimum Resource Conflict Alternative - About 33,240 acres would be recommended as suitable for wilderness while 25,830 acres would be recommended nonsuitable. This alternative excludes from wilderness consideration all areas where specific conflicts with wilderness management were identified during the Bureau's land use planning process (URA-MFP) or subsequent allotment management plan (AMP) development. This alternative was originally called the "No Resource Conflict" Alternative. Because public comment suggested some conflicts with other land uses still existed, the name was changed to "Minimum Resource Conflict" Alternative.

Rim to Rim Wilderness Alternative - About 6,350 acres would be recommended suitable for wilderness while 51,690 would be recommended nonsuitable. Only the major canyons of Little Jacks Creek and its tributaries would be included in the proposed wilderness area. This alternative was included in the Draft EIS at the request of the Boise District Multiple-Use Advisory Council.

DUNCAN CREEK WSA (ID-111-7B) - The Proposed Action and three alternatives were analyzed for Duncan Creek WSA

Proposed Action - The Proposed Action recommends 9,400 acres, including a 640-acre State of Idaho inholding, as suitable for wilderness. The remaining 1,245 acres would be recommended as nonsuitable for wilderness. This was the multiple use recommendation from the Bruneau Resource Area land use plan.

All Wilderness Alternative - All 10,005 acres in the WSA and the 640-acre State of Idaho inholding would be recommended suitable for wilderness.

No Wilderness/No Action Alternative - All 10,005 acres in the WSA would be recommended nonsuitable for wilderness

All Manageable Wilderness Alternative - About 10,085 acres, including the 640-acre State of Idaho inholding, would be recommended suitable for wilderness. The remaining 8,380 acres would be recommended nonsuitable. This alternative includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. It differs from the All Wilderness Alternative by adding the element of efficiency and considers only areas that realistically could be maintained as wilderness.

BIG JACKS CREEK WSA (ID-111-7C) - The Proposed Action and four alternatives were analyzed for Big Jacks Creek WSA.

Proposed Action (Minimum Resource Conflict Alternative)- The Proposed Action recommends 44,525 acres suitable for wilderness and 10,308 acres nonsuitable for wilderness. The alternative selected as the Proposed Action for the Final EIS was analyzed as the Minimum Resource Conflict Alternative in the Draft EIS. This alternative excludes from wilderness consideration all areas where specific conflicts with wilderness management were identified during the Bureau's land use planning process (URA-MFP) or subsequent allotment management plan (AMP) development.

All Wilderness Alternative - All 54,833 acres in the WSA would be recommended suitable for wilderness.

No Wilderness/No Action Alternative - All 54,833 acres in the WSA would be recommended nonsuitable for wilderness.

All Manageable Wilderness Alternative - About 49,875 acres would be recommended suitable for wilderness. The remaining 4,958 acres would be recommended nonsuitable. This alternative was the Proposed Action in the Draft EIS. It includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. It differs from the All Wilderness Alternative by adding the element of efficiency and considers only areas that realistically could be maintained as wilderness.

Rim to Rim Wilderness Alternative - About 10,800 acres would be recommended suitable for wilderness while 44,033 would be recommended nonsuitable. Only the major canyons of Big Jacks Creek and its tributaries would be included in the proposed wilderness area. This alternative was included in the Draft EIS at the request of the Boise District Multiple-Use Advisory Council.

POLE CREEK WSA (ID-111-18) - The Proposed Action and one alternative were analyzed for Pole Creek WSA.

Proposed Action (No Wilderness/No Action Alternative) - The Proposed Action recommends the entire 24,509-acre WSA as nonsuitable for wilderness. This was the multiple use recommendation from the Bruneau Resource Area land use plan.

All Wilderness Alternative - All 24,509 acres in the WSA would be recommended suitable for wilderness.

SHEEP CREEK WEST WSA (ID-111-36A) - The Proposed Action and one alternative were analyzed for Sheep Creek West WSA.

Proposed Action (All Wilderness Alternative) - The Proposed Action recommends the entire 11,680-acre WSA as suitable for wilderness. This was the multiple use recommendation from the Bruneau Resource Area land use plan.

No Wilderness/No Action Alternative - All 11,680 acres in the WSA would be recommended suitable for wilderness.

SHEEP CREEK EAST WSA (ID-111-36B) - The Proposed Action and one alternative were analyzed for Sheep Creek West WSA.

Proposed Action (No Wilderness/No Action Alternative) - The Proposed Action recommends the entire 5,050-acre WSA as nonsuitable for wilderness. This was the multiple use recommendation from the Bruneau Resource Area land use plan.

All Wilderness Alternative - All 5,050 acres in the WSA would be recommended suitable for wilderness.

UPPER DEEP CREEK WSA (ID-111-44) - The Proposed Action and three alternatives were analyzed for Upper Deep Creek WSA.

Proposed Action (No Wilderness/No Action Alternative) - The Proposed Action recommends the entire 11,510-acre WSA as nonsuitable for wilderness. This alternative was the No Wilderness/No Action Alternative in the Draft EIS.

All Wilderness Alternative - All 11,510 acres in the WSA would be recommended suitable for wilderness.

All Manageable Wilderness Alternative - About 10,355 acres would be recommended suitable for wilderness. The remaining 1,155 acres would be recommended nonsuitable. This alternative includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. It differs from the All Wilderness Alternative by adding the element of efficiency and considers only areas that realistically could be maintained as wilderness.

Minimum Resource Conflict Alternative - About 5,700 acres would be recommended as suitable for wilderness while 5,810 acres would be recommended nonsuitable. This alternative was the Proposed Action and the Minimum Resource Conflict Alternative in the Draft EIS. It was the multiple use recommendation from the Bruneau Resource Area land use plan.

ALTERNATIVES ELIMINATED FROM DETAILED STUDY

The alternatives analyzed in this EIS were selected because they are viable options that address the issues and provide opportunities to mitigate both resource conflicts and adverse environmental consequences. Other alternatives which were proposed by the public during the scoping but which were not selected for detailed analysis were alternatives that 1) required actions inconsistent with BLM regulatory/legal guidance, 2) actions inconsistent with the existing land use plan, 3) would have created unmanageable wilderness boundaries, or 4) proposed review of wilderness designation to large areas outside the WSA boundaries.

Alternatives inconsistent with BLM regulatory/legal guidance are those that would prohibit domestic livestock grazing in all or portions of proposed wilderness areas. These alternatives were not considered because the Wilderness Act of 1964 and the BLM Wilderness Management Policy specifically allow continuation of livestock grazing in areas where grazing occurred prior to wilderness designation.

Alternatives inconsistent with the existing land use plan are those that proposed constructing livestock watering pipelines into bighorn sheep habitat or that proposed allowing overhead powerline construction in the corridor between Little Jacks Creek and Big Jacks Creek WSAs. There alternatives were not included because they conflict with the current land use plan (Bruneau-Kuna URA-MFP) and were rejected as viable options during the development of the land use plan.

Alternatives that would have created unmanageable wilderness boundaries include proposals to draw the wilderness boundaries to incorporate only good condition rangeland or only bighorn sheep habitat within proposed wilderness areas. These alternatives were not included because they would create wilderness boundaries that would be difficult to identify and manage as wilderness. BLM policy requires that areas recommended as suitable for wilderness must be capable of being managed in the long-term to maintain their wilderness characteristics. Other alternatives that were selected for detailed analysis in the EIS consider these special values (good condition rangelands and bighorn sheep habitat) but propose wilderness configurations with more manageable boundaries.

Several proposed alternatives would have considered potential wilderness designation for large acreages outside the WSA boundaries. One alternative included several thousand acres of adjacent state land for wilderness designation. This alternative was not included because this study is limited to wilderness suitability of federal lands. The scope of this EIS is limited to decisions regarding the wilderness suitability of BLM administered lands. The only state lands considered for inclusion in proposed wilderness areas were those critical for wilderness management of adjacent federal lands.

Two new alternatives that consider wilderness designation for large acreages outside the WSAs were proposed during public comment following publication of the Draft EIS. The Committee for Idaho's High Desert (CIHD) proposed a new alternative which would identify 218,400 acres as suitable for wilderness. Another individual proposed an alternative which identified 1,889,000 acres in the Bruneau Resource Area as suitable for wilderness. Both of these proposals require recommending as suitable for wilderness large amounts of acreage that lie outside the 175,627 acres of wilderness study area being considered in this EIS.

These two alternatives have not been selected for detailed analysis in the Final EIS because they are beyond the scope of this study. This study of potential wilderness areas is limited to those portions of BLM administered lands that meet the minimum qualifications to be designated wilderness as specified in the Wilderness Act of 1964. The decision regarding which lands qualified for wilderness study was made following the wilderness inventory and those areas meeting these requirements were designated Wilderness Study Areas (WSAs). BLM directives (WO Instruction Memorandum No. 82-176) do allow slight expansion of WSA boundaries if the additional acreage would enhance wilderness manageability. The CIHD proposal, however, calls for a wilderness suitability recommendation that would expand acreage in the Big Jacks Creek WSA by 12%, Sheep Creek East WSA by 63%, and Sheep Creek West WSA by 21%. Expansions of this magnitude exceed the scope of this study which is limited to consideration of wilderness suitability of designated wilderness study areas.

CHAPTER II
DESCRIPTION OF THE ALTERNATIVES
INCLUDING THE PROPOSED ACTION

LITTLE JACKS CREEK WSA (ID-111-6)

ACTIONS COMMON TO ALL ALTERNATIVES

Many of the management actions that are proposed within the next 20 years are expected to occur regardless of wilderness designation. Some may occur prior to designation if nonimpairing to the wilderness values of the WSA. The following management actions are expected to occur under the Proposed Action and all alternatives.

Livestock Grazing and Range Management Actions

The BLM is currently implementing more intensive grazing management systems within the WSA. These systems are being adopted in conjunction with the development of allotment management plans and include such practices as deferred grazing, rest rotation, riparian habitat protection, and adjustments in season of use. Site specific mitigation would be incorporated into these plans to avoid any significant adverse impacts to wildlife. Specific implementation practices are described in the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b).

The BLM has already given preliminary approval for construction of the 19-mile Jacks Creek livestock watering pipeline in the narrow corridor that separates Little Jacks Creek and Big Jacks Creek WSAs (see map #3). Construction of this pipeline is expected to result in an additional 452 AUMs of livestock grazing in the Little Jacks Creek WSA (+11% over current use). This increase in grazing within the WSA is expected to occur under the Proposed Action and all alternatives. Prior to wilderness designation, any increase in grazing use would be permitted only if the increase does not impair wilderness characteristics by causing (1) declining condition or trend of the vegetation or soil and (2) unnecessary or undue degradation of the lands. Within wilderness, increases in livestock use above the level existing at the time of designation would be permitted only if it can be conclusively shown that the levels will have no adverse impact on wilderness values such as plant communities, primitive recreation, and wildlife populations or habitat.

Recreation Management Actions

Within bighorn habitat, recreation use levels would be regulated based on the estimated tolerance levels of bighorn sheep for human disturbance. Following a wilderness decision or when recreation use in Little Jacks Creek Canyon reaches 1,430 annual visitor days, whichever occurs first, a permit system with seasonal restrictions on recreation use in Little Jacks Creek Canyon would be implemented immediately. The permit system would restrict recreation use in the canyon to about 1,430 annual visitor days. Specific actions proposed include a mandatory permit system, limits on numbers of visitors, redistribution of recreation users away from critical lambing

areas, and a prohibition on dogs. It is anticipated that access to the mouth of Little Jacks Creek Canyon would be limited to about 50 visitor days per week in April, May, and June of each year. All of these measures would be implemented to minimize disturbance of bighorn sheep by recreation users.

Recreation management would also employ techniques to seek better distribution of backcountry recreation users. Future recreation use would be distributed away from the popular, heavily publicized Little Jacks Creek Canyon to the adjacent, equally attractive Big Jacks Creek Canyon complex. There would be no trail maintenance, campsite improvements, or access road improvements in the Little Jacks Creek WSA.

Bighorn Sheep Management Actions

Under the Proposed Action and all alternatives, bighorn sheep habitat would be managed for bighorns with other uses restricted or prohibited if they infringe on bighorn habitat needs. Proposed wilderness areas would have protection of bighorn habitat as a primary management objective. Without wilderness, an area of critical environmental concern (ACEC) would be established with the same objective. Management actions to protect bighorn would not be significantly different under wilderness designation or ACEC designation.

Livestock watering sources would not be developed within one mile of bighorn habitat. No increases in domestic livestock grazing within bighorn habitat is anticipated. Recreation use would be regulated to minimize potential disturbances to bighorns (see previous discussion of recreation management actions).

The Idaho Fish and Game Department would be authorized to use helicopters and vehicles for trapping and transplanting of bighorn sheep. It is anticipated that these transplant operations would occur at a maximum of every other year. This is part of a continuing program to reestablish this wildlands dependent species in portions of its historic habitat. Prescribed burning would be permitted if necessary to manage bighorn habitat. It is anticipated that a maximum of 500 acres would be burned over 20 years if natural wildfires don't occur. Researchers would be encouraged to study bighorn habitat requirements, particularly impacts to bighorn from recreation use and domestic livestock grazing.

Riparian Habitat Management

At present two short gap fences prevent livestock from using about 11.6 miles of Little Jacks Creek Canyon. It is projected that an additional two miles in the headwater area will be fenced with three 50 foot fences. Two miles of the West Fork of Shoofly Canyon is also fenced to exclude livestock grazing.

It is projected that five additional short gap fences (50 feet long) will be constructed in the East Fork of Shoofly Canyon to exclude livestock grazing. These actions are projected to occur regardless of wilderness designation.

PROPOSED ACTION

Under the Proposed Action 34,000 acres, including 1,030 acres of federal land not in the WSA, would be recommended as suitable for wilderness. When acquired, 1,280 acres of State land inholding would become part of the wilderness. The remaining 25,070 acres would be recommended as nonsuitable for wilderness (Map 2).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years, domestic livestock grazing would be increased by as much as 2,287 AUMs, an increase of 54% over current use. This includes larger increases in areas not recommended for wilderness and smaller increases in the area recommended for wilderness designation. Increases in livestock grazing would be permanently permitted only after at least five years of monitoring has conclusively shown that (1) grazing increases within designated wilderness have not or would not adversely impact wilderness values and (2) within the entire study area, regardless of wilderness designation, adequate livestock forage is available to support increased grazing without compromising wildlife forage needs.

Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from 1) anticipated improvement in ecological condition of the rangeland, 2) proposed spray and seeding projects, and 3) construction of new livestock watering pipelines. Grazing increases would not occur until monitoring indicates adequate forage is available.

Several specific rangeland development projects have been proposed for portions of Little Jacks Creek WSA recommended as nonsuitable for wilderness to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. They are also expected to result in increased forage availability for livestock and wildlife. Specific actions include sagebrush removal by herbicide treatment and seeding of primarily non-native species on 160 acres west of Twin Lakes and 240 acres adjacent to Mud Flat Road. Seed mixtures, cover ratios, and boundary configuration would be governed by stipulations designed to enhance mule deer and antelope habitat. These stipulations are outlined in Appendix A. The 8-mile Wickney Tree Dome livestock watering pipeline would be constructed on the plateau between Little Jacks Creek and Shoofly Creek canyons. Watering troughs would be located at least one mile from bighorn sheep habitat. The Poison Creek livestock watering pipeline would be extended 1/2 mile into the foothills north of Shoofly drainage. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side.

Recreation Management Actions

The 34,000-acre suitable area would be available for backcountry non-motorized recreation opportunities. Within bighorn habitat, recreation

use would be regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. The remaining nonwilderness areas would be open to general dispersed recreation use with no special recreation management regulations or restrictions with the exception that in bighorn habitat, motor vehicle use would be limited to designated roads and trails.

Recreational vehicle use would be prohibited in the 34,000-acre wilderness area. The road separating Little Jacks Creek and Big Jacks Creek WSAs would remain open. All other vehicle routes in the wilderness area, including the roads to Tigert Springs, would be closed to public use (5 miles of roads and 5.25 miles of primitive vehicle routes/ways.) Motorized vehicles would be limited to designated roads and trails in the 11,600 acres of bighorn habitat located outside the suitable area. Remaining portions of the WSA (13,470 acres) recommended as nonsuitable for wilderness would be available for off-road-vehicle use.

Utility Corridor Management Actions

A 1/4 mile wide corridor adjacent to the Northwest (El Paso) natural gas pipeline which separates Big Jacks Creek and Little Jacks Creek WSAs would accommodate future underground utility right-of-way needs. About 1/8 mile of the corridor width would be within the Little Jacks Creek WSA for about three miles (240 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted. The area disturbed during construction would be revegetated and the existing two-track service road would continue to be used for maintenance.

Bighorn Sheep Management Actions

Sixty-eight percent of the habitat used by the Little Jacks California bighorn sheep population would be included in the proposed wilderness area. Bighorn sheep habitat located outside the proposed wilderness would be designated an area of critical environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC). In both areas, the primary management objective would be preservation and protection of bighorn habitat. In the portion of the ACEC outside wilderness, vehicle use would be restricted to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

Land Acquisition Actions

Inholdings within the area recommended suitable for wilderness, including 1,280 acres of state land, would be acquired from willing landowners to eliminate possible resource conflicts.

ALL WILDERNESS ALTERNATIVE

All 58,040 acres in the WSA would be recommended as suitable for wilderness (Map 2a). When acquired, 1,920 acres of state and 480 acres of private inholdings would become part of the wilderness.

Livestock Grazing and Range Management Actions

Because of the previously discussed 19-mile Jacks Creek pipeline and subsequent increases in grazing that are expected to occur, grazing in the proposed wilderness would be substantially higher than current use. It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 875 AUMs, an increase of 21% over current use. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases would not adversely impact wilderness values.

There would be no new range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 58,040-acre proposed wilderness area would be managed for backcountry non-motorized recreation opportunities. As in the Proposed Action and all other alternatives, recreation use in bighorn habitat would be regulated through a permit system to minimize disturbance of bighorn sheep by recreational users.

The entire WSA, including 17.5 miles of roads and ways, would be closed to public motorized vehicle use. The cherry-stem roads leading to Wickney Tree Dome and the road in Shoofly Canyon would be closed.

Utility Corridor Management Actions

The utility corridor between Big Jacks Creek and Little Jacks Creek WSAs would be limited to the existing right-of-way and the area presently disturbed by the Northwest (El Paso) natural gas pipeline and its associated service road. New underground utilities would be permitted only along the presently disturbed area on non-WSA lands between the two WSAs. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Ninety-two percent of the habitat used by the Little Jacks California bighorn sheep population would be included in the proposed wilderness area. The remainder of the bighorn habitat is located outside the WSA and would be designated an area of critical environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC).

Within the proposed wilderness area, existing roads and vehicle tracks would be closed and there would be no off-road-vehicle use. In the nonwilderness

portion of the bighorn habitat outside the WSA which would be managed as an ACEC, vehicles would be restricted to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

Land Acquisition Actions

Private inholdings within the Shoofly drainage would be acquired from willing landowners to assure effective management of the Shoofly drainage as wilderness (see map #4). Legal description of the 480 acres of affected private property is:

T. 8 S., R. 2 E., B.M.
Section 3, SW4 SW4;
Section 8, N2NE4, NE4NW4, SW4NW4, SE4SW4, SW4SE4;
Section 9, NW4NW4;
Section 17, NW4NE4, NE4NW4

State-owned inholdings totalling 1,920 acres would also be acquired to eliminate possible resource conflicts.

NO WILDERNESS/NO ACTION ALTERNATIVE

All 58,040 acres in the WSA would be recommended as nonsuitable for wilderness (Map 2b).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 3,553 AUMs, an increase of 84% over current use. Increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

These increases in grazing are expected to occur in response to increases in available livestock forage resulting from 1) anticipated improvement in ecological condition of the rangeland, 2) proposed spray and seeding projects, and 3) construction of new livestock watering pipelines.

Several specific rangeland development projects have been proposed to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. They are also expected to result in increased forage availability for livestock and wildlife. Specific actions include sagebrush removal by herbicide treatment and seeding of primarily non-native species on 160 acres west of Twin Lakes, 240 acres adjacent to Mud Flat Road, 520 acres southeast of Little Tigert Spring and 80 acres west of Twin Lakes. Seed mixtures, cover ratios, and boundary configuration would be governed by stipulations designed to enhance mule deer and antelope habitat. These stipulations are outlined in Appendix A. The 8-mile Wickney Tree Dome livestock watering pipeline would be constructed on the plateau between Little Jacks Creek and Shoofly Creek canyons. Watering troughs would be

located at least one mile from bighorn sheep habitat. The Poison Creek livestock watering pipeline would be extended 1/2 mile into the foothills north of Shoofly drainage. Construction of these buried pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side.

Recreation Management Actions

Little Jacks Creek Canyon would be designated a Special Recreation Management Area (Little Jacks Creek SRMA). The 6,350-acre Little Jacks Creek SRMA would have a dual management objective of 1) maintaining opportunities for primitive recreation and 2) minimizing adverse impacts to the bighorn sheep population from recreation users. It is anticipated that a mandatory permit system and visitor use restrictions similar to those proposed under wilderness management would also be implemented as part of the Little Jacks Creek SRMA management. Visitor use in Little Jacks Creek Canyon would be limited to about 1,430 annual visitor days by a mandatory permit system.

In the remaining bighorn habitat (21,750 acres), recreation use would be monitored and regulated if necessary to minimize disturbance of bighorn sheep by recreation users. Motorized vehicles would be limited to designated roads and trails within bighorn habitat areas.

The 29,940 acres outside of bighorn habitat would be managed for general dispersed recreation use with no special recreation management regulations or restrictions. These areas would be open to off-road-vehicle use, however, because of natural terrain restrictions no significant increases in off-road-vehicle use are anticipated.

Utility Corridor Management Actions

The 1/4 mile utility corridor between Little Jacks Creek and Big Jacks Creek WSAs would be the same as in the Proposed Action. As in the Proposed Action, about 1/8 mile of the corridor width would be within the Little Jacks Creek WSA for about three miles (240 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Bighorn sheep habitat would be designated an area of critical environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC). The primary management objective would be preservation and protection of bighorn habitat.

Within bighorn habitat, vehicles would be restricted to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

Land Acquisition Actions

There are no plans to acquire state or private lands in conjunction with this proposal. Some acquisition of private or state lands within bighorn habitat could occur if the landowners wish to exchange or sell their land.

ALL MANAGEABLE WILDERNESS ALTERNATIVE

This alternative includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. About 50,690 acres would be recommended as suitable for wilderness with 8,380 recommended as nonsuitable for wilderness. The wilderness recommendation includes 1,030 acres of federal land not in the WSA (Map 2c). When acquired, 1,280 acres of state and 40 acres of private inholdings would become part of the wilderness.

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 1,159 AUMs, an increase of 27% over current use. These increases include small increases that could be permitted in designated wilderness, larger increases in areas recommended as nonsuitable for wilderness, and increases expected to occur in areas recommended suitable or nonsuitable for wilderness in conjunction with construction of the 19-mile Jacks Creek livestock watering pipeline. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases in the wilderness would not adversely impact wilderness values.

Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland and proposed spray and seeding projects.

Several specific rangeland development projects have been proposed for portions of Little Jacks Creek WSA recommended as nonsuitable for wilderness. These projects have been proposed to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. They are also expected to result in increased forage availability for livestock and wildlife. Specific actions include sagebrush removal by herbicide treatment and seeding of primarily non-native species on 240 acres adjacent to Mud Flat Road. Seed mixtures, cover ratios, and boundary configuration would be governed by stipulations designed to enhance mule deer and antelope habitat. These stipulations are outlined in Appendix A. The Poison Creek livestock watering pipeline would also be extended 1/2 mile into the foothills north of Shoofly drainage. Construction of this buried water pipeline would result in surface disturbance resembling a two-track road with a one to two foot berm down one side.

Recreation Management Actions

The 50,690-acre suitable area would be available for backcountry non-motorized recreation opportunities. Within bighorn habitat, recreation use would be regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. The remaining nonwilderness areas (6,940 acres) would be open to general dispersed recreation use with no special

recreation management regulations or restrictions with the exception that in bighorn habitat, motor vehicle use would be restricted to designated roads and trails.

Recreational vehicle use would be prohibited in the 50,690-acre wilderness area. The road separating Little Jacks Creek and Big Jacks Creek WSAs would remain open. All other vehicle routes in the proposed wilderness area, including the the cherry-stem roads on Wickney Tree Dome and the roads to Tigert Springs, would be closed to public use (9.5 miles of roads and 9.5 miles of primitive vehicle routes/ways.) Motorized vehicles would be limited to designated roads and trails in the 1,440 acres of bighorn habitat located outside the proposed wilderness area. Remaining portions of the WSA (6,940 acres) recommended as nonsuitable for wilderness would be available for off-road-vehicle use.

Utility Corridor Management Actions

Utility corridor management actions would be the same as in the Proposed Action. A 1/4 mile wide corridor adjacent to the Northwest (El Paso) natural gas pipeline which separates Big Jacks Creek and Little Jacks Creek WSAs would accommodate future underground utility right-of-way needs. About 1/8 mile of the corridor width would be within the Little Jacks Creek WSA for about three miles (240 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Eighty-seven percent of the habitat used by the Little Jacks California bighorn sheep population would be included in the proposed wilderness area. Bighorn sheep habitat located outside the proposed wilderness would be designated an area of critical environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC). In both areas, the primary management objective would be preservation and protection of bighorn habitat.

Within the proposed wilderness area, existing roads and vehicle tracks would be closed and there would be no off-road-vehicle use. In the nonwilderness portion of the bighorn habitat which would be managed as an ACEC, vehicles would be restricted to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

Land Acquisition Actions

All non-federal inholdings within the proposed wilderness, 1,280 acres of state and 40 acres of private lands, would be acquired from willing landowners.

MINIMUM RESOURCE CONFLICT ALTERNATIVE

This alternative excludes from wilderness consideration all areas where specific conflicts with wilderness management were identified during the Bureau's land use planning process (URA-MFP) or subsequent allotment management plan (AMP) development. This alternative differs from the Proposed Action by recommending an additional 760 acres nonsuitable for wilderness to allow for additional vegetation manipulation projects (spraying and seeding). About 33,240 acres would be recommended as suitable for wilderness including 1,030 acres of federal land not in the WSA. When acquired, 1,280 acres of State inholdings would become part of the wilderness. About 25,830 acres would be recommended as nonsuitable for wilderness (Map 2d).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 2,673 AUMs, an increase of 61% over current use. These increases include small increases that could be permitted in designated wilderness, larger increases in areas recommended as nonsuitable for wilderness, and increases expected to occur in areas recommended suitable or nonsuitable for wilderness in conjunction with construction of the 19-mile Jacks Creek livestock watering pipeline. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases in the wilderness would not adversely impact wilderness values.

Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from 1) anticipated improvement in ecological condition of the rangeland, 2) proposed spray and seeding projects, and 3) construction of new livestock watering pipelines. Grazing increases would not occur until monitoring indicates adequate forage is available.

Several specific rangeland development projects have been proposed for portions of Little Jacks Creek WSA recommended as nonsuitable for wilderness. These projects have been proposed to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. They are also expected to result in increased forage availability for livestock and wildlife. Specific actions include sagebrush removal by herbicide treatment and seeding of primarily non-native species on 160 acres west of Twin Lakes, 240 acres adjacent to Mud Flat Road, 520 acres southeast of Little Tigert Spring, and 80 acres west of Twin Lakes. Seed mixtures, cover ratios, and boundary configuration would be governed by stipulations designed to enhance mule deer and antelope habitat. These stipulations are outlined in Appendix A. The 8-mile Wickney Tree Dome livestock watering pipeline would be constructed on the plateau between Little Jacks Creek and Shoofly Creek canyons. Watering troughs would be located at least one mile from bighorn sheep habitat. The Poison Creek livestock watering pipeline would be extended 1/2 mile into the foothills north of Shoofly drainage. Construction of these buried pipelines could result in surface disturbance resembling a two-track road with a one to two foot berm down one side.

Recreation Management Actions

The 33,240-acre wilderness area would be available for backcountry non-motorized recreation opportunities. Within bighorn habitat, recreation use would be regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. The remaining nonwilderness areas would be open to general dispersed recreation use with no special recreation management regulations or restrictions with the exception that in bighorn habitat, motor vehicle use would be restricted to designated roads and trails.

Recreational vehicle use would be prohibited in the 33,240-acre wilderness area. The road separating Little Jacks Creek and Big Jacks Creek WSAs would remain open. All other vehicle routes in the proposed wilderness area, including the roads to Tigert Springs, would be closed to public use (5 miles of roads and 5.25 miles of primitive vehicle routes/ways.) Motorized vehicles would be limited to designated roads and trails in the 11,600 acres of bighorn habitat located outside the proposed wilderness area. Remaining portions of the WSA (14,230 acres) recommended as nonsuitable for wilderness would be available for off-road-vehicle use.

Utility Corridor Management Actions

Utility corridor management actions would be the same as in the Proposed Action. A 1/4 mile wide corridor adjacent to the Northwest (El Paso) natural gas pipeline which separates Big Jacks Creek and Little Jacks Creek WSAs would accommodate future underground utility right-of-way needs. About 1/8 mile of the corridor width would be within the Little Jacks Creek WSA for about three miles (240 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Bighorn sheep management actions would be the same as in the proposed action. Sixty-eight percent of the habitat used by the Little Jacks California bighorn sheep population would be included in the proposed wilderness area. Bighorn sheep habitat located outside the proposed wilderness would be designated an area of critical environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC). In both areas, the primary management objective would be preservation and protection of bighorn habitat.

Within the proposed wilderness area, existing roads and vehicle tracks would be closed and there would be no off-road-vehicle use. In the nonwilderness portion of the bighorn habitat which would be managed as an ACEC, vehicles would be restricted to designated roads and trails. existing roads, would not be upgraded and new roads would not be constructed.

Land Acquisition Actions

Within the proposed wilderness, 1,280 acres of state land would be acquired by exchange.

RIM TO RIM WILDERNESS ALTERNATIVE

Under this alternative, only the major canyons of Little Jacks Creek and its tributaries would be recommended as suitable for wilderness. The proposed Little Jacks Creek Wilderness Area would include 6,350 acres. About 51,690 acres would be recommended as nonsuitable for wilderness (Map 2e).

Livestock Grazing and Range Management Actions

All livestock grazing and range management actions would be the same as described under the No Wilderness Alternative.

Recreation Management Actions

The 6,350-acre wilderness area would be available for backcountry non-motorized recreation opportunities. Recreation use in the proposed wilderness would be regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. The wilderness area would be closed to motorized vehicle use.

In the 21,750 acres of bighorn habitat areas outside the proposed wilderness, recreation use would be monitored and regulated if necessary to minimize disturbance of bighorn sheep by recreation users. Motorized vehicles would be limited to designated roads and trails within bighorn habitat areas.

Nonwilderness areas outside of bighorn habitat (29,940 acres) would be managed for general dispersed recreation use with no special recreation management regulations or restrictions. These areas would be open to off-road-vehicle use.

Utility Corridor Management Actions

Utility corridor management actions would be the same as in the Proposed Action. A 1/4 mile wide corridor adjacent to the Northwest (El Paso) natural gas pipeline which separates Big Jacks Creek and Little Jacks Creek WSAs would accommodate future underground utility right-of-way needs. About 1/8 mile of the corridor width would be within the Little Jacks Creek WSA for about three miles (240 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Seventeen percent of the habitat used by the Little Jacks California bighorn sheep population would be included in the proposed wilderness area. Bighorn sheep habitat located outside the proposed wilderness would be designated an area of critical environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC). In both areas, the primary management objective would be preservation and protection of bighorn habitat.

Off-road-vehicle use would be prohibited within the proposed wilderness area. In the nonwilderness portion of the bighorn habitat which would be

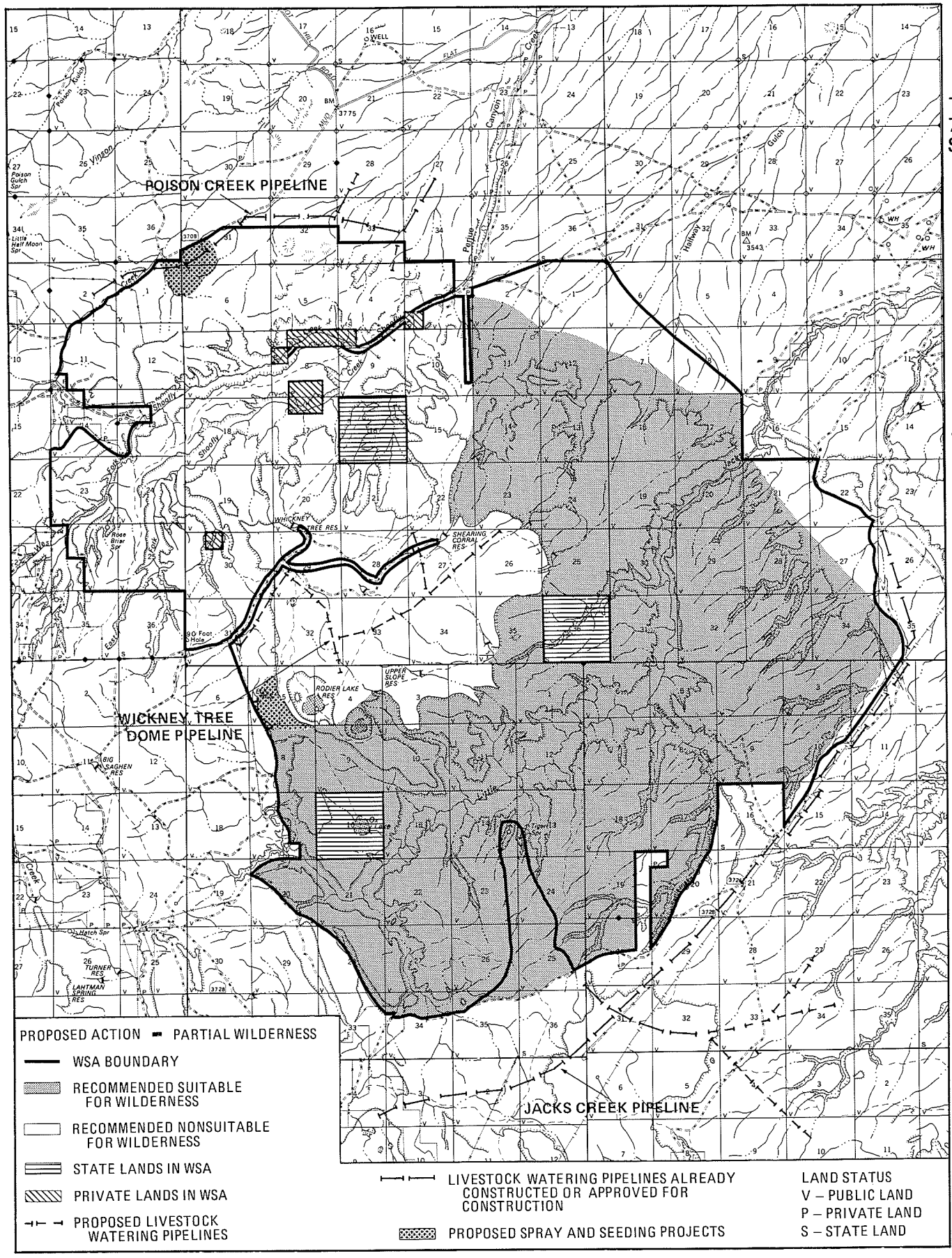
managed as an ACEC, vehicles would be restricted to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

Land Acquisition Actions

Two 640-acre parcels of state land would be acquired by exchange. A portion of each parcel would be within the proposed wilderness.

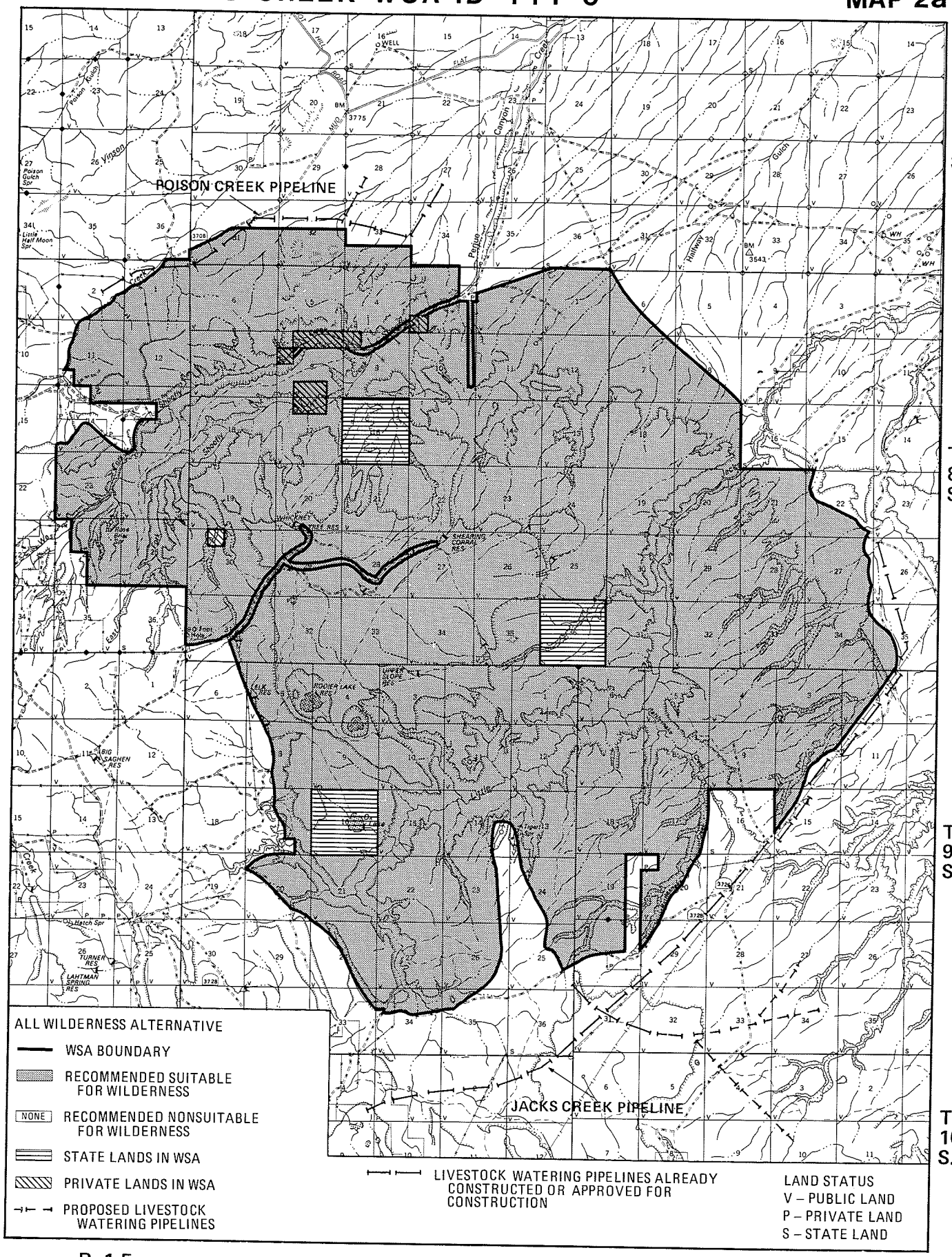
LITTLE JACKS CREEK WSA ID-111-6

MAP 2



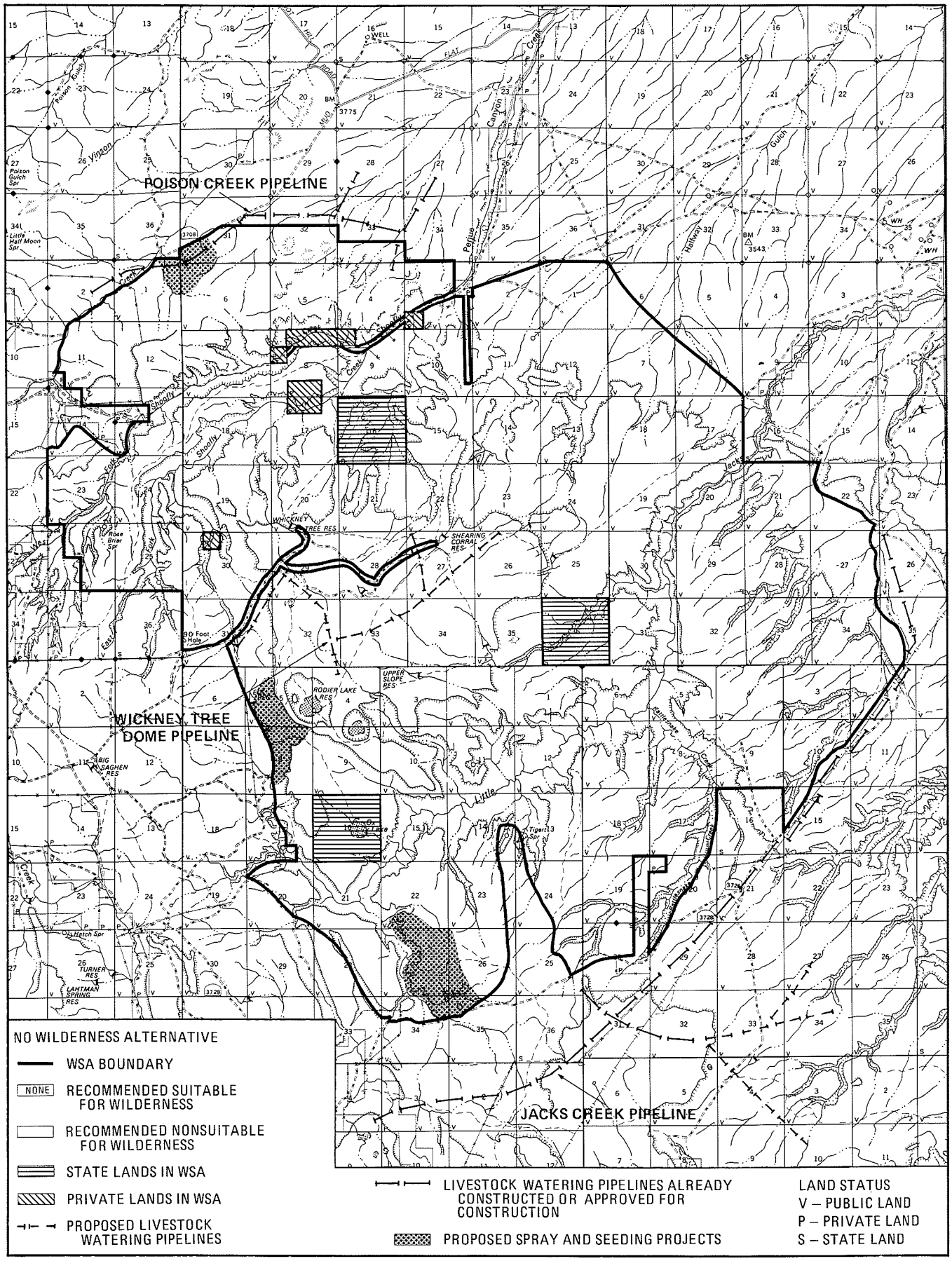
LITTLE JACKS CREEK WSA ID-111-6

MAP 2a



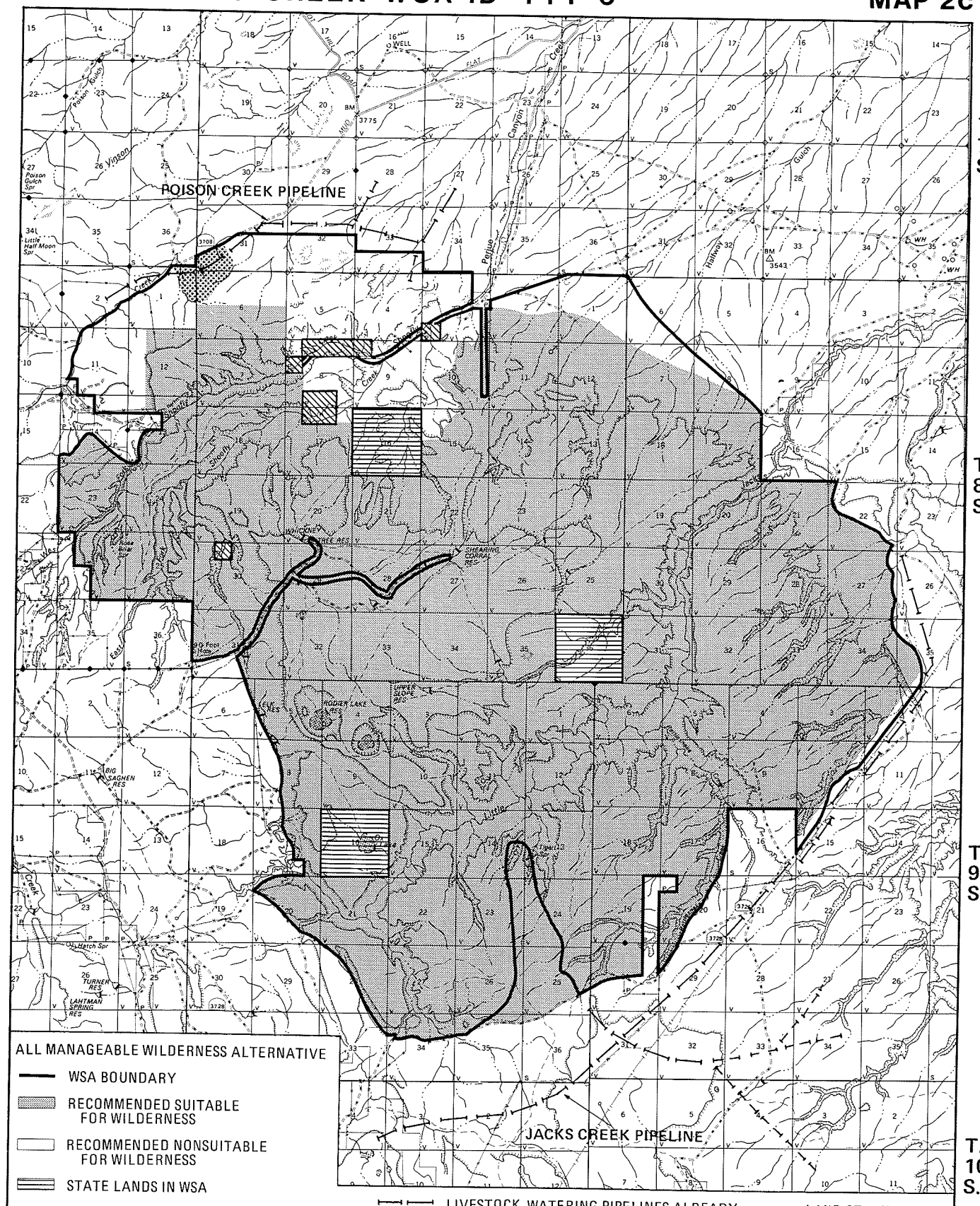
LITTLE JACKS CREEK WSA ID-111-6

MAP 2b



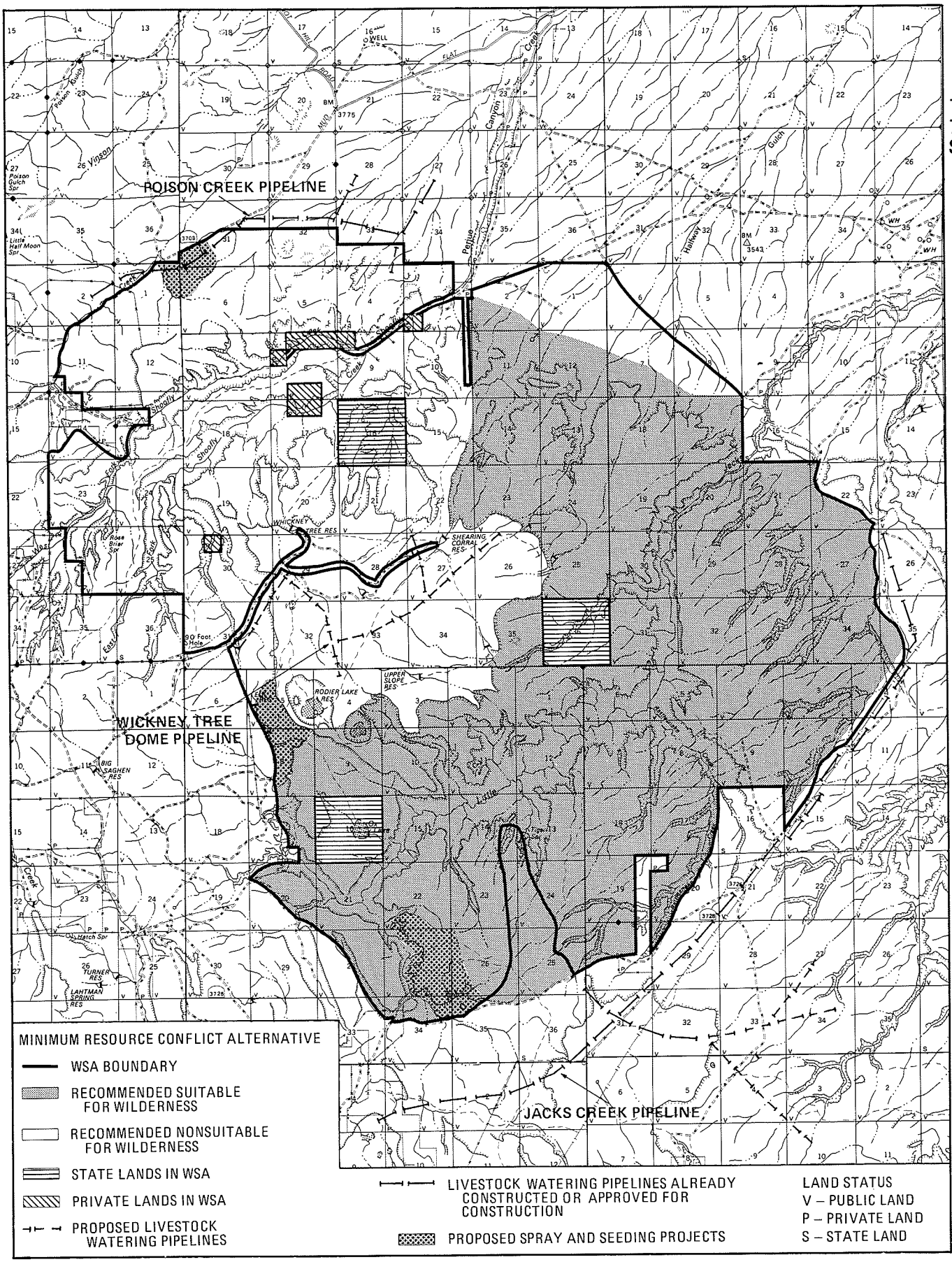
LITTLE JACKS CREEK WSA ID-111-6

MAP 2c



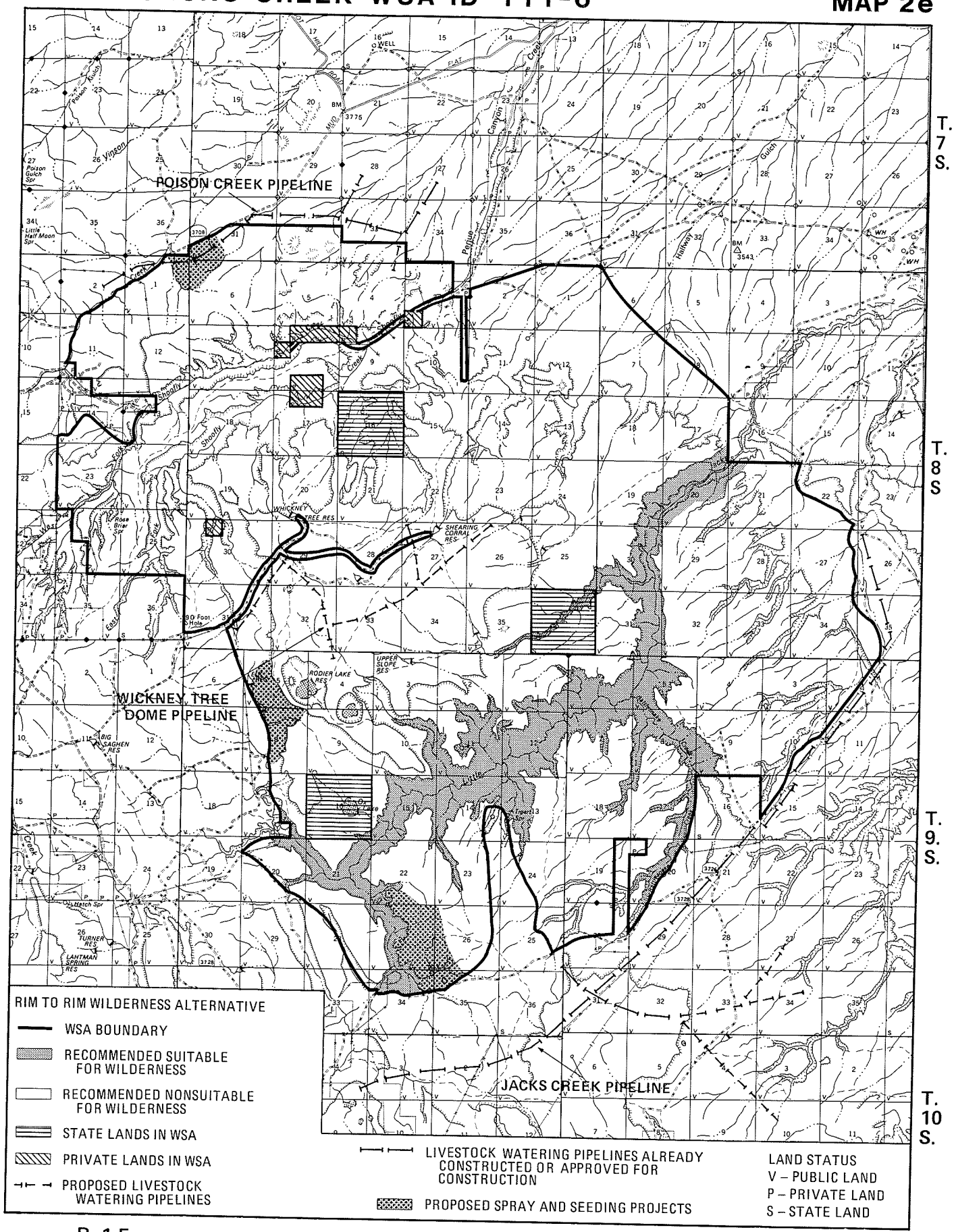
LITTLE JACKS CREEK WSA ID-111-6

MAP 2d



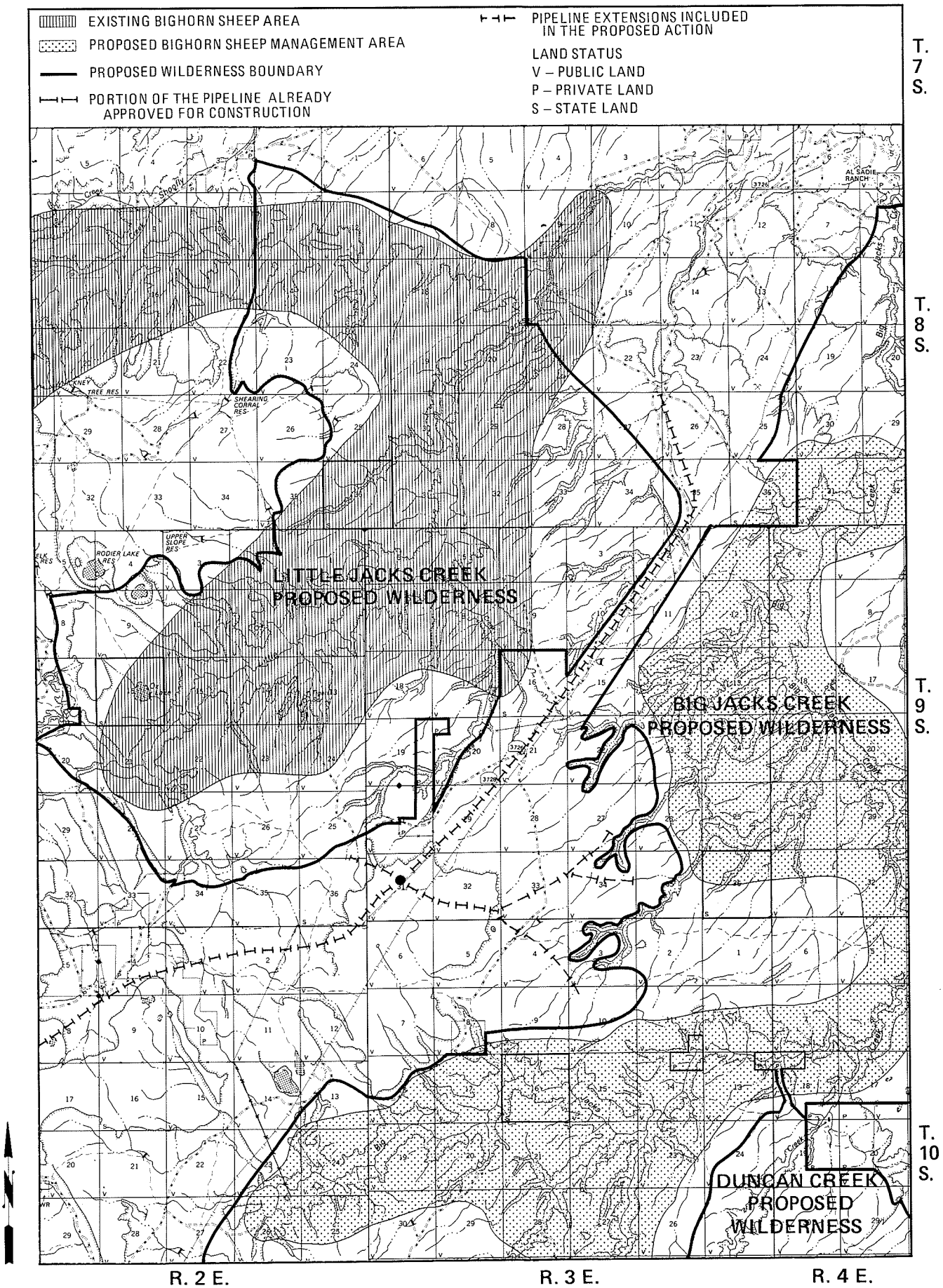
LITTLE JACKS CREEK WSA ID-111-6

MAP 2e



JACKS CREEK PIPELINE

MAP 3



SHOOFLY DRAINAGE OF LITTLE JACKS CREEK WSA

MAP 4

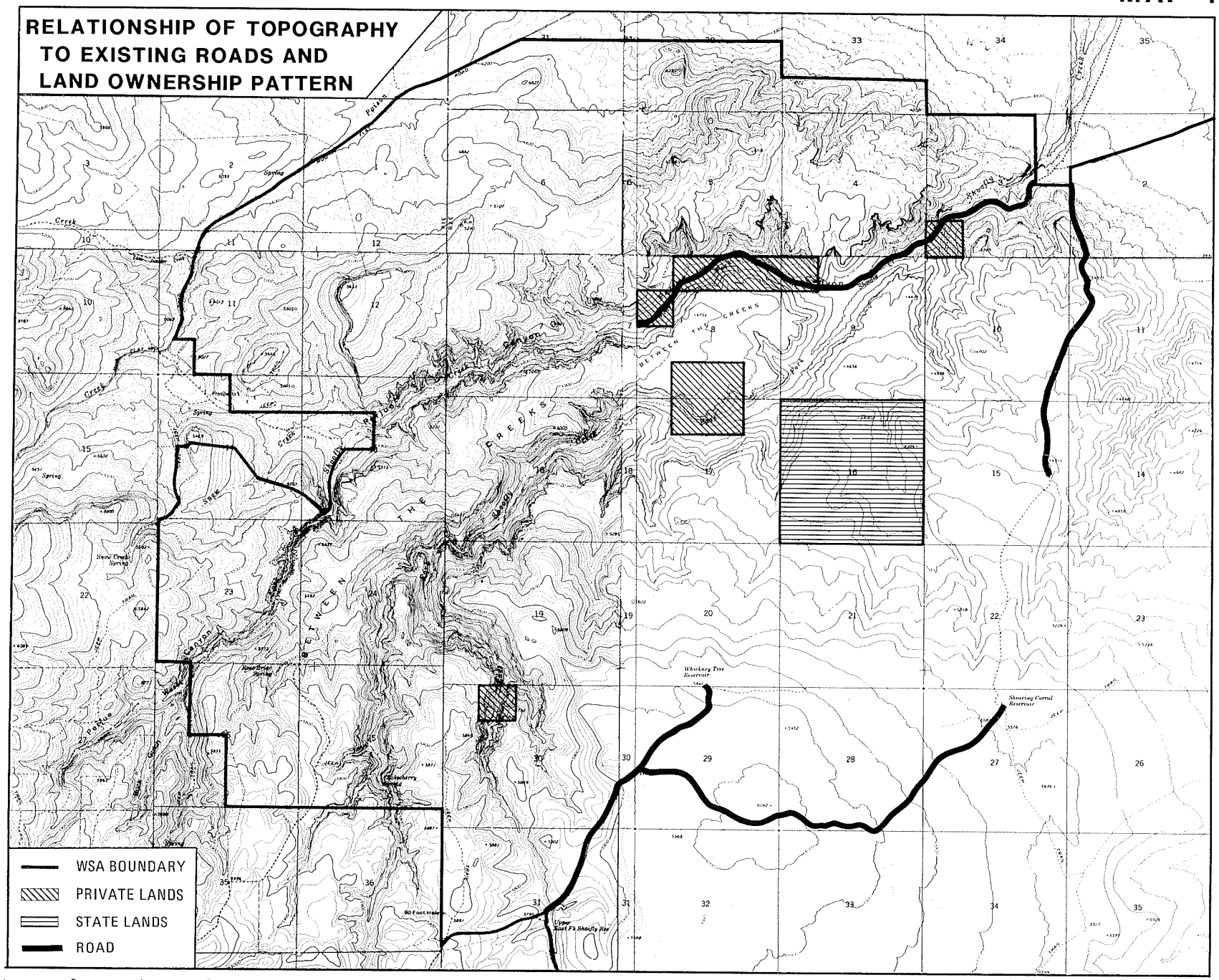


Table 1
Summary of Significant Impacts
Little Jacks Creek WSA (ID-111-6)

ENVIRONMENTAL ISSUE	PROPOSED ACTION (34,000 acres suitable, 25,070 acres nonsuitable)	ALL WILDERNESS ALTERNATIVE (58,040 acres suitable)	NO WILDERNESS/NO ACTION ALTERNATIVE (58,040 nonsuitable)
Impacts on Wilderness Values	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 120 acres. About 13.6 miles of redband trout habitat would benefit from improved riparian condition. California bighorn sheep populations would remain at or near the habitat carrying capacity of approximately 200 animals within the WSA. Nonsuitable Area: Naturalness would be lost on 9,700 acres. Opportunities for solitude/primitive recreation would be diminished on about 8,800 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 1,650 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. If private lands in Shoofly Canyon are developed there would be additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands could also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles (16%) of redband habitat. Results of the displacement of bighorn could range from no effect on population numbers to a small permanent reduction (five to ten animals) in herd size. Bighorn sheep populations would remain at or near the habitat carrying capacity.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 210 acres. About 17.9 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 2,100 acres of good condition Sagebrush Steppe rangeland. Vandalism (illegal excavations) of archaeological sites would be reduced and vehicle damage to Shoofly Rock Alignments would be halted. California bighorn sheep populations would remain at or near the the habitat carrying capacity of 200 animals within the WSA.	Nonsuitable Area: Naturalness would be lost on 9,800 acres. Opportunities for solitude/primitive recreation would be diminished on about 8,800 acres. About 17.9 (76%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 3,750 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. If private lands in Shoofly Canyon are developed there would be an additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands could also preclude use of about 5% of the existing bighorn sheep habitrat and cause decline of 1.6 miles (7%) of redband habitat. Results of the displacement of bighorn could range from no effect on population numbers to a small permanent reduction (five to ten animals) in herd size. California bighorn sheep populations would remain at or near the habitat carrying capacity of 200 animals within the WSA. Construction of new underground utilities outside the 1/4 utility corridor could result in loss of naturalness and diminished opportunities for solitude/primitive recreation in areas visible from new utility paths and associated service
Impacts on Recreation Use	Suitable Area: Annual recreation use would be 2,575 visitor days, an increase of 1,375 annual visitor days over current use. The major use areas would be Little Jacks Creek Canyon with use about 30% hunting and 70% non-hunting. There would be no significant impact on opportunities to participate in ORV use or hunting. Nonsuitable Area: Annual recreation use would be 1,475 visitor days, an increase of 1,025 annual visitor days over current use. The major use areas would be Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.	Suitable Area: Annual recreation use would be 4,100 visitor days, an increase of 2,450 visitor days over current use. Major use areas would be Little Jacks Creek and Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting are not expected to be significantly impacted, although there could be displacement of some sage grouse hunters.	Nonsuitable Area: Annual recreation use would be 4,050 visitor days, an increase of 2,400 annual visitor days over current use. Major use areas would be Little Jacks Creek and Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.
Impacts on Selected Wildlife Species	Suitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%. Nonsuitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.	Suitable Area: Same as the Proposed Action.	Nonsuitable Area: Same as the Proposed Action.
Impacts on Income and Jobs	There would be $89,502 of additional annual income and six new jobs. Implementation costs would total $71,200 for range improvements and $4,600 annually for wilderness management.	There would be $71,626 of additional annual income and 5.8 jew jobs. Implementation costs would total $32,900 for range improvements and $4,600 annually for wilderness management.	There would be $106,750 of additional annual income and 6.4 new jobs. Implementation costs would total $86,200 for range improvements.

Table 1
Summary of Significant Impacts
Little Jacks Creek WSA (ID-111-6)

ENVIRONMENTAL ISSUES	ALL MANAGEABLE WILDERNESS ALTERNATIVE (50,690 acres suitable, 8,380 acres nonsuitable)	MINIMUM RESOURCE CONFLICT ALTERNATIVE (32,240 acres suitable, 25,830 acres nonsuitable)	RIM TO RIM WILDERNESS ALTERNATIVE (6,350 acres suitable, 51,690 acres nonsuitable)
Impacts on Wilderness Values	Suitable: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 230 acres. About 17.9 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ ecological values could be diminished on 2,100 acres of good condition Sagebrush Steppe rangeland. Vandalism (illegal excavations) of archaeological sites would be reduced and vehicle damage to Shoofly Rock Alignments would be halted. California bighorn sheep populations would remain at or near the habitat carrying capacity of 200 animals within the WSA. Nonsuitable Area: Naturalness would be lost on 240 acres. If private lands in Shoofly Canyon are developed, there would be additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands could also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles of redband habitat. Results of the displacement of bighorn could range from no effect on population numbers to a small permanent reduction (5 to 10 animals) in herd size. Bighorn sheep populations would remain at or near the habitat carrying capacity.	Suitable Area: Same as the Proposed Action. Nonsuitable Area: Naturalness would be lost on 9,800 acres. Opportunities for solitude/ primitive recreation would be diminished on about 8,800 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ ecological values could be diminished on 1,650 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. If private lands in Shoofly Canyon are developed, there would be an additional loss of naturalness and opportunities for solitude/ primitive recreation on 2,725 acres. The development of these private lands could also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles (16% of redband habitat. Results of the displacement of bighorn could range from no effect on population numbers to a small permanent reduction (five to ten animals) in herd size. Bighorn sheep populations would remain at or near the habitat carrying capacity.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be maintained on 6,350 acres. About 13.6 miles of redband trout habitat would benefit from improved riparian condition. California bighorn sheep populations would remain at or near the habitat carrying capacity of 200 animals within the WSA. Nonsuitable Area: Naturalness would be lost on 9,800 acres. Opportunities for solitude/primitive recreation would be diminished on about 8,800 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values could be diminished on 3,750 acres of good condition Sagebrush Steppe rangeland. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. If private lands in Shoofly Canyon are developed there would be an additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands could also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles (16%) of redband habitat. Results of the displacement of bighorn could range from no effect on population numbers to a small permanent reduction (five to ten animals) in herd size. Bighorn sheep populations would remain at or near the habitat carrying capacity. Construction of new underground utilities outside the 1/4 utility corridor could also result in loss of naturalness and diminished opportunities for solitude/primitive recreation in areas visible from new utility paths and associated service roads.
Impacts on Recreation Use	Suitable Area: Same as the All Wilderness Alternative. Nonsuitable Area: No Significant Impact.	Suitable Area: Same as the Proposed Action. Nonsuitable Area: Same as the Proposed Action.	Suitable Area: Annual recreation use would be 2,475 visitor days, an increase of 1,325 annual visitor days over current use. The major use areas would be Little Jacks Creek Canyon with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected. Nonsuitable Area: Annual recreation use would be 1,575 visitor days, an increase of 1,175 annual visitor days over current use. The major use areas would be Shoofly Creek canyons with use about 30% hunting and 70% non-hunting. Opportunities to participate in ORV use or hunting would not be affected.
Impacts on Selected Wildlife Species	Suitable Area: Same as Proposed Action. Nonsuitable Area: Same as Proposed Action.	Suitable Area: Same as Proposed Action. Nonsuitable Area: Same as Proposed Action.	Suitable Area: Mule deer, pronghorn and sage grouse populations would remain stable. Nonsuitable Area: Same as Proposed Action.
Impacts on Income and Jobs	There would be $86,124 of additional annual income and 5.7 new jobs. Implementation costs would total $40,200 for range improvements and $4,600 annually for wilderness management.	There would be $94,734 of additional annual income and 6.2 new jobs. Implementation costs would total $86,200 for range improvements and $4,600 annually for wilderness management.	There would be $106,750 of additional annual income and 6.4 new jobs. Implementation costs would total $86,200 for range improvements and $4,600 annually for wilderness management.

ACTIONS COMMON TO ALL ALTERNATIVES

Some of the management actions that are proposed within this WSA during the next 20 years are expected to occur under the Proposed Action and all alternatives. These are proposed management actions that have been determined to be nonimpairing to wilderness values. Some of these actions would occur prior to wilderness designation while the WSA is being managed under the Bureau's Wilderness Interim Management Policy (USDI 1979). The following management actions are expected to occur under the Proposed Action and all alternatives regardless of wilderness designation.

Livestock Grazing and Range Management Actions

The BLM is currently implementing more intensive grazing management systems within the WSA in accordance with the Wilderness IMP. These systems are being implemented in conjunction with allotment management plans and include such practices as deferred grazing, rest rotation, riparian habitat protection, and adjustments in season of use. Site specific mitigation would be incorporated into these plans to avoid any significant adverse impacts to wildlife. Specific implementation practices are described in the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b).

Riparian Habitat Management

Under the Proposed Action and all alternatives, Duncan Creek would be managed for the improvement of fish and riparian habitat. It is projected that five short gap fences (50 feet long) would be installed to prevent domestic livestock from grazing in Duncan Creek Canyon.

PROPOSED ACTION

Under the Proposed Action, 9,400 acres, including 640 acres of state land, when acquired, would be recommended as suitable for wilderness. The only imprints of man in the proposed wilderness would be an abandoned fence line. The proposed wilderness area would be managed to maintain its near pristine condition. No new imprints of man would be permitted. The remaining 1,245 acres would be recommended as nonsuitable for wilderness (Map 5).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 102 AUMs, an increase of 22% over current use. These increases include small increases that could be permitted in designated wilderness and larger increases in areas recommended as nonsuitable for wilderness. Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and

to assure that grazing increases in wilderness would not adversely impact wilderness values.

It is anticipated that there would be no new range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 9,400-acre wilderness area would be available for backcountry non-motorized recreation opportunities. Backcountry recreation use would be managed to minimize impact on potential bighorn sheep habitat. Following the reintroduction of California bighorn sheep, indirect management techniques (selective road/trail maintenance and information dispersal) would be used to direct visitor use away from critical bighorn use areas.

Recreational vehicle use would be prohibited in the 9,400-acre wilderness area. There are no existing roads or vehicle routes within the proposed wilderness area. The road separating Big Jacks Creek WSA and Duncan Creek WSA would remain open to motorized vehicle use.

The 1,245 acres recommended nonsuitable for wilderness would be open to general dispersed recreation use with no special recreation management regulations or restrictions. This area would be open to off-road-vehicle use.

Bighorn Sheep Management Actions

About 4,500 acres within the proposed wilderness have been identified as potential bighorn habitat by the Idaho Fish and Game Department. This is about 13% of the potential bighorn habitat in the Big Jacks Creek Canyon complex (the remaining 87% of the potential habitat is in Big Jacks Creek WSA (85%) or outside WSA boundaries (2%)). With wilderness designation, this potential habitat area would be reserved for reintroduction of this rare native species. Actions that could affect the suitability of this habitat for bighorn reintroduction would not be permitted.

Livestock watering sources would not be developed within one mile of bighorn habitat (there are no plans, however, for the development of new water sources within the WSA). No increases in domestic livestock grazing are anticipated within bighorn habitat.

Land Acquisition Actions

The 640-acre State of Idaho inholding would be included within the proposed wilderness area. Acquisition of this state inholding or agreement by the state that only wilderness compatible uses would be permitted is essential for management of Duncan Creek WSA as wilderness. The State Department of Lands has requested that any state inholdings in areas designated wilderness be scheduled for land exchange at the earliest opportunity. This state inholding was identified as available for exchange in preliminary state exchange proposals submitted by the State Department of Lands to the BLM in 1987.

ALL WILDERNESS ALTERNATIVE

The proposed wilderness area would include 10,645 acres. All 10,005 acres in the WSA would be recommended as suitable for wilderness. In addition, the 640 state inholding would be incorporated into the proposed wilderness when acquired (Map 5a).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 46 AUMs, an increase of 10% over current use. These are increases in grazing that could occur within designated wilderness areas. Regulations allow for small increases in grazing within wilderness areas if land use plans reveal conclusively that increased livestock numbers would have no adverse impact on wilderness values. It is anticipated these increases could average about 10%. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and wilderness values.

It is anticipated that there would be no new range development projects under this alternative.

Recreation Management Actions

The 10,645-acre wilderness area would be available for backcountry non-motorized recreation opportunities. Backcountry recreation use would be managed to minimize impact on potential bighorn sheep habitat. Following the reintroduction of California bighorn sheep, indirect management techniques (selective road/trail maintenance and information dispersal) would be used to direct visitor use away from critical bighorn use areas.

Recreational vehicle use would be prohibited in the 10,645-acre wilderness area. Within the proposed wilderness area, there are no existing roads, but 2.5 miles of ways (vehicle routes) would be closed to the public motor vehicle use. The road separating Big Jacks Creek WSA and Duncan Creek WSA would remain open to motorized vehicle use.

Bighorn Sheep Management Actions

About 4,500 acres within the proposed wilderness have been identified as potential bighorn habitat by the Idaho Fish and Game Department. With wilderness designation, this potential habitat area would be reserved for reintroduction of this rare native species. Actions that could affect the suitability of this habitat for bighorn reintroduction would not be permitted.

Livestock watering sources would not be developed within one mile of bighorn habitat (there are no plans, however, for the development of new water sources within the WSA). No increases in domestic livestock grazing are anticipated within bighorn habitat.

Land Acquisition Actions

The 640-acre State of Idaho inholding would be included within the proposed wilderness area. Acquisition of this state inholding or agreement by the state that only wilderness compatible uses would be permitted is essential for management of Duncan Creek WSA as wilderness.

NO WILDERNESS/NO ACTION ALTERNATIVE

All 10,005 acres in the WSA would be recommended as nonsuitable for wilderness (Map 5b).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 115 AUMs, an increase of 25% over current use. These increases in grazing are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland. Increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

It is anticipated that there would be no new range development projects under this alternative.

Recreation Management Actions

Generally, the entire WSA would be open to off-road-vehicle use, however, vehicle use could be restricted in critical deer winter range from December 15 to April 15. Because of natural terrain restrictions, off-road-vehicle use is not expected to increase significantly. The area would be available for general recreation use with no other specific restrictions or recreation management objectives.

Bighorn Sheep Management Actions

About 4,500 acres within the proposed wilderness have been identified as potential bighorn habitat by the Idaho Fish and Game Department. This is about 13% of the potential bighorn habitat in the Big Jacks Creek Canyon complex (the remaining 87% of the potential habitat is in Big Jacks Creek WSA (85%) or outside WSA boundaries (2%)). Under the current BLM land use plan, this area is not identified as potential bighorn habitat. Management of this area as bighorn habitat would be considered when the existing land use plan is amended.

Land Acquisition Actions

There are no plans to acquire state land in conjunction with this alternative. It is probable, however, that the state inholding would be acquired by the BLM since the State Department of Lands has already tentatively identified this section as available for exchange.

ALL MANAGEABLE WILDERNESS ALTERNATIVE

This alternative includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. About 10,085 acres would be recommended as suitable for wilderness. This acreage includes the 640-acre State of Idaho inholding. The only imprints of man in the proposed wilderness would be an abandoned fence line and a two-mile primitive vehicle route. The proposed wilderness area would be managed to maintain its near pristine condition. No new imprints of man would be permitted. About 560 acres would be recommended as nonsuitable for wilderness (Map 5c).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 87 AUMs, an increase of 19% over current use. These increases include small increases that could be permitted in designated wilderness and larger increases in areas recommended as nonsuitable for wilderness. Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases in wilderness would not adversely impact wilderness values.

It is anticipated that there would be no new range development projects under this alternative.

Recreation Management Actions

The 10,085-acre wilderness area would be available for backcountry non-motorized recreation opportunities. Backcountry recreation use would be managed to minimize impact on potential bighorn sheep habitat. Following the reintroduction of California bighorn sheep, indirect management techniques (selective road/trail maintenance and information dispersal) would be used to direct visitor use away from critical bighorn use areas. Recreational vehicle use would be prohibited in the 10,085-acre wilderness area. The two-mile long primitive vehicle route (way) in the southwest corner of the WSA would be closed to motorized vehicle use. The road separating Big Jacks Creek WSA and Duncan Creek WSA would remain open to motorized vehicle use.

The 560 acres recommended nonsuitable for wilderness would be open to general dispersed recreation use with no special recreation management regulations or restrictions. This area would be open to off-road-vehicle use.

Bighorn Sheep Management Actions

About 4,500 acres within the proposed wilderness have been identified as potential bighorn habitat by the Idaho Fish and Game Department. With wilderness designation, this potential habitat area would be reserved for

reintroduction of this rare native species. Actions that could affect the suitability of this habitat for bighorn reintroduction would not be permitted.

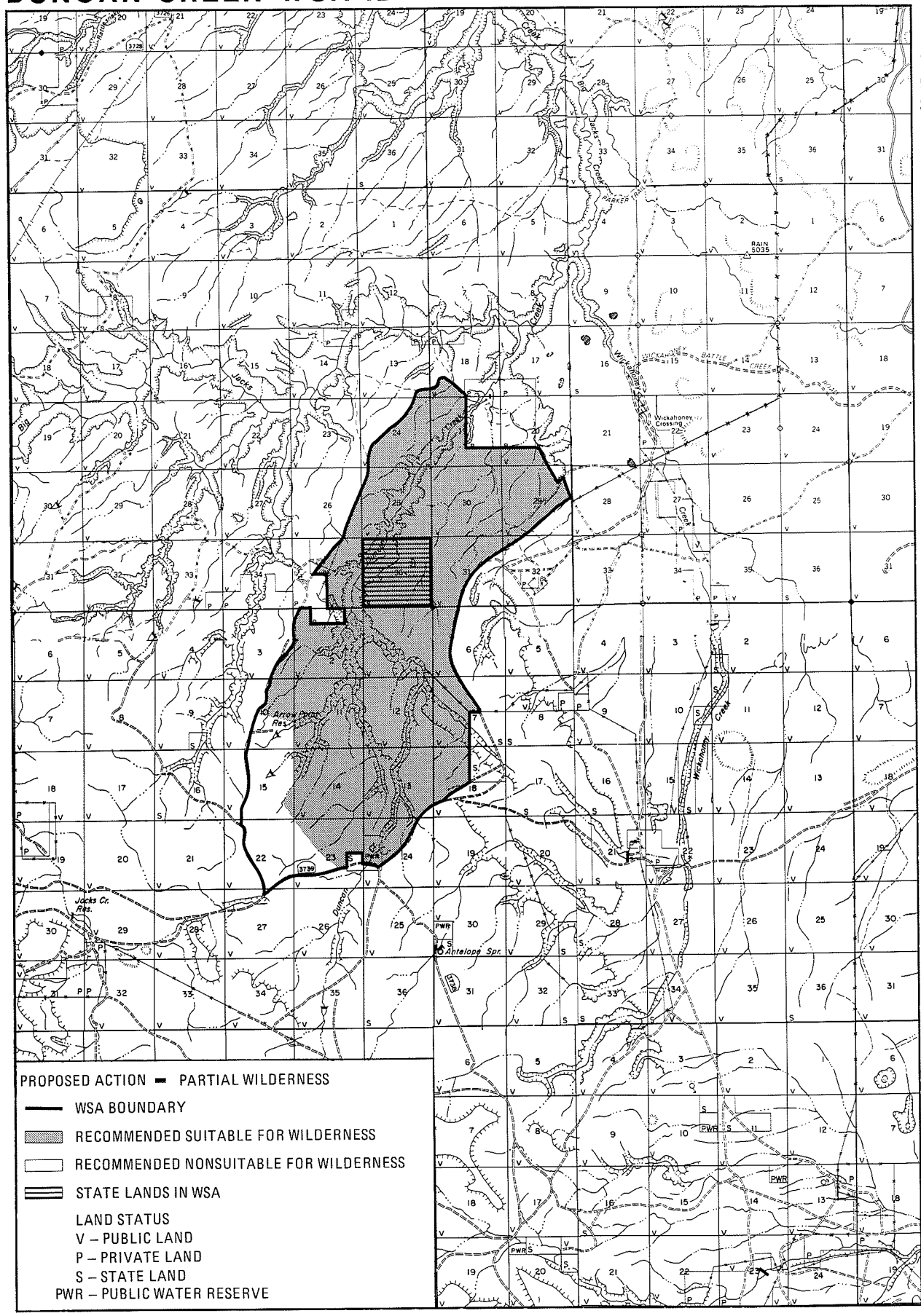
Livestock watering sources would not be developed within one mile of bighorn habitat (there are no plans, however, for the development of new water sources within the WSA). No increases in domestic livestock grazing are anticipated within bighorn habitat.

Land Acquisition Actions

The 640-acre State of Idaho inholding would be included within the proposed wilderness area. Acquisition of this state inholding or agreement by the state that only wilderness compatible uses would be permitted is essential for management of Duncan Creek WSA as wilderness.

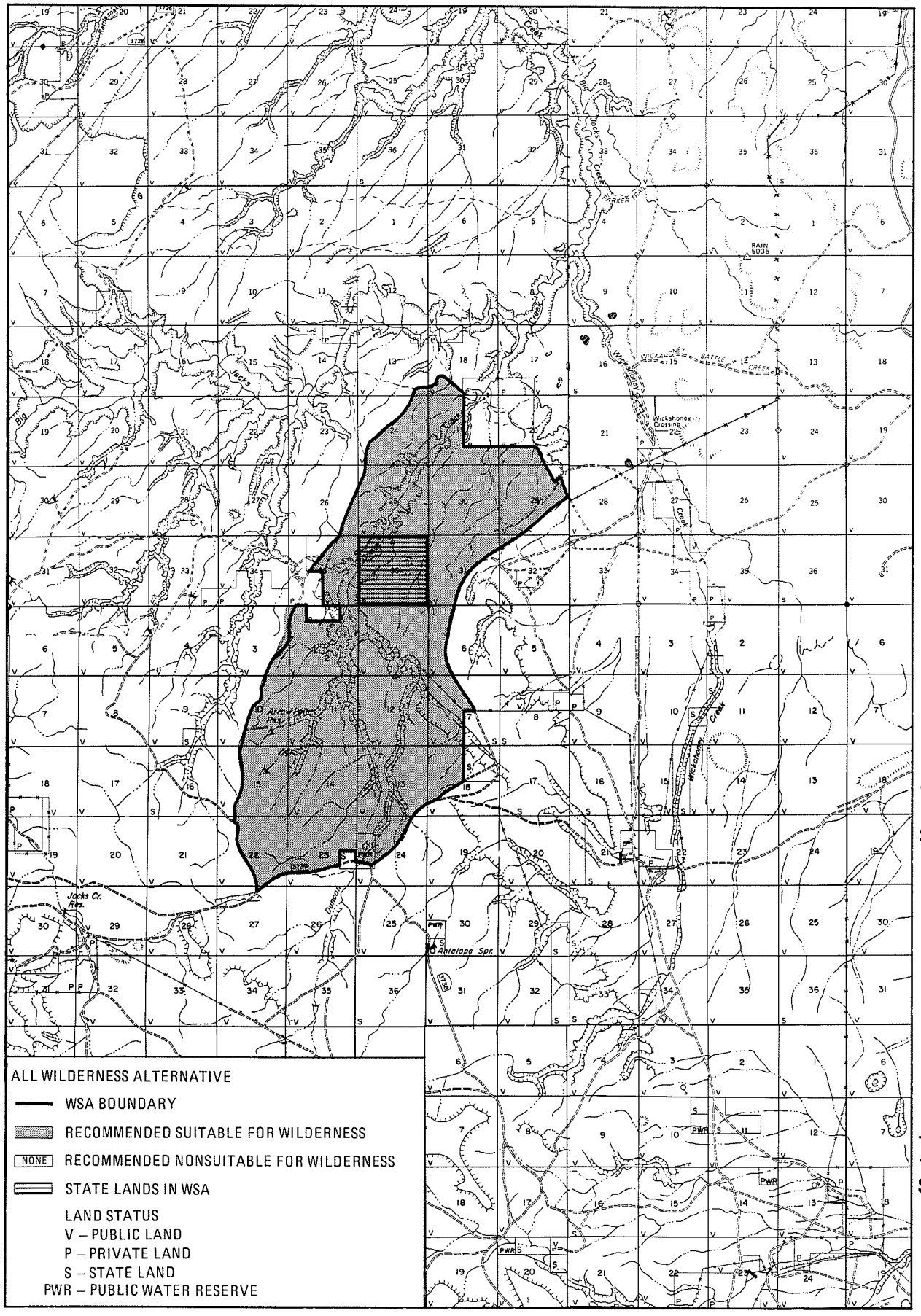
DUNCAN CREEK WSA ID-111-7B

MAP 5



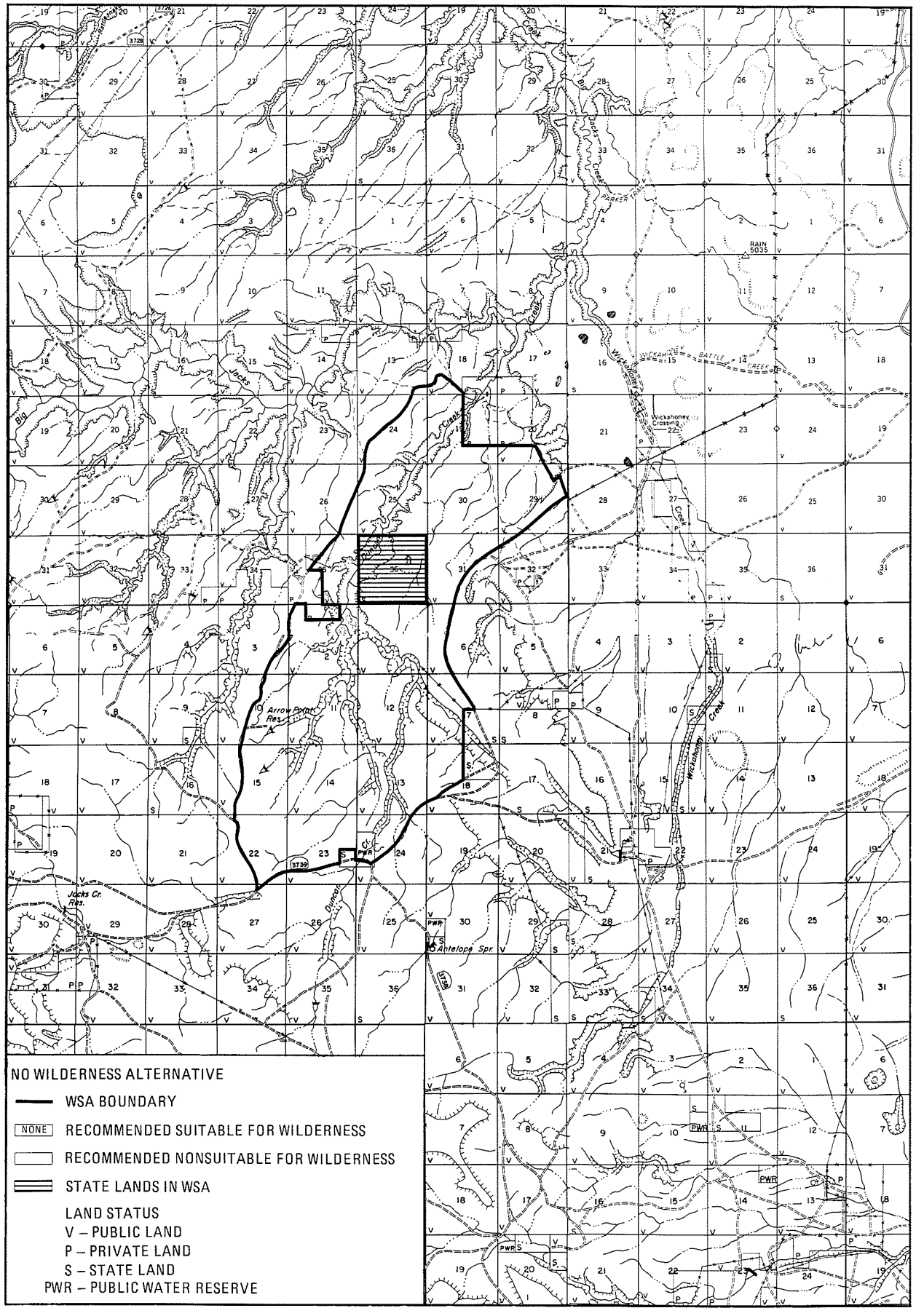
DUNCAN CREEK WSA ID-111-7B

MAP 5a



DUNCAN CREEK WSA ID-111-7B

MAP 5b



DUNCAN CREEK WSA ID-111-7B

MAP 5c

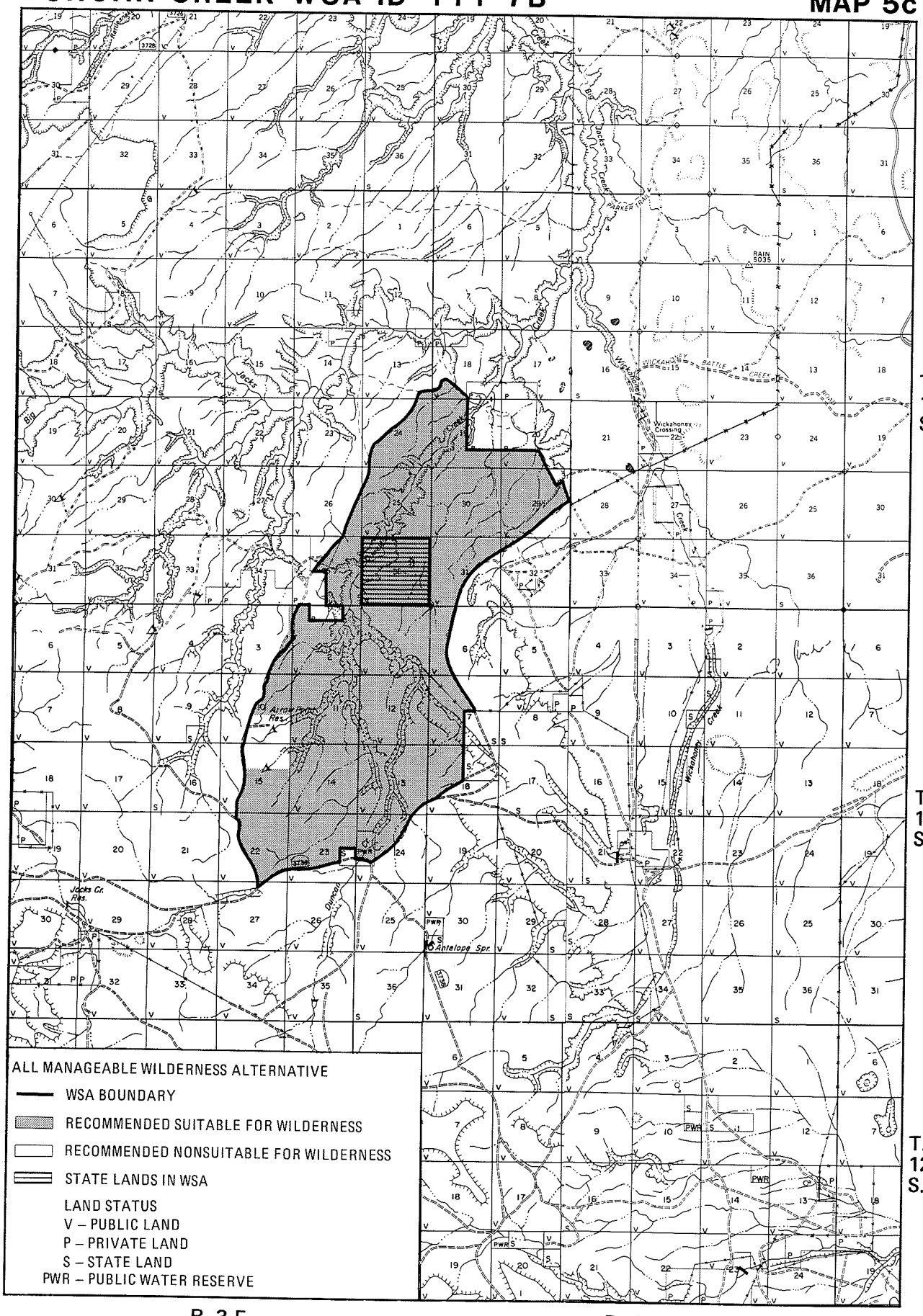


Table 2
Summary of Significant Impacts
Duncan Creek WSA (ID-111-7B)

ENVIRONMENTAL ISSUE	PROPOSED ACTION (9,400 acres suitable 1,245 acres nonsuitable)	ALL WILDERNESS ALTERNATIVE (10,645 acres suitable)	NO WILDERNESS/NO ACTION ALTERNATIVE (10,005 acres nonsuitable)	ALL MANAGEABLE WILDERNESS ALTERNATIVE (10,085 acres suitable, 560 acres nonsuitable)
Impacts on Wilderness Values	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be maintained on 9,400 acres. The Bighorn sheep population would expand and fully occupy available habitat. Nonsuitable Area: Scientific/ecological values could be diminished on 450 acres of good condition Sagebrush Steppe rangeland.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation enhanced on about 120 acres affected by the closure of primitive vehicle routes. The Bighorn sheep population would expand and fully occupy available habitat.	Nonsuitable Area: Unregulated increases in recreation use could preclude use of up to 13% of the potential habitat for the Big Jacks Creek Complex sheep transplant. The significance of this impact is not known since the sheep have not been reintroduced into this habitat yet and therefore critical use areas are not known. The Bighorn sheep population would expand and partially occupy available habitat. Scientific/ecological values could be diminished on 450 acres of good condition Sagebrush Steppe rangeland.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 25 acres affected by the closure of primitive vehicle routes. The Bighorn sheep populations would expand and fully occupy available habitat. Nonsuitable Area: Scientific/ecological values could be diminished on 100 acres of good condition Sagebrush Steppe rangeland.
Impacts on Recreation Use	Suitable Area: Annual recreation use would be 1,600 visitor days, an increase of 1,225 annual visitor days over current use. Major use areas would be Duncan Creek Canyon with use about 70% hiking/sightseeing and 30% hunting. There would be no significant impact on opportunities to participate in ORV use or hunting. Nonsuitable Area: No significant impact.	Suitable Area: Same as the Proposed Action.	Nonsuitable Area: Annual recreation use would be 1,345 visitor days, an increase of 1,050 annual visitor days over current use. Major use areas would be Duncan Creek Canyon with use about 65% hiking/sightseeing and 35% hunting. Opportunities to participate in ORV use or hunting would not be affected.	Suitable Area: Same as the Proposed Action. Nonsuitable Area: No significant impact.
Impacts on Selected Wildlife Species	Suitable Area: Mule deer would increase by up to 2%. Pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%. Nonsuitable Area: Mule deer would increase by up to 2%. Pronghorn would increase by up to 2%. Sage grouse would increase by up to 5%.	Suitable Area: Same as Proposed Action.	Nonsuitable Area: Same as Proposed Action.	Suitable Area: Same as Proposed Action. Nonsuitable Area: Same as Proposed Action.
Impacts on Income and Jobs	There would be $31,079 of additional income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.	There would be $30,316 of additional income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.	There would be $27,155 of additional annual income and 2.4 new jobs. There would be no implementation costs.	There would be $30,874 of additional income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.

ACTIONS COMMON TO ALL ALTERNATIVES

Many of the management actions that are proposed within the next 20 years are expected to occur regardless of wilderness designation. Some may occur prior to designation if nonimpairing to the wilderness values of the WSA. The following management actions are expected to occur under the Proposed Action and all alternatives.

Livestock Grazing and Range Management Actions

The BLM is currently implementing more intensive grazing management systems within the WSA. These systems are being adopted in conjunction with the development of allotment management plans and include such practices as deferred grazing, rest rotation, riparian habitat protection, and adjustments in season of use. Site specific mitigation would be incorporated into these plans to avoid any significant adverse impacts to wildlife. Specific implementation practices are described in the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b).

The BLM has already given preliminary approval for construction of the 19-mile Jacks Creek livestock watering pipeline in the narrow corridor that separates Little Jacks Creek and Big Jacks Creek WSAs (see map #3). Construction of this pipeline is expected to result in an additional 660 AUMs of livestock grazing in the Big Jacks Creek WSA (+26% over current use). This increase in grazing within the WSA is expected to occur under the Proposed Action and all alternatives. Prior to wilderness designation, any increase in grazing use would be permitted only if the increase does not impair wilderness characteristics by causing (1) declining condition or trend of the vegetation or soil and (2) unnecessary or undue degradation of the lands. Within wilderness, increases in livestock use above the level existing at the time of designation would be permitted only if it can be conclusively shown that the levels will have no adverse impact on wilderness values such as plant communities, primitive recreation, and wildlife populations or habitat.

Recreation Management Actions

Under the Proposed Action and all alternatives, recreation use would be regulated as necessary to minimize adverse impacts to potential bighorn sheep habitat. Following the reintroduction of California bighorn sheep, indirect management techniques (selective road/trail maintenance and information dispersal) would be used to direct visitor use away from critical bighorn use areas. Multiple access points would permit distribution of recreation use throughout much of the Big Jacks Creek Canyon complex. Recreation use would be distributed to canyon segments where impacts on potential bighorn sheep habitat would be minimized. It is anticipated that a permit system and visitor use restrictions would not be necessary to manage recreation use and minimize recreational disturbance of bighorns.

Bighorn Sheep Management Actions

Under the Proposed Action and all alternatives, potential bighorn sheep habitat would be managed to preserve opportunities to reintroduce California bighorn sheep to this portion of their native habitat. Proposed wilderness areas would have protection of bighorn habitat as a primary management objective. Without wilderness, an area of critical environmental concern (ACEC) would be established with the same objective. Management actions to preserve bighorn habitat would not be significantly different under wilderness designation or ACEC designation.

Livestock watering sources would not be developed within one mile of bighorn habitat. No increases in domestic livestock grazing within bighorn habitat are anticipated. Recreation use would be regulated to minimize potential disturbances to bighorns (see previous discussion of recreation management actions).

The Idaho Fish and Game Department would be authorized to use helicopters and vehicles for trapping and transplanting of bighorn sheep. Researchers would be encouraged to study bighorn habitat requirements, particularly impacts to bighorn from recreation use and domestic livestock grazing.

Riparian Habitat Management

Since the Draft EIS was published, about 19 miles of Big Jacks Creek have been gap fenced to exclude domestic livestock grazing. These actions, which are consistent with the Bureau's Wilderness Interim Management Policy (USDI 1979), were taken as part of the District's riparian habitat improvement program.

PROPOSED ACTION

Under the Proposed Action, 44,525 acres would be recommended as suitable for wilderness. If acquired, 1,280 acres of state and 240 acres of private inholdings would become part of the wilderness, the remaining 10,308 acres would be recommended as nonsuitable for wilderness (Map 6).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years, domestic livestock grazing would be increased by as much as 1,713 AUMs, an increase of 67% over current use. This includes larger increases in areas not recommended for wilderness and smaller increases in the area recommended for wilderness designation. Increases in livestock grazing would be permanently permitted only after at least five years of monitoring has conclusively shown that (1) grazing increases within designated wilderness have not or would not adversely impact wilderness values and (2) within the entire study area regardless of wilderness designation, adequate livestock forage is available to support increased grazing without compromising wildlife forage needs.

Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland and from construction of additional livestock watering pipelines.

About 4.5 miles of additional livestock watering pipelines would be constructed in Big Jacks Creek WSA on the plateau west of Big Jacks Creek Canyon. Construction of these buried pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. These spurs would expand the 19-mile Jacks Creek pipeline into portions of the Big Jacks Creek WSA recommended as nonsuitable for wilderness. These additional pipeline spurs are designed to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. Watering troughs would be located at least one mile from bighorn sheep habitat. Map #3 shows the relationship of the Jacks Creek pipeline to bighorn sheep habitat and the proposed wilderness boundaries.

Recreation Management Actions

The 44,525 acre wilderness area would be available for backcountry non-motorized recreation opportunities. Following reintroduction of bighorn sheep, indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to bighorns. The 10,308 acres recommended as nonsuitable for wilderness would be open to dispersed recreation use with no special recreation management regulations or restrictions.

Recreational vehicle use would be prohibited in the 44,525 acre wilderness area. Roads separating Big Jacks Creek from Little Jacks Creek and Duncan Creek WSAs would remain open. The short cherry-stem road in Section 18, T. 10 S., R. 4 E. would also remain open to public use. The remaining nine miles of primitive vehicle routes (ways) within the wilderness area would be closed to motorized vehicle use. Portions of the WSA recommended as nonsuitable for wilderness (10,308 acres) would be open to off-road-vehicle use.

Utility Corridor Management Actions

A 1/4 mile wide corridor adjacent to the Northwest (El Paso) natural gas pipeline which separates Big Jacks Creek and Little Jacks Creek WSAs would accommodate future underground utility right-of-way needs. About 1/8 mile of the corridor width would be within the Big Jacks Creek WSA for about 12 miles (960 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted. The area disturbed during construction would be revegetated and the existing two-track service road would continue to be used for maintenance.

Bighorn Sheep Management Actions

All of the potential bighorn habitat in the WSA would be included in the proposed wilderness area. This includes about 85% of the potential bighorn sheep habitat in the Big Jacks Creek Canyon complex (the remaining 15% of the potential habitat is located outside WSA boundaries (2%) or in the Duncan Creek WSA (13%)). Within the proposed wilderness area, the primary management objective would be preservation and protection of bighorn habitat.

The short cherry-stem road in Section 18, T. 10 S., R. 4 E. would remain open, but all other primitive vehicle routes would be closed to motorized vehicle use.

Land Acquisition Actions

Inholdings within the wilderness, including 1,280 acres of state and 240 acres of private lands, would be acquired from willing landowners to eliminate possible resource conflicts.

ALL WILDERNESS ALTERNATIVE

All 54,833 acres in the WSA would be recommended as suitable for wilderness (Map 6a). If acquired, 1,280 acres of state and 240 acres of private inholdings would become part of the wilderness.

Livestock Grazing and Range Management Actions

Because of the previously discussed 19-mile Jacks Creek pipeline and subsequent increases in grazing that are expected to occur, grazing in the proposed wilderness would be substantially higher than current use. It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 916 AUMs, an increase of 36% over current use. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases in the wilderness would not adversely impact wilderness values.

It is anticipated that there would be no new range development projects in the WSA (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 54,833 acre proposed wilderness area would be available for backcountry non-motorized recreation opportunities. As in the Proposed Action and all other alternatives, recreation use in potential bighorn habitat would be regulated to minimize disturbance of bighorn sheep by recreational users.

Recreational vehicle use would be prohibited in the 54,833 acre wilderness area. Roads separating Big Jacks Creek from Little Jacks Creek and Duncan Creek WSAs would remain open. The short cherry-stem road in Section 18, T. 10 S., R. 4 E. would also remain open to public use. The remaining 19 miles of primitive vehicle routes (ways) within the wilderness area would be closed to motorized vehicle use.

Utility Corridor Management Actions

The utility corridor between Big Jacks Creek and Little Jacks Creek WSAs would be limited to the existing right-of-way and the area presently disturbed by the Northwest (El Paso) natural gas pipeline and its associated service road. New underground utilities would be permitted only along the presently disturbed area on non-WSA lands between the two WSAs. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

As in the Proposed Action, all of the potential bighorn habitat in the WSA would be included in the proposed wilderness area. Management actions affecting bighorn sheep habitat would be in the same as in the proposed action.

Land Acquisition Actions

Inholdings within the wilderness, including 1,280 acres of state and 240 acres of private land, would be acquired from willing landowners to eliminate possible resource conflicts.

NO WILDERNESS/NO ACTION ALTERNATIVE

All 54,833 acres in the WSA would be recommended as nonsuitable for wilderness (Map 6b).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 2,004 AUMs, an increase of 78% over current use. Increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

These increases in grazing include increases expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland and from construction of new livestock watering pipelines.

As in the proposed action, about 4.5 miles of additional livestock watering pipelines would be constructed in Big Jacks Creek WSA on the plateau west of Big Jacks Creek Canyon. These spurs would expand the 19-mile Jacks Creek pipeline into portions of the Big Jacks Creek WSA recommended as nonsuitable for wilderness (see map #3). This portion of the Jacks Creek pipeline would not be constructed until the Big Jacks Creek WSA is released from restrictions imposed by the BLM's Wilderness Interim Management Policy (USDI 1979). These additional pipeline spurs are designed to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. Watering troughs would be located at least one mile from bighorn sheep habitat.

An existing handbuilt horse trail in Big Jacks Creek Canyon (T. 9 S., R. 4 E., Sections 28 and 29) could be substantially upgraded and widened. This would require constructing a ten foot wide "road" with a bulldozer down the east canyon rim. Minor mechanical disturbance would be required to upgrade the trail on the west rim.

No additional range development projects are anticipated under this alternative.

Recreation Management Actions

Recreation use within the 29,500 acres of potential bighorn habitat would be regulated as necessary to minimize adverse impacts to bighorns. Following reintroduction of bighorn sheep, indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to bighorns. Within the potential bighorn habitat, motorized vehicles would be limited to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

The 25,333 acres that are outside of potential bighorn habitat would be managed for general recreation use with no special recreation management regulations or restrictions. These areas would be open to off-road-vehicle use. The only area where any significant increase in off-road-vehicle use is expected to occur is the plateau in the northeast portion of the WSA. It is anticipated that this area could become popular for desert motorcycle races. Because of natural terrain restrictions, significant increases in ORV use is not expected occur in the remainder of the WSA.

Utility Corridor Management Actions

The 1/4 mile utility corridor between Little Jacks Creek and Big Jacks Creek WSAs would be the same as in the Proposed Action. As in the Proposed Action, about 1/8 mile of the corridor width would be within the Little Jacks Creek WSA for about 12 miles (960 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Bighorn sheep habitat would be designated an area of critical environmental concern (Big Jacks Creek Bighorn Sheep Habitat ACEC). The primary management objective would be preservation and protection of bighorn habitat.

Within bighorn habitat, vehicles would be restricted to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

Land Acquisition Actions

There are no plans to acquire state or private lands in conjunction with this proposal. Some acquisition of private or state inholdings could occur if the landowners wish to exchange or sell their land.

ALL MANAGEABLE WILDERNESS ALTERNATIVE

This alternative includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. About 49,875 acres would be recommended as suitable for wilderness with 4,958 acres recommended as nonsuitable for wilderness (Map 6c). If acquired, 1,280 acres of state and 240 acres of private inholdings would become part of the wilderness.

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 916 AUMs, an increase of 36% over current use. These increases include small increases that could be permitted in designated wilderness, larger increases in areas recommended as nonsuitable for wilderness, and increases expected to occur in areas recommended suitable or nonsuitable for wilderness in conjunction with construction of the 19-mile Jacks Creek livestock watering pipeline. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases in wilderness would not adversely impact wilderness values.

Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland.

It is anticipated that there would be no new range development projects in the WSA (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 49,875 acre proposed wilderness area would be available for backcountry non-motorized recreation opportunities. As in the Proposed Action and all other alternatives, recreation use in potential bighorn habitat would be regulated to minimize disturbance of bighorn sheep by recreational users. The 4,952 acres recommended as nonsuitable for wilderness would be open to dispersed recreation use with no special recreation management regulations or restrictions.

Recreational vehicle use would be prohibited in the 49,875 acre wilderness area. Roads separating Big Jacks Creek from Little Jacks Creek and Duncan Creek WSAs would remain open. The short cherry-stem road in Section 18, T. 10 S., R. 4 E. would also remain open to public use. The remaining 17 miles of primitive vehicle routes (ways) within the wilderness area would be closed to motorized vehicle use. Portions of the WSA recommended nonsuitable for wilderness (4,958 acres) would be open to off-road-vehicle use. Significant increases in off-road-vehicle use could occur in this area since it is expected to be popular with desert motorcycle racers.

Utility Corridor Management Action

Utility corridor management actions would be the same as those described under the proposed action. A 1/4 mile wide corridor adjacent to the Northwest (El Paso) natural gas pipeline which separates Big Jacks Creek and Little Jacks Creek WSAs would accommodate future underground utility right-of-way needs. About 1/8 mile of the corridor width would be within the Big Jacks Creek WSA for about 12 miles (960 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Bighorn sheep management actions would be the same as in the proposed action. All of the potential bighorn habitat in the WSA would be included in the proposed wilderness area. This includes about 85% of the potential bighorn sheep habitat in the Big Jacks Creek Canyon complex (the remaining 15% of the potential habitat is located outside WSA boundaries (2%) or in the Duncan Creek WSA (13%)). Within the proposed wilderness area, the primary management objective would be preservation and protection of bighorn habitat.

The short cherry-stem road in Section 18, T. 10 S., R. 4 E. would remain open, but all other primitive vehicle routes would be closed to motorized vehicle use.

Land Acquisition Actions

Inholdings within the area recommended for wilderness, including 1,280 acres of state and 240 acres of private lands, would be acquired from willing landowners to eliminate possible resource conflicts.

RIM TO RIM WILDERNESS ALTERNATIVE

Under this alternative, only the major canyons of Big Jacks Creek and its tributaries would be recommended as suitable for wilderness. The proposed Big Jacks Creek Wilderness Area would include 10,800 acres. If acquired, 240 acres of private land and portions of two state-owned 640-acre inholdings would become part of the wilderness. About 44,033 acres would be recommended as nonsuitable for wilderness (Map 6d).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 2,004 AUMs, an increase of 78% over current use. Increases in livestock grazing would occur only in non-wilderness areas and would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

These increases in grazing include increases expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland and from construction of new livestock watering pipelines.

As in the proposed action, about 4.5 miles of additional livestock watering pipelines would be constructed in Big Jacks Creek WSA on the plateau west of Big Jacks Creek Canyon. These spurs would expand the 19-mile Jacks Creek pipeline into portions of the Big Jacks Creek WSA recommended as nonsuitable for wilderness (see map #3). This portion of the Jacks Creek pipeline would not be constructed until the Big Jacks Creek WSA is released from restrictions imposed by the BLM's Wilderness Interim Management Policy (USDI 1979). These additional pipeline spurs are designed to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. Watering troughs would be located at least one mile from bighorn sheep habitat.

No additional range development projects are anticipated in the WSA under this alternative.

Recreation Management Actions

The 10,800 acre wilderness area would be available for backcountry non-motorized recreation opportunities. Following reintroduction of bighorn sheep, indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to bighorns. The wilderness area would be closed to motorized vehicle use. There are no existing roads or primitive vehicle tracks (ways) within the proposed wilderness area.

In the 18,700 acres of potential bighorn habitat outside the proposed wilderness area, recreation use would be regulated as necessary to minimize adverse impacts to bighorns using the same techniques described above for the wilderness area. Within the potential bighorn habitat, motorized vehicles would be limited to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

The 25,333 acres that are outside of potential bighorn habitat would be managed to general recreation use with no special recreation management regulations or restrictions. These areas would be open to off-road-vehicle use. The only area where any significant increases in off-road-vehicle use is expected to occur is the plateau in the northeast portion of the WSA. It is anticipated that this area could become popular for desert motorcycle races. Because of natural terrain restrictions, significant increases in ORV use are not expected occur in the remainder of the WSA.

Utility Corridor Management Actions

The 1/4 mile utility corridor between Little Jacks Creek and Big Jacks Creek WSAs would be the same as in the Proposed Action. As in the Proposed Action, about 1/8 mile of the corridor width would be within the Little Jacks Creek WSA for about 12 miles (960 acres). Only underground utilities would be permitted within the corridor. Overhead powerlines would not be permitted.

Bighorn Sheep Management Actions

Thirty-one percent of the habitat used by the Little Jacks California bighorn sheep population would be included in the proposed wilderness area. Bighorn sheep habitat located outside the proposed wilderness would be designated an area of critical environmental concern (Big Jacks Creek Bighorn Sheep Habitat ACEC). In both areas, the primary management objective would be preservation and protection of potential bighorn habitat.

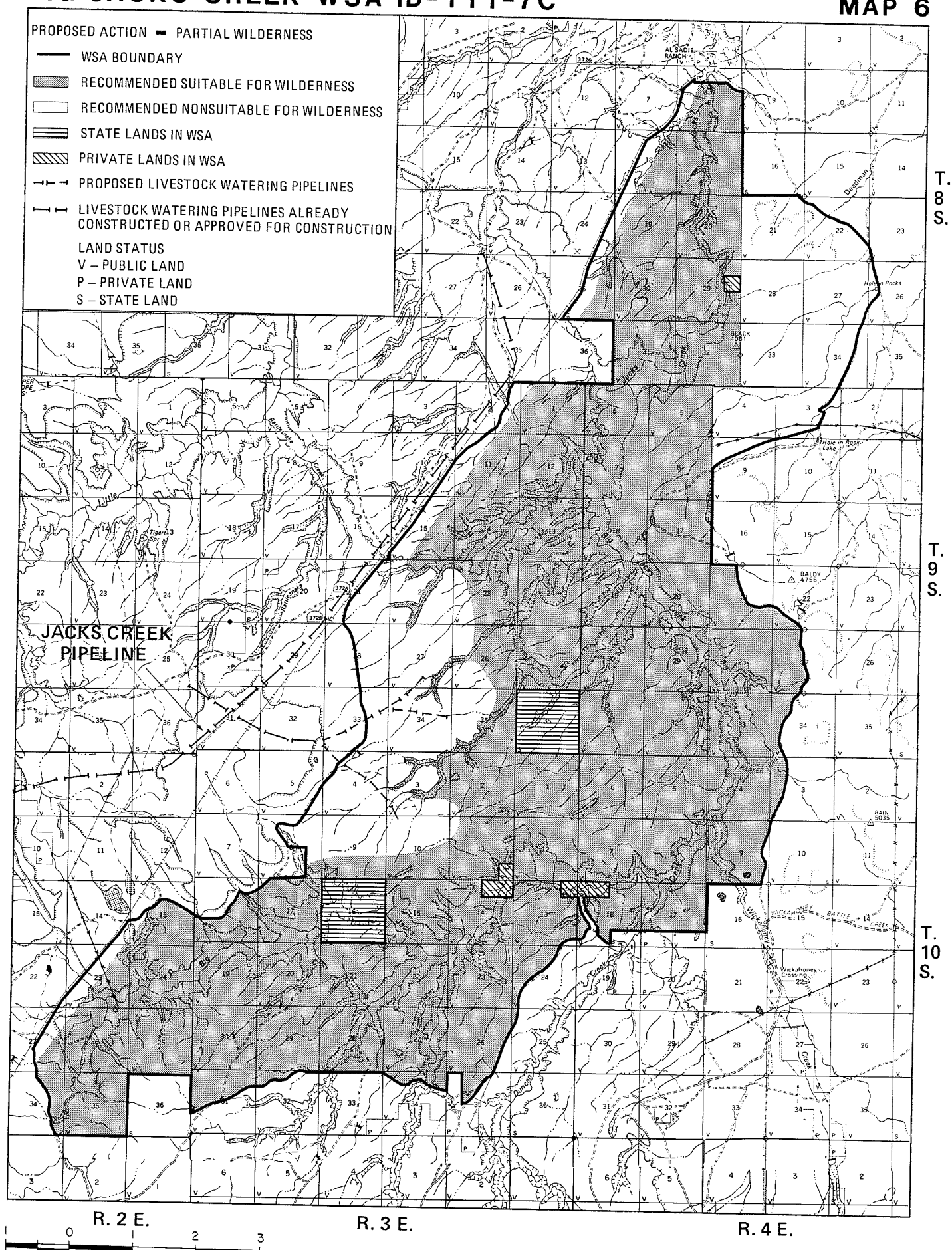
Off-road-vehicle use would be prohibited within the proposed wilderness area. In the non-wilderness portion of the bighorn habitat which would be managed as an ACEC, vehicles would be restricted to designated roads and trails, existing roads would not be upgraded, and new roads would not be constructed.

Land Acquisition Actions

Non-federal inholdings within the wilderness, including 240 acres of private lands and portions of two state-owned 640-acre parcels, would be acquired from willing landowners to eliminate possible resource conflicts.

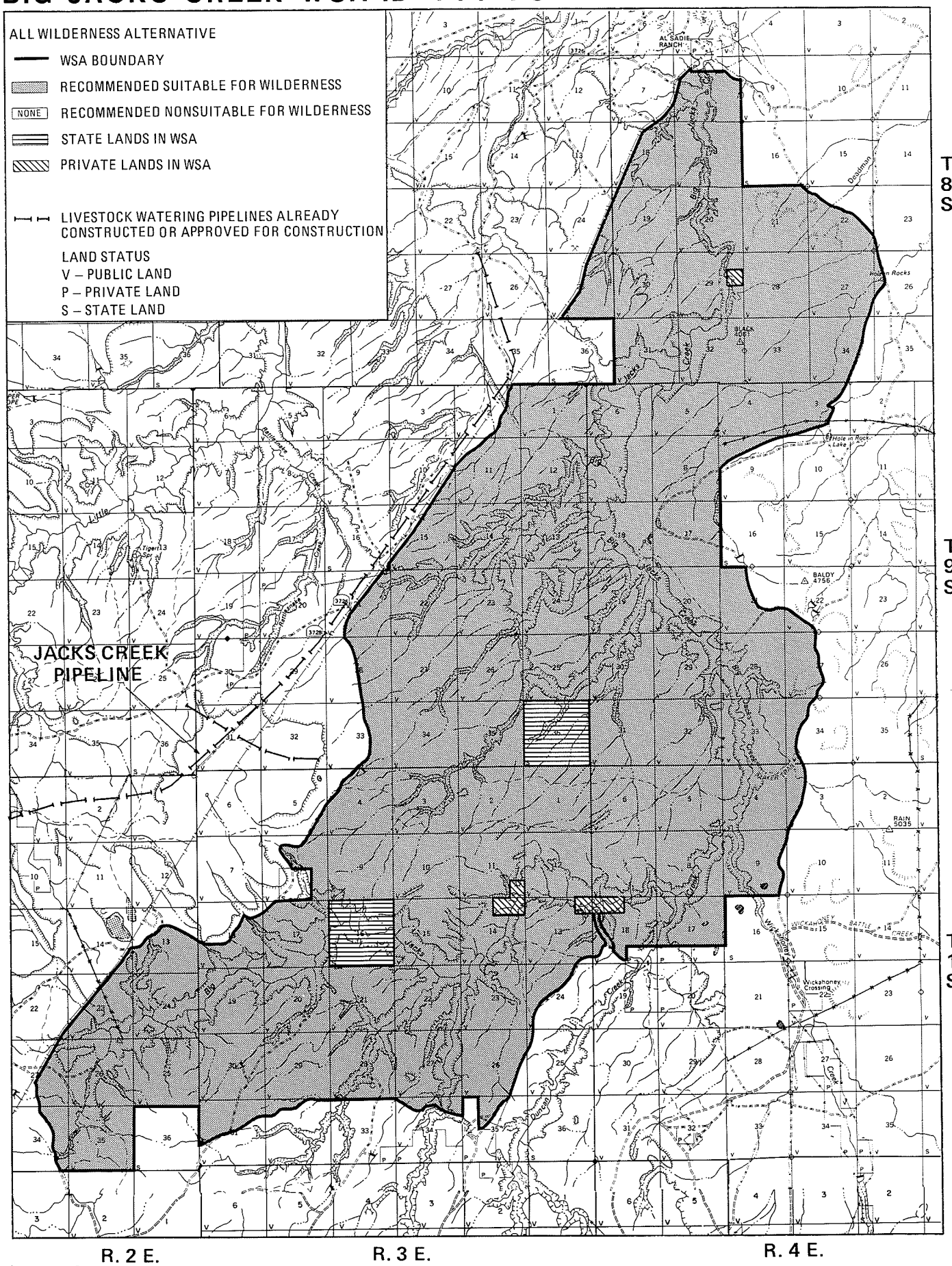
BIG JACKS CREEK WSA ID-111-7C

MAP 6



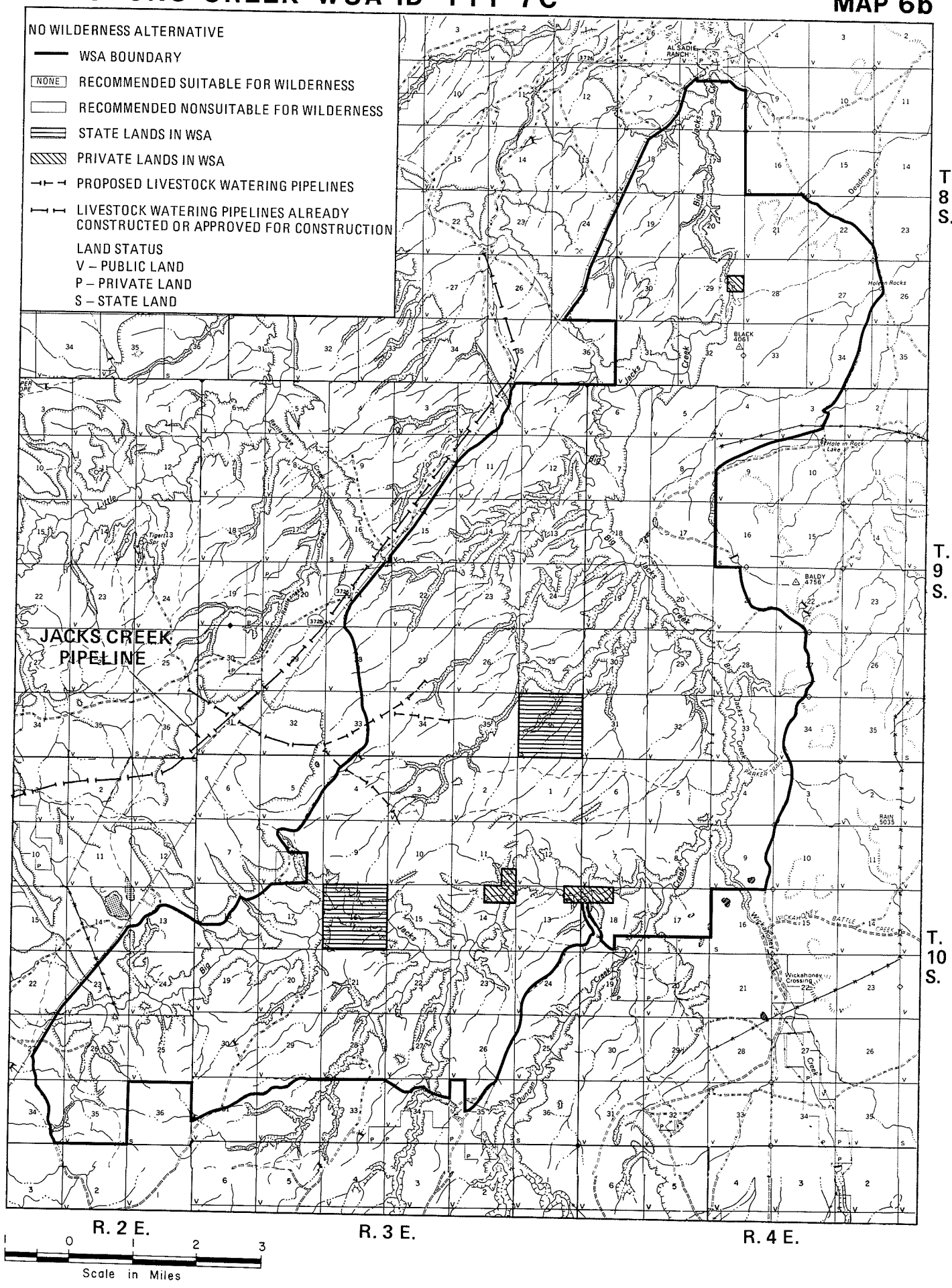
BIG JACKS CREEK WSA ID-111-7C

MAP 6a



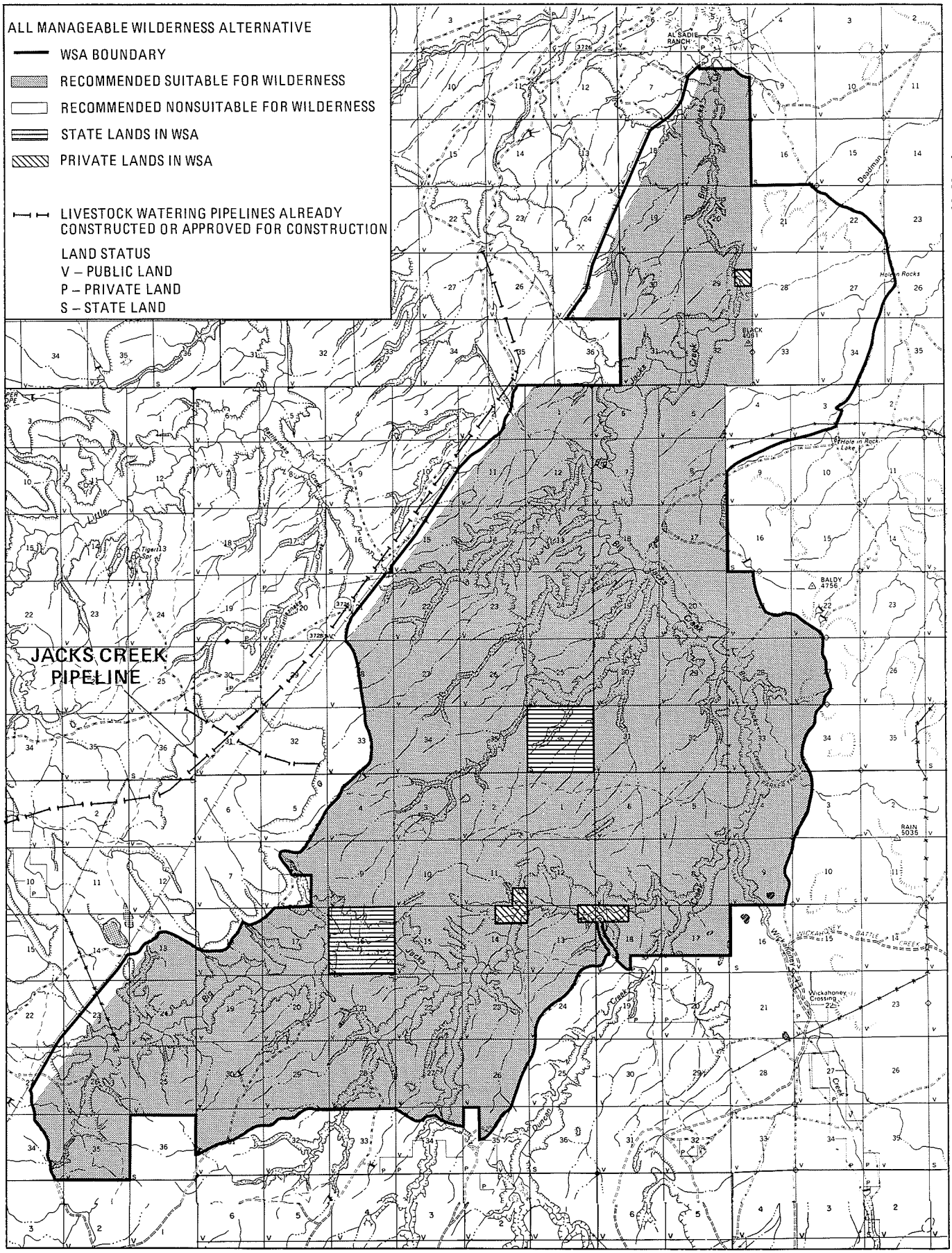
BIG JACKS CREEK WSA ID-111-7C

MAP 6b



BIG JACKS CREEK WSA ID-111-7C

MAP 6c



BIG JACKS CREEK WSA ID-111-7C

MAP 6d

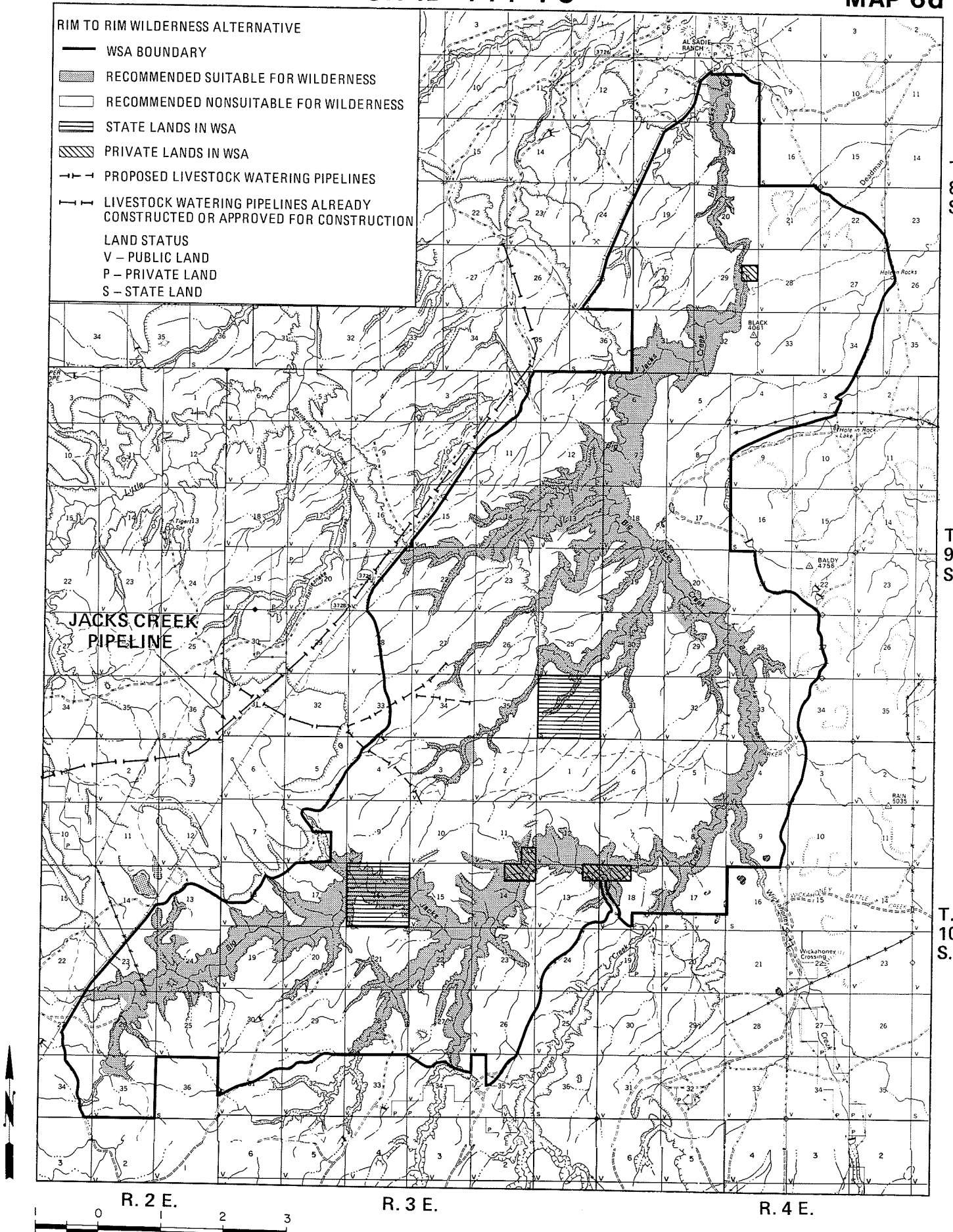


Table 3
Summary of Significant Impacts
Big Jacks Creek WSA (ID-111-7C)

ENVIRONMENTAL ISSUES	PROPOSED ACTION (44,525 acres suitable, 10,308 acres nonsuitable	ALL WILDERNESS ALTERNATIVE (54,833 acres suitable)
Impacts on Wilderness Values	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 110 acres. About 19 miles of redband trout habitat would benefit from improved riparian condition. Another three miles of redband habitat would decline in condition because of increased livestock grazing. The Bighorn sheep population would expand and fully occupy available habitat. Nonsuitable Area: Naturalness would be lost on 5,350 acres. Opportunities for solitude/primitive recreation would be diminished on 9,750 acres. Underground utility construction could also affect naturalness of about 550 acres. Scientific/ecological values could be diminished on 11,200 acres of good condition Sagebrush Steppe rangeland.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 225 acres. Opportunities for solitude and primitive recreation could be diminished on 4,400 acres. About 19 miles of redband trout habitat would benefit from improved riparian condition. Scientific values could be diminished on 5,800 acres of good condition rangeland. The Bighorn sheep population would expand and fully occupy available habitat.
Impacts on Recreation Use	Suitable Area: Annual recreation use would be 7,975 visitor days, an increase of 7,225 annual visitor days over current use. The major use area would be Big Jacks Creek Canyon with use about 10% hunting and 90% non-hunting. There would be no significant impact on opportunities to participate in ORV use or hunting. Nonsuitable Area: No significant impact.	Suitable Area: Same as the Proposed Action.
Impacts of Jacks Creek Pipeline Extensions	Suitable Area: Three miles of redband trout habitat would decline in condition. Nonsuitable Area: Naturalness would be lost and opportunities for solitude/primitive recreation diminished on 5,350 acres. Scientific values (supplemental wilderness values) could be diminished on 4,400 acres of good condition rangeland affected by increased livestock grazing. There would be a slight improvement in wildlife habitat.	Suitable Area: No impact.
Impacts on Selected Wildlife Species	Suitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%. Nonsuitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.	Suitable Area: Same as Proposed Action.
Impacts on Income and Jobs	There would be $192,968 of additional annual income and 16.25 new jobs. Implementation costs would total $63,850 for range improvements and $4,500 annually for wilderness management.	There would be $182,110 of additional annual income and 16 new jobs. Implementation costs would total $48,100 for range improvements and $4,500 annually for wilderness management.

Table 3
Summary of Significant Impacts
Big Jacks Creek WSA (ID-111-7C)

ENVIRONMENTAL ISSUES	NO WILDERNESS/NO ACTION ALTERNATIVE (54,833 acres nonsuitable)	ALL MANAGEABLE WILDERNESS ALTERNATIVE (49,875 acres suitable, 4,958 acres nonsuitable)	RIM TO RIM WILDERNESS ALTERNATIVE (10,800 acres suitable, 44,033 acres nonsuitable)
Impacts on Wilderness Values	Nonsuitable Area: Naturalness would be lost on 5,350 acres. Underground utility construction could also affect naturalness of another 550 acres. Outstanding opportunities for solitude and primitive recreation could be diminished on 9,750 acres. Nineteen miles of redband trout habitat would improve but another three miles would decline in condition. Scientific/ecological values could be diminished on 11,300 acres of good condition Sagebrush Steppe rangeland. The bighorn sheep population would expand and fully occupy available habitat.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 200 acres. About 19 miles of redband trout habitat would benefit from improved riparian condition. Scientific values could be diminished on 5,800 acres of good condition rangeland. The Bighorn sheep population would expand and fully occupy available habitat. Nonsuitable Area: Underground utility construction could reduce naturalness of about 550 acres. Opportunities for solitude and primitive recreation could be diminished on about 4,400 acres affected by increased ORV use.	Suitable Area: About 19 miles of redband trout habitat would benefit from improved riparian condition. Another three miles of redband habitat would decline in condition. The Bighorn sheep population would expand and fully occupy available habitat. Nonsuitable Area: Naturalness would be lost on 5,350 acres. Outstanding opportunities for solitude and primitive recreation would be diminished on 9,750 acres. Underground utility construction could also reduce naturalness on another 550 acres. Scientific/ecological values could be diminished on 11,300 acres of good condition Sagebrush Steppe rangeland. The Bighorn sheep population would expand and fully occupy available habitat.
Impacts on Recreation Use	Nonsuitable Area: Annual recreation use would be 3,665 visitor days, an increase of 2,915 annual visitor days over current use. Major use areas would be Big Jacks Creek Canyon with use about 75% non-hunting and 25% hunting. Opportunities to participate in ORV use or hunting would not be affected.	Suitable Area: Same as the Proposed Action. Nonsuitable Area: No significant impact.	Same as the Proposed Action. Nonsuitable Area: No significant impact.
Impacts of Jacks Creek Pipeline Extensions	Nonsuitable Area: Naturalness would be lost and opportunities for solitude/primitive recreation diminished on 5,350 acres. Scientific values (supplemental wilderness values) could be diminished on 4,400 acres of good condition rangeland affected by increased livestock grazing. Three miles of redband trout habitat would decline in condition. There would be a slight improvement in wildlife habitat.	Suitable Area: No impact. Nonsuitable Area: No impact.	Suitable Area: Same as the Proposed Action. Nonsuitable Area: Same as the Proposed Action.
Impacts on Selected Wildlife Species	Nonsuitable Area: Same as Proposed Action.	Suitable Area: Same as Proposed Action. Nonsuitable Area: Mule deer, pronghorn and sage grouse populations would remain stable.	Suitable Area: Mule deer, pronghorn and sage grouse populations would remain stable. Nonsuitable Area: Same as Proposed Action.
Impacts on Income and Jobs	There would be $96,812 of additional annual income and 7.1 new jobs. Implementation costs would total $63,850 for range improvements.	There would be $182,110 of additional annual income and 16 new jobs. Implementation costs would total $48,100 for range improvements and $4,500 annually for wilderness management.	There would be $196,933 of additional annual income and 16.35 new jobs. Implementation costs would total $63,850 for range improvements and $4,500 annually for wilderness management.

ACTIONS COMMON TO ALL ALTERNATIVES

Some of the management actions that are proposed within this WSA during the next 20 years are expected to occur under the Proposed Action and the alternative. These are proposed management actions that have been determined to be nonimpairing to wilderness values. Some of these actions may occur prior to wilderness designation while the WSA is being managed under the Bureau's Wilderness Interim Management Policy (USDI 1979). The following management actions are expected to occur under the Proposed Action and alternative regardless of wilderness designation.

Livestock Grazing and Range Management Actions

The BLM is currently implementing more intensive grazing management systems within the WSA. These systems are being adopted in conjunction with the development of allotment management plans and include such practices as deferred grazing, rest rotation, riparian habitat protection, and adjustments in season of use. Site specific mitigation would be incorporated into these plans to avoid any significant adverse impacts to wildlife. Specific implementation practices are described in the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b).

It is anticipated that two to three small livestock reservoirs could be constructed to redistribute domestic livestock away from areas where significant cultural resource sites are being damaged. These reservoirs may be constructed prior to a wilderness allocation decision under the Bureau's Wilderness Interim Management Policy (USDI 1979).

Prescribed fire could be used to burn up to 4,000 acres during the next 20 years. These actions would be taken to restore natural plant succession by reestablishing the role of natural fire in retarding the spread of juniper. These objectives are compatible with wilderness management objectives and are not expected to be affected by a wilderness allocation decision or recommendation.

Riparian Habitat Management

Pole and Camas Creek have been identified for fish and riparian habitat improvement. Two primary methods are being used to reach these objectives: 1) the exclusion of livestock grazing by construction of short gap fences, and 2) improvement in grazing management practices. In conjunction with this program, it is expected that about 1.5 miles of Camas Creek will be gap fenced (with three fences) to exclude domestic livestock grazing. These riparian habitat improvement actions are projected to occur regardless of wilderness designation.

Cultural Resource Management

Under the Proposed Action and all alternatives, protection of cultural resources would be the primary management objective within the 35% of the WSA that is in the Pole Creek-Camas Creek Archaeological District. Cattle would be excluded from about 30 acres in the Camas Creek canyon adjacent to the Camas Creek petroglyphs as alternate water sources are developed. Two to three small livestock reservoirs could be constructed to redistribute domestic livestock use away from areas where significant cultural resource sites are being damaged.

PROPOSED ACTION (No Wilderness/No Action Alternative)

The entire 24,509 acre WSA would be recommended as nonsuitable for wilderness (Map 7).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 1,172 AUMs, an increase of 47% over current use. These increases in grazing are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland and from proposed spray/seeding projects. Increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

About 440 acres on Avery Table (see map #7) would be sprayed with herbicide to reduce sagebrush and then seeded with primarily non-native species. This project has been proposed to provide better opportunities to distribute livestock use on the range in conjunction with allotment management plans. It is also expected to result in increased forage availability for livestock and wildlife. Seed mixtures, cover ratios, and boundary configuration would be governed by stipulations designed to enhance sage grouse habitat. These stipulations are outlined in Appendix A.

The two or three small livestock reservoirs and the juniper burning project described in the previous section would also be implemented under this alternative.

Recreation Management Actions

The entire 24,509 acre WSA would be open to off-road-vehicle use, however, because of natural terrain restrictions and the distance from populated areas, off-road-vehicle use is not expected to increase significantly. The area would be available for general recreation use with no specific restrictions or recreation management objectives.

About 400 acres of juniper adjacent to the WSA's western boundary road and in Hawes Pasture could be available for recreational firewood cutting.

Cultural Resource Management Actions

Protection of cultural resources would be the primary management objective within the 35% of the WSA that is in the Pole Creek-Camas Creek Archaeological District. Sites endangered by erosion or vandalism would be stabilized or excavated. Archaeological sites could also be studied or excavated for their scientific values. Cattle would be excluded from about 30 acres in the Camas Creek canyon adjacent to the Camas Creek petroglyphs as alternate water sources are developed. Two to three small livestock reservoirs could be constructed to redistribute domestic livestock use away from areas where significant cultural resource sites are being damaged.

Land Acquisition Actions

There are no plans to acquire state or private lands in conjunction with this proposal. Some acquisition of private or state inholdings could occur if the landowners wish to exchange or sell their land.

ALL WILDERNESS ALTERNATIVE

All 24,509 acres in the WSA would be recommended as suitable for wilderness (Map 7a). If acquired, private inholdings would become part of the wilderness.

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 253 AUMs, an increase of 10% over current use. These are increases in grazing that could occur within designated wilderness. Regulations allow for small increases in grazing within wilderness areas if land use plans reveal conclusively that increased livestock numbers would have no adverse impact on wilderness values. It is anticipated these increases could average about 10%. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases would not adversely impact wilderness values.

The two or three small livestock reservoirs and the juniper burning project previously described would also be implemented under this alternative. No other range development projects (livestock water developments, seedings, etc.) are anticipated under this alternative.

Recreation Management Actions

The 24,509 acre wilderness area would be available for backcountry non-motorized recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites.

Recreational vehicle use would be prohibited in the 24,509 acre wilderness area. The three short cherry-stem roads (total distance of 2.5 miles) and the 4.5 miles of primitive vehicle routes (ways) would all be closed to use by motorized vehicles.

Cultural Resource Management Actions

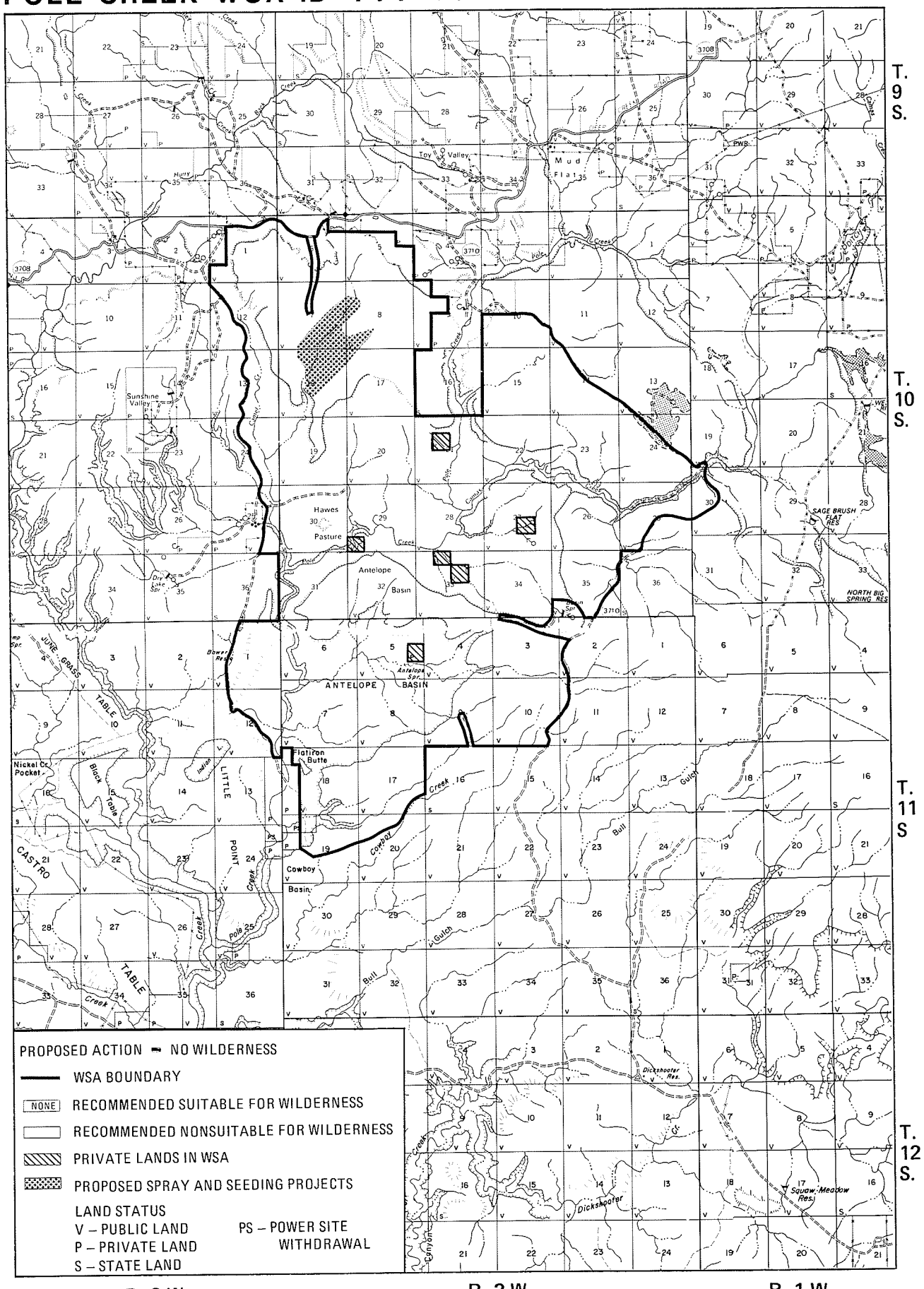
Protection of cultural resources from destruction by man-caused agents would be the primary management objective within the 35% of the proposed wilderness area that is in the Pole Creek-Camas Creek Archaeological District. Site stabilization and/or excavation would require BLM State Director approval. These activities would allow ongoing scientific research to continue and would allow for management of archaeological and cultural resources consistent with wilderness management. Cattle would be excluded from about 30 acres is the Camas Creek canyon adjacent to the Camas Creek petroglyphs as alternate water sources are developed. Two to three small livestock reservoirs could be constructed to redistribute domestic livestock use away from areas where significant cultural resource sites are being damaged.

Land Acquisition Actions

Private inholdings within the wilderness (six 40-acre parcels) would be acquired from willing landowners to eliminate possible resource conflicts.

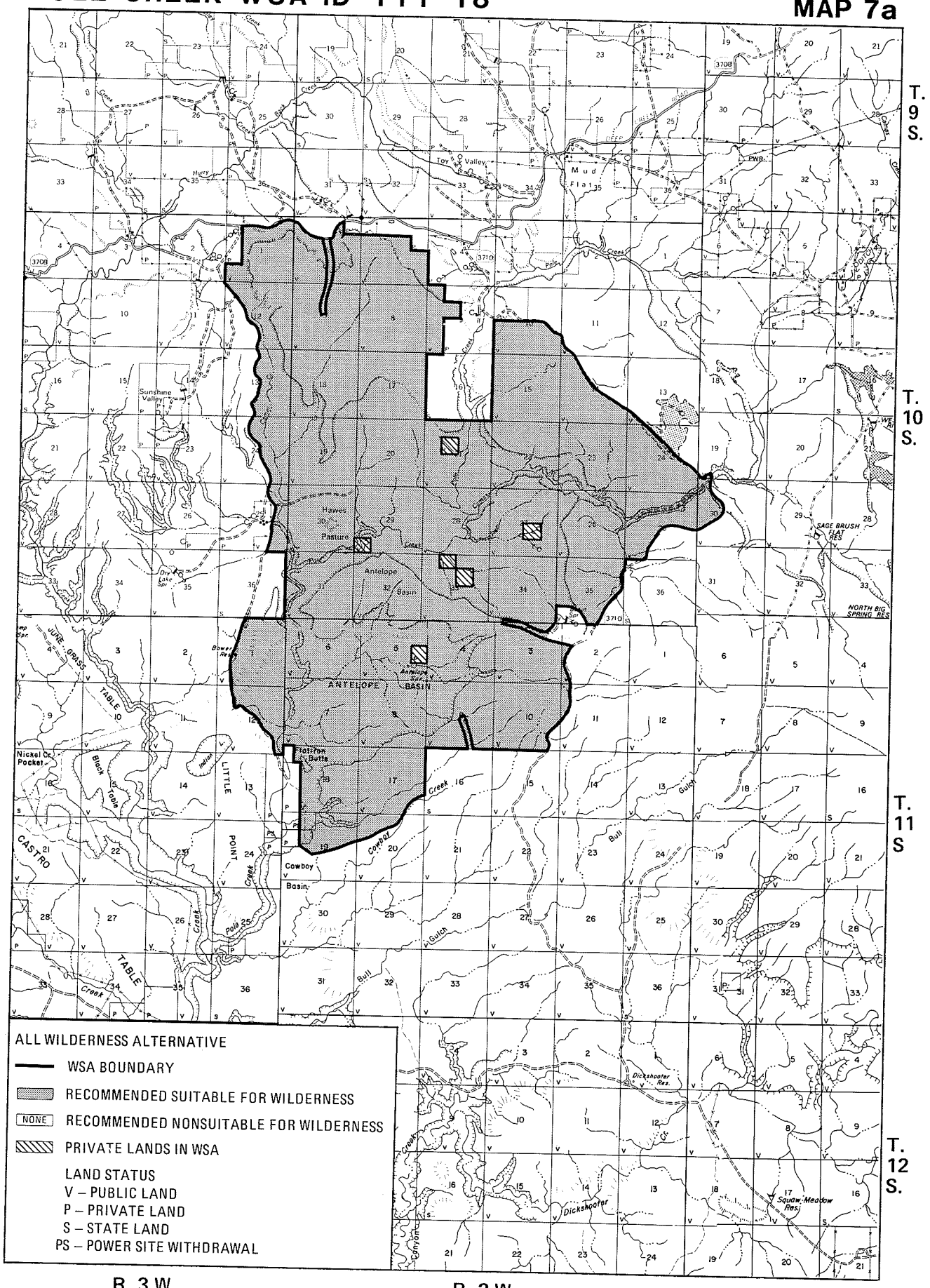
POLE CREEK WSA ID-111-18

MAP 7



POLE CREEK WSA ID-111-18

MAP 7a



ALL WILDERNESS ALTERNATIVE

- WSA BOUNDARY
- RECOMMENDED SUITABLE FOR WILDERNESS
- NONE — RECOMMENDED NONSUITABLE FOR WILDERNESS
- PRIVATE LANDS IN WSA

LAND STATUS
V – PUBLIC LAND
P – PRIVATE LAND
S – STATE LAND
PS – POWER SITE WITHDRAWAL

Table 4
Summary of Significant Impacts
Pole Creek WSA (ID-111-18)

ENVIRONMENTAL ISSUE	PROPOSED ACTION (No Action Alternative) (24,509 acres nonsuitable)	ALL WILDERNESS ALTERNATIVE (24,509 acres suitable)
Impacts on Wilderness Values	Nonsuitable Area: Naturalness would be lost and opportunities for primitive recreation would be diminished on 4,400 acres. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 85 acres affected by road closures. Ongoing archaeological research and site stabilization would become more costly.
Impacts on Recreation Use	Nonsuitable Area: Annual recreation use would be about 550 visitor days, an increase of 225 annual visitor days over current use. Opportunities to participate in off-road-vehicle use or hunting would not be affected.	Suitable Area: Annual recreation use would be about 475 visitor days, an increase of 150 annual visitor days over current use. Some sage grouse hunters could be displaced. There would be no significant impact on opportunities to participate in ORV use.
Impacts on Selected Wildlife Species	Nonsuitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.	Suitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.
Impact on Income and Jobs	There would be $21,793 of additional annual income and .8 new jobs. Implementation costs would total $11,000 for range improvements.	There would be $8,124 of additional annual income and .5 new jobs. Implementation costs would be $4,400 annually for wilderness management.

SHEEP CREEK WEST WSA (ID-111-36A)

ACTIONS COMMON TO ALL ALTERNATIVES

Some of the management actions that are proposed within this WSA during the next 20 years are expected to occur under the Proposed Action and the alternative. These are proposed management actions that have been determined to be nonimpairing to wilderness values. Some of these actions may occur prior to wilderness designation while the WSA is being managed under the Bureau's Wilderness Interim Management Policy (USDI 1979). The following management actions are expected to occur under the Proposed Action and alternative regardless of wilderness designation.

Livestock Grazing and Range Management Actions

The BLM is currently implementing more intensive grazing management systems within the WSA. These systems are being adopted in conjunction with the development of allotment management plans and include such practices as deferred grazing, rest rotation, riparian habitat protection, and adjustments in season of use. Site specific mitigation would be incorporated into these plans to avoid any significant adverse impacts to wildlife. Specific implementation practices are described in the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b).

Future grazing levels within this WSA are expected to be the same regardless of wilderness designation. Foreseeable opportunities to increase grazing by domestic livestock are limited to about a 5% increase, and it is anticipated that this small increase would be permitted even if the area is designated wilderness.

Riparian Habitat Management

Sheep Creek has been identified for fish and riparian habitat improvement. Two primary methods are being used to reach these objectives: 1) the exclusion of livestock grazing by construction of seven short gap fences, and 2) improvement in grazing management practices. These riparian habitat improvement actions are projected to occur regardless of wilderness designation.

PROPOSED ACTION (All Wilderness Alternative)

Under the Proposed Action, all 11,680 acres would be recommended as suitable for wilderness. This area's primary value as wilderness is its diversity of plant communities and generally good ecological condition (Map 8).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 75 AUMs, an increase of 5% over current use.

These are increases in grazing that could occur within designated wilderness. Regulations allow for small increases in grazing within wilderness areas if land use plans reveal conclusively that increased livestock numbers would have no adverse impact on wilderness values. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases would not adversely impact wilderness values.

It is anticipated that there would be no new range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 11,680 acre wilderness area would be available for backcountry non-motorized recreation opportunities.

Recreational vehicle use would be prohibited in the 11,680 acre wilderness area. The 4.5 miles of primitive vehicle routes (ways) would be closed to motorized vehicle use.

NO WILDERNESS/NO ACTION ALTERNATIVE

The entire 11,680 acre WSA would be recommended nonsuitable for wilderness (Map 8a).

Livestock Grazing and Range Management Actions

Livestock grazing levels are expected to be the same as in the Proposed Action. It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 75 AUMs, an increase of 5% over current use. Increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

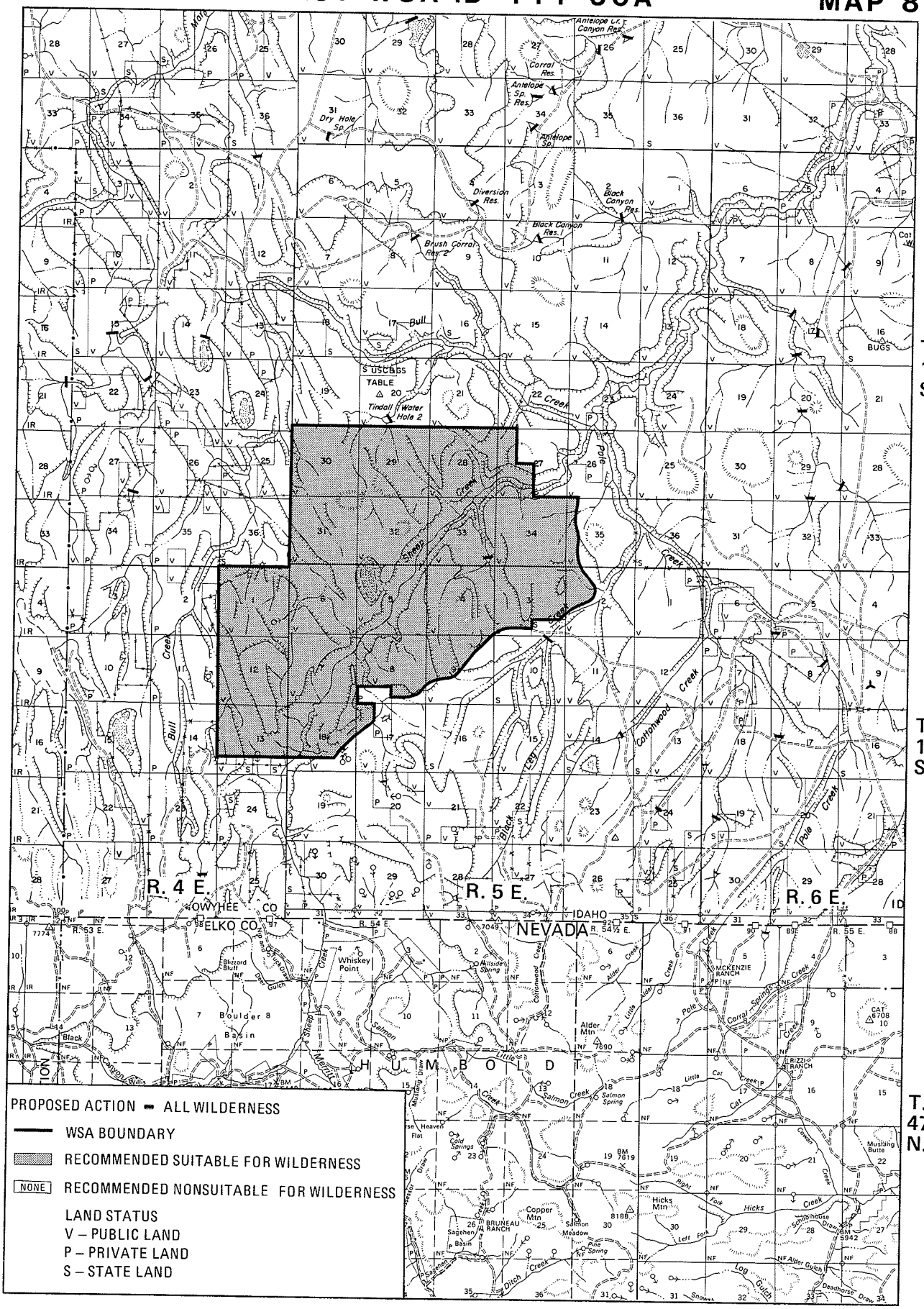
It is anticipated that there would be no new range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The entire 11,680 acre WSA would be open to off-road-vehicle use, however because of natural terrain restrictions and the distance from populated areas, off-road-vehicle use is not expected to increase significantly. The area would be available for general recreation use with no specific restrictions or recreation management objectives.

SHEEP CREEK WEST WSA ID-111-36A

MAP 8



SHEEP CREEK WEST WSA ID-111-36A

MAP 8a

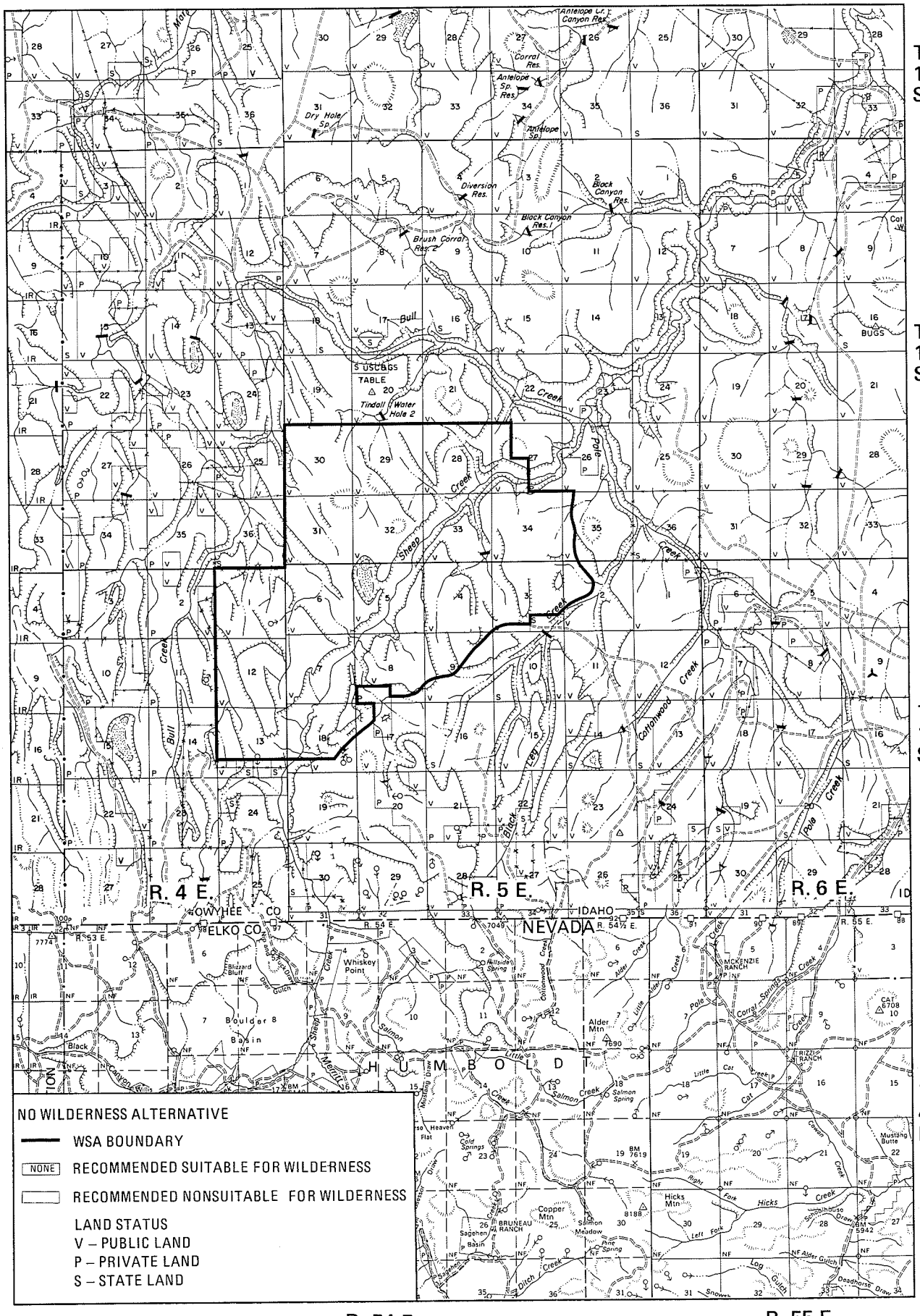


Table 5
Summary of Significant Impacts
Sheep Creek West WSA (ID-111-36A)

ENVIRONMENTAL ISSUE	PROPOSED ACTION (11,680 acres suitable)	NO WILDERNESS/NO ACTION ALTERNATIVE (11,680 acres nonsuitable)
Impacts on Wilderness Values	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 50 acres affected by road closures. Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.	Nonsuitable Area: Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.
Impacts on Recreation Use	Suitable Area: Annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. There would be no significant impact on opportunities to participate in ORV use or hunting.	Nonsuitable Area: Annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. Opportunities to participate in off-road-vehicle use or hunting would not be affected.
Impacts on Selected Wildlife Species	Suitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 5%.	Nonsuitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 5%.
Impact on Income and Jobs	There would be $4,705 of additional annual income and .3 new jobs. Implementation costs would be $1,800 annually for wilderness management.	There would be $4,705 of additional annual income and .3 new jobs. There would be no implementation costs.

SHEEP CREEK EAST WSA (ID-111-36B)

ACTIONS COMMON TO ALL ALTERNATIVES

Some of the management actions that are proposed within this WSA during the next 20 years are expected to occur under the Proposed Action and the alternative. These are proposed management actions that have been determined to be nonimpairing to wilderness values. Some of these actions may occur prior to wilderness designation while the WSA is being managed under the Bureau's Wilderness Interim Management Policy (USDI 1979). The following management actions are expected to occur under the Proposed Action and all alternatives regardless of wilderness designation.

Livestock Grazing and Range Management Actions

The BLM is currently implementing more intensive grazing management systems within the WSA. These systems are being adopted in conjunction with the development of allotment management plans and include such practices as deferred grazing, rest rotation, riparian habitat protection, and adjustments in season of use. Site specific mitigation would be incorporated into these plans to avoid any significant adverse impacts to wildlife. Specific implementation practices are described in the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b).

Riparian Habitat Management

Sheep Creek has been identified for fish and riparian habitat improvement. Two primary methods are being used to reach these objectives: 1) the exclusion of livestock grazing by construction of five short gap fences, and 2) improvement in grazing management practices. These riparian habitat improvement actions are projected to occur regardless of wilderness designation.

PROPOSED ACTION (No Wilderness/No Action Alternative)

Under the Proposed Action, all 5,050 acres would be recommended as nonsuitable for wilderness (Map 9).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 229 AUMs, an increase of 75% over current use. These increases in grazing are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland. Increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

It is anticipated that there would be no new range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The entire 5,050 acre WSA would be open to off-road-vehicle use, however because of natural terrain restrictions and the distance from populated areas, off-road-vehicle use is not expected to increase significantly. The area would be available for general recreation use with no specific restrictions or recreation management objectives.

ALL WILDERNESS ALTERNATIVE

The entire 5,050 acre WSA would be recommended as suitable for wilderness (Map 9a).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 31 AUMs, an increase of 10% over current use. These are increases in grazing that could occur within designated wilderness. Regulations allow for small increases in grazing within wilderness areas if land use plans reveal conclusively that increased livestock numbers would have no adverse impact on wilderness values. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases would not adversely impact wilderness values.

It is anticipated that there would be no new range development projects (livestock water developments, seedings, etc.) under this alternative.

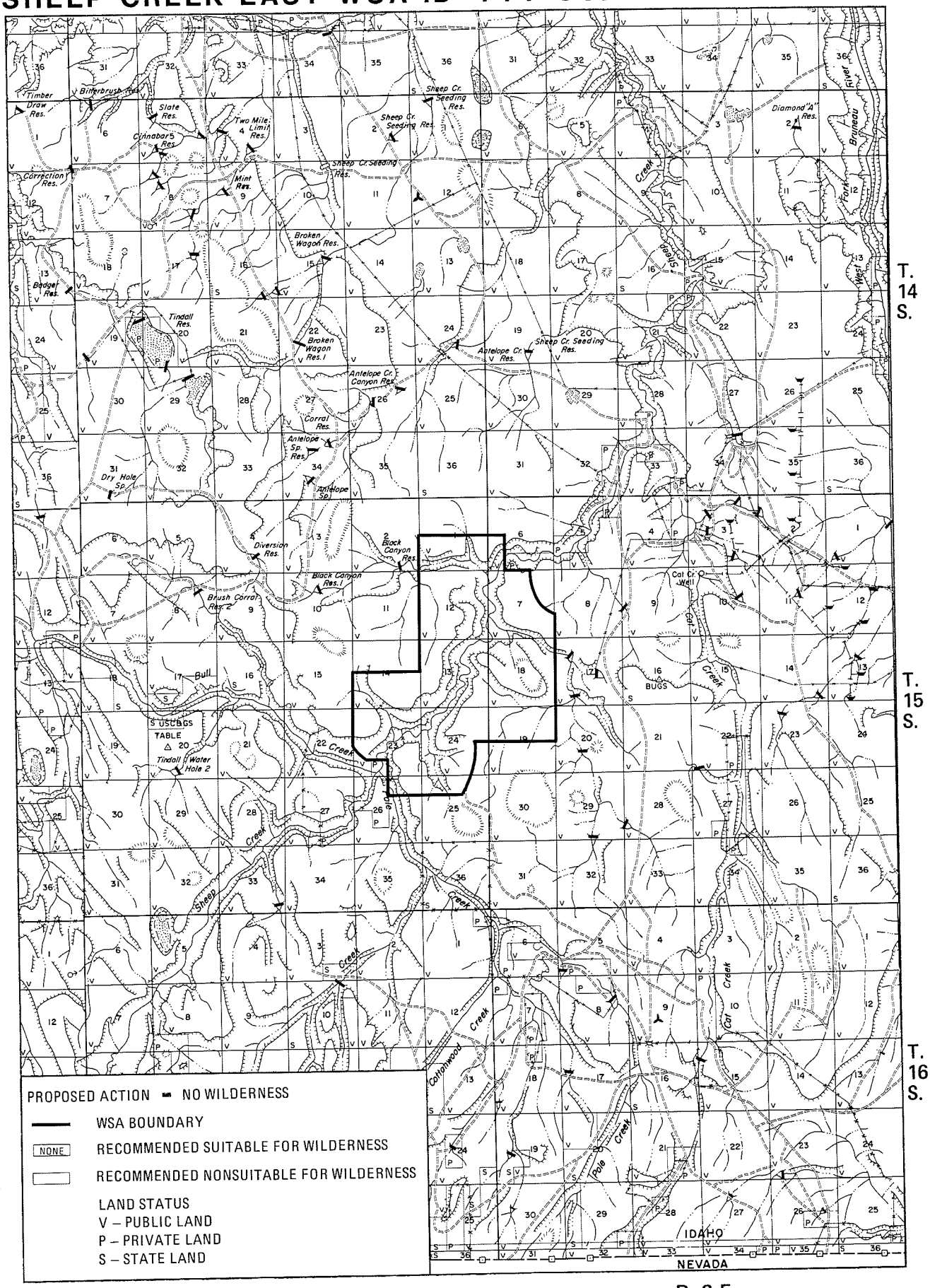
Recreation Management Actions

The 5,050 acre wilderness area would be available for backcountry non-motorized recreation opportunities.

Recreational vehicle use would be prohibited in the 5,050 acre wilderness area. The .5 mile primitive vehicle route (way) would be closed to motorized vehicle use.

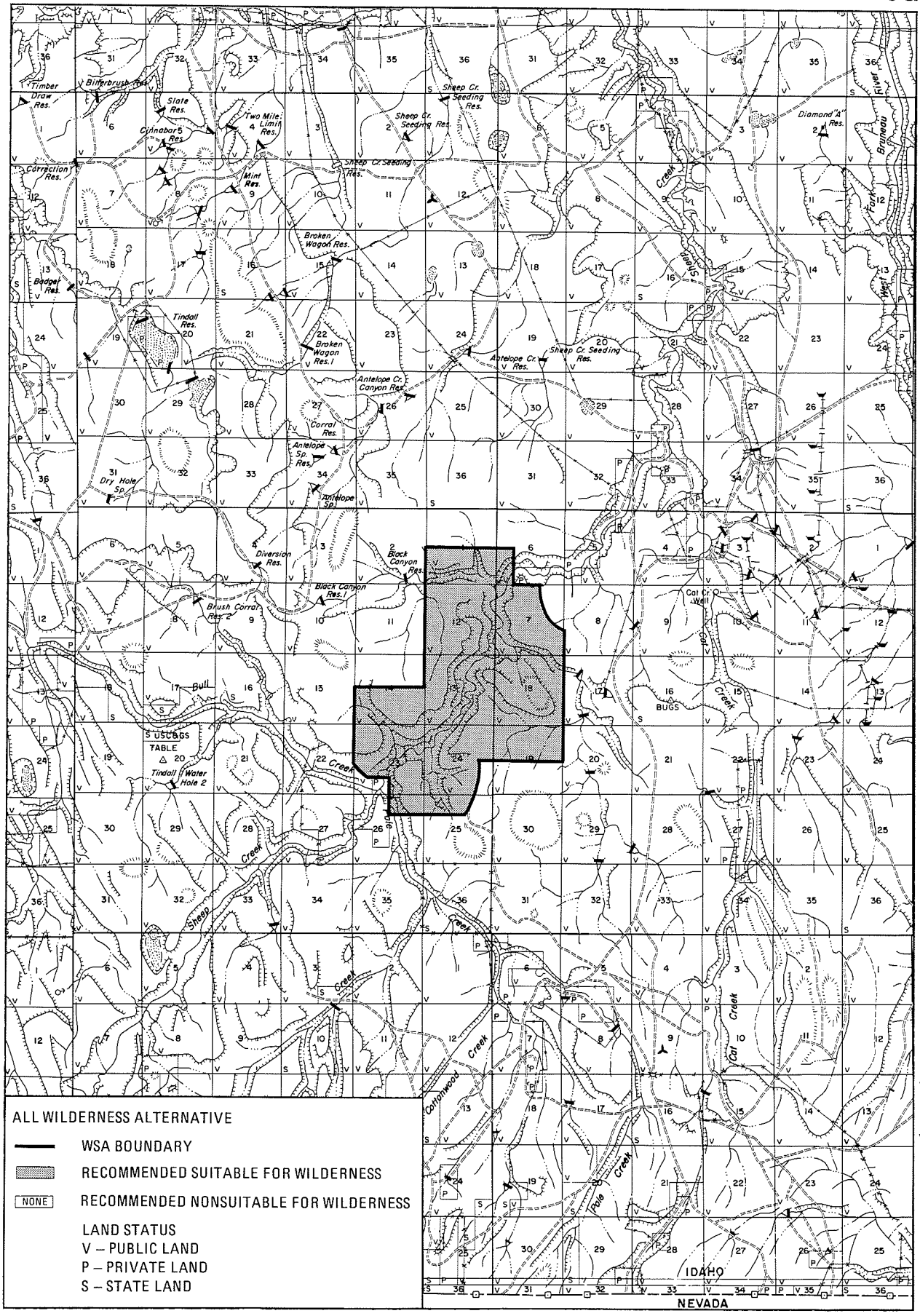
SHEEP CREEK EAST WSA ID-111-36B

MAP 9



SHEEP CREEK EAST WSA ID-111-36B

MAP 9a



ALL WILDERNESS ALTERNATIVE

- WSA BOUNDARY
- RECOMMENDED SUITABLE FOR WILDERNESS
- NONE — RECOMMENDED NONSUITABLE FOR WILDERNESS

LAND STATUS
V – PUBLIC LAND
P – PRIVATE LAND
S – STATE LAND

N

0 1 2 3
Scale in Miles

Table 6
Summary of Significant Impacts
Sheep Creek East WSA (ID-111-36B)

ENVIRONMENTAL ISSUE	PROPOSED ACTION (No Action Alternative) (5,050 acres nonsuitable)	ALL WILDERNESS ALTERNATIVE (5,050 acres suitable)
Impacts on Wilderness Values	Nonsuitable Area: Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.	Suitable Area: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about five acres affected by road closures. Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.
Impacts on Recreation Use	Nonsuitable Area: Annual recreation use would be about 200 visitor days, an increase of about 150 annual visitor days over current use. Opportunities to participate in ORV use or hunting would not be affected.	Suitable Area: Annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. There would be no significant impact on opportunities to participate in ORV use or hunting.
Impacts on Selected Wildlife Species	Nonsuitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.	Suitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.
Impact on Income and Jobs	There would be $6,803 of additional annual income and .4 new jobs. There would be no implementation costs.	There would be $4,105 of additional annual income and .3 new jobs. Implementation costs would be $5,500 annually for wilderness management.

UPPER DEEP CREEK WSA (ID-111-44)

ACTIONS COMMON TO ALL ALTERNATIVES

Some of the management actions that are proposed within this WSA during the next 20 years are expected to occur under the Proposed Action and all alternatives. These are proposed management actions that have been determined to be nonimpairing to wilderness values. Some of these actions may occur prior to wilderness designation while the WSA is being managed under the Bureau's Wilderness Interim Management Policy (USDI 1979). The following management actions are expected to occur under the Proposed Action and all alternatives regardless of wilderness designation.

Livestock Grazing and Range Management Actions

The BLM is currently implementing more intensive grazing management systems within the WSA. These systems are being adopted in conjunction with the development of allotment management plans and include such practices as deferred grazing, rest rotation, riparian habitat protection, and adjustments in season of use. Site specific mitigation would be incorporated into these plans to avoid any significant adverse impacts to wildlife. Specific implementation practices are described in the Draft and Final Bruneau-Kuna Grazing EISs (USDI 1982a and 1982b).

Prescribed fire could be used to burn up to 2,000 acres during the next 20 years. These actions would be taken to restore natural plant succession by reestablishing the role of natural fire in retarding the spread of juniper. These objectives are compatible with wilderness management objectives and are not expected to be affected by a wilderness allocation decision or recommendation.

Riparian Habitat Management

Deep Creek has been identified for fish and riparian habitat improvement. Two primary methods are being used to reach these objectives: 1) the exclusion of livestock grazing by construction of short gap fences, and 2) improvement in grazing management practices. In conjunction with this program, it is expected that about 1.5 miles of Deep Creek will be gap fenced (6 fences) to exclude domestic livestock grazing. These riparian habitat improvement actions are projected to occur regardless of wilderness designation.

Cultural Resource Management

Under the Proposed Action and all alternatives, protection of cultural resources would be the primary management objective within the 20% of the WSA that is in the Pole Creek-Camas Creek Archaeological District.

PROPOSED ACTION (No Wilderness/No Action Alternative)

The entire 11,510 acre WSA would be recommended as nonsuitable for wilderness (Map 10).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 529 AUMs, an increase of 76% over current use. These increases in grazing are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland. Increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs.

It is anticipated that there would be no additional range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The entire 11,510 acre WSA would be open to off-road-vehicle use, however because of natural terrain restrictions and the distance from populated areas, off-road-vehicle use is not expected to increase significantly. The area would be available for general recreation use with no other specific restrictions or recreation management objectives.

About 640 acres of juniper adjacent to WSA boundary roads could be available for recreational firewood cutting.

Cultural Resource Management Actions

Protection of cultural resources would be the primary management objective within the 20% of the WSA that is in the Pole Creek-Camas Creek Archaeological District. Sites endangered by erosion or vandalism would be stabilized or excavated. Archaeological sites could also be studied or excavated for their scientific values.

ALL WILDERNESS ALTERNATIVE

The entire 11,510 acre WSA would be recommended as suitable for wilderness. Management objectives would be to preserve examples of the juniper component of the Sagebrush Steppe ecosystem and to protect archaeological sites from destruction by man-caused agents (Map 10a).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 69 AUMs, an increase of 10% over current use. These are increases in grazing that could occur within designated wilderness. Regulations allow for small increases in grazing within wilderness areas if land use plans reveal conclusively that increased livestock numbers would have no adverse impact on wilderness values. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that wilderness values would not be adversely impacted.

It is anticipated that there would be no additional range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 11,510 acre wilderness area would be available for backcountry non-motorized recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites.

Recreational vehicle use would be prohibited in the 11,510 acre wilderness area. The short .25 mile cherry-stem road and the 3 miles of primitive vehicle routes (ways) would all be closed to use by motorized vehicles.

Cultural Resource Management Actions

Protection of cultural resources from destruction by man-caused agents would be the primary management objective within the 20% of the proposed wilderness area that is in the Pole Creek-Camas Creek Archaeological District. Site stabilization and/or excavation would require BLM State Director approval. These activities would allow for scientific research and would allow for management of archaeological and cultural resources consistent with wilderness management.

ALL MANAGEABLE WILDERNESS ALTERNATIVE

This alternative includes all WSA acreage that could be effectively managed to preserve its wilderness values and characteristics. About 10,355 acres would be recommended as suitable for wilderness. About 1,155 acres would be recommended as nonsuitable for wilderness (Map 10b).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 105 AUMs, an increase of 15% over current use. These increases include small increases that could be permitted in designated wilderness and larger increases in areas recommended as nonsuitable for wilderness. Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases in wilderness would not adversely impact wilderness values.

It is anticipated that there would be no additional range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 10,355 acre wilderness area would be available for backcountry non-motorized recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites.

Recreational vehicle use would be prohibited in the 10,355 acre wilderness area. The short .25 mile cherry-stem road and the 3 miles of primitive vehicle routes (ways) would all be closed to use by motorized vehicles.

The 1,155 acres recommended nonsuitable for wilderness would be open to general dispersed recreation use with no special recreation management regulations or restrictions. This area would be open to off-road-vehicle use, however, because of natural terrain restrictions and the distance from populated areas, off-road-vehicle use is not expected to increase significantly.

Cultural Resource Management Actions

All of the portion of the Pole Creek-Camas Creek Archaeological District that is in the WSA would be within the proposed wilderness area. Protection of cultural resources from destruction by man-caused agents would be the primary management objective within the Archaeological District. Site stabilization and/or excavation would require BLM State Director approval. These activities would allow for scientific research and would allow for management of archaeological and cultural resources consistent with wilderness management.

MINIMUM RESOURCE CONFLICT ALTERNATIVE

Under the Minimum Resource Conflict Alternative, about 5,700 acres would be recommended as suitable for wilderness with 5,810 recommended as nonsuitable for wilderness (Map 10c).

Livestock Grazing and Range Management Actions

It is anticipated that in the next 20 years domestic livestock grazing would be increased by as much as 522 AUMs, an increase of 75% over current use. These increases include small increases that could be permitted in designated wilderness and larger increases in areas recommended as nonsuitable for wilderness. Increases in grazing in areas recommended nonsuitable for wilderness are expected to occur in response to increases in available livestock forage resulting from anticipated improvement in ecological condition of the rangeland. Permanent increases in livestock grazing would only be permitted following at least five years of monitoring to assure that adequate forage is available without compromising wildlife forage needs and to assure that grazing increases in wilderness would not adversely impact wilderness values.

It is anticipated that there would be no additional range development projects (livestock water developments, seedings, etc.) under this alternative.

Recreation Management Actions

The 5,700 acre wilderness area would be available for backcountry non-motorized recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites.

Recreational vehicle use would be prohibited in the 5,700 acre wilderness area. There are no existing roads or vehicle routes within the proposed wilderness area.

The 5,810 acres recommended nonsuitable for wilderness would be open to general dispersed recreation use with no special recreation management regulations or restrictions. This area would be open to off-road-vehicle use, however, because of natural terrain restrictions and the distance from populated areas, off-road-vehicle use is not expected to increase significantly.

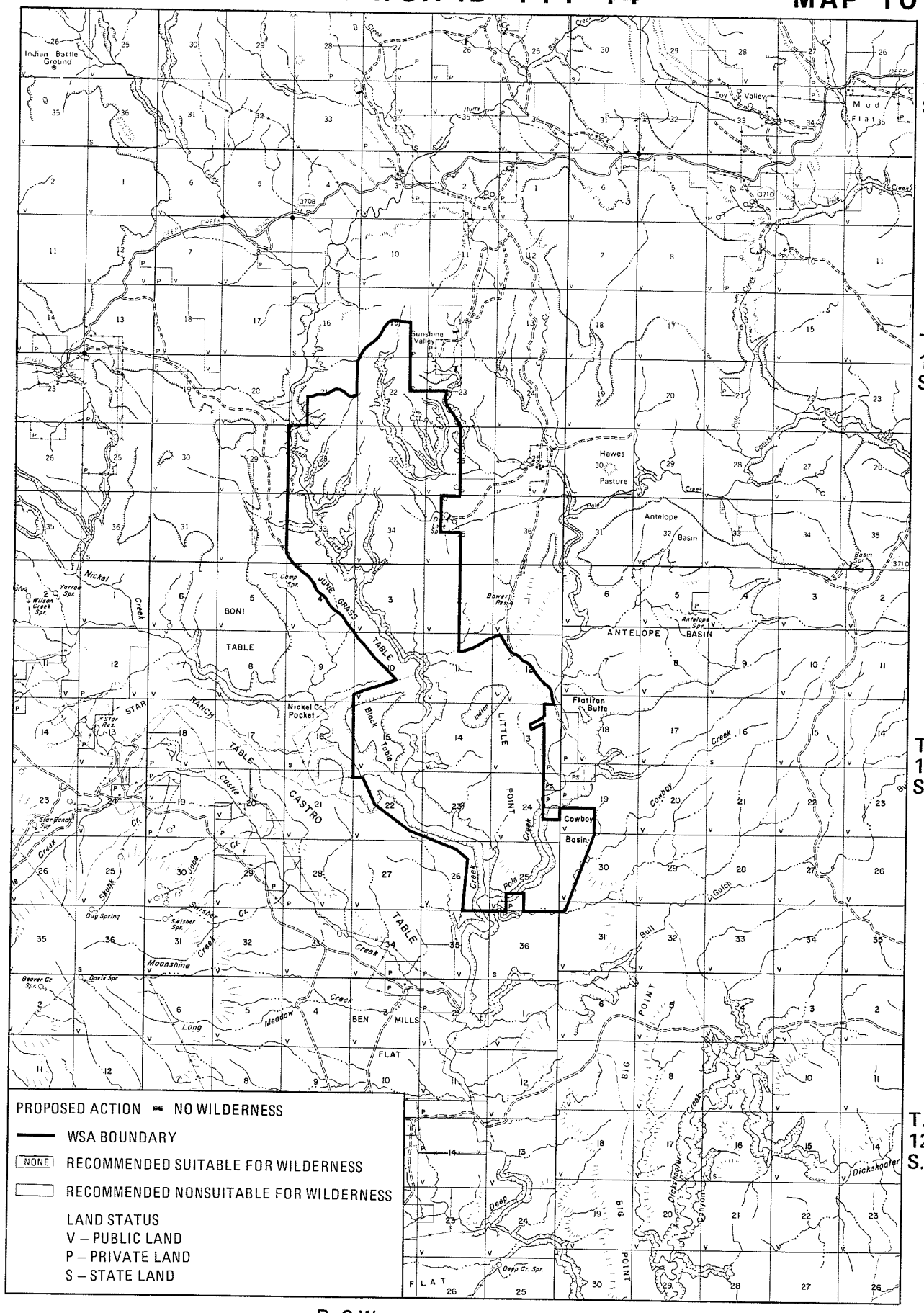
Cultural Resource Management Actions

Most of the Pole Creek-Camas Creek Archaeological District would be located outside the proposed wilderness area. Protection of cultural resources would be the primary management objective within the 20% of the WSA that is in the Pole Creek-Camas Creek Archaeological District. Sites endangered by erosion or vandalism would be stabilized or excavated. Archaeological sites could also be studied or excavated for their scientific values.

Archaeological sites in Deep Creek Canyon would be within the proposed wilderness area. These sites could be stabilized or excavated if endangered by erosion or vandalism. These actions would require BLM State Director approval. These activities would allow for scientific research and would allow for management of archaeological and cultural resources consistent with wilderness management.

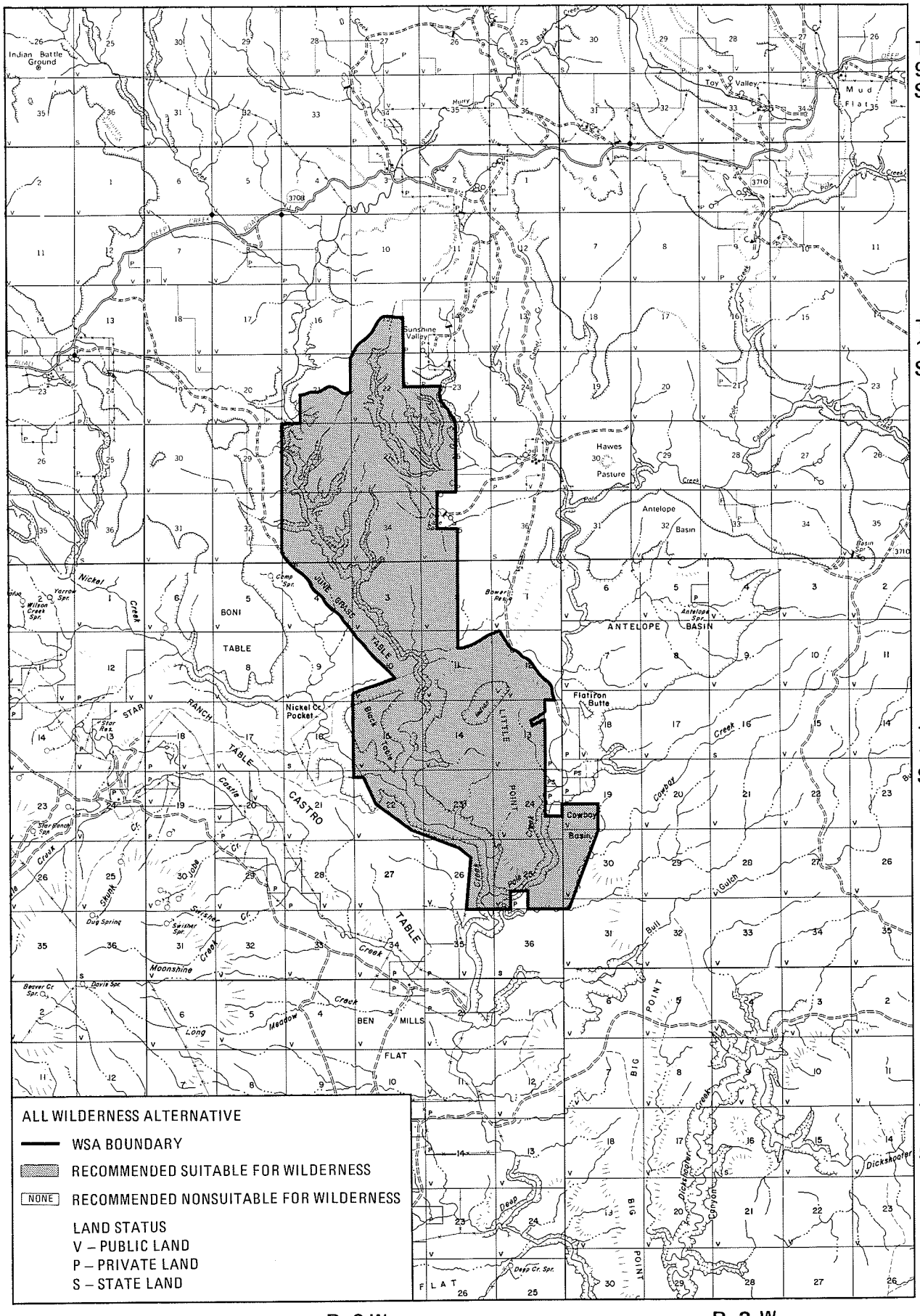
UPPER DEEP CREEK WSA ID-111-44

MAP 10



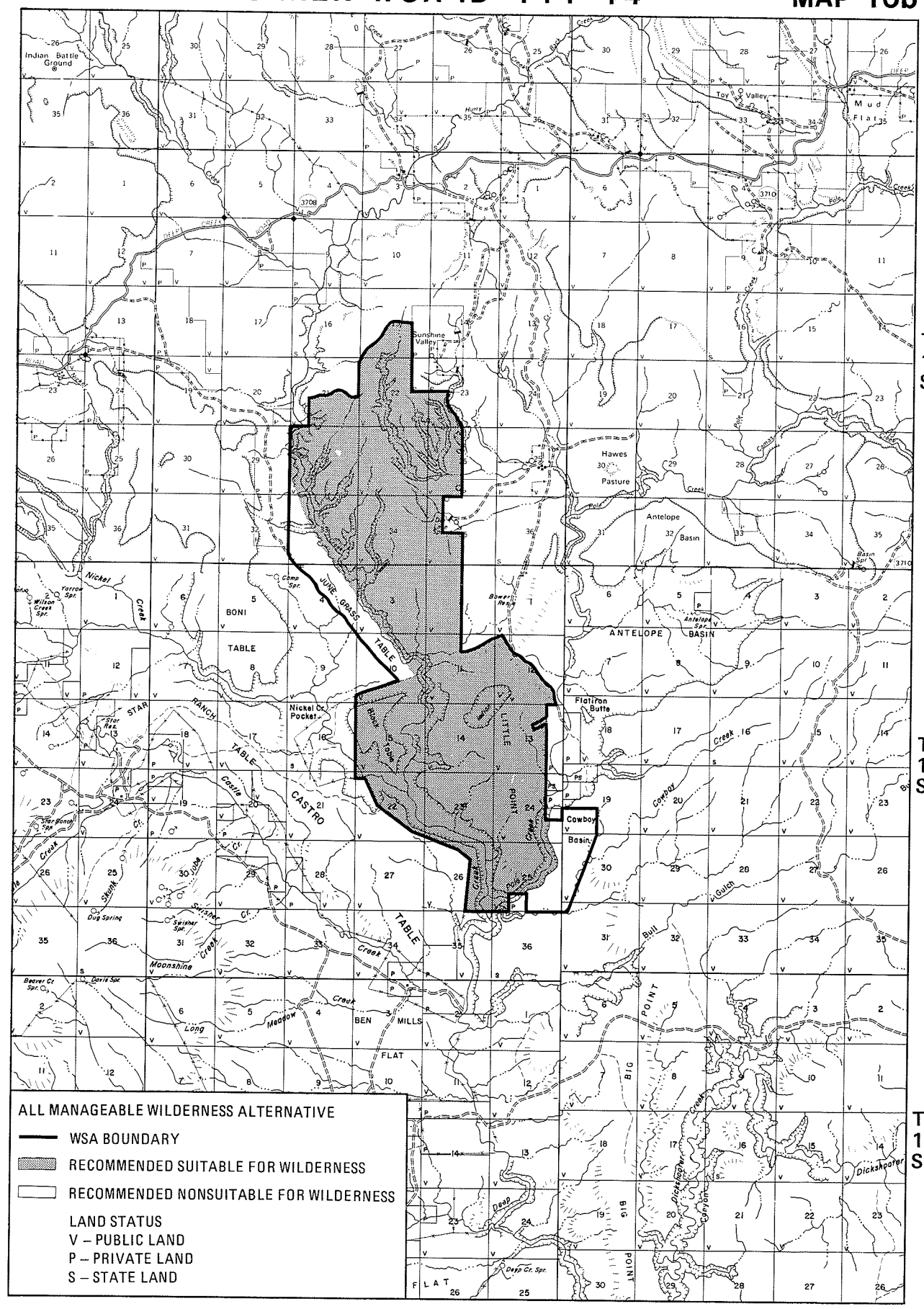
UPPER DEEP CREEK WSA ID-111-44

MAP 10a



UPPER DEEP CREEK WSA ID-111-44

MAP 10b



UPPER DEEP CREEK WSA ID-111-44

MAP 10c

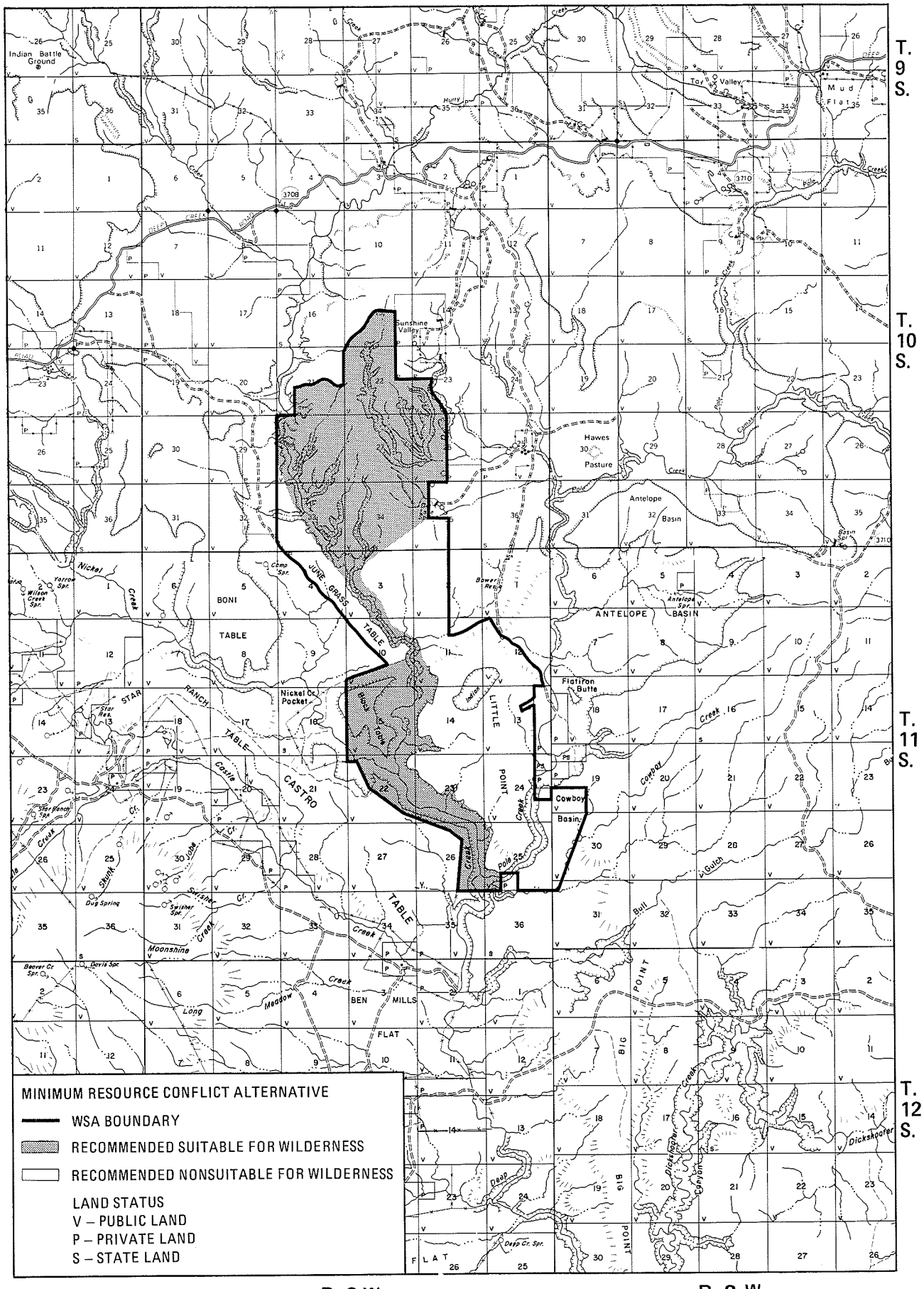


Table 7
Summary of Significant Impacts
Upper Deep Creek WSA (ID-111-44)

ENVIRONMENTAL ISSUE	PROPOSED ACTION (No Action Alternative) (11,510 acres nonsuitable)	ALL WILDERNESS ALTERNATIVE (11,510 acres suitable)	ALL MANAGEABLE WILDERNESS ALTERNATIVE (10,355 acres suitable, (1,155 acres nonsuitable)	MINIMUM RESOURCE CONFLICT ALTERNATIVE (5,700 acres suitable, 5,810 acres nonsuitable)
Impacts on Wilderness Values	Nonsuitable Area: Naturalness would be lost and opportunities for primitive recreation would be diminished on 640 acres affected by firewood cutting. Opportunities for primitive recreation and solitude would also be diminished on 1,150 acres affected by increased ORV use. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District.	Suitable Area: Naturalness and opportunities for solitude/ primitive recreation would be enhanced on about 40 acres. Opportunities for solitude and primitive recreation could be diminished on 1,150 acres affected by increased vehicle traffic. Ongoing archaeological research and site stabilization would become more costly.	Suitable Area: Naturalness and opportunities for solitude/ primitive recreation would be enhanced on about 40 acres. Ongoing archaeological research and site stabilization would become more costly. Nonsuitable Area: Opportunities for solitude and primitive recreation would be diminished by increased ORV use.	Suitable Area: No significant impact. Nonsuitable Area: Opportunities for solitude and primitive recreation would be diminished on 1,150 acres affected by increased ORV use. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District.
Impacts on Recreation Use	Nonsuitable area: Annual recreation use would be about 600 visitor days, an increase of 275 annual visitor days over current use. Opportunities to participate in ORV use or hunting would not be affected.	Suitable Area: Annual recreation use would be about 600 visitor days, an increase of 275 annual visitor days over current use. There would be no significant impact on opportunities to participate in ORV use or hunting.	Suitable Area: Same as the All Wilderness Alternative. Nonsuitable Area: No significant impact.	Suitable Area: Same as the All Wilderness Area. Nonsuitable Area: No significant impact.
Impacts on Selected Wildlife Species	Nonsuitable Area: Mule deer would increase by up to 5%. Pronghorn would increase by up to 5%. Sage grouse would increase by up to 10%.	Suitable Area: Mule deer would increase by up to 10%. Pronghorn would increase by up to 10%. Sage grouse would increase by up to 10%.	Suitable Area: Same as the All Wilderness Alternative. Nonsuitable Area: Same as Proposed Action.	Suitable Area: Same as the All Wilderness Alternative. Nonsuitable Area: Same as Proposed Action.
Impacts on Income and Jobs	There would be $14,791 of additional annual income and .8 new jobs. There would be no implementation costs.	There would be $8,524 of additional annual income and .7 new jobs. Implementation costs would be $1,800 annually for wilderness management.	There would be $9,014 in additional annual income and .7 new jobs. Implementation costs would be $1,800 annually for wilderness management.	There would be $14,696 of additional annual income and .8 new jobs. Implementation costs would be $1,800 annually for wilderness management.

CHAPTER THREE
AFFECTED ENVIRONMENT

INTRODUCTION

This chapter describes the elements of the environment that could be significantly impacted by implementation of the Proposed Action or one of the alternatives under consideration. It describes the present environment and provides background data for the evaluation of environmental consequences presented in Chapter IV. Only those elements expected to be impacted or that have been identified as issues are discussed.

WILDERNESS

Wilderness values include both mandatory and supplemental values. The mandatory values are qualities all areas must possess to be designated wilderness. They are established by the Wilderness Act of 1964. Supplemental values are other values that enhance wilderness but are not required for wilderness designation.

The mandatory qualities are: 1) roadless (5,000 acres or more); 2) outstanding opportunities for solitude or primitive recreation; and 3) apparent naturalness. Supplemental values identified during the evaluation of potential wilderness areas in this study include sensitive or uncommon species, near-pristine ecological sites, wildlands dependent wildlife, scenic values, and important archaeological sites.

Roadless (5,000 acres or more)

All the WSAs are roadless areas of 5,000 acres or more. Roads that penetrate the interior of a WSA but do not bisect it are called "cherry-stem roads." Several WSAs include primitive vehicle tracks called "ways". They are not defined as roads because they show no signs of construction and regular use. The roadless character of the WSAs would be affected by new road construction or improvement of primitive vehicle tracks.

Apparent Naturalness

Each of the WSAs is natural appearing. Any use by man would impact naturalness. The threshold for wilderness, however, is "apparent naturalness." The area must appear natural to the casual observer. New obvious imprints of man would impact naturalness.

Opportunities for Solitude

Outstanding opportunities for solitude generally are associated with portions of the WSAs providing topographic and/or vegetative screening. Opportunities for solitude could be affected by: 1) changes in visitor use; 2) recreation/wilderness management (visitor use restrictions); and 3) opening/closing areas to motorized vehicle use.

Low elevation flights by military aircraft occasionally disrupt opportunities for solitude in all of the WSAs. The entire southwest corner of Idaho is

used for training military pilots in subsonic low elevation flight. Disruptions of solitude are usually brief transitory impacts although occasionally aircraft can be seen or heard throughout the day.

Opportunities for Primitive Recreation

Each of the WSAs has outstanding opportunities for primitive recreation. These opportunities are dependent on maintenance of naturalness and opportunities for solitude. Major environmental features attracting recreationists to wilderness areas are scenery, wildlife, and water (see Roggenbuck 1980). Changes in the quality of these resources would also impact opportunities for primitive recreation.

Wildlife Values

Wilderness and many wildlife species have close symbiotic relationships. Wilderness may protect critical habitat for wildlife, while viewing these species enhances the wilderness experience of visitors (see Schoenfeld and Hendee 1978). The wilderness values are highest for those species that are: 1) dependent on "wilderness" type habitat; 2) sensitive to human disturbance; and/or 3) sensitive or endangered (Davis 1982). California bighorn sheep (found in the Little Jacks Creek WSA) are an excellent example of a species that satisfies all these criteria. In addition, bighorn sheep are one of the two most sought after species among serious wildlife viewers (Schoenfeld and Hendee 1978).

Scientific Values

An important value of wilderness is preserving remnants of natural ecological systems functioning with minimum influence from man. These remnant areas can provide baseline data on how normal undisturbed ecosystems function. They can serve as reservoirs of biological and genetic material for the future needs of man (see Franklin 1981 and Davis 1982). The Society for Range Management recognized these values in its 1978 position statement when it stated the principal value of designated wilderness was "a need to preserve portions of natural systems' precivilization conditions for purposes of scientific study and comparison" (Society for Range Management 1978). The scientific value of a wilderness area is related to the following factors:

1) The degree to which present day composition of plant and animal species is indicative of presettlement conditions. For plant species, this roughly corresponds to the concept of ecological condition. Good and excellent condition areas are more representative of presettlement vegetation than fair or poor condition areas.

2) Entire drainages are more valuable than portions of drainages. Watershed boundaries often define biological communities. Variations within a drainage can provide a mosaic of communities that together typify the dynamics of an ecosystem. Entire drainages are easier to protect from external influences (Davis 1982).

3) Ecological types that are not currently protected are more valuable than types that are well represented in the National Wilderness Preservation System (NWPS). The BLM is using the Bailey-Kuchler ecosystem classification to evaluate this criteria (Bailey and Kuchler 1978). Most of the acreage in this study is in the Sagebrush Steppe ecosystem. The NWPS includes about 41,000 acres of Sagebrush Steppe.

Cultural Resource Values

Archaeological and historical sites are a unique and nonrenewable part of the wilderness resource. Remnants of cabins, prehistoric rock art, and elaborate game drives constructed from basalt rock walls are all reminders of man's past efforts to subdue the wilderness. Wilderness provides an opportunity to view these remnants in a natural setting not unlike that faced by pioneers and prehistoric Indian inhabitants.

LITTLE JACKS CREEK WSA (ID-111-6)

The 58,040-acre Little Jacks Creek WSA includes two major canyon systems separated by a sagebrush covered basalt dome. Little Jacks Creek Canyon is a spectacular 27-mile long, multi-tiered, 1,000-foot deep canyon system. Five miles to the northwest, Shoofly Creek has cut a 600-foot deep canyon. While not as deep or sheer-walled as Little Jacks Creek Canyon, the 12-mile long Shoofly Canyon complex forms a stark contrast to the surrounding sage covered hills and plateaus.

Size/Configuration - The WSA contains 58,040 acres. A primitive road and buried pipeline separate Little Jacks Creek WSA from the 54,833-acre Big Jacks Creek WSA. The WSA has a roughly rectangular configuration with most of the public land contained in an 11 by 12 mile block. The WSA is roadless except for three cherry-stem roads totaling 7.5 miles that penetrate the interior of the WSA.

Naturalness - The WSA is 98% natural appearing. The natural appearance of the remaining two percent is affected by nine small livestock reservoirs and 10 miles of primitive vehicle routes (ways). In addition, a telephone microwave tower was constructed after the area was designated as a WSA.

Opportunities for Solitude - The WSA has outstanding opportunities for solitude. Dense riparian vegetation and tight meanders create excellent vegetative and topographic screening in the 40+ miles of canyons. There is also good topographic screening in the washes of the dissected plateau adjacent to the WSA's northern boundary. The WSA has excellent dispersion potential because it includes two separate attractive canyon systems with numerous tributaries. Contact with other visitors is rare except at the mouth of Little Jacks Creek Canyon during weekends.

Opportunities for Primitive Recreation - The WSA has outstanding opportunities for primitive recreation including participation in such activities as hiking, backpacking, wildlife viewing, fishing, hunting, and photography. Its large size, wide diversity of landforms, spectacular

scenery, trout-laden streams, and opportunities to view big-game wildlife species all contribute to these recreation opportunities. The WSA has good two-wheel drive access and is only 65 miles from the Boise area where 30% of the state's population lives. Landform diversity in the WSA includes 1,000 foot deep canyons, grotto-like side canyons, a lava dome, rolling plateaus, and series of parallel deeply dissected dry washes. There are more than 40 miles of spectacular canyons including the 1,000 deep terraced Little Jacks Creek Canyon. The canyons enclose 23 miles of perennial streams surrounded by dense riparian vegetation. Trout fishing is excellent. Mule deer are frequently sighted by visitors, and rare mountain quail and California bighorn sheep are sometimes seen.

Supplemental Values - Other resource attributes which enhance the wilderness values of the WSA include wildlife, scientific, cultural resource, and scenic values. The WSA includes 92% of the habitat currently used by a population of "sensitive" California bighorn sheep. Other sensitive species found in the WSA include redband trout and mountain quail. The WSA contains important relict areas of relatively undisturbed Sagebrush Steppe vegetation. More than 9,000 acres of the plateau are in good to excellent ecological condition including the 1,000-acre Little Jacks Creek Research Natural Area. This area was designated as a Research Natural Area because of its near-pristine Sagebrush Steppe grasslands. Cultural resource values include a series of low basalt rock walls known as the Shoofly Rock Alignments which are probably remnants of a prehistoric game drive. Scenic quality evaluations have concluded that about 33% of the WSA contains spectacular scenery (Little Jacks Creek Canyon). For a more detailed narrative on supplemental values, see the wildlife, fisheries, cultural resource, and visual resource sections of this chapter.

DUNCAN CREEK WSA (ID-111-7B)

The 10,005-acre Duncan Creek WSA is dominated by 10+ miles of narrow, meandering, sheer-walled 500-foot deep canyons that form its core. Riparian enveloped Duncan Creek flows north through the canyon into the expansive Big Jacks Creek Canyon complex. The surrounding plateaus consist of sagebrush and grass covered hills and rolling plains.

Size/Configuration - The WSA contains 10,005 acres. A primitive road separates Duncan Creek WSA from the 54,833 Big Jacks Creek WSA. The WSA has a roughly rectangular configuration and is eight miles long and varies between two and four miles wide. The WSA is roadless.

Naturalness - The WSA is 99% natural appearing. The natural appearance of the remaining one percent is affected by two small livestock reservoirs and 2.5 miles of primitive vehicle routes (ways).

Opportunities for Solitude - The WSA has outstanding opportunities for solitude. Dense riparian vegetation and tight meanders create excellent vegetative and topographic screening in the 10+ miles of canyons. There is also good topographic screening in the rolling hills in the northern part of

the WSA. The WSA has good dispersion potential because of the scenically attractive tributary canyons and because of the ease of mobility between the canyons and the surrounding plateau. Contact with other visitors is rare.

Opportunities for Primitive Recreation - The WSA has outstanding opportunities for primitive recreation including participation in such activities as day-hiking, backpacking, wildlife viewing, fishing, hunting, and photography. Its diversity of landforms, spectacular scenery, trout-laden streams, good mobility between the canyons and surrounding plateau, and opportunities to view deer all contribute to its recreation potential. The WSA has good two-wheel drive access and is only 75 miles from the Boise area where 30% of the state's population lives. Landform diversity in the WSA includes broad open canyons, narrow tributary canyons, rolling hills, and flat plateaus. There are more than 10 miles of spectacular canyons including the the extremely rugged Zeno Canyon tributary. Redband trout are found in the four miles of perennial streams where trout fishing is good. Mule deer are common. Rare mountain quail are sometimes sighted.

Supplemental Values - Other resource attributes where enhance the wilderness values of the WSA include wildlife, scientific, and scenic values. About 4,500 acres in the WSA have been identified as potential habitat for "sensitive" California bighorn sheep. Other sensitive species found in the WSA include redband trout and mountain quail. The WSA contains important relict areas of relatively undisturbed Sagebrush Steppe vegetation. These 6,000+ acres have scientific value as baseline representations of an undisturbed Sagebrush Steppe ecosystem. Scenic quality evaluations have determined that about 16% of the WSA contains spectacular scenery (Duncan Creek Canyon). For a more detailed narrative on supplemental values, see the wildlife, fisheries, and visual resource sections of this chapter.

BIG JACKS CREEK WSA (ID-111-7C)

Big Jacks Creek Canyon and six major tributary canyons create more than 50 miles of rugged, spectacular, meandering chasms radiating throughout this 54,833-acre WSA. Enveloped by these sheer-walled and terraced canyons are 35 miles of perennial streams surrounded by riparian vegetation. The tributary canyons divide much of the surrounding plateau into narrow fingers of Sagebrush Steppe plateau.

Size/Configuration - The WSA contains 54,833 acres. A primitive road and buried pipeline separate Big Jacks Creek WSA from the 58,040-acre Little Jacks Creek WSA. Another primitive road separates Big Jacks Creek WSA from the 10,005-acre Duncan Creek WSA. The WSA is 20 miles long and ranges from two to eight miles wide. The WSA is roadless except for one 3/4 mile cherry-stem road.

Naturalness - The WSA is 98% natural appearing. The natural appearance of the remaining two percent is affected by four small livestock water developments and 19 miles of primitive vehicle routes (ways).

Opportunities for Solitude - The WSA has outstanding opportunities for solitude. Dense riparian vegetation and tight meanders create excellent vegetative and topographic screening in the 50+ miles of canyons. The WSA has excellent dispersion potential because of the radiating configuration of the canyon tributary system. Contact with other visitors is rare.

Opportunities for Primitive Recreation - The WSA has outstanding opportunities for primitive recreation including participation in such activities as day-hiking, backpacking, wildlife viewing, fishing, hunting, and photography. Its large size, wide diversity of landforms, spectacular scenery, trout-laden streams, and opportunities to view big-game wildlife species all contribute to these recreation opportunities. The WSA has good two-wheel drive access and is only 70 miles from the Boise area where 30% of the state's population lives. Landform diversity in the WSA includes broad open canyons, narrow sheer-walled tributary canyons, and flat to gently rolling plateaus. Thirty-five miles of perennial steams provide habitat for redband trout. Trout fishing is good. The meandering canyons provide excellent hiking for the adventuresome with 20 stream crossings per mile a normal day's outing. Mule deer are frequently sighted. Rare mountain quail are sometimes seen.

Supplemental Values - Other resource values which enhance the wilderness values of the WSA include wildlife, scientific, and scenic values. About 30,000 acres in the WSA have been identified as potential habitat for sensitive California bighorn sheep. This area has been targeted by the Idaho Department of Fish and Game for reintroduction of California bighorn sheep. Other sensitive species found in the WSA include redband trout and mountain quail. The WSA contains important relict areas of relatively undisturbed Sagebrush Steppe vegetation. These 16,000+ acres have scientific value as baseline representations of an undisturbed Sagebrush Steppe ecosystem. Scenic quality evaluations have determined that about 68% of the WSA contains spectacular scenery (Big Jacks Creek Canyon and tributary canyons). For a more detailed narrative on supplemental values, see the wildlife, fisheries, and visual resource sections of this chapter.

POLE CREEK WSA (ID-111-18)

This 25,220-acre WSA has a wide diversity of topographic features including several shallow basalt-rimmed basins, 16+ miles of rugged 100 to 350 foot deep canyons, juniper covered hills, and flat basalt tablelands. Sagebrush communities dominate basins and plateaus while western juniper woodlands cover the hills, canyons, and basalt rimrocks. Fifteen miles of riparian surrounded perennial creeks wind through the canyons.

Size/Configuration - The WSA contains 24,509 acres. It has a roughly rectangular configuration with most of the public land in a ten by five mile block. The WSA is roadless except for three short cherry-stem roads totaling 2.5 miles.

Naturalness - The WSA is 95% natural appearing. The natural appearance of the remaining five percent in affected by two livestock water developments and four miles of primitive vehicle routes (ways).

Opportunities for Solitude - The WSA has outstanding opportunities for solitude. There is excellent topographic and vegetative screening in the 16+ miles of canyons. There is also good topographic and vegetative screening in the juniper topped hills north of Pole Creek. The WSA has excellent dispersion potential because of the relatively shallow depth of the canyons and the recreational attraction of the the juniper laced hills and basins. Contact with other visitors is rare.

Opportunities for Primitive Recreation - The WSA has outstanding opportunities for primitive recreation including participation in such activities as day-hiking, backpacking, hunting, archaeological sightseeing, and photography. Its large size, diversity of landforms, attractive perennial streams, and numerous prehistoric petroglyphs all contribute to these recreation opportunities. Landform diversity in the WSA includes narrow canyons, shallow basins, juniper covered hills, and flat to gently rolling plateaus. Sheltered in the canyons are 15 miles of perennial streams. The WSA contains more than 150 archaeological sites including eleven separate rock art locations with several containing numerous individual panels.

Supplemental Values - Other resource values which enhance the wilderness values of the WSA include scientific and cultural resource values associated with the wealth of archaeological sites found in the WSA. Because of its archaeological values, about 35% of the WSA has been placed on the National Register of Historic Places. Cultural resource sties include habitation sites, caves, hunting blinds, rock alignments, and numerous petroglyphs. Scientific investigations have been conducted in this area since 1975. For more detailed information on cultural resource values, see the cultural resource section of this chapter.

SHEEP CREEK WEST WSA (ID-111-36A)

This 11,620-acre WSA is sharply bisected by the spectacular 800-foot gorge of Sheep Creek Canyon. A series of cliffs, rock outcroppings, and talus slopes descend to a dense riparian zone along the six and 1/2 miles of Sheep Creek. The gorge is surrounded by scenic plateau lands with quaking aspen trees highlighting a series of elongated buttes.

Size/Configuration - The WSA contains 11,620 acres. This roughly rectangular WSA is five miles long and varies between two and five miles in width. The WSA is roadless.

Naturalness - The WSA is 94% natural appearing. The natural appearance of the remaining six percent is affected by nine livestock water developments, a constructed livestock trail, and four and 1/2 miles of primitive vehicle routes (ways). Eight of the nine livestock water developments have been

constructed since the area was identified as a WSA. The livestock trail was constructed without BLM authorization.

Opportunities for Solitude - During the wilderness inventory, it was determined that this WSA does not have outstanding opportunities for solitude because of its relatively small size combined with the probability that most visitor use would be concentrated in the relatively short six and 1/2 mile canyon.

Opportunities for Primitive Recreation - The WSA has outstanding opportunities for primitive recreation including participation in such activities as day-hiking, backpacking, wildlife viewing, hunting, and photography. Its diversity of landforms, spectacular scenery, attractive perennial stream, and opportunities to view deer and antelope all contribute to this recreation potential. Landform diversity includes 800-foot deep Sheep Creek Canyon, elongated tablelands, and flat to rolling plateaus. Both the canyons and the aspen banded plateaus are exceptionally scenic. Deer and antelope are frequently seen throughout the WSA.

Supplemental Values - Other resource values which enhance the wilderness values of the WSA include scientific, scenic, and wildlife values. The WSA contains important relict areas of relatively undisturbed Sagebrush Steppe vegetation including the widest variety of plant communities among WSAs in the Boise District. The 6,000+ acres of good condition rangeland have scientific value as baseline representations of an undisturbed Sagebrush Steppe ecosystem. Scenic quality evaluations have determined that all of the WSA has spectacular scenery. Sheep Creek has a healthy population of sensitive redband trout. For a more detailed narrative on supplemental values, see the fisheries and visual resource sections of this chapter.

SHEEP CREEK EAST WSA (ID 111-36B)

This 5,050-acre WSA straddles Sheep Creek gorge a mile downstream from Sheep Creek West WSA. The spectacular sheer-walled cliffs and talus slopes of the 600-foot gorge visually dominate the WSA. Sheep Creek lies at the bottom of the four-mile long canyon. Sagebrush covers the low hills and buttes of the plateau surrounding the gorge.

Size/Configuration - The WSA contains 5,050 acres. Most of the WSA is in a four by three mile block of public land. The WSA is roadless.

Naturalness - The WSA is 97% natural appearing. The natural appearance of the remaining three percent is affected by a 1/2 mile primitive vehicle route (way).

Opportunities for Solitude - During the wilderness inventory, it was determined that this WSA does not have outstanding opportunities for solitude because of its relatively small size combined with the probability that most visitor use would be concentrated in the relatively short four mile canyon.

Opportunities for Primitive Recreation - The WSA has outstanding opportunities for primitive recreation including participation in such activities as day-hiking, backpacking, wildlife viewing, hunting, and photography. Its diversity of landforms, spectacular scenery, attractive perennial stream, and opportunities to view deer and antelope all contribute to this recreation potential. Landform diversity includes 600-foot deep Sheep Creek Canyon, isolated buttes, low hills, and flat plateaus. The Sheep Creek gorge is exceptionally scenic. Deer and antelope are frequently seen throughout the WSA..

Supplemental Values - Other resource values which enhance the wilderness values of the WSA include scenic and wildlife values. Scenic quality evaluations have determined that about 32% of the WSA has exceptional scenery (Sheep Creek Canyon). Sheep Creek also has a healthy population of sensitive redband trout. For a more detailed narrative on supplemental values, see the fisheries and visual resource sections of this chapter.

UPPER DEEP CREEK WSA (ID-111-44)

The northern half of this 11,510 WSA is dominated by a rugged mountainside dissected by twisting canyons and covered with basalt rock outcroppings and juniper woodlands. Fifteen miles of canyons connect the juniper woodlands with sagebrush plateaus in the southern half of the WSA. Canyons alternate between 350-foot high sheer-walled cliffs and long talus slopes. Junipers dot the cliffs while riparian vegetation lines the perennial creeks.

Size/Configuration - The WSA contains 11,510 acres. It is eight and 1/2 miles long and two to three miles wide. The WSA is roadless except for a short 1/4 mile cherry-stem road.

Naturalness - The WSA is 95% natural appearing. The natural appearance of the remaining five percent is affected by one small livestock water development and three miles of primitive vehicle routes (ways).

Opportunities for Solitude - The WSA has outstanding opportunities for solitude. There is excellent topographic and vegetative screening in the 15+ miles of canyons and in the juniper covered hills that dominate the northern 1/3 of the WSA. The WSA has excellent dispersion potential because of the relatively shallow depth of the canyons and the recreational attraction of the the juniper covered hills. Contact with other visitors is rare.

Opportunities for Primitive Recreation - The WSA has outstanding opportunities for primitive recreation including participation in such activities as day-hiking, backpacking, hunting, archaeological sightseeing, and photography. Its diversity of landforms, attractive scenery, and perennial streams contribute to these recreation opportunities. Landform diversity in the WSA includes narrow canyons, rugged hills peppered with rock outcroppings and juniper woodlands, and flat to gently rolling plateaus. The WSA contains 15 miles of perennial streams. The sheer walls and long talus slopes of Deep Creek Canyon are exceptionally scenic.

Supplemental Values - Other resource values which enhance the wilderness values of the WSA include scientific and cultural resource values associated with the area's archaeological sites and scenic values. Over 20 prehistoric archaeological sites have been found adjacent to canyons in the southern half of the WSA. Because of its archaeological wealth, about 20% of the WSA has been placed on the National Register of Historic Places. Scenic quality evaluations have determined that about 21% of the WSA has exceptional scenery (Deep Creek Canyon). For a more detailed information on these supplemental values, see the cultural resource and visual resource sections of this chapter.

RECREATION

The WSAs currently provide a natural setting for individuals seeking both motorized and nonmotorized recreation opportunities. Contact with other visitors is rare. There are currently no management restrictions on visitor use. Common activities in the areas include hunting, fishing, backpacking, nature study, and hiking. Total recreation use is estimated at 3,525 annual visitor days. Hunting, the primary recreation use in the WSAs which is dependent on motor vehicles, accounts for about 70% of current use. There are 11 miles of cherry-stem roads and 43.5 miles of ways within the WSAs.

Hunting use is about 2,250 annual visitor days for big-game and 225 annual visitor days for upland game birds. Most big-game hunting is fall mule deer hunting. Annual drawings are held to allocate the limited numbers of antelope and bighorn sheep permits that are allowed. In 1983, 85 antelope and 2 bighorn sheep permits were issued for hunting units that include the WSAs. Upland game bird hunting is limited to light hunting of chukars and sage grouse. Chukar hunting occurs throughout the fall while sage grouse are hunted about a week in September. Hunting use is expected to increase 2% annually (Idaho Department of Parks and Recreation 1982).

Very little motor vehicle use occurs off existing roads and ways due to rough topography and rocky soils, and the availability of more suitable ORV areas, such as the Owyhee Front, nearer to population centers.

The demand for outdoor recreation opportunities has been growing rapidly in recent years. However, the demand for wilderness recreation opportunities has been growing even more rapidly. Since the Forest Service began compiling recreation use estimates over 30 years ago, recreational demand for wilderness has consistently increased more rapidly than other outdoor recreation demands (USDI 1981). Recreational use of Forest Service wilderness increased annually at a 9.2% rate during the 1970s (Walsh 1981). Wilderness use in Montana and Idaho increased 15% between 1976-1978 (Norgaard 1979).

According to a Pacific Northwest River Basins Commission study, a 59% increase in recreation demand is expected in Owyhee County between 1980 and 2000. Seventy-two percent of this demand will come from outside the county. During this same 20 year period, the demand for wilderness recreation in southern Idaho, Nevada, and Utah is expected to increase 160 to 200 percent (from Jungst 1978).

While demand for wilderness use is high, wilderness designation does not necessarily result in increased recreation use (see Johst 1983 and Peterson 1981). Some wilderness areas are excessively crowded while others are seldom visited. More than 80% of the wilderness visitor use occurs in less than 20% of wilderness areas (Washburne and Cole 1983). Wilderness users seek out areas close to their homes with high quality scenery, water, and wildlife viewing opportunities (Roggenbuck 1980 and Lucas 1980).

LITTLE JACKS CREEK WSA

Current use is about 1650 annual visitor days (see Table 8). Use is evenly distributed between spring hikers/backpackers and fall hunters. Within the WSA, 7.5 miles of cherry-stem roads and 10 miles of ways are used by hunters for motor vehicle access. A major recreation attraction of this area is the opportunity to view rare California bighorn sheep. Bighorn are second only to grizzly as species most sought after by serious wildlife viewers (Schoenfeld and Hendee 1978). Fishermen are common at the mouth of the canyon, but few venture into the WSA. Most hiking use occurs in the Little Jacks Creek Canyon bottom within 2 miles of the mouth. Deer hunting is popular in canyon headwaters in the southern third of the WSA. There is strong demand for bighorn sheep hunting opportunities. Many hunters consider bighorn sheep the premier trophy species in North America (Idaho Dept. of Fish and Game 1983b). Seventy-five applicants applied for the two permits that were drawn to hunt bighorn sheep in Little Jacks during 1983. Montana sold a permit to hunt bighorn sheep in 1986 for $79,000. In 1988, a permit to hunt bighorn sheep in Idaho was auctioned for $68,000. Upland game bird hunting is estimated at about 100 annual visitor days. Chukar hunting occurs in canyons with vehicle access. Some sage grouse hunting occurs on sage dominated plateaus.

Little Jacks Creek is expected to be a popular destination for visitors seeking backcountry or wilderness recreation opportunities. The canyon has spectacular rugged scenery, attractive perennial streams, and excellent opportunities for viewing wildlife, all features sought after by wilderness recreationists. With wilderness designation of 34,000 acres, recreation use within the entire WSA is expected to increase to about 4,050 visitor days in 20 years with hunting accounting for 30% of this use and backpacking, hiking, fishing, and nature study accounting for 70%.

Most wilderness users live near the wilderness areas they visit (Lucas 1970). The Idaho Comprehensive Outdoor Recreation Plan indicates Idaho residents will generally travel 60-85 miles to hike or backpack (Idaho Department of Parks and Recreation 1978). Little Jacks Creek WSA is located 65 miles from Boise. During spring months, it will provide one of the closest wilderness recreation opportunities to the Boise metropolitan area where 30% of the state's population lives.

The most dramatic change in recreation use is expected to occur during the next few years because of publicity related to the designation process. Most recent additions to the wilderness system have experienced their most rapid

growth in recreation use during years preceding designation (Johst 1983). In Little Jacks Creek WSA, backcountry recreation use increased 300 to 400 percent between 1982 and 1983. Most of the increase occurred in Little Jacks Creek Canyon and is attributable to controversy and media attention over wilderness, bighorn sheep habitat, and a proposed livestock watering pipeline. Adjacent WSAs did not experience a significant increase in recreation use. Public attention is expected to remain focused on the Little Jacks Creek WSA during the wilderness designation process. It is anticipated that backcountry recreation use (backpacking, hiking, fishing, nature study) in Little Jacks Creek Canyon would increase another 300% over the next five years if not regulated by the proposed permit system. This increase would occur regardless of wilderness designation. (See Chapter II, page II-1, Recreation Management Actions, for a description of the proposed permit system.)

DUNCAN CREEK WSA

Current use is about 375 annual visitor days, with deer hunters accounting for about 85% of the use (see Table 8). Within the WSA, 2.5 miles of ways are used by hunters for motor vehicle access.

Duncan Creek is expected to be a popular destination for visitors seeking backcountry or wilderness recreation opportunities. A dramatic increase in recreation use is expected in Duncan Creek when the proposed visitor restrictions and a permit system are implemented in nearby Little Jacks Creek Canyon. Displaced users from Little Jacks are expected to seek out the similar attractions of Duncan Creek Canyon. The WSA has spectacular rugged scenery, attractive perennial streams, and excellent opportunities for viewing wildlife, all features sought after by wilderness recreationists. With wilderness designation of 9,400 acres, recreation use within the entire WSA is expected to increase to 1,600 visitor days in 20 years with hunting accounting for 30% of this use and backpacking, hiking, and nature study accounting for 70%.

Most wilderness users live near the wilderness areas they visit (Lucas 1970). The Idaho Comprehensive Outdoor Recreation Plan indicates Idaho residents will generally travel 60-85 miles to hike or backpack (Idaho Department of Parks and Recreation 1978). Duncan Creek WSA is located 75 miles from Boise. During spring months, it will provide one of the closest backcountry or wilderness recreation opportunities to the Boise metropolitan area where 30% of the state's population lives.

BIG JACKS CREEK WSA

Current use is about 750 annual visitor days (see Table 8). Hunting accounts for about 80% of the use. Within the WSA, 3/4 mile of cherry-stem road and 19 miles of ways are used by hunters for motor vehicle access. Hiking/backpacking use occurs primarily in the vicinity of the Parker trail. This access point has been publicized in recent regional hiking guides. Deer hunters concentrate in headwater canyons in the southern third of the WSA. Upland game bird hunting is estimated at about 50 annual visitor days.

In portions of the plateau in the northeast corner of the WSA, a little ORV use in association with motorcycle races occurs. This ORV use totals about 50 visitor days/year.

Big Jacks Creek is expected to be a popular destination for visitors seeking backcountry or wilderness recreation opportunities. A dramatic increase in recreation use is expected in Big Jacks Creek when the proposed visitor restrictions and a permit system are implemented in nearby Little Jacks Creek Canyon. Displaced users from Little Jacks are expected to seek out the similar attractions of Big Jacks Creek Canyon. The WSA has spectacular rugged scenery, attractive perennial streams, and excellent opportunities for viewing wildlife, all features sought after by backcountry or wilderness recreationists. With wilderness designation of 44,525 acres, recreation use within the entire WSA is expected to increase to about 8,075 visitor days with hunting accounting for 10% of this use and backpacking, fishing, hiking, and nature study accounting for 90%.

Most wilderness users live near the wilderness areas they visit (Lucas 1970). The Idaho Comprehensive Outdoor Recreation Plan indicates Idaho residents will generally travel 60-85 miles to hike or backpack (Idaho Department of Parks and Recreation 1978). Big Jacks Creek WSA is located 70 miles from Boise. During spring months, it will provide one of the closest wilderness recreation opportunities to the Boise metropolitan area where 30% of the state's population lives.

POLE CREEK WSA

Current use is about 325 annual visitor days (see Table 8). Most use is by deer and sage grouse hunters. Within the WSA, 2.5 miles of cherry-stem roads and 4 miles of ways are used by hunters for motor vehicle access. Numerous petroglyph sites attract some visitors interested in viewing prehistoric rock art. Public access and use of the east half of the WSA is severely restricted by private land posted "No Trespassing." Deer hunting occurs in canyons and juniper woodlands. Sage grouse hunting occurs on sagebrush dominated plateaus.

Recreation use is expected to remain very light in this WSA. In 20 years, recreation use will increase to 550 visitors days with hunting accounting for most use. The Idaho Comprehensive Outdoor Recreation Plan indicates Idaho residents will generally travel 60-85 miles to hike or backpack (Idaho Department of Parks and Recreation 1978). It is anticipated that most individuals interested in desert backcountry recreation will choose to recreate in the proposed Jacks Creek wilderness areas which provide a much larger land base, are closer to Boise, have more accessible canyons and streams, and are more spectacular than this WSA.

SHEEP CREEK WEST AND SHEEP CREEK EAST WSAs

Current use of each of these WSAs is estimated at less than 50 annual visitor days (see Table 8). Use is limited to an occasional hunting party. Within the WSAs, 5 miles of ways are used by hunters for motor vehicle access.

Recreation use is expected to remain very light. In 20 years, recreation use is expected to increase to 200 visitor days in each WSA with hunting accounting for about 50% of the use. The WSA is located over 100 miles from the Boise metropolitan area. The Idaho Comprehensive Outdoor Recreation Plan indicates Idaho residents will generally travel 60-85 miles to hike or backpack (Idaho Department of Parks and Recreation 1978). It is anticipated that most individuals interested in desert backcountry recreation will choose to recreate in the proposed Jacks Creek wilderness areas which provide a much larger land base, are closer to Boise, have more accessible canyons and streams, and are more spectacular than this WSA.

UPPER DEEP CREEK WSA

Current use is about 325 annual visitor days (see Table 8). Most use is deer hunting that occurs in canyons and juniper woodlands. Within the WSA, 1/4 mile of cherry-stem road and 3 miles of ways are used by hunters for motor vehicle access.

Recreation use is expected to remain very light in this WSA. In 20 years, recreation use is expected to increase to 600 visitor days with hunting accounting for most use. It is anticipated that most individuals interested in desert backcountry recreation will choose to recreate in the proposed Jacks Creek wilderness areas which provide a much larger land base, are closer to Boise, have more accessible canyons and streams, and are more spectacular than this WSA.

Table 8
Current and Projected Recreation Use (12-hour visitor days)

WSA	Current				Projected (20 yrs) under Proposed Action		
		Hunting					
	Off-Road-Vehicle	Big Game	Upland Game Birds	Backcountry (backpacking, hiking, fishing, nature study)	Off-Road-Vehicle	Hunting	Backcountry (backpacking, hiking, fishing, nature study)
Little Jacks Creek 111-6	-	750	100	800	-	1,200	2,850
Duncan Creek 111-7B	-	325	-	50	-	500	1,100
Big Jacks Creek 111-7C	<50	550	50	100	<100	800	7,175
Pole Creek 111-18	-	200	75	<50	-	400	150
Sheep Creek West 111-36A	-	<50	-	-	-	80	120
Sheep Creek East 111-36B	-	<50	-	-	-	120	80
Upper Deep Creek 111-44	-	325	-	-	-	450	150
TOTALS	50	2,250	225	1,000	100	3,550	11,625

Without visitor use restrictions, spring time backpackers could force California bighorn sheep to abandon important fawning areas in Little Jacks Creek Canyon.

Few backpackers venture into the Jacks Creek Canyons but those who do find spectacular scenery, attractive streams, and excellent opportunities to view wildlife.

WILDLIFE

More than 40 mammals, 70 birds, and 30 reptiles and amphibians are found in the Sagebrush Steppe ecosystem. These animals occur in meadows, riparian areas, low sagebrush-grass, big sagebrush-grass, juniper and mixed vegetative communities.

This EIS focuses on those species most sensitive to habitat alteration and/or human disturbance or for which specific management action or impacts have been projected.

Bighorn Sheep

California bighorn sheep are present in the Little Jacks Creek WSA and potential habitat has been identified in the Big Jacks Creek WSA. The Idaho Fish and Game Department has also requested that 4,500 acres in Duncan Creek WSA be identified as potential bighorn habitat. California bighorns are classified as a sensitive species by the BLM and the Idaho Department of Fish and Game. This designation was justified due to the relative rarity of these animals. The 150+ animals present in the Little Jacks Creek population represent about 4% of all California bighorns. Nearly all the populations occurring in the United States today, including the Little Jacks herd, are the result of reestablishment programs.

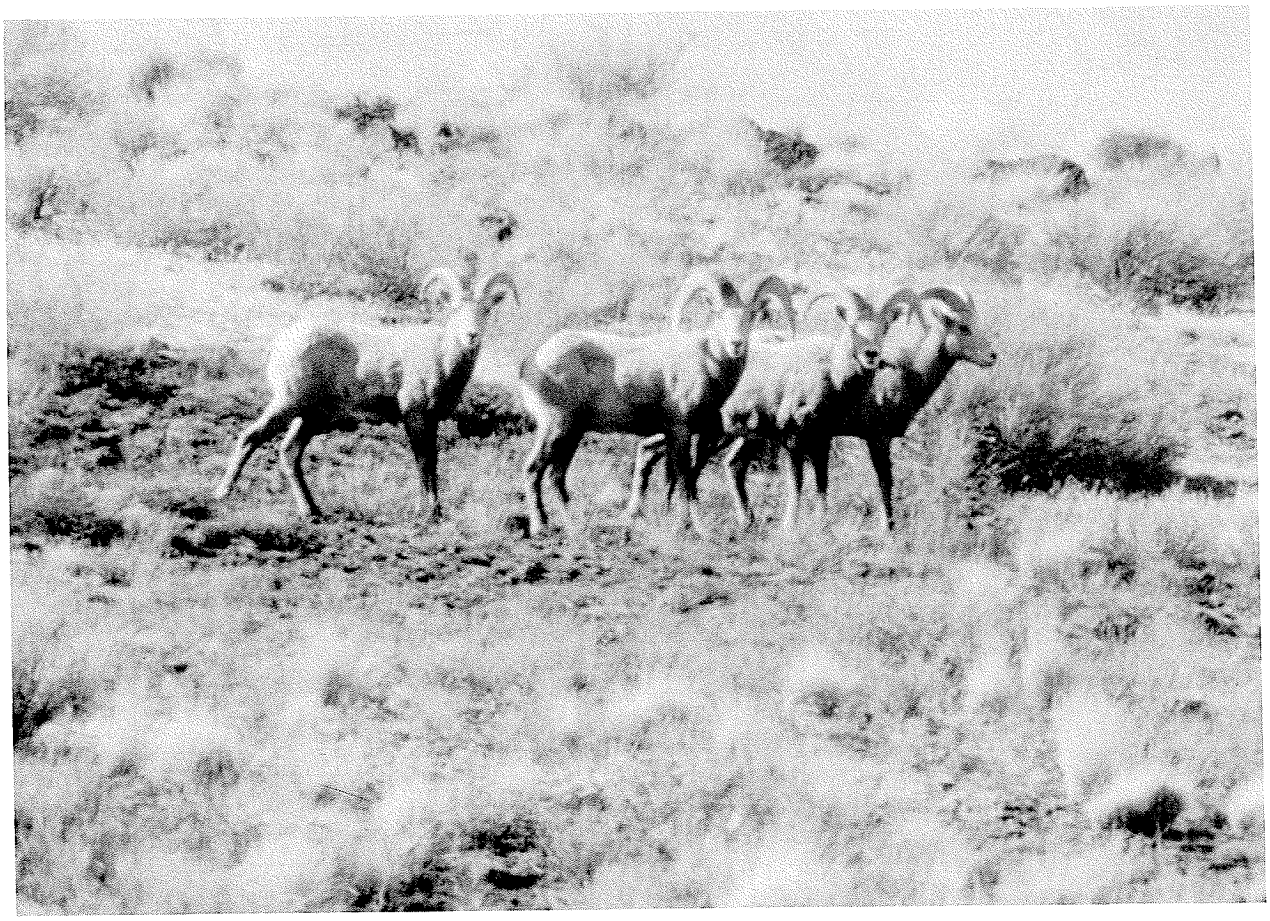
Bighorns are currently occupying 29,000 acres of habitat in the Little Jacks/Shoofly Creek areas (Map 11). The steep, rocky slopes and cliffs provide essential escape, bedding and lambing habitats. The plateaus above the canyons, up to about a mile from the cliffs, are used primarily for foraging. A similar pattern of use would be expected by bighorns if they were present in the Big Jacks Creek area. This expected pattern formed the basis for identifying the 30,000-acre proposed bighorn sheep management area in the Big Jacks Canyon complex (Map 11).

The ecological condition of the various sagebrush vegetation types directly affects the carrying capacity of an area for California bighorns. Generally the better the ecological condition, the better the habitat is for bighorns. The perennial bunchgrasses, which are an important food source, increase as ecological condition improves.

Bighorn sheep tend to avoid areas frequented by humans or concentrations of other grazing animals. Increasing the amount and distribution of humans or livestock in bighorn sheep habitats can result in a corresponding reduction in bighorn use while the source of disturbance is present. The retreat of bighorns to areas of lower disturbance can result in overcrowding on the remaining habitat and an ultimate reduction in bighorn population. Suitable habitat for bighorn is limited in the Little Jacks Creek area. A population size of 125 bighorn sheep is considered necessary to maintain a healthy population. Little Jacks Creek has suitable habitat to support the minimum number of bighorn for a stable population. Additional suitable habitat in Shoofly Creek drainages ensures a stable bighorn population, however, a central portion of the Shoofly Creek habitat is privately owned. Habitat

protection for bighorn in Shoofly Creek is not guaranteed under private ownership. Any reduction in suitable habitat within Little Jacks Creek seriously threatens this population of bighorn sheep.

Currently livestock use in bighorn habitat is very minor except in the Tigert Springs area. Very little bighorn use is known to occur in the Tigert Springs area where cattle are frequently present. Bighorn use is also very low in the northern part of the Little Jacks Creek WSA where frequent disturbance by people in the spring, summer, and fall occurs. These infrequently used areas have all other attributes of good bighorn habitat and are probably avoided because of livestock and human disturbance.

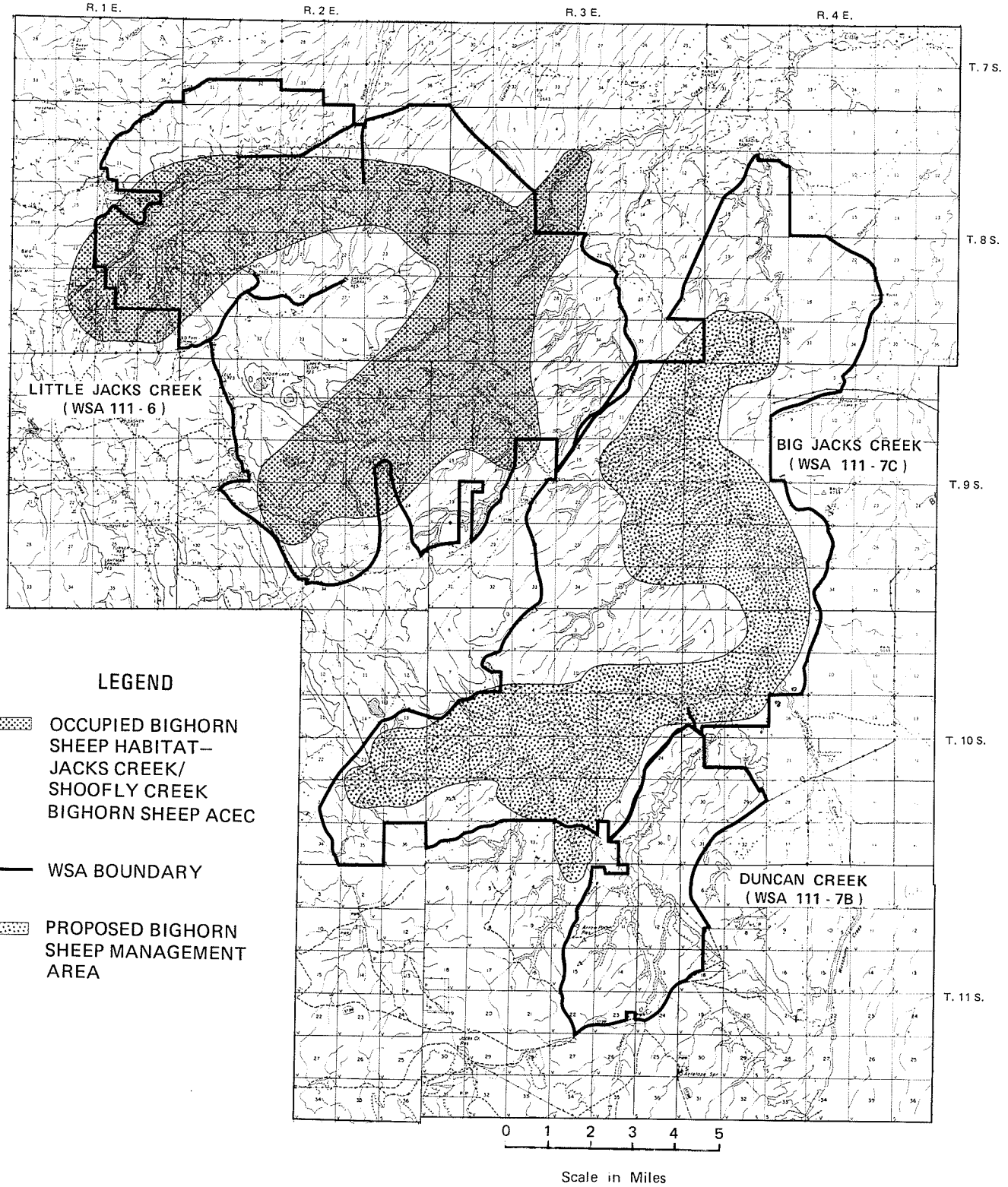


(Photo by William H. Mullins)

Little Jacks Creek WSA provides yearlong habitat for about 150 California bighorn sheep. Any loss of habitat could threaten the survival of the entire population.

BIGHORN SHEEP HABITAT MANAGEMENT AREAS

MAP 11



Pronghorn Antelope

All the WSAs provide seasonal habitat for pronghorn antelope. Some of the best summer habitat in the Bruneau Resource Area is located in the Sheep Creek West WSA. Pronghorns can be found year round in Little Jacks Creek and Big Jacks Creek WSAs with the lower elevations providing important winter/spring habitat.

Pronghorns are very mobile animals, requiring large, open spaces. Shrubs, primarily sagebrush, constitute about 85% of the their yearlong diet. Although usually occurring in small amounts in their diet, new growth grasses, bitterbrush, elderberry, serviceberry, arrowleaf balsamroot, clover, lupine and phlox are important to overall nutritional health.

Vegetation condition, water distribution, and cover have a major impact on pronghorn populations. Wet meadows are critical areas for pronghorn. These meadows provide nursery areas and quality vegetation with high nutrition content. As ecological condition of range lands improve, the quantity and quality of the pronghorn preferred diet also improves. Better nutrition results in stronger animals with higher winter survival rates. Fawn survival is good on sagebrush ranges with a good grass/forb understory and a sagebrush canopy cover of 20% or more. By contrast, few fawns survive in areas where sagebrush canopy cover is less or where the grass/forb component has been depleted. Pronghorn need water sources every one to five miles depending on terrain and season of use.

Throughout the WSAs, pronghorn populations are estimated to be generally good compared to the habitat carrying capacity and appear to be stable.

Sage Grouse

The primary upland game species potentially affected by the Proposed Action or alternatives is sage grouse. Sage grouse are found in all the WSAs. Major winter concentrations occur in the Little Jacks Creek and Big Jacks Creek WSAs. These birds are dependent on sagebrush for survival. It is the adult's primary food source and provides essential nesting and thermal cover. While sagebrush is the primary food of adult birds, insects provide up to 52% of young chicks' diet, and forbs such as dandelion and western yarrow are important for both chicks and adults from May to September. Sage grouse occupy sagebrush regions yearlong. Females with broods also use meadow areas during the summer while adult non-nesting birds use areas around reservoirs.

Throughout the WSAs, sage grouse populations are estimated to be generally good compared to the habitat carrying capacity and appear to be stable.

Mule Deer

All WSAs are occupied by mule deer. The best spring, summer and fall habitat is confined to the rim rock, canyons and riparian zones. The plateaus in portions of the Little Jacks Creek and Big Jacks Creek WSAs are used by concentrations of wintering deer.

Throughout the WSAs, mule deer populations are estimated to range between three and ten animals per square mile with the higher density normally occurring near the canyons and riparian areas with accessible water sources.

Mountain Quail

Mountain quail are classified as a sensitive species by the BLM and the Idaho Department of Fish and Game. Small populations occur in Little Jacks Creek, Big Jacks Creek and Duncan Creek WSAs. These quail are associated with riparian vegetation in the bottom of the canyons and require reliable water sources in close proximity to heavy shrub cover. They rely on green leafage and buds for winter and spring food, while in summer and fall, they feed on insects, seeds and fruit.

Little information is available on these birds except that they have declined dramatically since the 1950s. Mountain quail habitat would generally improve with improvement in riparian vegetation condition. Riparian vegetation is expected to improve under the Proposed Action and all alternatives with no significant differences between alternatives. Since no management actions are projected that would adversely affect mountain quail, and any population changes would be independent of wilderness designation, they will not be discussed further.

Redband Trout

Management objectives for the desert streams include protection and improvement of the physical habitat condition for the native redband trout (Salmo spp.). This species is listed as a "candidate species" by the U.S. Fish and Wildlife Service. It is also listed as a "sensitive" species by BLM and as a "species of special concern" by the Idaho Department of Fish and Game. Redband trout occur in perennial canyon streams in all WSAs except Pole Creek and Upper Deep Creek.

Stream Habitat

Physical habitat condition is a primary controlling factor of fish and aquatic macro-invertebrate production. Within the study area, many stream miles are below their natural potential for water resource and fishery production. The current physical conditions of perennial streams have been evaluated for fish and aquatic values. These habitat condition ratings include water quality and quantity (temperature, dissolved oxygen, pH, pool depth), channel morphology and stability, food supply (aquatic macroinvertebrates), and riparian vegetation.

Table 9 depicts existing physical habitat condition by perennial stream mile in the seven WSAs.

Table 9
Existing Physical Habitat Condition - Perennial Stream Miles

WSA	Stream	Physical Habitat Condition				
		Poor	Fair	Good	Excell	Total
Little Jacks Creek 111-6	Little Jacks Creek	2.6	4.1	6.9		13.6
	Shoofly Creek West	0.5	2.0	0.9		3.4
	Shoofly Creek East	2.3	2.7			5.0
	Shoofly Creek Main		0.7	0.9		1.6
	SUBTOTAL	5.4	9.5	8.7		23.6
Duncan Creek 111-7B	Duncan Creek		1.7	2.1		3.8
	SUBTOTAL		1.7	2.1		3.8
Big Jacks Creek 111-7C	Big Jacks Creek		31.2	0.6		31.8
	Duncan Creek		0.9			0.9
	Cottonwood Creek				2.5	2.5
	SUBTOTAL		32.1	0.6	2.5	35.2
Pole Creek 111-18	Pole Creek	1.1	9.1			10.2
	Camas Creek	1.5	3.1			4.6
	SUBTOTAL	2.6	12.2			14.8
Sheep Creek West 111-36A	Sheep Creek		6.5			6.5
	SUBTOTAL		6.5			6.5
Sheep Creek East 111-36B	Sheep Creek		5.8			5.8
	SUBTOTAL		5.8			5.8
Upper Deep Creek 111-44	Deep Creek	9.0	2.3			11.2
	Nickel Creek	1.2				1.2
	Pole Creek		2.1			2.1
	SUBTOTAL	10.2	4.4			14.6
	TOTAL MILES	18.2	72.2	11.4	2.5	104.3

VEGETATION

The Jacks Creek EIS area is located in the Owyhee High Plateau Major Land Resource Area (SCS 1979). Six major vegetation types are represented in the EIS area: big sagebrush, low sagebrush, salt desert shrub, woodland, mixed mountain shrub and riparian. Under the Bailey-Kuchler ecosystem classification, most of the study area acreage is in the Sagebrush Steppe ecosystem (3130-49). About 1,750 acres include a western juniper component within the Sagebrush Steppe. The 5,600 acres of salt desert shrub communities are in Bailey-Kuchler's Salt Desert Shrub ecosystem (Bailey and Kuchler 1978).

Each major vegetation type is made up of one or more ecological sites (see Table 10). An ecological site is a distinctive kind of rangeland which, in the absence of abnormal disturbance and physical site deterioration, has the potential to support a certain type of native plant community. This potential native plant community is referred to as the climax plant community and is defined by the kind, proportion and amount of plant species. The climax community of each ecological site is determined by such environmental factors as soil type, effective precipitation and climate. Ecological sites were identified and mapped as part of the soil-vegetation inventory conducted by the BLM in 1979 and 1980. Descriptions of ecological sites discussed here are available for review at the Boise District BLM Office.

Ecological condition relates the current state of a site to the climax (natural potential) plant community of that site. It is an expression of the relative degree to which the kind, proportion and amount of plant species in a community have deviated from the potential climax of that community. Each ecological condition class represents a seral stage of the climax plant community. The condition class is determined by comparing the relative composition of grass, forbs and shrub species in the current plant community to the climax plant community.

Ecological condition ratings were used to stratify and quantify the current state of health of individual sites in relation to their potential or climax.

Generally, when ecological condition declines as a result of grazing, the highly palatable and preferred forage species such as bluebunch wheatgrass, Idaho fescue and tapertip hawksbeard become more scarce. Less palatable plant species such as big sagebrush and mustard, which are not highly preferred by the grazing animal, tend to increase and fill open niches. Open niches also are often filled by opportunistic exotic species such as cheatgrass brome.

Environmental factors such as fire, drought and flooding may also cause shifts in ecological condition as a result of the varied degree of tolerance plant species exhibit to these types of disturbance. In extreme cases of disturbance, the actual site potential or climax may be altered permanently, thus creating a new ecological site.

It should be noted that the current ecological conditions of the EIS area are not necessarily a direct result of present day livestock management practices. Much of the range currently in poor ecological condition is believed to be the result of historical use extending back as far as the turn of the century when large numbers of livestock grazed on the public lands without any controls. Periodic droughts coupled with this historic overuse is believed to have created much of the poor condition range (Yensen 1980). While long term trend studies are not available in this area, much of the range shows signs of improvement.

A breakdown of major vegetation types, ecological sites and ecological condition for each WSA is included in Table 10. Maps 12 and 13 delineate major vegetation types and current ecological condition in the seven WSAs.

Low sagebrush/grass and big sagebrush/grass are the most dominant vegetation types in the EIS area. Low sagebrush types are found primarily on shallow and/or clay-pan soils of low slopes and level areas. Big sagebrush types are associated with deeper, generally well-drained soils that occupy positions ranging from level areas to steep slopes on all aspects.

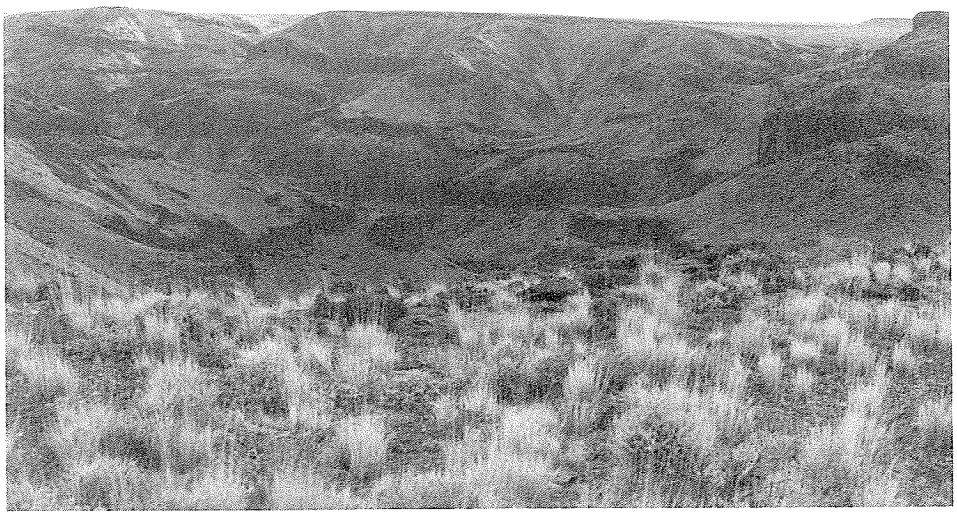
Most WSAs contain minor inclusions of other vegetation types. Riparian types occur adjacent to most perennial streams and in some depressions where water accumulates. Salt desert shrub types are found in the north end of Big Jacks Creek and Little Jacks Creek WSAs on poorly developed soils associated with the Snake River lacustrine deposits. Quaking aspen and mixed mountain shrub types occur in small pockets at upper elevations in Little Jacks Creek WSA and on north and east facing slopes of basalt tables in Sheep Creek West WSA.

Western juniper woodland type predominates on rocky ridges and sideslopes of rhyolite foothills in Upper Deep Creek and Pole Creek WSAs. Western juniper has invaded some of the adjacent areas of deeper soils previously dominated by the big sagebrush type. To a lesser degree, western juniper has also invaded some of the adjacent low sagebrush types. These invasion stands vary in density, age and distribution.

The 1,000-acre Research Natural Area is located in the Little Jacks Creek WSA on the plateau between Tigert Spring and Rattlesnake Creek. The big sagebrush and low sagebrush major vegetation types are represented in near pristine ecological condition in this area. The big sagebrush type, which makes up approximately 75% of the area, is generally a good representation of the Loamy 10-13" ppt. ARTRW/AGSP ecological site (see Table 11). The climax association of this site is Wyoming big sagebrush/bluebunch wheatgrass. The low sagebrush type, which makes up the remaining 25% of the Research Natural Area, represents the low precipitation end of the Shallow- Claypan 12-16" ppt. ARAR8/FEID, AGSP ecological site (see Table 11). The climax association of this ecological site is low sagebrush/Idaho fescue, bluebunch wheatgrass. However, at the low end of the precipitation range, as is the case here, bluebunch wheatgrass dominates the understory, and Idaho fescue is present in minor amounts or absent.

Threatened or Endangered Plants

There are no known threatened or endangered plant species in the WSAs. Lepidium davisii (Davis' peppergrass) has been found near Wickahoney Crossing in Big Jacks Creek WSA. Lepidium davisii is currently a federal candidate species for listing on the endangered species list. Artemisia packardiae (Packard's sagebrush) has been found in the Little Jacks Creek Research Natural Area. This species is on the Idaho Watch List for uncommon species. Suitable environments exist in some WSAs for Artemisia papposa (Owyhee sagebrush) and Eriogonum shockleyi (cowpie eriogonum). Both of these species are also on the Idaho Watch List. Artemisia papposa may occur in association with alkali sagebrush/Idaho fescue types which is found in all WSAs except Sheep Creek East WSA. Eriogonum shockleyi may occur in association with black sagebrush/Thurber needlegrass type which is found in Little Jacks Creek and Big Jacks Creek WSAs.



In the Jacks Creek Research Natural Area, native bunchgrasses obscure the usually dominant sagebrush. Domestic livestock seldom visit this near-pristine area because of the lack of natural water sources (Little Jacks Creek WSA).

Table 10
Ecological Condition

Major Vegetation Type	Ecological Site Name	Climax Assocation*	Ecological Condition	% of WSAs						
				Little Jacks Creek	Duncan Creek	Big Jacks Creek	Pole Creek	Sheep Creek West	Sheep Creek East	Upper Deep Creek
Big sagebrush	Loamy 7-10" ppt. ARTRW/POSA3	Wyoming big sagebrush/ Sandberg bluegrass	Fair	---	----	---	--	---	6	---
			Poor	T*	----	1	--	---	11	---
	Loamy 10-13" ppt. ARTRW/AGSP	Wyoming big sagebrush/ bluebunch wheatgrass	Excellent	T*	----	---	--	---	---	---
			Good	12	26	22	--	3	---	---
			Fair	8	1	8	--	---	36	4
			Poor	6	4	8	--	---	8	2
	Loamy Bottom 12-16" ppt. ARTRT/ELCI2, POA	basin big sagebrush/basin wildrye, bluegrass	Poor	T*	T*	1	T*	3	3	---
	Loamy Upland 12-16" ppt. ARTRT/FEID, AGSP	basin big sagebrush/Idaho fescue, bluebunch wheatgrass	Good	---	----	T*	--	---	---	---
			Fair	1	----	T*	1	---	---	T
			Poor	T*	----	---	T*	---	---	1
	Loamy 13-16" ppt. ARTRV/FEID, AGSP	mountain big sagebrush/ Idaho fescue, bluebunch wheatgrass	Good	T*	15	3	1	17	---	---
			Fair	7	1	1	6	3	---	13
			Poor	3	----	---	8	2	---	2
	Sandy Loam 8-12" ppt. ARTRW/ORHY, STCO	Wyoming big sagebrush/Indian ricegrass, needle & thread	Fair	---	----	---	--	---	---	---
			Poor	2	----	1	--	---	---	---
Low sagebrush	Shallow Stony 8-12" ppt. "ARARN"/STTH2	black sagebrush/Thurber needlegrass	Poor	9	----	20	--	---	---	---
	Shallow Claypan 12-16" ppt. ARAR8/ FEID, AGSP	low sagebrush/Idaho fescue, bluebunch wheatgrass	Excellent	T*	----	---	--	---	---	---
			Good	4	16	6	T*	23	---	---
			Fair	10	6	1	5	3	5	19
			Poor	3	5	T*	16	2	1	13
	Clayey 12-16" ppt. ARLO/FEID	alkali sagebrush/Idaho fescue	Good	T*	8	3	2	11	---	---
			Fair	11	3	1	23	3	---	8
			Poor	1	3	---	22	1	---	19

*Dominant Visual Aspect of Climax or Natural Potential
T* Indicates less than 1%.

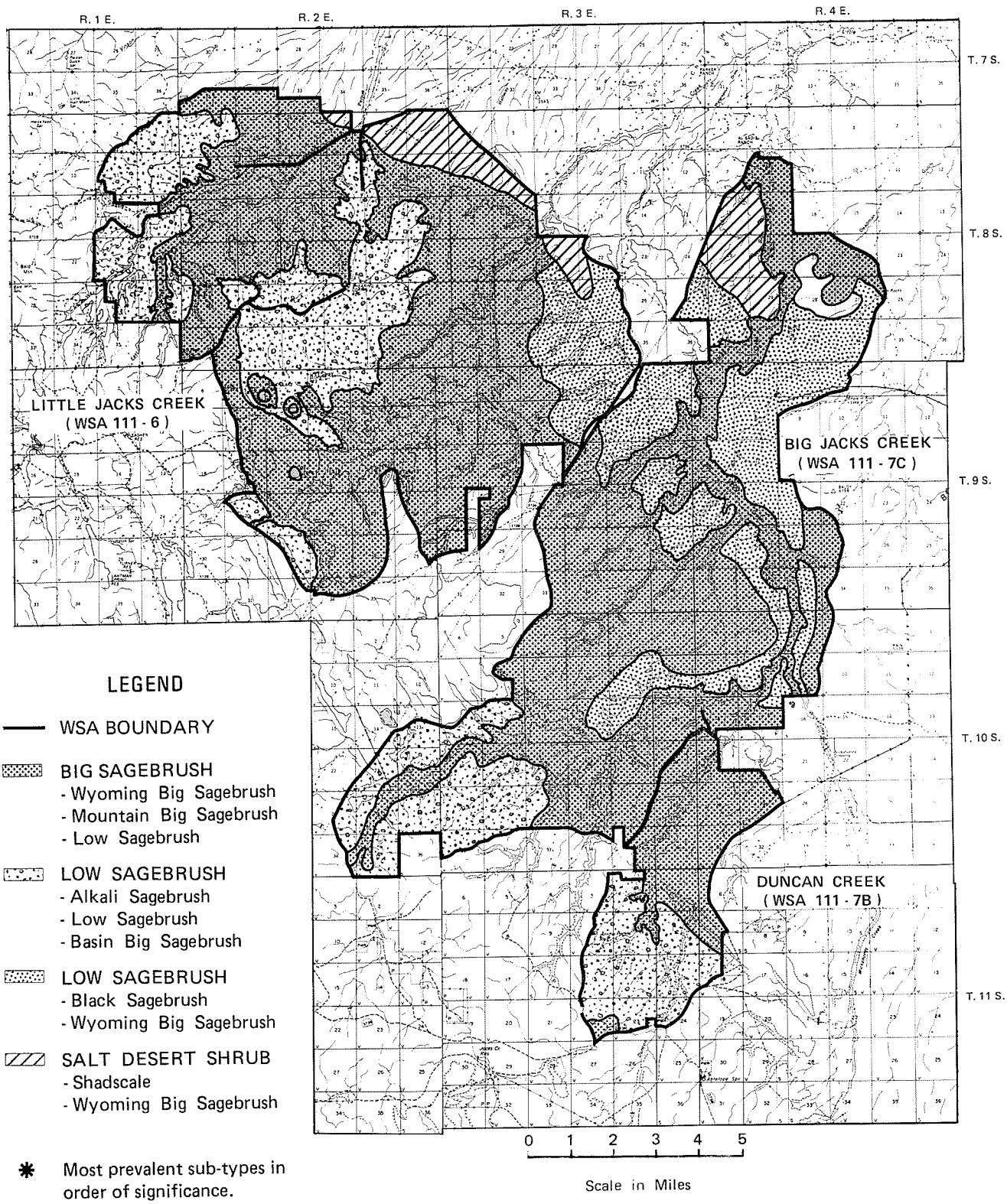
Table 10
Ecological Condition (Continued)

Major Vegetation Type	Ecological Site Name	Climax Association*	Ecological Condition	% of WSAs						
				Little Jacks Creek	Duncan Creek	Big Jacks Creek	Pole Creek	Sheep Creek West	Sheep Creek East	Upper Deep Creek
Low sagebrush (continued)	Churning Clay 12-16" ppt. ARCAI3/POA	silver sagebrush/bluegrass	Fair	---	----	---	--	6	---	---
			Poor	---	----	---	4	2	---	---
Salt desert shrub	Calcareous Loam 7-10" ppt. ATCO, ARSP5/ORHY	shadscale, bud sagebrush/ Indian ricegrass	Poor	3	----	7	--	---	---	---
	Saline Bottom SAVE/ ELCI2	greasewood/basin wildrye	Poor	---	----	T*	--	---	---	---
Woodland	Aspen Thicket 16-22" ppt. POTR5	Quaking aspen	Fair	---	----	---	T*	1	---	T*
			Poor	T*	----	---	--	---	---	---
	Shallow Breaks 14-18" ppt. JUOC/FEID	Western juniper/Idaho fescue	Good	---	----	---	--	T*	---	---
			Fair	---	----	---	1	---	---	6
			Poor	---	----	---	4	---	---	2
Mixed mtn. shrub	Ceanothus Thicket 18-22" ppt. CEVE	snowbrush ceanothus	----	---	----	---	T*	1		T*
Riparian	Riparian shrub - salix, rosa, ribes	willow, rose, currant	----	T*	T*	T*	--	1	1	---
	Semi-wet Meadow CAREX/POA	sedge/bluegrass	Fair	---	T*	---	T*	1	---	1
			Poor	---	T*	---	1	3	---	T*
Cumulative Totals for All Vegetation Types			Excellent	T	0	0	0	0	0	0
			Good	16%	65%	34%	3%	54%	0	0
			Fair	37%	11%	11%	36%	17%	47%	51%
			Poor	27%	12%	38%	55%	13%	23%	39%
			Barren	20%	12%	17%	6%	16%	29%	10%

*Dominant Visual Aspect of Climax or Natural Potential
T* Indicates less than 1%.

MAJOR VEGETATION TYPES

MAP 12A



LEGEND

WSA BOUNDARY

BIG SAGEBRUSH
- Wyoming Big Sagebrush
- Mountain Big Sagebrush
- Low Sagebrush

LOW SAGEBRUSH
- Alkali Sagebrush
- Low Sagebrush
- Basin Big Sagebrush

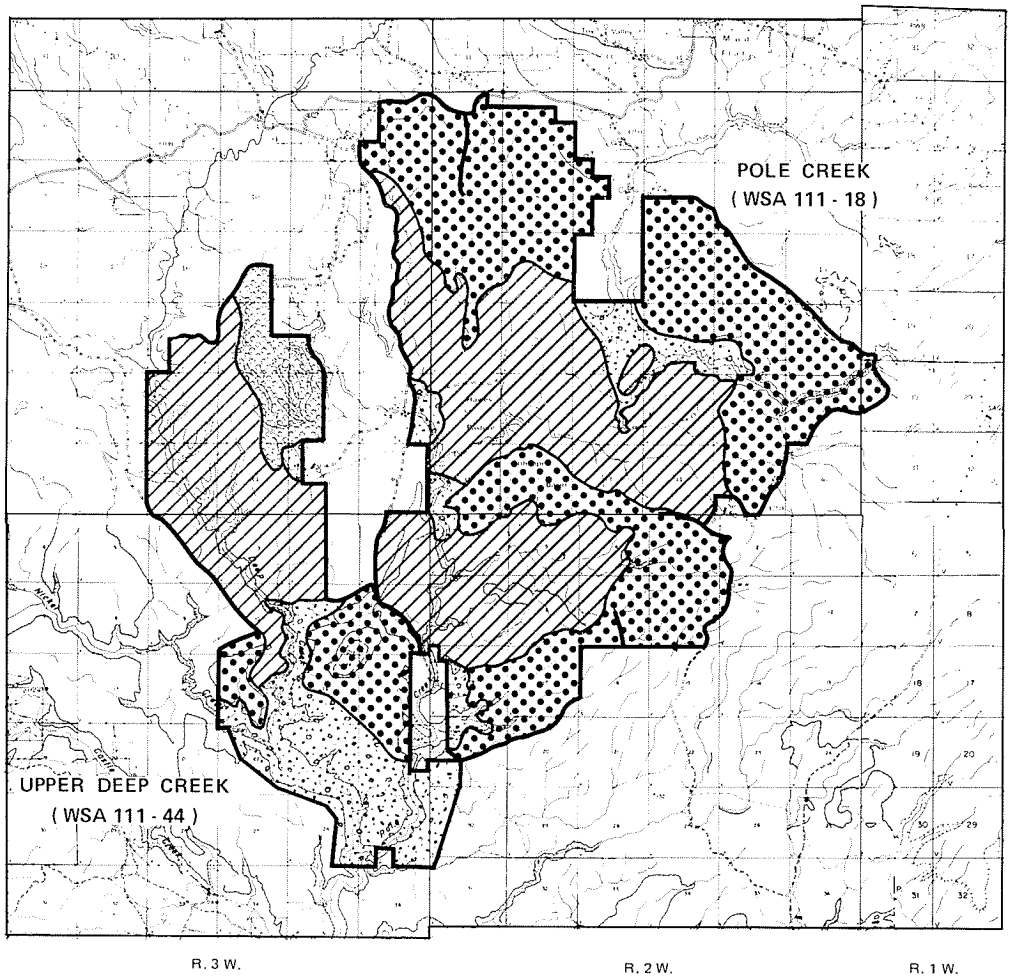
LOW SAGEBRUSH
- Black Sagebrush
- Wyoming Big Sagebrush

SALT DESERT SHRUB
- Shadscale
- Wyoming Big Sagebrush

* Most prevalent sub-types in order of significance. (Riparian type not shown but occurs in conjunction with most perennial streams.)

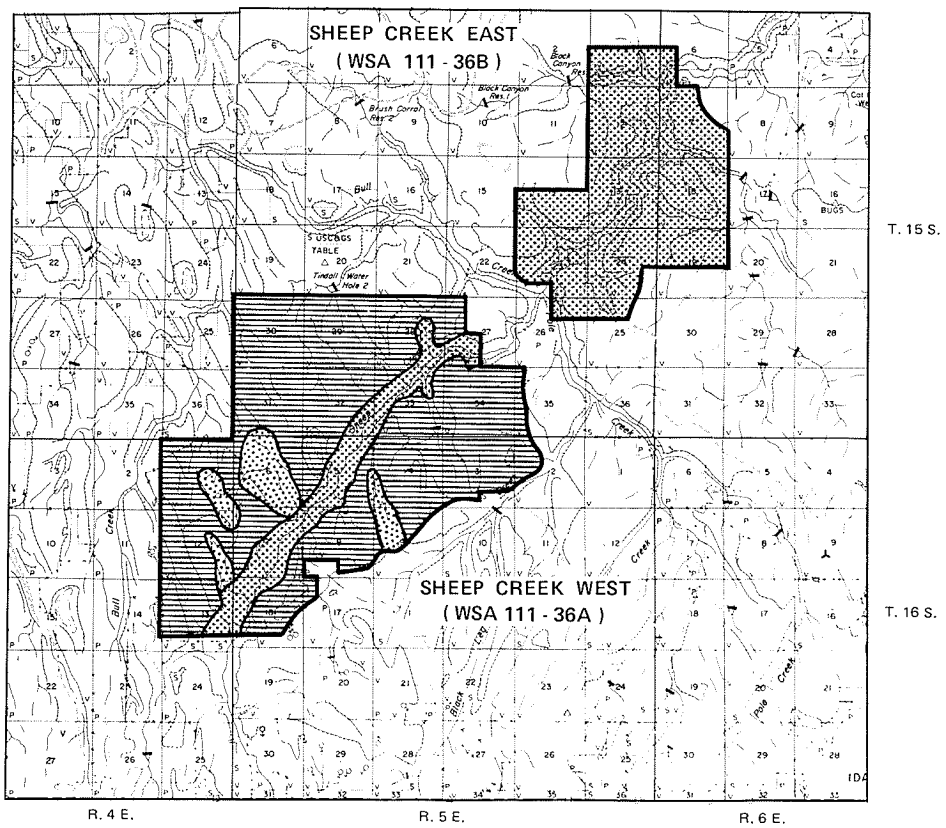
MAJOR VEGETATION TYPES

MAP 12B



LEGEND

- WSA BOUNDARY
- BIG SAGEBRUSH
  - Mountain Big Sagebrush
  - Basin Big Sagebrush
  - Low Sagebrush
- BIG SAGEBRUSH/ WOODLAND
  - Mountain Big Sagebrush
  - Western Juniper
  - Low Sagebrush
- LOW SAGEBRUSH
  - Alkali Sagebrush
  - Low Sagebrush
  - Mountain Big Sagebrush
- LOW SAGEBRUSH
  - Alkali Sagebrush
  - Low Sagebrush
  - Western Juniper



LEGEND

- WSA BOUNDARY
- BIG SAGEBRUSH
  - Wyoming Big Sagebrush
  - Low Sagebrush
  - Riparian
- LOW SAGEBRUSH
  - Low Sagebrush
  - Mountain Big Sagebrush
- LOW SAGEBRUSH
  - Low Sagebrush
  - Quaking Aspen
  - Semi-wet Meadow
  - Mountain Big Sagebrush

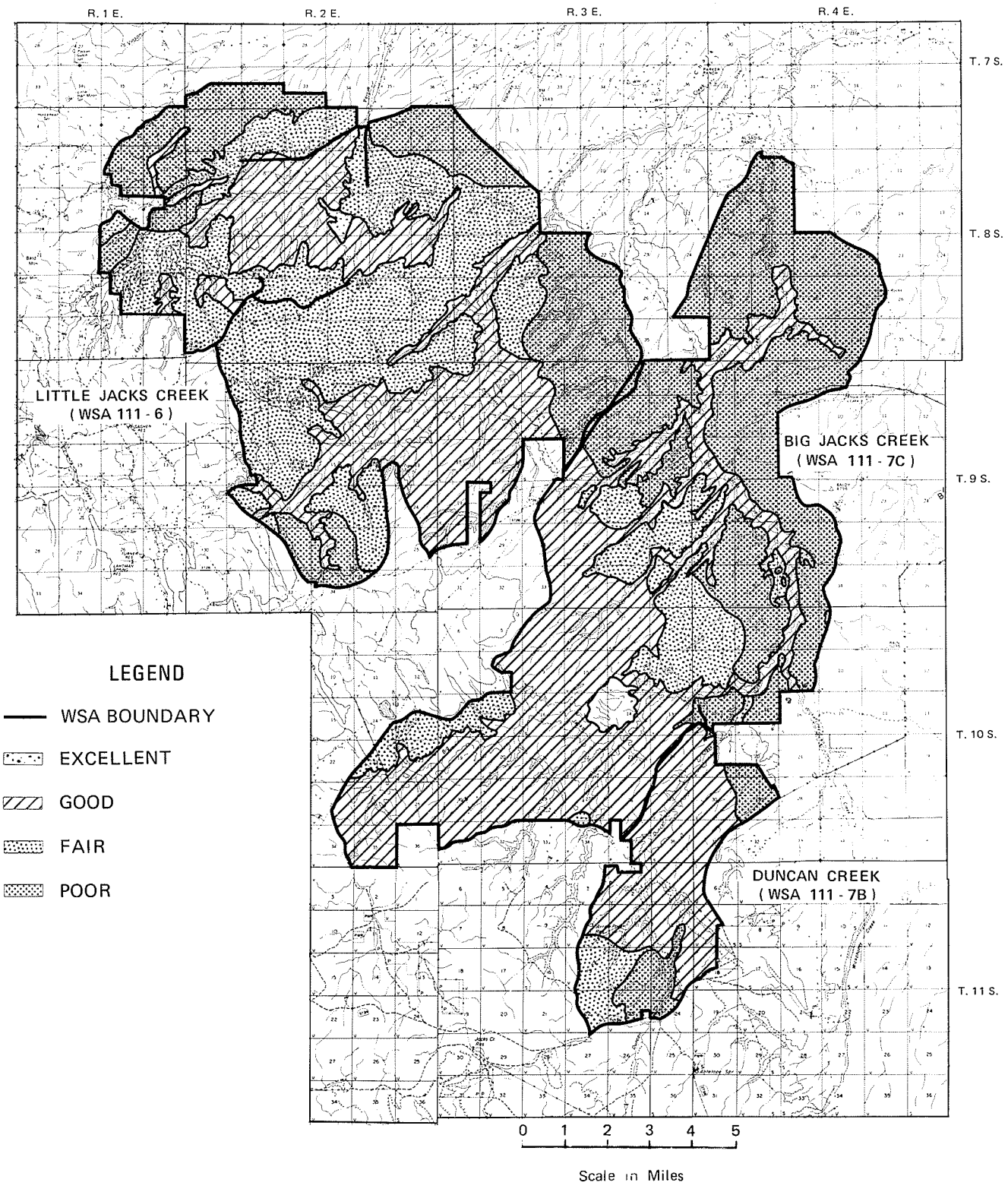
N

0 2 4

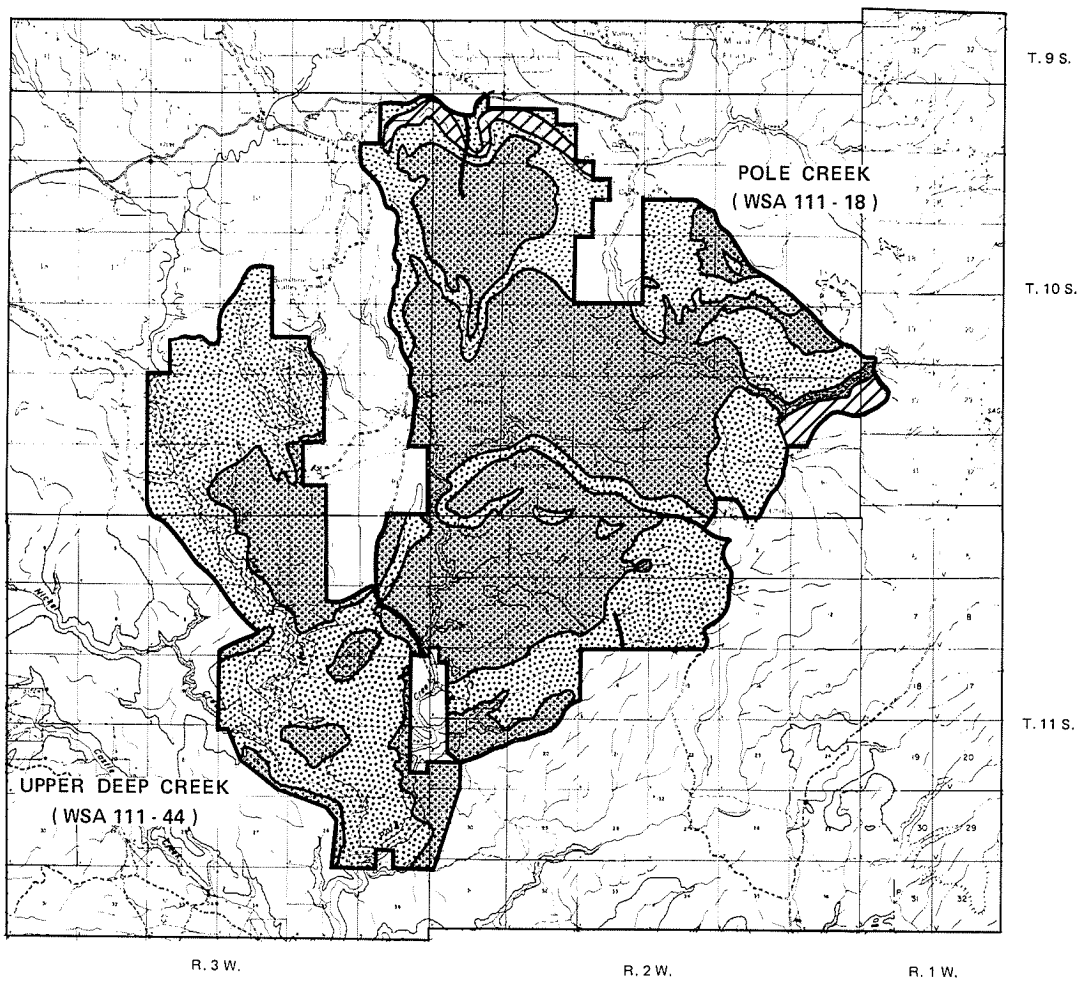
Scale in Miles

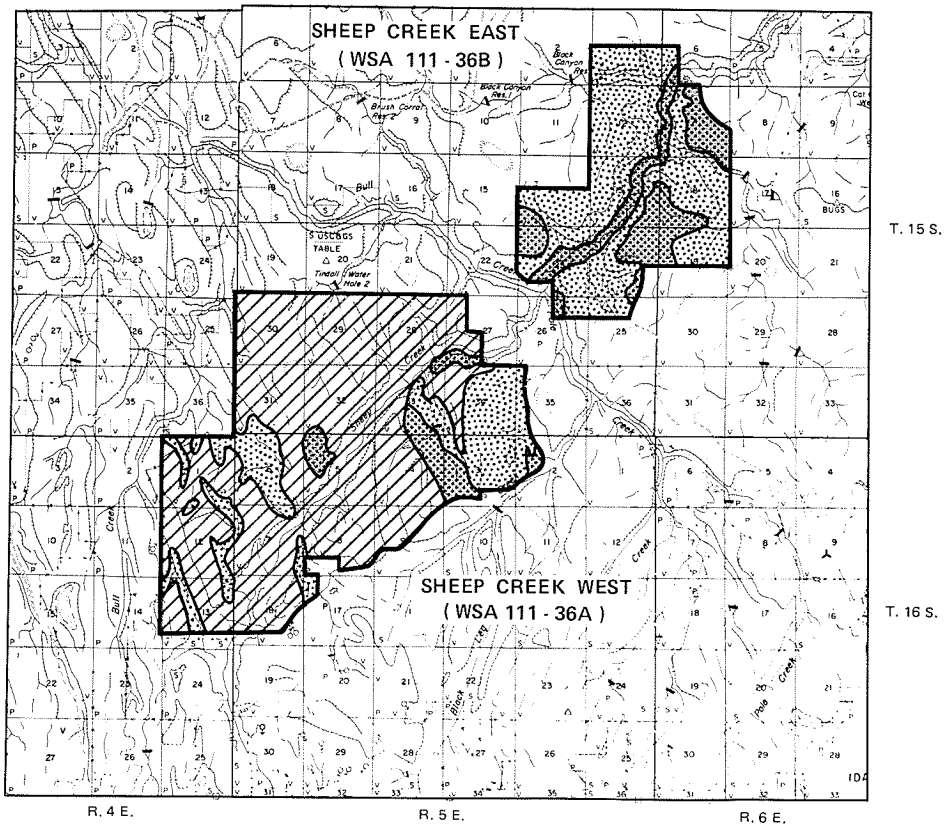
ECOLOGICAL CONDITION

MAP 13A



ECOLOGICAL CONDITION





MAP 13B

LEGEND

- WSA BOUNDARY
- NONE EXCELLENT
- GOOD
- FAIR
- POOR

0 2 4

Scale in Miles

LIVESTOCK GRAZING

The seven WSAs contain portions of nine grazing allotments (Table 12). They are grazed primarily by cattle with a small amount of horse use in the Northwest, Big Springs and Alzola Allotments. Livestock permittees are licensed for 97,483 AUMs in these nine allotments. About 12,285 AUMs (12.5% of the total AUMs) are utilized by livestock within the WSAs. Fifteen percent of the total allotment acreage (1.15 million acres) is within the WSAs. Both the Battle Creek and Northwest allotments have over 25% of their total acreage within WSAs.

Season of use varies considerably by allotment. Winter use occurs on portions of Big Jacks Creek and Sheep Creek East WSAs in the Northwest and Alzola allotments respectively. In the remainder of the allotments, livestock use begins in the spring (around April 1) and continues into late fall. In the Big and Little Jacks Creek WSAs, livestock use begins during the spring in the northern portion of the WSAs. The southern portions of the WSAs are used during summer and fall. Elevation and the associated plant phenology differences make this use pattern necessary.

None of the allotments are operating under an approved allotment management plan (AMP) at this time. However AMPs are scheduled to be completed on all of these allotments within the next five years.

Range Improvements

At this time, there are 20 reservoirs, 7 spring developments, 9.1 miles of allotment/pasture fences and two livestock trails within the seven WSAs (see Table 11). Six additional reservoirs and two spring developments are located on cherry-stem roads or adjacent to WSA boundaries where access could be restricted by a wilderness decision. Some of these projects were constructed under the Wilderness Interim Management Policy (USDI 1979) while others predate designation of these areas as WSAs.

The use of motorized vehicles to perform maintenance may not be allowed on range improvements constructed under the Interim Management Policy. All range improvements constructed prior to 1976 could be periodically maintained with motorized vehicles if practical alternatives are not available. Typically, fences and spring developments are maintained by hand labor. However, some springs and most reservoirs require motorized equipment to perform maintenance. Reservoirs are cleaned with a caterpillar tractor or a similar piece of equipment while a backhoe is required to clean some spring headboxes.

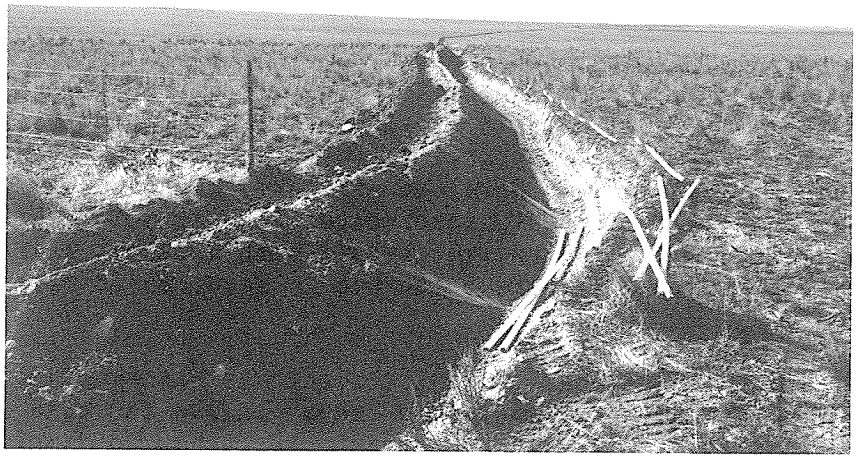
The placement of salt blocks for livestock is another activity done by vehicles. Most cherry stem roads and "ways" inside the WSAs are currently used for this activity. Salt placement is used to improve livestock distribution and to supplement natural sources of this critical dietary need.

Some additional range improvements could be constructed prior to a wilderness decision under the Wilderness Interim Management Policy (USDI 1979).

The 19-mile Jacks Creek pipeline between Little Jacks Creek and Big Jacks Creek WSAs has already been approved (see map #3). Some prescribed burning may also be conducted under the Wilderness IMP to improve range condition and control juniper invasion. New range improvements may be proposed and evaluated through the environmental assessment process as AMPs are developed. Site specific impacts would be evaluated at that time.

Table 11
Existing Range Improvements in WSAs

WSAs	Reservoirs (#s)	Fences (miles)	Developed Springs (#s)
Little Jacks Creek	7	1.5	2
Duncan Creek	2	2.4	0
Big Jacks Creek	3	2.2	1
Pole Creek	2	0	0
Sheep Creek West	5	3.0	4
Sheep Creek East	0	0	0
Upper Deep Creek	1	2	0



Livestock watering pipelines allow domestic livestock to graze in areas where natural water is insufficient or unreliable.

Table 12
Current Grazing Levels and Season of Use by Allotment and WSA.

Allotment # and Name	No. of Permittees	% of Allotment AUMs within WSA	AUMs Currently Used In WSA	Season-of-Use	% of Allotment Acreage that is within WSA	Acres of Allotment in WSA
Little Jacks Creek WSA						
801-Castle Creek	7	1.5	344	4/1-6/30 & 10/1-10/30	2.9	5,825
802-Battle Creek	7	26.6	3,558	4/1-7/30	29.3	43,649
807-Northwest	5	2.5	329	4/1-10/30	3.7	8,566
Total			4,231			
Big Jacks Creek WSA						
808-Northwest		18.9	2,526	3/1-2/29	23.4	54,050
809-Center	4	T*	30	5/1-10/30	0.6	783
Total			2,556			
Duncan Creek WSA						
808-Northwest		2.6	352	7/1-10/30	3.0	6,883
809-Center		1.6	108	5/1-10/30	2.5	3,122
Total			460			
Pole Creek WSA						
803-Big Springs	5	14.3	2,495	4/1-10/15	12.5	24,004
801-Castle Creek		T*	25	7/1-9/30	0.3	505
Total			2,520			
Sheep Creek West WSA						
844-Tindall & Sons	1	14.1	877	5/21-6/30 & 11/10-11/30	9.0	5,865
843-Simplot	1	6.3	636	6/16-9/30	5.4	5,815
Total			1,513			
Sheep Creek East WSA						
846-Alzola	1	3.7	196	12/1-6/30	6.3	3,478
845-Antelope Creek	1	5.2	111	11/15-11/24	7.8	1,572
Total			307	& 4/1-6/30		
Upper Deep Creek WSA						
803-Big Springs		3.3	590	4/15-10/15	5.5	10,554
548-Battleground			108			956
GRAND TOTAL			12,285			175,627

T* indicates less than 1%.

WATERSHED

A third order soil survey was conducted in the EIS area in 1979 and 1980. The survey was used for evaluating land use potential, helping determine natural plant communities, establishing initial stocking rates and evaluating erosion hazard.

Range inventory data indicates that about 33% of the EIS area is in poor ecological range condition. Nearly one-half (47%) of this acreage has a high erosion hazard rating. Another 27% is in fair condition with more than one-half (58%) of this having high erosion hazard.

Ground cover in poor and fair condition range is often unsatisfactory due to lack of vegetative and plant litter cover. Ground cover protects the soil surface from the erosive action of water by slowing overland flow and intercepting rainfall. Wind caused soil movement is also minimized when ground cover is adequate as soil surface wind velocities are reduced.

The percent of high erosion hazard soils presently in poor or fair range condition in each WSA are as follows:

WSA	High Erosion Hazard & Range Condition (% of acres) Poor	Fair
Little Jacks Creek	18%	25%
Duncan Creek	9%	21%
Big Jacks Creek	22%	10%
Pole Creek	12%	8%
Sheep Creek West	6%	16%
Sheep Creek East	7%	38%
Upper Deep Creek	7%	40%

CULTURAL RESOURCES

Archaeological research indicates the study region has been occupied for the past 6,000 to 7,000 years (Plew 1982). There are few indications of older occupation (Paleo-Indian) (Huntley 1983). Archaeological remains include surface scatters of stone tools and chipping debris, complex rock alignments, cave habitation sites, extensive petroglyph/pictograph panels, and remnants of historic cabins. Multi-component sites indicative of long-term occupation are uncommon and when found have frequently been vandalized by amateur collectors.

During 1980-81, a statistical survey of archaeological sites was conducted in the Bruneau Resource Area. Based on this survey, the resource area was divided into areas of high, medium, and low projected density for archaeological sites. More than 1,000 sites have been located in the resource area. Many of these sites, however, are isolated tools or small scatters of chipping debris. About 75% of the sites are in good condition (50% to 75% intact). Portions of most sites have been damaged by development

activities or natural agents. In the Bruneau Resource Area, about 10% of prehistoric sites and 25% of historic sites have been damaged by livestock activities; while 3.5% of prehistoric sites and 10% of historic sites have been damaged by natural weathering and decay. This resource area data is probably indicative of archaeological site conditions within the WSAs.

Vandalism of archaeological sites by amateur collectors is a serious problem in Owyhee County and has been increasing since the 1950s. This increase is attributed to the availability of 4-wheel drive vehicles and improved access routes into desert areas (Huntley 1982). Cave sites have been decimated, and untampered long-term occupation sites are rare. Vandalism is heaviest adjacent to roads and navigable rivers. Illegal excavations occurred in Big Jacks Creek and Pole Creek WSAs during 1983.

A description of cultural resource values by WSA is shown on Table 13.

Eleven major petroglyph sites have been found in the Pole Creek WSA with bighorn sheep frequently depicted.

Table 13
Cultural Resources

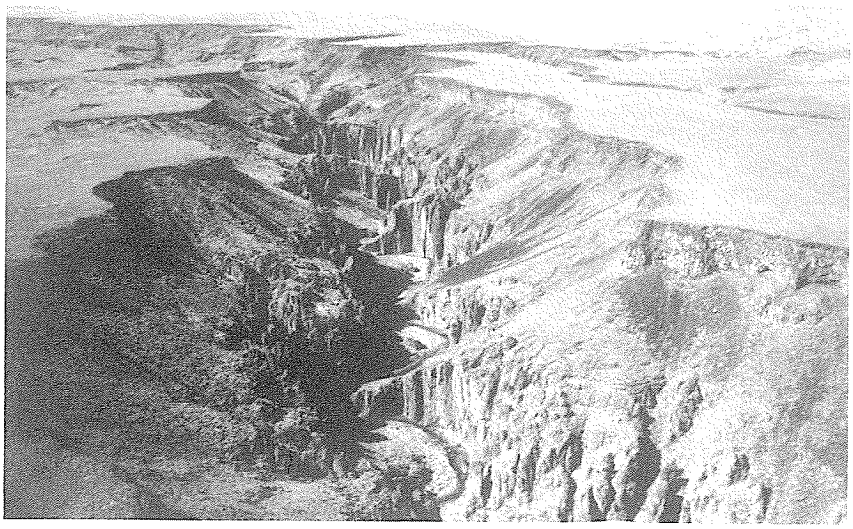
WSA	1980-81 Archaeological Site Density Projections			No. of Known Archaeological Sites					% of WSA Examined	Historic Sites/ Structures	Comments
	High	Medium	Low	Lithic Scatter	Isolated Artifacts	Pictographs/ Petroglyphs	Cave	Rock Alignments/ Hunting Blinds			
Little Jacks Creek WSA 111-6	Major drainages, higher portions of Wickney Tree Dome	Remaining area between Little Jacks & Shoofly canyons	Other plateau areas	5	15			1	6%	collapsed log structure	Shoofly Rock Alignments, probable remnants of a prehistoric game drive, are on north side of Wickney Tree Dome (National Register quality). Habitation sites in vicinity of alignments have been damaged by reservoir construction, vandalism, vehicle traffic & livestock trampling. Four additional lithic scatters damaged by livestock activities.
Duncan Creek WSA 111-7B	Duncan Creek Canyon & all of the WSA south of Zeno-Duncan confluence	Remainder of WSA	-----	1	4				19%	----	
Big Jacks Creek WSA 111-7C	Major drainages	Plateaus in southern 1/3 of WSA	Plateaus in northern 2/3 of WSA	4	11	1	1		7%	collapsed basalt slab structure	Hole-in-Rock petroglyphs are just inside NE boundary of the WSA (National Register quality). Severely impacted by livestock. Illegal excavations occurred in WSA during 1983.
Pole Creek WSA 111-18	Entire WSA	-----	-----	67	8	11	5	60+	45%	----	35% of WSA in Pole Creek/Camas Creek Archaeological District (National Register quality). Intensive scientific archaeological investigations occurring since 1975. Four scientific excavations completed including Wahas Cave. Excavation conducted because of vandalism & natural deterioration. Numerous sites being damaged by livestock trampling, vandalism, & natural agents. Illegal excavation occurred in the WSA during 1983.
Sheep Ck. West WSA 111-36A	Sheep Creek Canyon	-----	Remainder of WSA	4					1%	1 1/2 mile rock wall	All sites discovered in conjunction with proposed livestock management facilities.
Sheep Ck. East WSA 111-36B	Sheep Creek Canyon	Remainder of WSA	-----	-----	-----	NONE -	----	-----	None		No archaeological surveys have been conducted in this WSA.
Upper Deep Creek WSA 111-44	Entire WSA	-----	-----	13			4	5	100%	basalt slab cabin w/willow roof	Scientific excavation conducted in WSA during 1983. 20% of WSA in Pole Creek/Camas Creek Archaeological District (National Register quality).

SCENIC QUALITY

Despite the common adage "beauty is in the eyes of the beholder," research has shown that in natural landscapes perceptions of scenic quality are generally consistent regardless of the observer. Scenic quality is a product of contrast, variety and harmony among and between the four basic visual elements of form, line, color, and texture (USDI 1980).

The BLM has developed an objective system for evaluating these elements of scenic quality which considers landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. Based on these evaluation criteria, areas are identified as Class A, B, or C scenery. Class A are the most scenic areas. Class B are moderately scenic while Class C is reserved for the least scenic areas.

About 43% of the WSA acreage is Class A scenery, 47% is Class B, and the remaining 10% is Class C (Map 14). Class A scenery included in the WSAs is about 30% of the total Class A scenery in the Bruneau Resource Area. About 70% of the total resource area is Class C. The Northwest (El Paso) natural gas pipeline which separates Little Jacks Creek and Big Jacks Creek WSAs is a major visual scar on this otherwise spectacular and natural landscape.

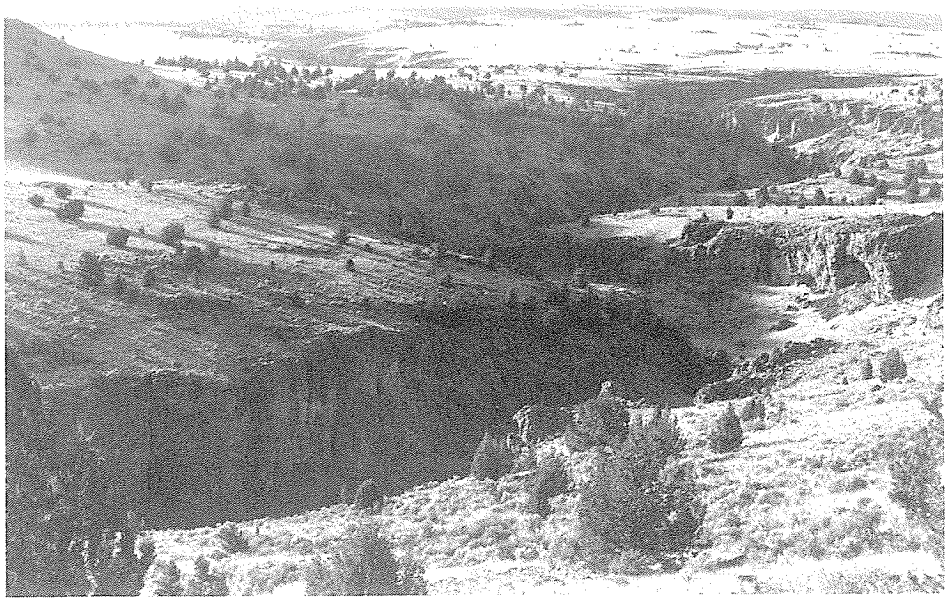


Big Jacks Creek meanders across a flat sagebrush plateau carving a 700 foot deep canyon. The canyon is Class A scenery while the adjacent plateau is typical of Class C areas.

Scenic quality is only one factor considered when evaluating the significance of actions that will alter the landscape. Other factors which must be evaluated include: 1) how often the area is seen by the public; 2) where they view it from; 3) public sensitivity to changes in scenic landscape; and 4) relative permanence of the change.

Most acreage included in this study is seldom seen by the public. An exception is the spectacular Little Jacks Creek Canyon and plateaus adjacent to the canyon rim. Visitor use in this area has been escalating rapidly.

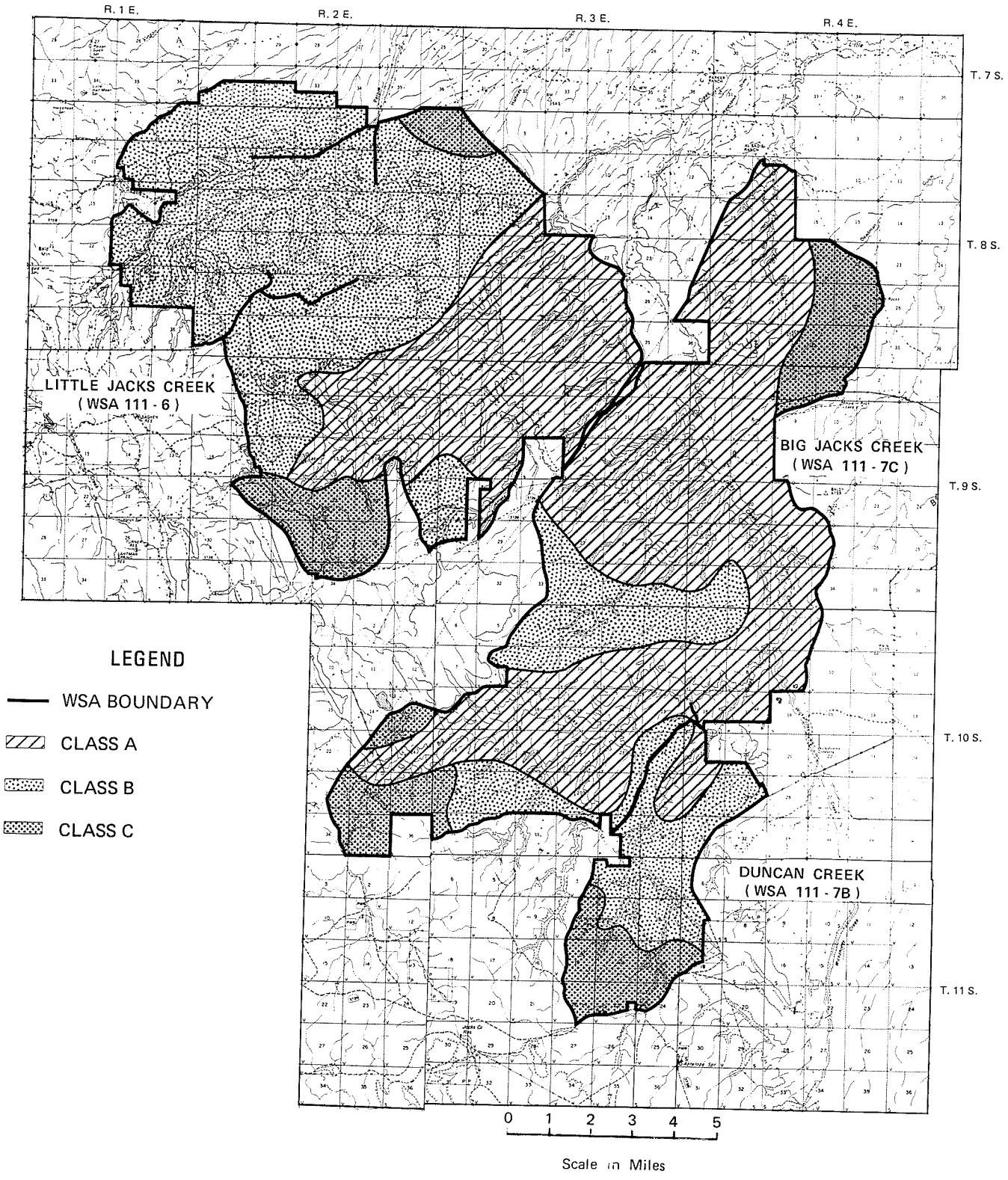
Controversy over wilderness designation has generated a high degree of public sensitivity to scenic modifications within the WSAs. Of particular concern are actions which could modify natural vistas in or adjacent to the major canyon systems.



Small canyons and juniper covered hills of Upper Deep Creek WSA typify Class B scenery.

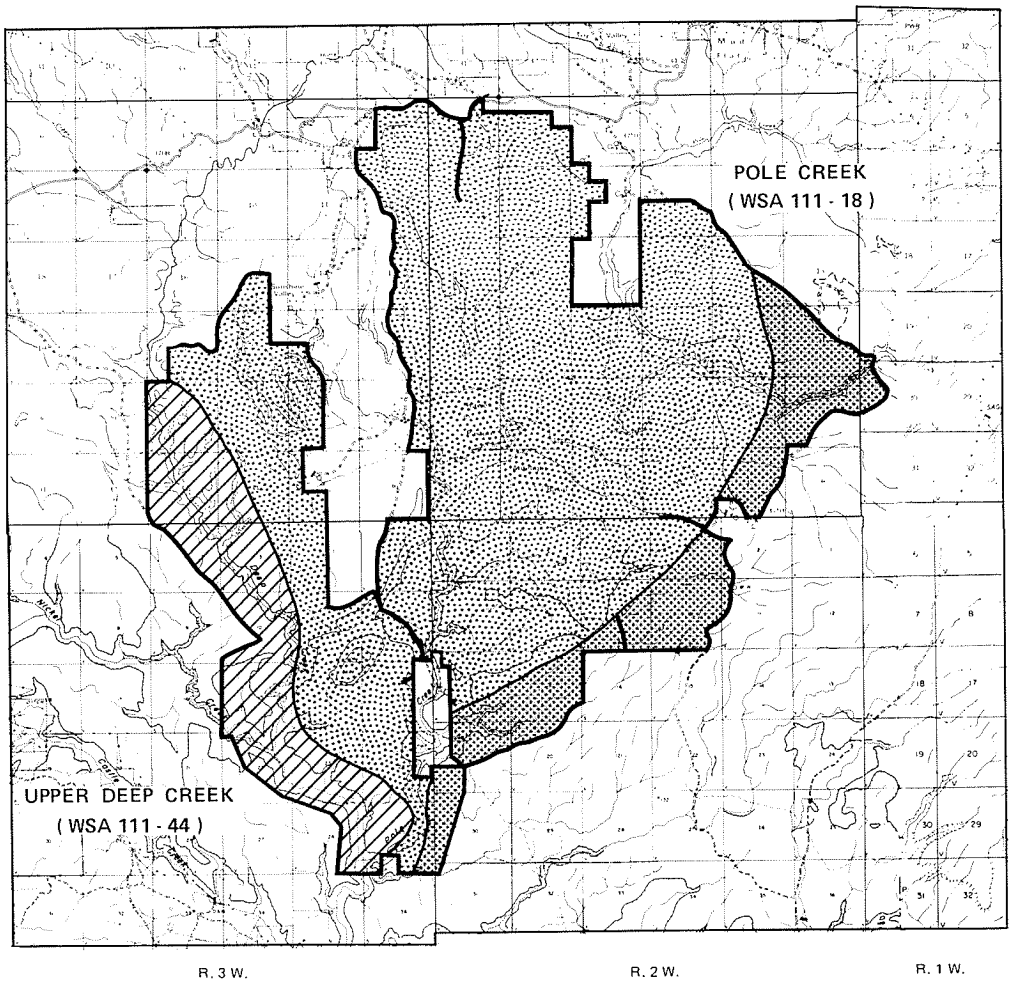
SCENIC QUALITY

MAP 14A



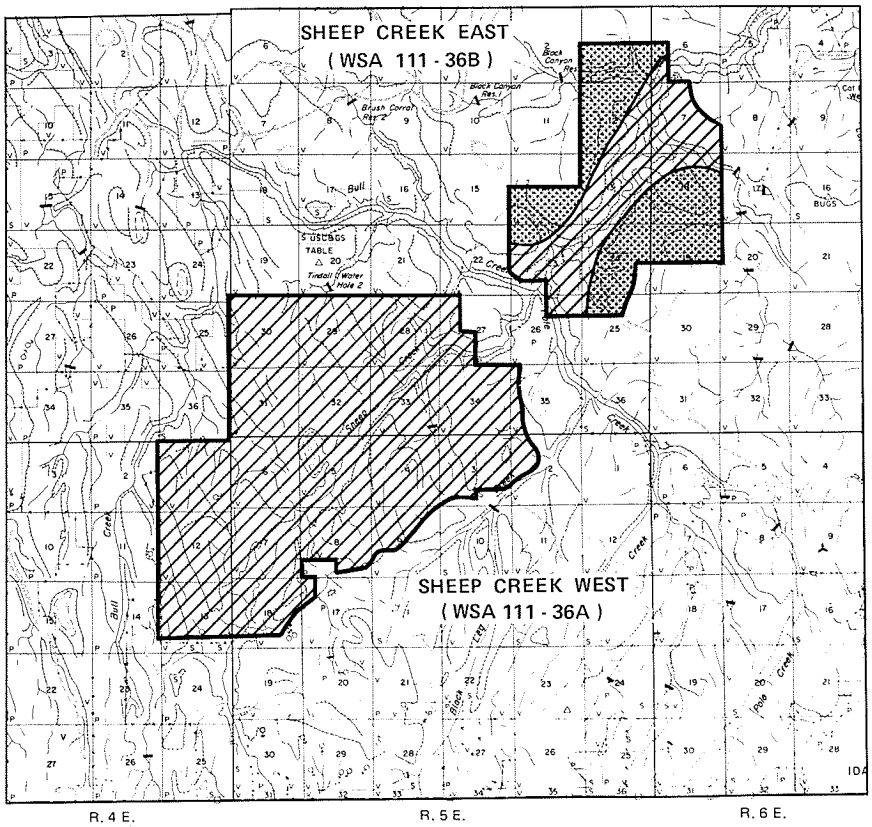
SCENIC QUALITY

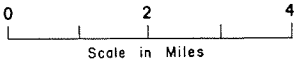
MAP 14B



LEGEND

- WSA BOUNDARY
- CLASS A
- CLASS B
- CLASS C





ECONOMICS

The local economy studied in this EIS is Owyhee County, Idaho. The base year described and to which impacts are compared is 1981.

Personal Income. Total personal income in the local economy was $55.2 million in 1981. This included adjustments of $16.9 million for personal contributions for social insurance, residence adjustment, dividends, interest and rent, and transfer payments. Total earnings for the county were $38.3 million. The major sectors contributing to this were agriculture (37%), state and local government (10%), transportation and public utilities (7%), retail trade (6%), manufacturing (6%) and services (4%) (Bureau of Economic Analysis 1983).

Within the agricultural sector, crops account for 54% of the total earnings while meat animals account for 35%. This is based on the assumption that earnings are in the same proportion as are sales. In 1981, crops accounted for 54% of the total farm sales and meat animals 35% (BEA 1983). The meat animal portion of the agriculture sectors accounted for $4.9 million in earnings in 1981. There are 94,500 AUMs in the allotments affected by the proposals in this EIS. Based on ranch budgets prepared for the Bruneau-Kuna Grazing EIS, each AUM (all sources) represents $20.72 in sales. This, along with gross output multipliers and earnings/gross output ratios (U.S. Water Resources Council 1977), indicate that AUMs within these affected allotments contribute $1.3 million in earnings or 26% of the county's total meat animal earnings in 1981. See the Economics Appendix (Appendix A) for a detailed description of the calculations made using the multipliers and ratios.

Based on expenditures per day and gross output/earnings ratios, it is estimated that current recreation activity within the WSAs amount to earnings of $105,500 or 5% of the county's 1981 retail trade earnings.

Employment. Total employment in Owyhee County was 3,529 in 1981. The major sectors were agriculture (42%), state and local government (10%), retail trade (6%), manufacturing (4%), and services (4%) (Bureau of Economic Analysis 1983). Within the agricultural sector, it is estimated that 54% of the total employment is crop related while 35% is meat animals related. Of the total 1,488 farm employment, 804 would be crop related, 521 meat animals related, and 161 dairy, poultry and others. It is estimated that employment generated by the allotments affected in this EIS would amount to 27 jobs or 5% of the total 1981 county meat animal employment. This is based on the U.S. Forest Service's IMPLAN Input/Output model which estimated that one job is generated by each 3,558 AUMs.

About 5% of the county retail trade employment would be generated by recreation activity in the WSAs. This would be 10 jobs.

Non-Market Values. Non-market values fall into three general categories: option value, bequest value, and existence value. Option value is the value people place on something in order to be able to use the resource at some future time, even though they may not be currently using it. Bequest value is the value people place on a resource in order to be able to make it available

for their children and their childrens' children. Existence value is the value people place on a resource just to preserve it, to know it is there with no intention of themselves or their offspring being able (or wanting) to use it (Walsh, Gillman and Loomis 1981). These values are present when discussing wilderness proposals. It is not possible in this EIS to identify the magnitude of these values since it would involve more time and money than is available to prepare this document. Also, although these values are present in the wilderness resource, there are many people who feel they are just as important in the nonwilderness resource. That is, option, preservation, and bequest values may also exist for such commodity resources as livestock grazing, timber cutting, mineral exploration, etc. For these reasons, non-market values will not be discussed further in this EIS. The comparison of economic impacts will be limited to those quantifiable values such as livestock use and recreational use.

ENERGY AND MINERAL RESOURCES

TERRADATA completed a study of geologic environments and inferred geologic processes within the WSAs. These studies concluded that diatomite was the only energy or mineral resource with a moderate or high potential for discovery within the WSAs (Mathews and Blackburn 1983a, 1983b and 1983c).

Diatomite is a high bulk, relatively low unit value commodity. Because of poor access, potential deposits of diatomite in the WSAs would have little or no marketability. Sufficient diatomite is available in areas with better access outside the WSAs to meet current and anticipated future demands.

There are no known mining claims within the WSAs.

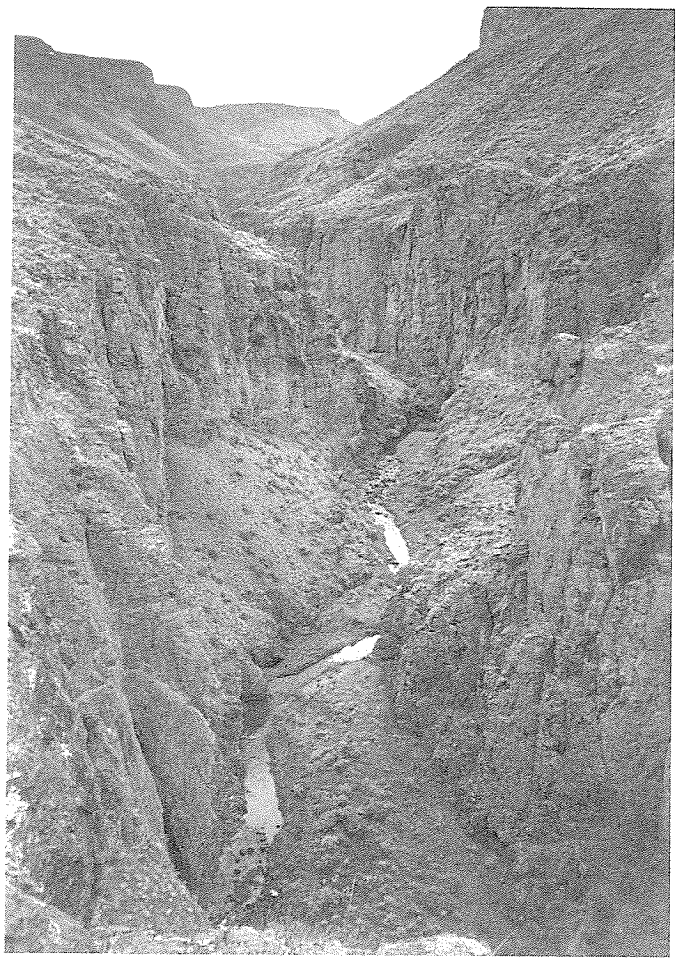
Oil and gas leases have been issued for portions of three WSAs. All are post-FLPMA leases and include wilderness protection stipulations (see USDI 1979). There have been no on-the-ground explorations in conjunction with these leases. Development potential of these leases is considered very low since geologic environments are not favorable for the discovery of marketable energy resources. The following acres are under oil and gas lease as of January 11, 1984:

WSA	WSA Acreage	Areas under Oil & Gas Lease
Little Jacks Creek 111-6	58,040	12,457
Big Jacks Creek 111-7C	54,833	11,189
Sheep Creek West 111-36A	11,680	1,280

There are no geothermal leases in any of the WSAs as of January 11, 1984.

In 1987 and 1988, the U.S. Geological Survey and U.S. Bureau of Mines completed mineral surveys of the areas recommended for wilderness designation to determine the mineral values present. In 1986, the Bureau of Mines completed a similar survey for a 5,700-acre portion of the Upper Deep Creek WSA. The surveys concluded that the portion of the Little Jacks Creek, Big

Jacks Creek, Duncan Creek, and Sheep Creek West WSAs recommended suitable for wilderness designation have low resource potentials for metals, oil and gas, and geothermal resources. Sand, gravel, and industrial rock sources are present, but sufficient supplies are available elsewhere in more accessible locations. Placer gold was found in the gravels of Sheep Creek and Deep Creek. The placer gold in the Sheep Creek West WSA could attract recreational panning and sluicing, while the placer gold in the Upper Deep Creek WSA could attract both recreational and small commercial operations. Geodes of a type not in high demand among rockhounds and gem dealers were found in a small portion of the Sheep Creek West WSA.



This scene in Big Jacks Creek WSA is typical of the more than 75 miles of rugged canyons that would be included in the proposed Jacks Creek Wilderness.

CHAPTER FOUR
ENVIRONMENTAL CONSEQUENCES

LITTLE JACKS CREEK WSA (ID-111-6)

Proposed Action

Under the Proposed Action 34,000 acres, including 1,030 acres of federal land not in the WSA, would be recommended as suitable for wilderness. The remaining 25,070 acres would be recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 34,000 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 120 acres adjacent to the 10.25 miles of roads/primitive vehicle routes closed to motorized vehicles. Short gap fences would not impact naturalness, but would prevent livestock use of 13.6 miles of creek bottom thereby improving naturalness.

Solitude - Opportunities for solitude would be maintained in the 34,000-acre wilderness area. Opportunities would be enhanced in areas visible from the 10.25 miles of roads/primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation visitor use increases, opportunities for solitude could be diminished in the first mile of Little Jacks Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 34,000-acre wilderness area. Opportunities would be enhanced in areas adjacent to 10.25 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities. The implementation of a recreation permit system for recreation users could diminish the value of a wilderness recreation experience for users who like to make impromptu visits or do not like regulatory restrictions.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep, redband trout, 5,600 acres of good to excellent condition Sagebrush Steppe vegetation, and the exceptional scenic values of Little Jacks Creek Canyon.

California bighorn sheep - About 68% of the habitat currently used by the Little Jacks Creek bighorn sheep population would be included in the wilderness area. Bighorns are expected to continue to prosper under wilderness management since a primary wilderness management objective would be protection of bighorn habitat. Under the proposed action, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and elimination of motorized vehicle use. Limiting visitor numbers and directing visitor use away from critical lambing areas during the spring in Little Jacks Creek canyon would minimize

disturbance of sheep and allow current productivity to continue. Elimination of motorized vehicle use in bighorn habitat would benefit bighorn sheep by reducing disturbance of sheep. Under the Proposed Action and all alternatives, motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Also under the Proposed Action and all alternatives, increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. There would be no adverse long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. Short gap fences currently prevent livestock from using about 11.6 miles of Little Jacks Creek Canyon. An additional two miles of creek in the headwater area would be fenced. Habitat condition of the total 13.6 miles would improve with installation and maintenance of the gap fences. The 6.9 miles in good condition would improve but remain in good condition, 2.6 miles would improve from poor to fair, and 4.1 miles would improve from fair to good.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ecological values) - Livestock grazing would be substantially increased on 2,100 acres of good condition rangeland if it has been conclusively shown that increased grazing would have no adverse impact on wilderness values including plant communities. No increases in livestock grazing are projected on areas in excellent ecological condition. The value of this area as a natural ecosystem laboratory is directly related to its limited use by domestic livestock. Even light grazing of the 2,100 acres of good condition rangeland could significantly change the ecological relationships. After designation of the area as wilderness, changes in livestock grazing use which would adversely impact the value of the wilderness as a repository for future ecological and scientific research would not be permitted. Consequently, no loss to the supplemental wilderness value of the scientific and ecological values of plant communities in good and excellent condition would occur.

Scenic Values (Little Jacks Creek Canyon) - No significant impacts are expected to occur to the existing scenic values of Little Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 120 acres affected by road closures. Naturalness would improve along 13.6 miles of creek excluded to livestock use. California bighorn sheep would benefit from restrictions on recreation use and road closures. The recreation permit system would diminish primitive recreation experiences for those not liking regulatory restrictions. About 13.6 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing from Little Jacks Creek Canyon. Scientific/ecological values of the 5,600 acres of good to excellent condition Sagebrush Steppe rangeland would be maintained. Bighorn sheep populations would remain at or near the habitat carrying capacity of 200 animals within the WSA.

Nonsuitable Area

Naturalness - Exclusion of livestock use along 4.3 miles of stream would improve naturalness. Increased livestock use would have localized impacts on naturalness especially around water sources. Construction of the Wickney Tree Dome and Poison Creek livestock watering pipelines and associated service roads would create at least 8½ miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. The impacts of this project and existing imprints of man would make about 8,800 acres on Wickney Tree Dome and about 500 acres in the foothills north of Shoofly Creek generally unnatural in appearance since these unnatural features of the landscape would frequently be encountered or seen by visitors. The 400 acres proposed for spray/seeding would also be unnatural in appearance since seeding with seed drills would produce a row effect visually similar to a cultivated field. New underground utility lines located in the 1/4 mile wide utility corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Impacts of new utility lines would be minimized by locating them adjacent to the existing disturbed landscape. Utility construction would reduce the natural appearance of about 140 acres. Commercial recreation developments on private lands adjacent to Shoofly Creek would be visible through much of the canyon area. Almost any development of private lands would reduce the natural appearance of about 40% of the Shoofly drainage (2,725 acres).

Solitude - Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipelines would reduce opportunities for solitude on about 8,800 acres of the plateau separating Little Jacks Creek and Shoofly Creek canyons and on about 500 acres north of Shoofly Creek. Commercial recreation development on private lands in Shoofly Canyon and subsequent dramatic increases in recreation use would severely limit opportunities for solitude in about 40% of the Shoofly drainage (2,725 acres).

Primitive Recreation - Opportunities for primitive recreation would also be diminished on the 9,300 acres affected by the livestock watering pipelines and on the 400 acres of spray/seeding since the loss of naturalness and opportunities for solitude would also diminish the value of the areas for primitive recreation experiences. As apparent naturalness and opportunities for solitude are lost due to commercial recreation development on private lands in Shoofly Canyon, outstanding opportunities for primitive recreation would also be eliminated.

Supplemental Values - Supplemental wilderness values in the nonsuitable portion of the WSA include California bighorn sheep, redband trout, 3,400 acres of good to excellent condition Sagebrush Steppe vegetation, and the Shoofly Rock Alignment cultural resource site.

California bighorn sheep - Areas recommended nonsuitable include about 24% of the habitat currently used by the Little Jacks Creek bighorn sheep population. Bighorns are expected to continue to prosper since an ACEC would be established to protect bighorn habitat. Management actions to protect bighorn habitat would be similar under either wilderness designation or ACEC designation. Under ACEC designation, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and motorized vehicle use. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. Directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Although very little motor vehicle use occurs off existing roads and trails due to rough and rocky terrain, under the Proposed Action and all alternatives, limiting motorized vehicle use to designated roads and trails in bighorn habitat would reduce disturbance of bighorn sheep. Under the Proposed Action and all alternatives, motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Commercial recreation development on private lands in Shoofly Canyon could preclude use of about 5% of the existing public land bighorn habitat. Results of this displacement would range from no effect upon population numbers to a permanent herd reduction of up to 5% (approximately 10 animals). There would be no other long term effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (190-200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following the construction of short gap fences. The fenced portion of the West Fork of Shoofly Creek currently in fair condition (two miles) would improve to good condition as the fence is maintained. Sixty percent of the 2.3 miles of poor condition of the East Fork of Shoofly Creek would improve to fair condition following the construction of gap fences. The .9 miles in fair condition that are proposed for gap fencing would improve to good

condition. Development of private lands would have a negative impact on 1.6 miles of redband trout habitat on the main stem of Shoofly Creek. Increased use of the access road, construction activity, and increased human use would result in a decline in water quantity and quality, increased sedimentation, and alterations in the stream channel. The combined impact would be an improvement in 4.3 miles or 43% of redband habitat, countered by decline of one condition class of 1.6 miles (16%) as the private lands in the canyon are developed.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 1,650 acres of good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. Because increased grazing could interfere with the natural ecological relationships on the 1,650 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished.

Shoofly Rock Alignment Cultural Resource site - The Shoofly Rock Alignments and other prehistoric surface sites on Wickney Tree Dome would be impacted by increased livestock grazing. The proposed 47% increase in livestock grazing in this vicinity would accelerate damage to these sites from livestock trampling.

Conclusion: Naturalness would be lost on 9,840 acres and decreased around livestock water sources. Opportunities for solitude and primitive recreation would be diminished on about 9,300 and 9,700 acres, respectively. About 4.3 miles (43%) of redband trout habitat would benefit from improved riparian condition resulting from gap fencing and 1.6 miles (16%) would decline following development on private lands. Scientific/ecological values could be diminished on 1,650 acres of good condition Sagebrush Steppe rangeland affected by increased livestock grazing. The Shoofly Rock Alignments and associated archaeological sites could be impacted by increased livestock trampling. As private lands in Shoofly Canyon are developed, there would be an additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands would also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles (16%) of redband habitat. Bighorn sheep populations would remain at approximately 190-200 animals within the WSA.

Impacts on Recreation Use

Suitable Area

The 34,000-acre wilderness area would be available for backcountry recreation opportunities. Within bighorn habitat, recreation use would be regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. Motorized vehicles would be prohibited in the entire wilderness including about 10.25 miles of existing roads and primitive vehicle routes.

Backcountry recreation use is projected to increase 175% to about 1,803 annual visitor days. It is anticipated that backcountry recreation use in Little Jacks Creek Canyon during the next few years would account for most of this increase. Implementation of a permit system would limit recreation use to 1,430 annual visitor days within the canyon and minimize recreational impacts on bighorn sheep. An additional 373 visitor days of backcountry recreation use would occur on the plateau. The restrictions on recreation use in Little Jacks Creek WSA would result in increased backcountry recreation use in Big Jacks Creek and Duncan Creek WSAs.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas, such as the Owyhee Front ORV area, to adequately meet projected demand.

Although wilderness designation would close 10.25 miles of roads and primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters would continue to pursue deer, antelope, and bighorn sheep despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Current hunting use of 544 visitor days is projected to increase to 772 visitor days in 20 years.

In 20 years total annual recreation use in the wilderness area would be about 2,575 visitor days, an increase of 115% over current use of 1,200 annual visitor days. Fall hunting is expected to account for about 30% of the total recreation use. Increased livestock use would not affect recreation use.

Conclusion: In 20 years, annual recreation use would be 2,575 visitor days, an increase of 1,375 visitor days over current use. Hunting would increase from a present annual use of 544 visitor days to 772 visitor days. Backcountry activities would increase from a current use of 656 visitor days to 1,803 visitor days in 20 years. Closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

Within the 11,600 acres of bighorn habitat located outside the wilderness area, recreation use would be regulated to minimize disturbance of bighorn sheep by recreation users by limiting vehicles to designated roads and trails. Remaining portions of the WSA (13,470 acres) would be open to general dispersed recreation use with no special recreation management regulations or objectives. These areas would be available for off-road-vehicle use.

In 20 years, total annual recreation use is projected to be about 1,475 visitor days, an increase of 227% over current use of 450 annual visitor days. Hunting would account for about 30% of this use. Most recreation use would occur in the canyon bottoms in the lower two miles of Shoofly Creek

Canyons. Because of rough topography and rocky soils, very little ORV use is anticipated in the 13,470 acres that would remain open to motorized vehicle use. Increases in livestock grazing would have no impact on recreation use.

Visitor use projections for Shoofly Creek Canyon could be severely altered depending on future use of the private land in the canyon. Commercial recreational development of the private land would cause visitor use to escalate rapidly. On the other hand if the public is denied access across private land, recreation use in public portions of the canyon would be rare.

Restrictions on motorized vehicle use in bighorn habitat would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, low visitor use, and the availability of more suitable areas to meet projected demand. Rough topography and rocky soils severely limit off-road-vehicle use within bighorn habitat.

Conclusion: In 20 years, annual recreation use would be 1,475 visitor days, an increase of 1,025 visitor days over current use. Hunting would increase from a present annual use of 306 visitor days to 428 visitor days. Backcountry activities would increase from a current use of 144 visitor days to 1,047 visitor days in 20 years. On 11,600 acres, the limitation of recreational motor vehicle use to designated routes would not significantly impact hunting or off-road-vehicle opportunities. Commercial recreation development of private lands would escalate visitor use estimates, while prevention of public access across private lands would greatly decrease visitor use estimates.

Impacts on Selected Wildlife Species

Suitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations and would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Increased recreation use, particularly in Little Jacks Creek Canyon, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use, including closure of 10 miles of roads and ways, would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include two livestock watering pipelines and 400 acres of spray/seeding. The Wickney Tree Dome livestock watering pipeline would provide reliable water sources for wildlife as well as livestock since the system would be designed to provide wildlife water during periods of rest from livestock grazing. The proposed pipeline would water pronghorn seasonal use range and a sage grouse brood rearing area. Reliable water distributed through this plateau in July, August, and September would reduce the distance to water for these species. Negative impacts associated with the pipeline include severe trampling of vegetation immediately adjacent to water troughs with subsequent invasion by weedy species and increased competition in drought years for succulent

vegetation between livestock and wildlife in areas not now used by livestock (particularly meadows used for brood rearing by sage grouse). Extending the Poison Creek pipeline would not impact wildlife. The net impact of the water pipelines on mule deer, antelope, and sage grouse is that their populations would be unaffected.

The proposed 160-acre spray and seed project west of Twin Lakes would improve habitat for wildlife. The area is a depleted basin big sagebrush site with little herbaceous understory. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. The increased openings and improved diversity would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

The 240 acres proposed for spraying and seeding adjacent to Mud Flat Road contains sparse Wyoming big sagebrush and a depleted herbaceous understory. The area is bordered by Mud Flat Road on one side and the foothills on the other side. The poor ecological condition of the vegetation and the close proximity of the road limit wildlife use in the area. Improvement in vegetation condition would improve the area for spring wildlife use. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance and force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, increases in recreation use would not have a significant impact on these species. Limiting motorized vehicle use to designated roads and ways in bighorn sheep habitat (6960 acres) would reduce access and human disturbance to wildlife populations, but no increase in population numbers is projected. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Vegetative manipulation would cause a temporary reduction in habitat quality on treated areas and longer term improvement as treated areas improve in ecological condition. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the Proposed Action include the costs of proposed range development projects and wilderness management costs. The 20 year forecast is that with the Proposed Action recreation use would increase 2,400 annual visitor days (145% above current use) while domestic livestock grazing would increase by 2,287 AUMs (54% above current use).

The Proposed Action would add $31,157 in annual income due to increased grazing by year 20. This would amount to an increase of 54% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $58,345 to the local economy or an increase of 134% above current income generated from recreation use in the WSA. The total income increase would amount to $89,502. This would be an increase above the current level of income generated by the WSA of 88%.

The Proposed Action would increase grazing-related employment by .6 jobs by year 20. This would amount to a 50% increase above current employment generated by the WSA. Recreation use of the WSA would add 5.4 jobs to the economy. This would be a 75% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 6 jobs or an increase of 57% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the Proposed Action would be a total of $71,200. The annual average wilderness management costs (following designation) would be $4,600.

Conclusion: There would be $89,502 of additional annual income and six new jobs. Implementation costs would total $71,200 for range improvements and $4,600 annually for wilderness management.

All Wilderness Alternative

Under the All Wilderness Alternative, all 58,040 acres in the WSA would be recommended as suitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 58,040 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 210 acres adjacent to the 17.5 miles of roads/primitive vehicle routes closed to motorized vehicles. Exclusion of livestock use of 17.9 miles of creek bottom would improve naturalness. Acquisition of private lands in Shoofly Canyon would prevent developments which would degrade naturalness.

Solitude - Opportunities for solitude would be maintained in the 58,040-acre wilderness area. Opportunities would be enhanced in areas visible from the 17.5 miles of roads/primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation visitor use increases, opportunities for solitude could be diminished in the first mile of Little Jacks Creek Canyon. Acquisition of private lands in Shoofly Canyon would prevent commercial recreation developments which would limit opportunities for solitude.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 58,040-acre wilderness area. Opportunities would be enhanced in areas adjacent to 17.5 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities. The implementation of a recreation permit system for recreation users could diminish the value of a wilderness recreation experience for users who like to make impromptu visits or do not like regulatory restrictions.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep, redband trout, 9,000 acres of good to excellent condition Sagebrush Steppe vegetation, the Shoofly Rock Alignment cultural resource site, and the exceptional scenic values of Little Jacks Creek Canyon.

California bighorn sheep - About 92% of the habitat currently used by the Little Jacks Creek bighorn sheep population would be included in the wilderness area. Bighorns are expected to continue to prosper under wilderness management since a primary wilderness management objective would be protection of bighorn habitat. Under this alternative, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and elimination of motorized vehicle use. Limiting visitor numbers and directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Elimination of motorized vehicle use in bighorn habitat would benefit bighorn sheep by reducing disturbance of sheep. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is approximately one mile from the corridor. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. Acquiring the private lands in Shoofly Canyon would increase the amount of bighorn habitat in public ownership. This would benefit bighorn sheep by expanding management options for habitat protection and by precluding development of these private lands. There would be no adverse long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. Short gap fences currently prevent livestock from using about 11.6 miles of Little Jacks Creek Canyon. An additional two miles of creek in the headwater area would be fenced. Habitat condition of this 13.6 miles would improve one condition class, except that good condition areas would remain in good condition, with installation and maintenance of the gap fences. The fenced portion of the West Fork of Shoofly Creek currently in fair condition (two miles) would improve to good condition as the fence is maintained. Sixty percent of the 2.3 miles of poor condition of the East Fork of Shoofly Creek would improve to fair condition following the construction of gap fences. The .9 miles in fair condition that are proposed for gap fencing would improve to good condition. The combined impact would be an improvement in 17.9 miles or 76% of redband habitat.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 2,100 acres of good condition rangeland if it has been conclusively shown that increased grazing would have no adverse impact on wilderness values including plant communities. No increases in livestock grazing are projected on areas in excellent ecological condition. The value of this area as a natural ecosystem laboratory is directly related to its limited use by domestic livestock. Even light grazing of the 2,100 acres of good condition rangeland could significantly change the ecological relationships. After designation of the area as wilderness, changes in livestock grazing use which would adversely impact the value of the wilderness as a repository for future ecological and scientific research would not be permitted. Consequently, no loss to the supplemental wilderness value of the scientific and ecological values of plant communities in good and excellent condition would occur.

Shoofly Rock Alignment Cultural Resource site - Closure of roads and primitive vehicle routes on Wickney Tree Dome is expected to reduce vandalism and illegal excavations of prehistoric archaeological sites associated with the Shoofly Rock Alignments. Road closures would also arrest damage from vehicle traffic currently occurring to the alignments and associated surface sites. The Shoofly Rock Alignments would not be available for development of an interpretive exhibit providing public information on the "game drive" and similar prehistoric rock alignments. However, no exhibit is currently planned.

Scenic Values (Little Jacks Creek Canyon) - No significant impacts are expected to occur to the existing scenic values of Little Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 210 acres affected by road closures. Naturalness would improve along 17.9 miles of creek excluded to livestock use.

Acquisition of private lands would maintain naturalness and opportunities for solitude in Shoofly Canyon. California bighorn sheep would benefit from restrictions on recreation use, road closures, and acquisition of private land. The recreation permit system would diminish primitive recreation experiences for those not liking regulatory restrictions. About 17.9 miles of redband trout habitat would benefit from improved riparian condition. Scientific/ecological values on 9,000 acres of good to excellent Sagebrush Steppe rangeland would be maintained. Vandalism (illegal excavations) of archaeological sites would be reduced and vehicle damage to Shoofly Rock Alignments would be halted. Bighorn sheep populations would remain at approximately 200 animals within the WSA.

Impacts of Recreation Use

Suitable Area

The 58,040-acre wilderness area would be available for backcountry recreation opportunities. Within bighorn habitat, recreation use would be regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. Motorized vehicles would be prohibited in the 58,040-acre wilderness area. About 17.5 miles of roads and primitive vehicle routes would be closed to public use.

As in the Proposed Action most backcountry recreation use would occur in the canyon bottoms in the lower three to five miles of Little Jacks Creek and Shoofly Canyons. Current backcountry use of 800 visitor days per year would increase to 2,850 visitor days in 20 years.

Impacts on Little Jacks Creek Canyon recreation use would be the same as in the Proposed Action. As in the Proposed Action, the most dramatic increases in recreation use would occur during the next few years.

Recreation use in Shoofly Creek Canyon would increase about 10% annually instead of the 4% annual increases projected without wilderness. Federal acquisition of private property in the canyon would assure continued public access to the area and would prevent commercial recreation development of the private lands.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas, such as the Owyhee Front ORV area, to adequately meet projected demand.

Although wilderness designation would close 17.5 miles of roads and primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer, antelope, and bighorn sheep despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Some sage grouse hunters could be displaced by the closure of roads on Wickney Tree Dome. However this impact is not

expected to be significant because of the small number of hunters involved and the availability of suitable hunting areas outside the WSA. Current hunting use of 850 visitor days is projected to increase to 1,250 visitor days in 20 years.

In 20 years, total annual recreation use is projected to be about 4,100 visitor days, an increase of 148% over current use of 1,650 annual visitor days. Fall hunting is expected to account for about 30% of the total recreation use. Increases in livestock grazing would have no impact on recreation use.

Conclusion: In 20 years, annual recreation use would be 4,100 visitor days, an increase of 2,450 visitor days over current use. Hunting would increase from a present annual use of 850 visitor days to 1,250 visitor days. Backcountry activities would increase from a current use of 800 visitor days to 2,850 visitor days in 20 years. The closure of 58,040 acres to recreational motor vehicle use would not significantly impact off-road-vehicle opportunities or hunting use, although there would be displacement of some sage grouse hunters.

Impacts on Selected Wildlife Species

Suitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use, including closure of 17.5 miles of roads and ways, would reduce access and human disturbance to wildlife populations. The net

impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the All Wilderness Alternative include the costs of proposed range development projects (the 19-mile Jacks Creek livestock watering pipeline which lies just outside the WSA) and wilderness management costs. The 20 year forecast is that with the All Wilderness Alternative recreation use would increase 2,450 annual visitor days (148% above current use) while domestic livestock grazing would increase by 875 AUMs (21% above current use).

The All Wilderness Alternative would add $11,921 in annual income due to increased grazing by year 20. This would amount to an increase of 21% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $59,705 to the locale economy or an increase of 137% above current income generated from recreation use in the WSA. The total income increase would amount to $71,626. This would be an increase above the current level of income generated by the WSA of 71%.

The All Wilderness Alternative would increase grazing-related employment by .3 jobs by year 20. This would amount to a 25% increase above current employment generated by the WSA. Recreation use of the WSA would add 5.5 jobs to the economy. This would be a 59% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 5.8 jobs or an increase of 55% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range development costs would be $32,900. The annual average wilderness management costs (following designation) would be $4,600.

Conclusion: There would be $71,626 of additional annual income and 5.8 new jobs. Implementation costs would total $32,900 for range improvements and $4,600 annually for wilderness management.

No Wilderness/No Action Alternative

All 58,040 acres in the WSA would be recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Nonsuitable Area

Naturalness - Increased livestock use would have adverse impacts on naturalness especially around water sources. Construction of the Wickney Tree Dome and Poison Creek livestock watering pipelines and associated service roads would create at least 8½ miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. The impacts of this project and existing imprints of man would make about 8,800 acres on Wickney Tree Dome and about 500 acres in the foothills north of Shoofly Creek generally unnatural in appearance since these unnatural features of the landscape would frequently be encountered or seen by visitors. The 1,000 acres proposed for spray/seeding would also be unnatural in appearance since seeding with seed drills would produce a row effect visually similar to a cultivated field. New underground utility lines located in the 1/4 mile wide corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Utility construction would reduce the natural appearance of about 140 acres. Exclusion of livestock along 17.9 miles of creek bottom would enhance naturalness.

Developments on private lands adjacent to Shoofly Creek would be visible through much of the canyon area. Commercial recreation development of private lands could reduce the natural appearance of about 40% of the Shoofly drainage (2,725 acres).

Solitude - Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipelines would reduce opportunities for solitude on about 8,800 acres of the plateau separating Little Jacks Creek and Shoofly Creek canyons and on about 500 acres in the foothills north of Shoofly Creek. If new underground utilities were installed outside the corridor, then opportunities for solitude would also be diminished by increased vehicle traffic to service the utilities. Commercial recreation development of private lands in Shoofly Canyon and subsequent dramatic increases in recreation use would severely limit opportunities for solitude in about 40% of the Shoofly drainage (2,725 acres).

Primitive Recreation - Opportunities for primitive recreation would also be diminished on the 9,300 acres affected by the livestock watering pipelines and on the 1,000 acres of spray/seeding since the loss of naturalness and opportunities for solitude would also diminish the value of the areas for

primitive recreation experiences. Primitive recreation values could also be diminished in areas affected by new underground utility construction and subsequent maintenance. As apparent naturalness and opportunities for solitude are lost due to commercial recreation development on private lands in Shoofly Canyon, outstanding opportunities for primitive recreation would also be eliminated. The implementation of a recreation permit system for recreation users could diminish the value of primitive recreation opportunities for users who like to make impromptu visits or do not like regulatory restrictions.

Supplemental Values - Supplemental wilderness values in the WSA include California bighorn sheep, redband trout, 9,000 acres of good to excellent condition Sagebrush Steppe vegetation, the Shoofly Rock Alignment cultural resource site, and the exceptional scenic values of Little Jacks Creek Canyon.

California bighorn sheep - Areas recommended nonsuitable include about 92% of the habitat used by the Little Jacks Creek bighorn sheep population. Bighorns are expected to continue to prosper since an ACEC would be established to protect bighorn habitat. Under ACEC designation, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and motorized vehicle use. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. Limiting visitor numbers and directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Although very little motor vehicle use occurs off existing roads and trails due to rough and rocky terrain, limiting motorized vehicle use to designated roads and trails in bighorn habitat would reduce disturbance of bighorn sheep. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Commercial recreation development on private lands in Shoofly Canyon could preclude use of about 5% of the existing public land bighorn habitat. Results of this displacement would range from no effect upon population numbers to a permanent herd reduction of up to 5% (approximately 10 animals). There would be no other long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (190-200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. Short gap fences currently prevent livestock from using about 11.6 miles of Little Jacks Creek Canyon. An additional two miles in the headwater area would be fenced. Habitat condition of this 13.6 miles would improve one condition class, except that areas in good condition would remain good, with maintenance of the gap fences. The fenced portion of the West Fork of Shoofly Creek currently in fair condition (two miles) would improve to good condition as the fence is

maintained. Sixty percent of the 2.3 miles of poor condition of the East Fork of Shoofly Creek would improve to fair condition following the construction of gap fences. The .9 miles in fair condition that are proposed for gap fencing would improve to good condition. Development of private lands would have a negative impact on 1.6 miles of redband trout habitat on the main stem of Shoofly Creek. Increased use of the access road, construction activity, and increased human use would result in a decline in water quantity and quality, increased sedimentation, and alterations in the stream channel. The combined impact would be an improvement in 17.9 miles or 76% of redband habitat, countered by decline of one condition class of 1.6 miles (7%) as the private lands in the canyon are developed.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 3,750 acres of good condition rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. The value of these areas as natural ecosystem laboratories is directly related to their limited use by domestic livestock. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960). While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes. Because increased grazing could interfere with these natural ecological relationships on the 3,750 acres where increases are proposed, the value of these areas as wilderness repositories for future ecological and scientific research could be diminished.

Shoofly Rock Alignment Cultural Resource site - The Shoofly Rock Alignments and associated prehistoric surface sites would be impacted by increased livestock grazing since the 47% increase in livestock grazing would accelerate damage occurring to these sites from livestock trampling. Construction of the Wickney Tree Dome livestock watering pipeline could also affect the Shoofly Rock Alignments by providing new reliable water sources adjacent to the alignments thereby increasing livestock trampling.

Scenic Values (Little Jacks Creek Canyon) - None of the proposed actions are expected to have a significant impact on the existing scenic values of Little Jacks Creek Canyon. It is anticipated that new underground utility lines could be routed to avoid impacting scenic vistas from the canyon rims.

Conclusion: Naturalness would be enhanced along 17.9 miles of stream excluded to livestock use. Naturalness would be lost on 10,300 acres and decreased around livestock water sources. Opportunities for solitude and primitive recreation would be diminished on about 9,300 and 10,300 acres, respectively. The recreation permit system would diminish primitive recreation opportunities for those not liking regulatory restrictions. About 17.9 (76%) miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing. Scientific/ecological valuescould be diminished on 3,750 acres of good condition Sagebrush Steppe rangeland affected by increased livestock grazing. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. As private lands in Shoofly Canyon are developed, there would be an additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands would also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles (7%) of redband habitat. Construction of new underground utilities outside the 1/4 utility corridor could also result in loss of naturalness and diminished opportunities for solitude/primitive recreation in areas visible from new utility paths and associated service roads. Bighorn sheep populations would remain at approximately 190-200 animals within the WSA.

Impacts on Recreation Use

Nonsuitable Area

Little Jacks Creek Canyon would be designated a Special Recreation Management Area (SRMA). The 6,350-acre SRMA would have a dual management objective of 1) maintaining opportunities for backcountry recreation in a primitive setting and 2) minimizing adverse impacts to the bighorn sheep population from recreation users. Within the SRMA, recreation use would be regulated through a permit system. Within the remaining 21,750 acres of bighorn habitat, recreation use would be regulated to minimize disturbance of bighorn sheep by recreation users with motorized vehicles limited to designated roads and trails. The 29,940 acres outside of bighorn habitat would be open to general dispersed recreation use with no special recreation management regulations or objectives.

As in the Proposed Action most backcountry recreation use would occur in the canyon bottoms in the lower three to five miles of Little Jacks Creek and Shoofly Canyons. Current backcountry use of 800 visitor days per year would increase to 2,775 visitor days in 20 years.

Impacts on recreation use in Little Jacks Creek and Shoofly Canyons would be the same as in the Proposed Action. The most dramatic increases in recreation use would occur during the next few years. Increases in livestock grazing would have no impact on recreation use.

Within Shoofly Canyon, commercial recreation development on private lands, would increase recreation use, while the denial of public access across private lands would decrease use.

The closure of 28,100 acres to motorized vehicle use except on designated roads and trails would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Hunting use would not be significantly impacted by this alternative. Big-game hunters would continue to pursue deer, antelope, and bighorn sheep despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Current hunting use of 850 visitor days is projected to increase to 1,275 visitor days in 20 years.

In 20 years, total annual recreation use would be about 4,050 visitor days, an increase of 145% over current use of 1,650 annual visitor days. Fall hunting is expected to account for about 30% of the total recreation use.

Conclusion: In 20 years, annual recreation use would be 4,050 visitor days, an increase of 2,400 visitor days over current use. Hunting would increase from a present annual use of 850 visitor days to 1,275 visitor days. Backcountry activities would increase from a current use of 800 visitor days to 2,775 visitor days in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be significantly impacted.

Impacts on Selected Wildlife Species

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include two livestock watering pipelines and 1,000 acres of spray/seeding. The Wickney Tree Dome livestock watering pipeline would provide reliable water sources for wildlife as well as livestock since the system would be designed to provide wildlife water during periods of rest from livestock grazing. The proposed pipeline would water pronghorn seasonal use range and a sage grouse

brood rearing area. Reliable water distributed through this plateau in July, August, and September would reduce the distance to water for these species. Negative impacts associated with the pipeline include severe trampling of vegetation immediately adjacent to water troughs with subsequent invasion by weedy species and increased competition in drought years for succulent vegetation between livestock and wildlife in areas not now used by livestock (particularly meadows used for brood rearing by sage grouse). Extending the Poison Creek pipeline would not impact wildlife. The net impact of the water pipelines on mule deer, antelope, and sage grouse is that their populations would be unaffected.

The proposed 160-acre spray and seed project west of Twin Lakes would improve habitat for wildlife. The area is a depleted basin big sagebrush site with little herbaceous understory. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. The increased openings and improved diversity would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

The 240 acres proposed for spraying and seeding adjacent to Mud Flat Road contains sparse Wyoming big sagebrush and a depleted herbaceous understory. The area is bordered by Mud Flat Road on one side and the foothills on the other side. The poor ecological condition of the vegetation and the close proximity of the road limit wildlife use in the area. Improvement in vegetation condition would improve the area for spring wildlife use. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

The proposed 520-acre spray and seed project west of Little Tigert Spring is in poor ecological condition. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Sagebrush would be left untreated along rocky breaks, draws and adjacent to drainages. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. The increased openings and improved diversity would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance and force abandonment of critical habitat areas such as fawning areas, water sources, and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, increases in recreation use would not

have a significant impact on these species. Limiting motorized vehicle use to designated roads and ways in bighorn sheep habitat (29,000 acres) would reduce access and human disturbance to wildlife populations, but no increase in population numbers is projected. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Vegetative manipulation would cause a temporary reduction in habitat quality on treated areas and longer term improvement as treated areas improve in ecological condition. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the No Wilderness/No Action Alternative include only the costs of proposed range development projects. The 20 year forecast is that with the No Wilderness/No Action Alternative recreation use would increase 2,400 annual visitor days (145% above current use) while domestic livestock grazing would increase by 3,553 AUMs (84% above current use).

The No Wilderness/No Action Alternative would add $48,405 in annual income due to increased grazing by year 20. This would amount to an increase of 84% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $58,345 to the local economy or an increase of 134% above current income generated from recreation use in the WSA. The total income increase would amount to $106,750. This would be an increase above the current level of income generated by the WSA of 105%.

The No Wilderness/No Action Alternative would increase grazing-related employment by 1 job by year 20. This would amount to a 83% increase above current employment generated by the WSA. Recreation use of the WSA would add 5.4 jobs to the economy. This would be a 75% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 6.4 jobs or an increase of 60% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the No Wilderness/No Action Alternative would be a total of $86,200. There would no wilderness management costs.

Conclusion: There would be $106,750 of additional annual income and 6.4 new jobs. Implementation costs would total $86,200 for range improvements.

All Manageable Wilderness Alternative

About 50,690 acres would be recommended as suitable for wilderness with 8,380 acres recommended as nonsuitable for wilderness. The wilderness recommendation includes 1,030 acres of federal land not in the WSA.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 50,690 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 230 acres adjacent to the 19 miles of roads/primitive vehicle routes closed to motorized vehicles. Naturalness would improve along 17.9 miles of creek excluded to livestock use.

Solitude - Opportunities for solitude would be maintained in the 50,690-acre wilderness area. Opportunities would be enhanced in areas visible from the 19 miles of roads/primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation visitor use increases, opportunities for solitude could be diminished in the first mile of Little Jacks Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 50,690-acre wilderness area. Opportunities would be enhanced in areas adjacent to 19 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities. The implementation of a recreation permit system for recreation users could diminish the value of a wilderness recreation experience for users who like to make impromptu visits or do not like regulatory restrictions.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep, redband trout, 9,000 acres of good to excellent condition Sagebrush Steppe vegetation, the Shoofly Rock Alignment cultural resource site, and the exceptional scenic values of Little Jacks Creek Canyon.

California bighorn sheep - About 87% of the habitat currently used by the Little Jacks Creek bighorn sheep population would be included in the wilderness area. Bighorns are expected to continue to prosper under wilderness management since a primary wilderness management objective would be protection of bighorn habitat. Measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and elimination of motorized vehicle use. Limiting visitor numbers and directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Elimination of motorized vehicle use in bighorn habitat would benefit bighorn sheep by reducing disturbance of sheep. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Increased

livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. There would be no adverse long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. Short gap fences currently prevent livestock from using about 11.6 miles of Little Jacks Creek Canyon. An additional two miles in the headwater area would be fenced. Habitat condition of this 13.6 miles would improve one condition class, except that good condition areas would remain in good condition, with maintenance of the gap fences. The fenced portion of the West Fork of Shoofly Creek currently in fair condition (two miles) would improve to good condition as the fence is maintained. Sixty percent of the 2.3 miles of poor condition of the East Fork of Shoofly Creek would improve to fair condition following the construction of gap fences. The .9 miles in fair condition that are proposed for gap fencing would improve to good condition. The combined impact would be an improvement in 17.9 miles or 76% of redband habitat.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ecological values) - Livestock grazing would be substantially increased on 2,100 acres of good condition rangeland if it has been conclusively shown that increased grazing would have no adverse impact on wilderness values including plant communities. No increases in livestock grazing are projected on areas in excellent ecological condition. The value of this area as a natural ecosystem laboratory is directly related to its limited use by domestic livestock. Even light grazing of the 2,100 acres of good condition rangeland could significantly change the ecological relationships. After designation of the area as wilderness, changes in livestock grazing use which would adversely impact the value of the wilderness as a repository for future ecological and scientific research would not be permitted. Consequently, no loss to the supplemental wilderness value of the scientific and ecological values of plant communities in good and excellent condition would occur.

Shoofly Rock Alignment Cultural Resource site - Closure of roads and primitive vehicle routes on Wickney Tree Dome is expected to reduce vandalism and illegal excavations of prehistoric archaeological sites associated with the Shoofly Rock Alignments. Road closures would also arrest damage from vehicle traffic currently occurring to the alignments and associated surface sites. The Shoofly Rock Alignments would not be available for development of an interpretive exhibit providing public information on the "game drive" and similar prehistoric rock alignments. However, no exhibit is currently planned.

Scenic Values (Little Jacks Creek Canyon) - No significant impacts are expected to occur to the existing scenic values of Little Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 230 acres affected by road closures. Naturalness would be enhanced along 17.9 miles of creek excluded to livestock use. California bighorn sheep would benefit from restrictions on recreation use and road closures. About 17.9 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing from Little Jacks Creek Canyon. Scientific/ecological values on 9,000 acres of good to excellent condition Sagebrush Steppe rangeland would be maintained. Vandalism (illegal excavations) of archaeological sites would be reduced and vehicle damage to Shoofly Rock Alignments would be halted. Bighorn sheep populations would remain at approximately 200 animals within the WSA.

Nonsuitable Area

Naturalness - Increased livestock use would have localized adverse impacts on naturalness around water sources. Construction of the Poison Creek livestock water pipeline would create one-half mile of visual disturbance and would make about 500 acres in the foothills north of Shoofly Creek unnatural in appearance. The 240 acres proposed for spray/seeding would be unnatural in appearance since seeding with seed drills would produce a row effect visually similar to a cultivated field. New underground utility lines located in the 1/4 mile wide utility corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Impacts of new utility lines would be minimized by locating them adjacent to the existing disturbed landscape. Utility construction would reduce the natural appearance of about 140 acres. Developments on private lands adjacent to Shoofly Creek would be visible through much of the canyon area. Development of private lands would reduce the natural appearance of about 40% of the Shoofly drainage (2,725 acres).

Solitude - Commercial recreation development of private lands in Shoofly Canyon and subsequent dramatic increases in recreation use would severely limit opportunities for solitude in about 40% of the Shoofly drainage (2,725 acres). Increased vehicle traffic on service roads constructed for the maintenance of the Poison Creek pipeline would reduce opportunities for solitude on about 500 acres.

Primitive Recreation - As apparent naturalness and opportunities are lost due to commercial recreational development on private lands in Shoofly Canyon, outstanding opportunities for primitive recreation would also be eliminated. Opportunities would be diminished on the 500 acres affected by the Poison Creek water pipeline and on the 240 acres of spray/seeding.

Supplemental Values - Supplemental wilderness values in the nonsuitable portion of the WSA include California bighorn sheep and redband trout.

California bighorn sheep - Areas recommended nonsuitable include about 5% of the habitat currently used by the Little Jacks Creek bighorn sheep population. Bighorns are expected to continue to prosper since an ACEC would be established to protect bighorn habitat. Under ACEC designation, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and motorized vehicle use. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat.

Directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Although very little motor vehicle use occurs off existing roads and trails due to rough and rocky terrain, limiting motorized vehicle use to designated roads and trails in bighorn habitat would reduce disturbance of bighorn sheep. Commercial recreation development on private lands in Shoofly Canyon would preclude use of about 5% of the existing public land bighorn habitat. Results of this displacement would range from no effect upon population numbers to a permanent herd reduction of up to 5% (approximately 10 animals). There would be no other long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (190-200 animals within the WSA).

Redband Trout - Development of private lands would have a negative impact on 1.6 miles of redband trout habitat on the main stem of Shoofly Creek. Increased use of the access road, construction activity, and increased human use would result in a decline in water quantity and quality, increased sedimentation, and alterations in the stream channel. Redband trout habitat would decline one condition class along 1.6 miles of Shoofly Creek as the private lands are developed.

Conclusion: Naturalness would be lost on 740 acres and decreased around livestock water sources. Opportunities for solitude would be reduced on 500 acres, and opportunities for primitive recreation would be reduced on 740 acres. As private lands in Shoofly Canyon are developed there would be an additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of those private lands would also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles of redband trout habitat. Bighorn sheep populations would remain at approximately 190-200 animals within the WSA.

Impacts on Recreation Use

Suitable Area

The 50,690-acre wilderness area would be available for backcountry recreation opportunities. Within bighorn habitat, recreation use would be regulated through a permit system to minimize disturbance of bighorn sheep by

recreation users. Motorized vehicles would be prohibited in the entire wilderness including about 19 miles of roads and primitive vehicle routes. As in the Proposed Action most backcountry recreation use would occur in the canyon bottoms in the lower three to five miles of Little Jacks Creek and Shoofly Canyons. Current backcountry use of 800 visitor days per year would increase to 2,825 visitor days in 20 years.

Impacts on Little Jacks Creek Canyon recreation use would be the same as in the Proposed Action. As in the Proposed Action, the most dramatic increases in recreation use are expected to occur during the next few years.

Recreation use in Shoofly Creek Canyon could increase about 10% annually instead of the 4% annual increases projected without wilderness. Indirect visitor management methods should be sufficient to keep recreation use below carrying capacity levels necessary to minimize recreational impacts to bighorn sheep. Commercial recreational development on private lands in Shoofly Canyon, however, could result in rapid escalation of visitor use. This could force implementation of a permit system restricting recreation use in Shoofly Canyon to minimize impacts to bighorn sheep. On the other hand if public access across these private lands is denied, recreation use in Shoofly Canyon would decrease.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close 19 miles of roads and primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters would continue to pursue deer, antelope, and bighorn sheep despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Some sage grouse hunters could be displaced by the closure of roads on Wickney Tree Dome. However this impact would not be significant because of the small number of hunters involved and the availability of suitable hunting areas outside the WSA. Current hunting use of 850 visitor days is projected to increase to 1,275 visitor days in 20 years.

In 20 years, total annual recreation use would be about 4,100 visitor days, an increase of 148% over current use of 1,650 annual visitor days. Fall hunting is expected to account for about 30% of the total recreation use. Increases in livestock grazing would have no impact on recreation use.

Conclusion: In 20 years, annual recreation use would be 4,100 visitor days, an increase of 2,450 visitor days over current use. Hunting would increase from a present annual use of 850 visitor days to 1,275 visitor days. Backcountry activities would increase from a current use of 800 visitor days to 2,825 visitor days in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be significantly impacted, although there would be displacement of some sage grouse hunters.

Nonsuitable Area

In the 1,440 acres of bighorn sheep habitat, recreation use would be regulated to minimize disturbance of bighorn sheep by recreation users with vehicles restricted to designated roads and trails. The remaining nonsuitable area (6,940 acres) would be be open to general dispersed recreation use with no special recreation management regulations or objectives. The 6,940 acres would be available for off-road-vehicle use.

Because the areas recommended nonsuitable for wilderness under this alternative do not have any specific features to attract recreation users, little recreation use is expected to occur. Current use is estimated to be less than 50 annual visitor days with an occasional hunting party accounting for most of the use. Increases in livestock grazing would have no impact on recreation use.

Restrictions on motorized vehicle use in bighorn habitat would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very little ORV use, and the availability of more suitable areas to meet projected demand.

Conclusion: There would be no significant impact on recreation use.

Impacts on Selected Wildlife Species

Suitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland would show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, population

losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use, including closure of 19 miles of roads and ways, would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland would show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

The 240 acres proposed for spraying and seeding adjacent to Mud Flat Road contains sparse Wyoming big sagebrush and a depleted herbaceous understory. The area is bordered by Mud Flat Road on one side and the foothills on the other side. The poor ecological condition of the vegetation and the close proximity of the road limit wildlife use in the area. Improvement in vegetation condition would improve the area for spring wildlife use. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant. Extending the Poison Creek pipeline would not impact wildlife.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance and force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, increases in recreation use would not

have a significant impact on these species. Limiting motorized vehicle use to designated roads and ways in bighorn sheep habitat (1,000 acres) would reduce access and human disturbance to wildlife populations, but no increase in population numbers is projected. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Vegetative manipulation would cause a temporary reduction in habitat quality on treated areas and longer term improvement as treated areas improve in ecological condition. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the All Manageable Wilderness Alternative include the costs of proposed range development projects and wilderness management costs. The 20 year forecast is that with the All Manageable Wilderness Alternative recreation use would increase 2,450 annual visitor days (148% above current use) while domestic livestock grazing would increase by 1,159 AUMs (27% above current use).

The All Manageable Wilderness Alternative would add $27,779 in annual income due to increased grazing by year 20. This would amount to an increase of 27% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $58,345 to the local economy or an increase of 134% above current income generated from recreation use in the WSA. The total income increase would amount to $86,124. This would be an increase above the current level of income generated by the WSA of 85%.

The All Manageable Wilderness Alternative would increase grazing-related employment by .3 jobs by year 20. This would amount to a 25% increase above current employment generated by the WSA. Recreation use of the WSA would add 5.4 jobs to the economy. This would be a 75% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 5.7 jobs or an increase of 54% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the All Manageable Wilderness Alternative would be a total of $40,200. The annual average wilderness management costs (following designation) would be $4,600.

Conclusion: There would be $86,124 of additional annual income and 5.7 new jobs. Implementation costs would total $40,200 for range improvements and $4,600 annually for wilderness management.

Minimum Resource Conflict Alternative

This alternative differs from the Proposed Action by recommending an additional 760 acres nonsuitable for wilderness to allow for additional vegetation manipulation projects (spraying and seeding). About 33,240 acres would be recommended as suitable for wilderness including 1,030 acres of federal land not in the WSA. About 25,830 acres would be recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 33,240 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 120 acres adjacent to the 10.25 miles of roads/primitive vehicle routes closed to motorized vehicles. The exclusion of livestock from 13.6 miles of creek bottom would improve naturalness.

Solitude - Opportunities for solitude would be maintained in the 33,240-acre wilderness area. Opportunities would be enhanced in areas visible from the 10.25 miles of roads/primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation visitor use increases, opportunities for solitude could be diminished in the first mile of Little Jacks Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 33,240-acre wilderness area. Opportunities would be enhanced in areas adjacent to 10.25 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities. The implementation of a recreation permit system for recreation users could diminish the value of a wilderness recreation experience for users who like to make impromptu visits or do not like regulatory restrictions.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep, redband trout, 5,600 acres of good to excellent condition Sagebrush Steppe vegetation, and the exceptional scenic values of Little Jacks Creek Canyon.

California bighorn sheep - About 68% of the habitat currently used by the Little Jacks Creek bighorn sheep population would be included in the wilderness area. Bighorns would continue to prosper under wilderness management since a primary wilderness management objective would be protection of bighorn habitat. Measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and elimination of motorized vehicle use. Limiting visitor numbers and directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Elimination of motorized vehicle use in bighorn habitat would

benefit bighorn sheep by reducing disturbance of sheep. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. There would be no adverse long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. Short gap fences currently prevent livestock from using about 11.6 miles of Little Jacks Creek Canyon. An additional two miles in the headwater area would be fenced. Habitat condition of this 13.6 miles would improve one condition class, except that good condition areas would remain good, with maintenance of the gap fences.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ecological values) - Livestock grazing would be substantially increased on 2,100 acres of good condition rangeland if it has been conclusively shown that increased grazing would have no adverse impact on wilderness values including plant communities. No increases in livestock grazing are projected on areas in excellent ecological condition. The value of this area as a natural ecosystem laboratory is directly related to its limited use by domestic livestock. Even light grazing of the 2,100 acres of good condition rangeland could significantly change the ecological relationships. After designation of the area as wilderness, changes in livestock grazing use which would adversely impact the value of the wilderness as a repository for future ecological and scientific research would not be permitted. Consequently, no loss to the supplemental wilderness value of the scientific and ecological values of plant communities in good and excellent condition would occur.

Scenic Values (Little Jacks Creek Canyon) - No significant impacts are expected to occur to the existing scenic values of Little Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 120 acres affected by road closures. Naturalness would improve along 13.6 miles of creek excluded to livestock use. California bighorn sheep would benefit from restrictions on recreation use and road closures. The recreation permit system would diminish primitive recreation experiences for those not liking regulatory restrictions. About 13.6 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing from Little Jacks Creek Canyon. Scientific/ecological values on 5,600 acres of good to excellent condition Sagebrush Steppe rangeland would be maintained. Bighorn sheep populations would remain at approximately 200 animals within the WSA.

Nonsuitable Area

Naturalness - Increased livestock use would have localized adverse impacts on naturalness around livestock water sources. Exclusion of livestock use along 4.3 miles of stream would improve naturalness. Construction of the Wickney Tree Dome and Poison Creek livestock watering pipelines and associated service roads would create at least 8½ miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. The impacts of this project and existing imprints of man would make about 8,800 acres on Wickney Tree Dome and about 500 acres in the foothills north of Shoofly Creek generally unnatural in appearance since these unnatural features of the landscape would frequently be encountered or seen by visitors. The 1,000 acres proposed for spray/seeding would also be unnatural in appearance since seeding with seed drills would produce a row effect visually similar to a cultivated field. New underground utility lines located in the 1/4 mile wide utility corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Impacts of new utility lines would be minimized by locating them adjacent to the existing disturbed landscape. Utility construction would reduce the natural appearance of about 140 acres. Developments on private lands adjacent to Shoofly Creek would be visible through much of the canyon area. Development of private lands could reduce the natural appearance of about 40% of the Shoofly drainage (2,725 acres).

Solitude - Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipelines would reduce opportunities for solitude on about 8,800 acres of the plateau separating Little Jacks Creek and Shoofly Creek canyons and on about 500 acres north of Shoofly Creek. Commercial recreation development of private lands in Shoofly Canyon and subsequent dramatic increases in recreation use would severely limit opportunities for solitude in about 40% of the Shoofly drainage (2,725 acres).

Primitive Recreation - Opportunities for primitive recreation would also be diminished on the 9,300 acres affected by livestock watering pipelines and on the 1,000 acres of spray/seeding since the loss of naturalness and opportunities for solitude would also diminish the value of the areas for primitive recreation experiences. As apparent naturalness and opportunities for solitude are lost due to commercial recreation development on private lands in Shoofly Canyon, outstanding opportunities for primitive recreation would also be eliminated.

Supplemental Values - Supplemental wilderness values in the nonsuitable portion of the WSA include California bighorn sheep, redband trout, 3,400 acres of good to excellent condition Sagebrush Steppe vegetation, and the Shoofly Rock Alignment cultural resource site.

California bighorn sheep - Areas recommended nonsuitable include about 24% of the habitat currently used by the Little Jacks Creek bighorn sheep population. Bighorns are expected to continue to prosper since an ACEC would be established to protect bighorn habitat. Under ACEC designation, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and motorized vehicle use. Directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Although very little motor vehicle use occurs off existing roads and trails due to rough and rocky terrain, limiting motorized vehicle use to designated roads and trails in bighorn habitat would benefit bighorn sheep by reducing disturbance of sheep. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. Commercial recreation development on private lands in Shoofly Canyon would preclude use of about 5% of the existing public land bighorn habitat. Results of this displacement would range from no effect upon population numbers to a permanent herd reduction of up to 5% (approximately 10 animals). There would be no other long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (190-200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. The fenced portion of the West Fork of Shoofly Creek currently in fair condition (two miles) would improve to good condition as the fence is maintained. Sixty percent of the 2.3 miles of poor condition on the East Fork of Shoofly Creek would improve to fair condition following the construction of gap fences. The .9 miles in fair condition that are proposed for gap fencing would improve to good condition. Development of private lands would have a negative impact on 1.6 miles of redband trout habitat on the main stem of Shoofly Creek. Increased use of the access road, construction activity, and increased human use would result in a decline in water quantity and quality, increased sedimentation, and alterations in the stream channel. The combined impact would be an improvement in 4.3 miles or 43% of redband habitat, countered by decline of one condition class of 1.6 miles (16%) as the private lands in the canyon are developed.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 1,650 acres of good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. Because increased grazing could interfere with the natural ecological relationships on the 1,650 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished.

Shoofly Rock Alignment Cultural Resource site - The Shoofly Rock Alignments and associated prehistoric surface sites would be impacted by increased livestock grazing since the 47% increase in livestock grazing would accelerate damage occurring to these sites from livestock trampling. Construction of the Wickney Tree Dome livestock watering pipeline could also affect the Shoofly Rock Alignments by providing new reliable water sources adjacent to the alignments thereby increasing livestock trampling of these archaeological sites.

Conclusion: Naturalness would be lost on 10,300 acres. Opportunities for solitude would be diminished on about 9,300 acres and opportunities for primitive recreation would be reduced on 10,300 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing. Scientific/ecological values could be diminished on 1,650 acres of good condition Sagebrush Steppe rangeland affected by increased livestock grazing. The Shoofly Rock Alignments and associated archaeological sites could be impacted by increased livestock trampling. As private lands in Shoofly Canyon are developed there would be an additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands would also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles (16%) of redband habitat. Bighorn sheep populations would remain at approximately 190-200 animals within the WSA.

Impacts on Recreation Use

Suitable Area

The 33,240-acre wilderness area would be available for backcountry recreation opportunities. Within bighorn habitat, recreation use would be regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. Motorized vehicles would be prohibited in the entire wilderness including about 10.25 miles of existing roads and primitive vehicle routes.

Backcountry recreation use is projected to increase 175% to about 1,803 annual visitor days. It is anticipated that backcountry recreation use in Little Jacks Creek Canyon during the next few years would account for most of this increase. Implementation of a permit system would limit recreation use to 1,430 annual visitor days within the canyon and minimize recreational impacts on bighorn sheep. An additional 373 visitor days of backcountry recreation use would occur on the plateau. The restrictions on recreation use in Little Jacks Creek WSA would result in increased backcountry recreation use in Big Jacks Creek and Duncan Creek WSAs.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close 10.25 miles of roads and primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters would continue to pursue deer, antelope, and bighorn sheep despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Current hunting use of 544 visitor days is projected to increase to 772 visitor days in 20 years.

In 20 years, total annual recreation use would be about 2,575 visitor days, an increase of 115% over current use of 1,200 annual visitor days. Fall hunting is expected to account for about 30% of the total recreation use. Increased livestock grazing would have no impact on recreation use.

Conclusion: In 20 years, annual recreation use would be 2,575 visitor days, an increase of 1,375 visitor days over current use. Hunting would increase from a present annual use of 544 visitor days to 772 visitor days. Backcountry activities would increase from a current use of 656 visitor days to 1,803 visitor days in 20 years. Closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

Within the 11,600 acres of bighorn habitat located outside the wilderness area, recreation use would be regulated to minimize disturbance of bighorn sheep by recreation users by limiting motor vehicle use to designated roads and trails. Remaining portions of the WSA (14,230 acres) would be open to general dispersed recreation use with no special recreation management regulations or objectives. This 14,230-acre area would be available for off-road-vehicle use.

In 20 years, total annual recreation use would be about 1,475 visitor days, an increase of 227% over current use of 450 annual visitor days. Hunting would account for about 30% of this use. Most recreation use would occur in the canyon bottoms in the lower two miles of Shoofly Creek Canyons. Because of rough topography and rocky soils, very little ORV use is anticipated in the 14,230 acres that would remain open to motorized vehicle use. Increased livestock grazing would have no impact on recreation use.

Visitor use projections for Shoofly Creek Canyon could be severely altered depending on future use of the private land in the canyon. Commercial recreational development of the private land would cause visitor use to escalate rapidly. On the other hand if the public is denied access across private land, recreation use in public portions of the canyon would be rare.

Restrictions on motorized vehicle use in bighorn habitat would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, low visitor use, and the availability of more suitable areas to meet projected demand.

Conclusion: In 20 years, annual recreation use would be 1,475 visitor days, an increase of 1,025 annual visitor days over current use. Hunting would increase from a present annual use of 306 visitor days to 428 visitor days. Backcountry activities would increase from a current use of 144 visitor days to 1,047 visitor days in 20 years. On 11,600 acres, the limitation of recreational motor vehicle use to designated routes would not significantly impact hunting use or off-road-vehicle opportunities. Commercial recreation development of private lands would escalate visitor use estimates, while prevention of public access across private lands would greatly decrease visitor use estimates.

Impacts on Selected Wildlife Species

Suitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland would show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use, including closure of 10 miles of roads and ways, would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland would show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interaction, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include two livestock watering pipelines and 1,000 acres of spray/seeding. The Wickney Tree Dome livestock watering pipeline would provide reliable water sources for wildlife as well as livestock since the system would be designed to provide wildlife water during periods of rest from livestock grazing. The proposed pipeline would water pronghorn seasonal use range and a sage grouse brood rearing area. Reliable water distributed through this plateau in July, August, and September would reduce the distance to water for these species. Negative impacts associated with the pipeline include severe trampling of vegetation immediately adjacent to water troughs with subsequent invasion by weedy species and increased competition in drought years for succulent vegetation between livestock and wildlife in areas not now used by livestock (particularly meadows used for brood rearing by sage grouse). Extending the Poison Creek pipeline would not impact wildlife. The net impact of the water pipelines on mule deer, antelope, and sage grouse is that their populations would be unaffected.

The proposed 160-acre spray and seed project west of Twin Lakes would improve habitat for wildlife. The area is a depleted basin big sagebrush site with little herbaceous understory. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. The increased openings and improved diversity would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

The 240 acres proposed for spraying and seeding adjacent to Mud Flat Road contains sparse Wyoming big sagebrush and a depleted herbaceous understory.

The area is bordered by Mud Flat Road on one side and the foothills on the other side. The poor ecological condition of the vegetation and the close proximity of the road limit wildlife use in the area. Improvement in vegetation condition would improve the area for spring wildlife use. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

The proposed 520-acre spray and seed project west of Little Tigert Spring is in poor ecological condition. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Sagebrush would be left untreated along rocky breaks, draws and adjacent to drainages. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. The increased openings and improved diversity would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance and force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, increases in recreation use would not have a significant impact on these species. Limiting motorized vehicle use to designated roads and ways in bighorn sheep habitat (6960 acres) would reduce access and human disturbance to wildlife populations, but no increase in population numbers is projected. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Vegetative manipulation would cause a temporary reduction in habitat quality on treated areas and longer term improvement as treated areas improve in ecological condition. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the Minimum Resource Conflict Alternative include the costs of proposed range development projects and wilderness management costs. The 20 year forecast is that with the Minimum Resource Conflict Alternative recreation use would increase 2,400 annual visitor days (145% above current use) while domestic livestock grazing would increase by 2,673 AUMs (61% above current use).

The Minimum Resource Conflict Alternative would add $36,389 in annual income due to increased grazing by year 20. This would amount to an increase of 61% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $58,345 to the local economy or an increase of 134% above current income generated from recreation use in the WSA. The total income increase would amount to $94,734. This would be an increase above the current level of income generated by the WSA of 94%.

The Minimum Resource Conflict Alternative would increase grazing- related employment by .8 jobs by year 20. This would amount to a 63% increase above current employment generated by the WSA. Recreation use of the WSA would add 5.4 jobs to the economy. This would be a 75% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 6.2 jobs or an increase of 58% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the Minimum Resource Conflict Alternative would be a total of $86,200. The annual average wilderness management costs (following designation) would be $4,600.

Conclusion: There would be $94,734 of additional annual income and 6.2 new jobs. Implementation costs would total $86,200 for range improvements and $4,600 annually for wilderness management.

Rim to Rim Wilderness Alternative

About 6,350 acres would be recommended suitable for wilderness while 51,690 acres would be recommended nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 6,350 acres would be maintained. Exclusion of livestock from 13.6 miles of creek bottom would improve naturalness.

Solitude - Opportunities for solitude would be maintained in the 6,350-acre wilderness area. As recreation visitor use increases, opportunities for solitude could be diminished in the first mile of Little Jacks Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 6,350-acre wilderness area. The implementation of a recreation permit system for recreation users could diminish the value of a wilderness recreation experience for users who like to make impromptu visits or do not like regulatory restrictions.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep, redband trout, and the exceptional scenic values of Little Jacks Creek Canyon.

California bighorn sheep - About 17% of the habitat currently used by the Little Jacks Creek bighorn sheep population would be included in the wilderness area. Bighorns would continue to prosper under wilderness management since a primary wilderness management objective would be protection of bighorn habitat. Measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and elimination of motorized vehicle use. Limiting visitor numbers and directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Elimination of motorized vehicle use in bighorn habitat would benefit bighorn sheep by reducing disturbance of sheep. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. There would be no adverse long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. Short gap fences currently prevent livestock from using about 11.6 miles of Little Jacks Creek Canyon. An additional two miles in the headwater area would be fenced. Habitat condition of this 13.6 miles is expected to improve one condition class, except that good condition areas would remain good with maintenance of the gap fences.

Scenic Values (Little Jacks Creek Canyon) - No significant impacts would occur to the existing scenic values of Little Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be maintained on 6,350 acres. Naturalness would improve along 13.6 miles of creek excluded to livestock use. California bighorn sheep would benefit from restrictions on recreation use. About 13.6 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing from Little Jacks Creek Canyon. Bighorn sheep populations would remain at approximately 200 animals within the WSA.

Nonsuitable Area

Naturalness - Increased livestock use would have localized adverse impacts on naturalness around water sources. Exclusion of livestock use along 4.3 miles of creek bottom would improve naturalness. Construction of the Wickney Tree Dome and Poison Creek livestock watering pipelines and associated service roads would create at least 8½ miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. The impacts of this project and existing imprints of man would make about 8,800 acres on Wickney Tree Dome and about 500 acres in the foothills north of Shoofly Creek generally unnatural in appearance since

these unnatural features of the landscape would frequently be encountered or seen by visitors. The 1,000 acres proposed for spray/seeding would also be unnatural in appearance since seeding with seed drills would produce a row effect visually similar to a cultivated field. New underground utility lines located in the 1/4 mile wide corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Utility construction would reduce the natural appearance of about 140 acres. Developments on private lands adjacent to Shoofly Creek would be visible through much of the canyon area. Development of private lands could reduce the natural appearance of about 40% of the Shoofly drainage (2,725 acres).

Solitude - Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipelines would reduce opportunities for solitude on about 8,800 acres of the plateau separating Little Jacks Creek and Shoofly Creek canyons and on about 500 acres north of Shoofly Creek. If new underground utilities were installed outside the corridor, then opportunities for solitude would also be diminished by increased vehicle traffic to service the utilities. Commercial recreation development of private lands in Shoofly Canyon and subsequent dramatic increases in recreation use would severely limit opportunities for solitude in about 40% of the Shoofly drainage (2,725 acres).

Primitive Recreation - Opportunities for primitive recreation would also be diminished on the 9,300 acres affected by the livestock watering pipelines and on the 1,000 acres of spray/seeding since the loss of naturalness and opportunities for solitude would also diminish the value of the area for primitive recreation experiences. Primitive recreation values could also be diminished in areas affected by new underground utility construction and subsequent maintenance. As apparent naturalness and opportunities for solitude are lost due to commercial recreation development on private lands in Shoofly Canyon, outstanding opportunities for primitive recreation would also be eliminated.

Supplemental Values - Supplemental wilderness values in the nonsuitable portion of the WSA include California bighorn sheep, redband trout, 9,000 acres of good to excellent condition Sagebrush Steppe vegetation, and the Shoofly Rock Alignment cultural resource site.

California bighorn sheep - Areas recommended nonsuitable include about 75% of the habitat currently used by the Little Jacks Creek bighorn sheep population. Bighorns are expected to continue to prosper since an ACEC would be established to protect bighorn habitat. Under ACEC designation, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and motorized vehicle use. Directing visitor use away from critical lambing areas during the spring would minimize disturbance of bighorn sheep and allow current productivity to continue. Although very little motor vehicle use occurs off existing roads and trails due to rough and rocky terrain, limiting motorized vehicle use to designated

roads and trails in bighorn habitat would reduce disturbance of bighorn sheep. Motor vehicle traffic on the utility corridor service road between Little Jacks Creek and Big Jacks Creek WSAs would not impact bighorn sheep since the closest bighorn habitat is located approximately one mile from the corridor. Increased livestock grazing would not impact bighorn sheep since no increased livestock use is projected within bighorn habitat due to development of livestock water sources at least one mile from bighorn habitat. Commercial recreation development on private lands in Shoofly Canyon would preclude use of about 5% of the existing public land bighorn habitat. Results of this displacement would range from no effect upon population numbers to a permanent herd reduction of up to 5% (approximately 10 animals). There would be no other long term (20 years) effects on population numbers and bighorn sheep populations would continue to remain at or near habitat carrying capacity (190-200 animals within the WSA).

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. The fenced portion of the West Fork of Shoofly Creek currently in fair condition (two miles) would improve to good condition as the fence is maintained. Sixty percent of the 2.3 miles of poor condition of the East Fork of Shoofly Creek would improve to fair condition following the construction of gap fences. The .9 miles in fair condition that are proposed for gap fencing would improve to good condition. Development of private lands would have a negative impact on 1.6 miles of redband trout habitat on the main stem of Shoofly Creek. Increased use of the access road, construction activity, and increased human use could result in a decline in water quantity and quality, increased sedimentation, and alterations in the stream channel. The combined impact would be an improvement in 4.3 miles or 43% of redband habitat, countered by decline of one condition class of 1.6 miles (16%) as the private lands in the canyon are developed.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 3,750 acres of good condition rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. Because increased grazing could interfere with the natural ecological relationships on the 3,750 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960).

While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes.

Shoofly Rock Alignment Cultural Resource site - The Shoofly Rock Alignments and associated prehistoric surface sites would be impacted by increased livestock grazing since the 47% increase in livestock grazing would accelerate damage occurring to these sites from livestock trampling. Construction of the Wickney Tree Dome livestock watering pipeline could also affect the Shoofly Rock Alignments by providing new reliable water sources adjacent to the alignments thereby increasing livestock trampling of these archaeological sites.

Conclusion: Naturalness would be lost on 10,300 acres and decreased around livestock water sources. Opportunities for solitude would be diminished on about 9,300 acres, and opportunities for primitive recreation would decrease on 10,300 acres. About 4.3 (43%) miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing. Scientific/ecological values could be diminished on 3,750 acres of good condition Sagebrush Steppe rangeland affected by increased livestock grazing. The Shoofly Rock Alignments and associated surface sites could be impacted by increased livestock trampling. As private lands in Shoofly Canyon are developed there would be an additional loss of naturalness and opportunities for solitude/primitive recreation on 2,725 acres. The development of these private lands would also preclude use of about 5% of the existing bighorn sheep habitat and cause decline of 1.6 miles (16%) of redband habitat. Construction of new underground utilities outside the 1/4 utility corridor could also result in loss of naturalness and diminished opportunities for solitude/primitive recreation in areas visible from new utility paths and associated service roads. Bighorn sheep populations would remain at approximately 190-200 animals within the WSA.

Impacts on Recreation Use

Suitable Area

The 6,350-acre wilderness area would be available for backcountry recreation opportunities with use regulated through a permit system to minimize disturbance of bighorn sheep by recreation users. Motorized vehicles would be prohibited in the wilderness area. There are no roads or primitive vehicle routes in the area.

Backcountry recreation use is projected to increase 120% to about 1,430 annual visitor days. It is anticipated that backcountry recreation use in Little Jacks Creek Canyon during the next few years would account for most of this increase. Implementation of a permit system would limit recreation use to 1,430 annual visitor days and minimize recreational impacts on bighorn sheep. The restrictions on recreation use in Little Jacks Creek WSA would result in increased backcountry recreation use in Big Jacks Creek and Duncan Creek WSAs.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because natural terrain limitations currently preclude the use of motorized vehicles in the proposed wilderness area.

In 20 years, total annual recreation use would be about 2,065 visitor days, an increase of 80% over current use of 1,150 annual visitor days. Fall hunting is expected to account for about 30% of the total recreation use.

Conclusion: In 20 years, annual recreation use would be 2,065 visitor days, an increase of 915 visitor days over current use. Hunting would increase from a present annual use of 500 visitor days to 635 visitor days. Backcountry activities would increase from a current use of 650 visitor days to 1,430 visitor days in 20 years. Closure of the area to recreational motor vehicle use would not impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

In the 21,750 acres of bighorn habitat areas outside the wilderness area, recreation use would be monitored and regulated if necessary to minimize disturbance to bighorns by limiting motorized vehicles to designated roads and trails. The remaining 29,940 acres would be open to general dispersed recreation use with no special recreation management regulations or objectives. This area would also be available for off-road-vehicle use.

In 20 years, total annual recreation use is projected to be about 1,985 visitor days, an increase of 300% over current use of 500 annual visitor days. Hunting would amount to about 30% of this use. Most recreation use would occur in the canyon bottoms in the lower two miles of Shoofly Creek Canyons. Because of rough topography and rocky soils, very little ORV use is anticipated in the 29,940 acres that would remain open to motorized vehicle use. Increased livestock grazing would have no impact on recreation use.

Visitor use projections for Shoofly Creek Canyon could be severely altered depending on future use of the private land in the canyon. Commercial recreational development of the private land would cause visitor use to escalate rapidly. On the other hand if the public is denied access across private land, recreation use in public portions of the canyon would be rare.

Restrictions on motorized vehicle use in bighorn habitat would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, low visitor use, and the availability of more suitable areas to meet projected demand.

Conclusion: In 20 years, annual recreation use would be 1,985 visitor days, an increase of 1,485 annual visitor days over current use. Hunting would increase from a present annual use of 350 visitor days to 565 visitor days. Backcountry activities would increase from a current use of 150 visitor days to 1,420 visitor days in 20 years. Opportunities to participate in hunting or off-road-vehicle would not be impacted.

Impacts on Selected Wildlife Species

Suitable Area

Increased recreation use, particularly in Little Jacks Creek Canyon, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. The net impact of increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: The net impact of increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 50% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include two livestock watering pipelines and 1,000 acres of spray/seeding. The Wickney Tree Dome livestock watering pipeline would provide reliable water sources for wildlife as well as livestock since the system would be designed to provide wildlife water during periods of rest from livestock grazing. The proposed pipeline would water pronghorn seasonal use range and a sage grouse brood rearing area. Reliable water distributed through this plateau in July, August, and September would reduce the distance to water for these species. Negative impacts associated with the pipeline include severe trampling of vegetation immediately adjacent to water troughs with subsequent invasion by weedy species and increased competition in drought years for succulent vegetation between livestock and wildlife in areas not now used by livestock (particularly meadows used for brood rearing by sage grouse). Extending the

Poison Creek pipeline would not impact wildlife. The net impact of the water pipelines on mule deer, antelope, and sage grouse is that their populations would be unaffected.

The proposed 160-acre spray and seed project west of Twin Lakes would improve habitat for wildlife. The area is a depleted basin big sagebrush site with little herbaceous understory. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. The increased openings and improved diversity would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

The 240 acres proposed for spraying and seeding adjacent to Mud Flat Road contains sparse Wyoming big sagebrush and a depleted herbaceous understory. The area is bordered by Mud Flat Road on one side and the foothills on the other side. The poor ecological condition of the vegetation and the close proximity of the road limit wildlife use in the area. Improvement in vegetation condition would improve the area for spring wildlife use. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

The proposed 520-acre spray and seed project west of Little Tigert Spring is in poor ecological condition. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Sagebrush would be left untreated along rocky breaks, draws and adjacent to drainages. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. The increased openings and improved diversity would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be the temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance and force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn and sage grouse would travel to other available areas to avoid disturbances, increases in recreation use would not have a significant impact on these species. Limiting motorized vehicle use to designated roads and ways in bighorn sheep habitat (29,000 acres) would reduce access and human disturbance to wildlife populations, but no increase in population numbers is projected. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Vegetative manipulation would cause a temporary reduction in habitat quality on treated areas and longer term improvement as treated areas improve in ecological condition. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs include the costs of proposed range development projects and the costs of wilderness management. The 20 year forecast is that with the Rim to Rim Wilderness Alternative recreation use would increase 2,400 annual visitor days (145% above current use) while domestic livestock grazing would increase by 3,553 AUMs (84% above current use).

The Rim to Rim Wilderness Alternative would add $48,405 in annual income due to increased grazing by year 20. This would amount to an increase of 84% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $58,345 to the local economy or an increase of 134% above current income generated from recreation use in the WSA. The total income increase would amount to $106,750. This would be an increase above the current level of income generated by the WSA of 105%.

The Rim to Rim Wilderness Alternative would increase grazing-related employment by 1 job by year 20. This would amount to a 83% increase above current employment generated by the WSA. Recreation use of the WSA would add 5.4 jobs to the economy. This would be a 75% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 6.4 jobs or an increase of 60% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the Rim to Rim Wilderness Alternative would be a total of $86,200. The annual average wilderness management costs (following designation) would be $4,600.

Conclusion: There would be $106,750 of additional annual income and 6.4 new jobs. Implementation costs would total $86,200 for range improvements and $4,600 annually for wilderness management.

DUNCAN CREEK WSA (ID-111-7B)

Proposed Action

Under the Proposed Action 9,400 acres, including 640 acres of state land, would be recommended as suitable for wilderness. The remaining 1,245 acres would be recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 9,400 acres would be maintained since no projects are proposed.

Solitude - Opportunities for solitude would generally be maintained in the 9,400-acre wilderness area. As recreation use increases, some opportunities for solitude may be diminished on spring weekends in Duncan Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 9,400-acre wilderness area.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep habitat, redband trout, 5,900 acres of good to excellent condition rangeland representative of relatively undisturbed Sagebrush Steppe vegetation, and scenic values of lower Duncan Creek Canyon.

California bighorn sheep - Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. The proposed acquisition of 640 acres of state lands would increase the amount of bighorn habitat under federal jurisdiction. This would preclude any actions taking place on this land that are potentially detrimental to bighorn sheep or their habitat. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Because of continued livestock access and limited site potential, no significant change is expected in redband trout habitat or populations.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Because domestic livestock grazing will remain near existing levels, no significant impacts are anticipated to these near pristine rangelands. Rangeland in good/excellent condition would not be significantly impacted.

Environmental Consequences

Scenic Values - No impacts are anticipated to scenic values.

Conclusion: Naturalness and existing opportunities for solitude/primitive recreation would be maintained on 9,400 acres. The bighorn sheep populations would expand and fully occupy available habitat.

Nonsuitable Area

Naturalness - No significant impacts are anticipated with the exception of adverse impacts around water sources due to increased livestock use.

Solitude - No significant impacts are anticipated.

Primitive Recreation - No significant impacts are anticipated.

Supplemental Values - Supplemental wilderness values in the nonsuitable area include 450 acres of good to excellent condition rangeland representative of relatively undisturbed Sagebrush Steppe vegetation.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 450 acres of good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. The value of these areas as natural ecosystem laboratories is directly related to their limited use by domestic livestock. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960). While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes. Because increased grazing could interfere with these natural ecological relationships on the 450 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished or lost.

Conclusion: Scientific/ecological values could be diminished or lost on 450 acres of good condition Sagebrush Steppe rangeland. No significant impacts would occur to naturalness or to opportunities for solitude and primitive recreation with the exception of decreased naturalness around livestock water sources.

Impacts on Recreation Use

Suitable Area

The 9,400-acre wilderness area would be available for backcountry recreation opportunities with motorized vehicle use prohibited. There are no existing motor vehicle routes in the area. Backcountry recreation use would be managed to minimize impact on potential bighorn sheep habitat.

In 20 years, total annual recreation use is projected to be about 1,580 visitor days, an increase of 1,205 annual visitor days over current use. Use would be about 70% backcountry activities and 30% hunting.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas, such as the Owyhee Front ORV area, to adequately meet projected demand.

Hunting use would not be significantly impacted by wilderness designation. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Current hunting use of 325 visitor days is projected to increase to 480 visitor days in 20 years.

Conclusion: In 20 years, annual recreation use would be 1,580 visitor days, an increase of 1,205 visitor days over current use. Hunting would increase from a present annual use of 325 visitor days to 480 visitor days. Backcountry activities would increase from a current use of 50 visitor days to 1,100 visitor days in 20 years. The closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

The 1,245 acres recommended nonsuitable for wilderness would be available for off-road-vehicle use and general dispersed recreation use with no special recreation management regulations or objectives.

Management actions in this area would not have a significant impact on recreation use since the area has little recreation potential or value. Current recreation use and future anticipated recreation use in negligible.

Conclusion: No significant impact. In 20 years, annual recreation use would be about 20 visitor days of hunting use.

Impacts on Selected Wildlife Species

Suitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 15% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Increased recreation use, particularly in the canyon, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of

preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 65% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit slightly from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use. Populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Impacts on Income and Jobs

Implementation costs for the Proposed Action are limited to wilderness management costs. The 20 year forecast is that with the Proposed Action recreation use would increase 1,225 annual visitor days while domestic livestock grazing would increase by 102 AUMS (22% above current use).

The Proposed Action would add $1,390 in annual income due to increased grazing by year 20. This would amount to an increase of 22% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $29,689 to the local economy or an increase of 162% above current income generated from recreation use in the WSA. The total income increase would amount to $31,079. This would be an increase above the current level of income generated by the WSA of 77%.

The Proposed Action would not increase grazing-related employment. Recreation use of the WSA would add 2.75 jobs to the economy. This would be a 275% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 2.75 jobs or an increase of 275% above the current level of employment generated by the WSA.

Implementation costs are limited to wilderness management costs since no range development projects are proposed under this alternative. The annual average wilderness management costs (following designation) would be $1,700.

Conclusion: There would be $31,079 of additional annual income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.

All Wilderness Alternative

The 10,645-acre proposed wilderness area would include all 10,005 acres in the WSA and the 640-acre state inholding.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 10,645 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 30 acres adjacent to the 2.5 miles of primitive vehicle routes closed to motorized vehicles.

Solitude - Opportunities for solitude would generally be maintained in the 10,645-acre wilderness area. Opportunities would be enhanced in areas visible from the 2.5 miles of primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation use increases, some opportunities for solitude may be diminished on spring weekends in Duncan Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 10,645-acre wilderness area. Opportunities would be enhanced in areas adjacent to 2.5 miles of proposed vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep habitat, redband trout, 6,350 acres of good to excellent condition rangeland representative of relatively undisturbed Sagebrush Steppe vegetation, and scenic values of lower Duncan Creek Canyon.

California bighorn sheep - Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. The proposed acquisition of 640 acres of state lands would increase the amount of bighorn habitat under federal jurisdiction. This would preclude any actions taking place on this land that are potentially detrimental to bighorn sheep or their habitat. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Because of continued livestock access and limited site potential, no significant change is expected in redband trout habitat or populations.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - No significant impacts are anticipated to these near pristine rangelands. The proposed 10% increase in livestock grazing would only be permitted if it has been conclusively shown that the increase would have no adverse impact on wilderness values including plant communities.

Scenic Values - No significant impacts are anticipated to scenic values.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 30 acres affected by the closure of primitive vehicle routes. The bighorn sheep population would expand and fully occupy available habitat.

Impacts on Recreation Use

Suitable Area

The 10,645-acre wilderness area would be available for backcountry recreation opportunities. Backcountry recreation use would be managed to minimize impact on potential bighorn sheep habitat. Motorized vehicles would be prohibited in the entire area including 2.5 miles of existing primitive vehicle routes.

In 20 years, total annual recreation use is projected to be about 1,600 visitor days, an increase of 1,225 annual visitor days over current use. Use would be about 70% backcountry activities and 30% hunting.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close 2.5 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Current hunting use of 325 visitor days is projected to increase to 500 visitor days in 20 years.

Conclusion: In 20 years, annual recreation use would be 1,600 visitor days, an increase of 1,225 visitor days over current use. Hunting would increase from a present annual use of 325 visitor days to 500 visitor days. Backcountry activities would increase from a current use of 50 visitor days to 1,100 visitor days in 20 years. The closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities.

Impacts on Selected Wildlife Species

Suitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 22% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Increased recreation use, particularly in the canyon, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Impacts on Income and Jobs

Implementation costs are limited to wilderness management costs. The 20 year forecast is that with the All Wilderness Alternative recreation use would increase 1,225 annual visitor days while domestic livestock grazing would increase by 46 AUMS (10% above current use).

The All Wilderness Alternative would add $627 in annual income due to increased grazing by year 20. This would amount to an increase of 10% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $29,689 to the local economy or an increase of 162% above current income generated from recreation use in the WSA. The total income increase would amount to $30,316. This would be an increase above the current level of income generated by the WSA of 73%.

The All Wilderness Alternative would not increase grazing-related employment. Recreation use of the WSA would add 2.75 jobs to the economy. This would be a 275% increase above current employment generated from

recreation activities in the WSA. The total employment gain would be 2.75 jobs or an increase of 275% above the current level of employment generated by the WSA.
Implementation costs are limited to wilderness management costs since no range development projects are proposed under this alternative. The annual average wilderness management costs (following designation) would be $1,700.

Conclusion: There would be $30,316 of additional annual income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.

No Wilderness/No Action Alternative

All 10,005 acres in the WSA would be recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Nonsuitable Area

Naturalness - Naturalness of 10,005 acres would be maintained since no projects are proposed.

Solitude - Opportunities for solitude would be maintained in the entire area with the exception that on some spring weekends, recreation visitation would diminish solitude in the canyon.

Primitive Recreation - No impacts are anticipated. Outstanding opportunities for primitive recreation would be maintained in the entire area.

Supplemental Values - Supplemental wilderness values in the WSA include California bighorn sheep habitat, redband trout, 6,350 acres of good to excellent condition rangeland representative of relatively undisturbed Sagebrush Steppe vegetation, and scenic values of lower Duncan Creek Canyon.

California bighorn sheep - Anticipated increases in recreation use have the potential for detrimental impacts in potential bighorn sheep habitat. Since the sheep are very sensitive to human disturbance, frequent encounters or disturbance could preclude use of this portion of the habitat by bighorn sheep. The WSA contains 13% of the potential bighorn sheep habitat in the Big Jacks Creek complex. Under this alternative there are no specific recreation management or monitoring proposals, therefore it is probable that recreation use would conflict with bighorns and prevent full occupancy of available habitat.

Redband trout - Because of continued livestock access and limited site potential, no significant change is expected in redband trout habitat or populations.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 450 acres of

good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. The value of these areas as natural ecosystem laboratories is directly related to their limited use by domestic livestock. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960). While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes. Because increased grazing could interfere with these natural ecological relationships on the 450 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished.

Scenic Values - No impacts are anticipated to scenic values.

Conclusion: Unregulated increases in recreation use could preclude use of up to 13% of the potential habitat for the Big Jacks Creek Complex sheep transplant. The significance of this impact is not known since the sheep have not been reintroduced into this habitat yet and therefore critical use areas are not known. Scientific/ecological values could be diminished on 450 acres of good condition Sagebrush Steppe rangeland. There would be no significant impact to naturalness, opportunities for solitude/primitive recreation, redband trout, and scenic values. The bighorn sheep population would expand and partially occupy available habitat.

Impacts on Recreation Use

Nonsuitable Area

The entire WSA would be available for general recreation use with no specific restrictions or recreation management objectives. Generally the entire WSA would be open to off-road-vehicle use although some winter restrictions could be imposed in critical deer winter range.

In 20 years, total annual recreation use is projected to be about 1,425 visitor days, an increase of 1,050 annual visitor days over current use. Use would be about 65% backcountry activities and 35% hunting.

Even without wilderness designation, Duncan Creek would be a popular destination for visitors seeking backcountry recreation opportunities. Use

would be less than with wilderness designation, however, since annual increases are expected to be about 4% rather than the 10% forecast for designated wilderness areas.

Opportunities for hunting and off-road-vehicle use would not be affected since there would be no restrictions on the use of motorized vehicles. Because of natural terrain restrictions, very little off-road-vehicle use is expected to occur.

Conclusion: In 20 years, annual recreation use would be 1,425 visitor days, an increase of 1,050 visitor days over current use. Hunting would increase from a present annual use of 325 visitor days to 500 visitor days. Backcountry activities would increase from a current use of 50 visitor days to 925 visitor days in 20 years. Opportunities to participate in hunting or off-road-vehicle use would not be impacted.

Impacts on Selected Wildlife Species

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 22% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Increased recreation use, particularly in the canyon, would displace wildlife species sensitive to human disturbance and force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, increases in recreation use would not have a significant impact on these species.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use. Populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Impacts on Income and Jobs

There are no implementation costs under this alternative. The 20 year forecast is that with the No Wilderness/No Action Alternative recreation use would increase 1,050 annual visitor days while domestic livestock grazing would increase by 115 AUMS (25% above current use).
The No Wilderness/No Action Alternative would add $1,568 in annual income due to increased grazing by year 20. This would amount to an increase of 25% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $25,587 to the local economy or an increase of 126% above current income generated from recreation use in the WSA. The total income increase would amount to $27,155. This would be an increase above the current level of income generated by the WSA of 55%.

The No Wilderness/No Action Alternative would not increase grazing-related employment. Recreation use of the WSA would add 2.4 jobs to the economy. This would be a 240% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 2.4 jobs or an increase of 240% above the current level of employment generated by the WSA.

There would be no implementation costs under this alternative since no range development projects are proposed and there would be no wilderness management costs since no areas would be designated wilderness.

Conclusion: There would be $27,155 of additional annual income and 2.4 new jobs. There would be no implementation costs.

All Manageable Wilderness Alternative

Under this alternative 10,085 acres, including the 640-acre state inholding, would be recommended as suitable for wilderness. The remaining 560 acres in the WSA would be recommended nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 10,085 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 25 acres adjacent to the two miles of primitive vehicle routes closed to motorized vehicles.

Solitude - Opportunities for solitude would generally be maintained in the 10,085-acre wilderness area. Opportunities would be enhanced in areas visible from the two miles of primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation use increases, some opportunities for solitude may be diminished on spring weekends in Duncan Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 10,085-acre wilderness area. Opportunities would be enhanced in areas adjacent to two miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep habitat, redband trout, 6,250 acres of good to excellent condition rangeland representative of relatively undisturbed Sagebrush Steppe vegetation, and scenic values of lower Duncan Creek Canyon.

California bighorn sheep - Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. The proposed acquisition of 640 acres of state lands would increase the amount of bighorn habitat under federal jurisdiction. This would preclude any actions taking place on this land that are potentially detrimental to bighorn sheep or their habitat. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Because of continued livestock access and limited site potential, no significant change is expected in redband trout habitat or populations.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Because domestic livestock grazing will remain near existing levels, no significant impacts are anticipated to these near pristine rangelands.

Scenic Values - No impacts are anticipated to scenic values.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be maintained on 10,085 acres and would be enhanced on about 25 acres affected by the closure of primitive vehicle routes. The bighorn sheep population would expand and fully occupy available habitat. No significant impacts to rangeland in good/excellent condition are anticipated.

Nonsuitable Area

Naturalness - No significant impacts are anticipated with the exception of adverse impacts around water sources due to increased livestock use.

Solitude - No significant impacts are anticipated.

Primitive Recreation - No significant impacts are anticipated.

Supplemental Values - Supplemental wilderness values in the nonsuitable area include 100 acres of good to excellent condition rangeland representative of relatively undisturbed Sagebrush Steppe vegetation.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 100 acres of good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. The value of these areas as natural ecosystem laboratories is directly related to their limited use by domestic livestock. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960). While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes. Because increased grazing could interfere with these natural ecological relationships on the 100 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished or lost.

Conclusion: Scientific/ecological values could be diminished or lost on 100 acres of good condition Sagebrush Steppe rangeland. No significant impacts would occur to naturalness or to opportunities for solitude and primitive recreation with the exception of decreased naturalness around livestock water sources.

Impacts on Recreation Use

Suitable Area

The 10,085-acre wilderness area would be available for backcountry recreation opportunities with motorized vehicle use prohibited. Two miles of primitive vehicle routes would be closed to public motor vehicle use. Backcountry recreation use would be managed to minimize impact on potential bighorn sheep habitat.

In 20 years, total annual recreation use is projected to be about 1,600 visitor days, an increase of 1,225 annual visitor days over current use. Use would be about 70% backcountry activities and 30% hunting.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close two miles of primitive vehicle tracks, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Current hunting use of 325 visitor days is projected to increase to 500 visitor days in 20 years.

Conclusion: In 20 years, annual recreation use would be 1,600 visitor days, an increase of 1,225 visitor days over current use. Hunting would increase from a present annual use of 325 visitor days to 500 visitor days. Backcountry activities would increase from a current use of 50 visitor days to 1,100 visitor days in 20 years. The closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

The 560 acres recommended nonsuitable for wilderness would be available for off-road-vehicle use and general dispersed recreation use with no special recreation management regulations or objectives.

Management actions in this area would not have an impact on recreation use since the area has little recreation potential or value. Current recreation use and future anticipated recreation use in negligible.

Conclusion: No impact. Little, if any, recreation use would occur.

Impacts on Selected Wildlife Species

Suitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 20% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife

populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Increased recreation use, particularly in the canyon, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 80% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit slightly from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use. Populations of mule deer and pronghorn would increase by up to 2%. Sage grouse populations would increase by up to 5%.

Impacts on Income and Jobs

Implementation costs for the All Manageable Alternative are limited to wilderness management costs. The 20 year forecast is that with the All Manageable Alternative recreation use would increase 1,225 annual visitor days while domestic livestock grazing would increase by 87 AUMS (19% above current use).

The All Manageable Alternative would add $1,185 in annual income due to increased grazing by year 20. This would amount to an increase of 19% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $29,689 to the local economy or an increase of 162% above current income generated from recreation use in the WSA. The total income increase would amount to $30,874. This would be an increase above the current level of income generated by the WSA of 75%.

The All Manageable Alternative would not increase grazing-related employment. Recreation use of the WSA would add 2.75 jobs to the economy. This would be a 275% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 2.75 jobs or an increase of 275% above the current level of employment generated by the WSA.

Implementation costs are limited to wilderness management costs since no range development projects are proposed under this alternative. The annual average wilderness management costs (following designation) would be $1,700.

Conclusion: There would be $30,874 of additional annual income and 2.75 new jobs. Implementation costs would be $1,700 annually for wilderness management.

BIG JACKS CREEK WSA (ID-111-7C)

Proposed Action

Under the Proposed Action 44,525 acres would be recommended as suitable for wilderness. The remaining 10,308 acres would be recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 44,525 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 110 acres adjacent to the nine miles of roads/primitive vehicle routes closed to motorized vehicles. Exclusion of livestock along 19 miles of Big Jacks Creek would improve naturalness.

Solitude - Opportunities for solitude would be maintained in the 44,525-acre wilderness area with the exception that increasing recreation use would diminish solitude in the canyons. Opportunities would be enhanced in areas visible from the nine miles of roads/primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 44,525-acre wilderness area. Opportunities would be enhanced in areas adjacent to nine miles of road closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep, redband trout, 5,800 acres of good to excellent condition Sagebrush Steppe vegetation, and scenic values of Big Jacks Creek Canyon.

California bighorn sheep - Anticipated increases in recreational use have the potential for detrimental impacts in potential bighorn sheep habitat. Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. The proposed acquisition of state lands would increase the amount of bighorn habitat under federal jurisdiction. This would preclude any actions taking place on this land that are potentially detrimental to bighorn sheep or their habitat. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. About 19 miles of Big Jacks Creek have been gap fenced to exclude livestock grazing. The physical habitat condition of fisheries/aquatic habitat would improve one condition class with maintenance of this fence. The remaining 12.5 miles is presently in fair condition and is accessible to livestock. About three of these miles would decline to poor condition due to increased livestock use resulting from construction of the Jacks Creek pipeline spurs. Increased grazing at watering points would result in additional trampling and eventual loss of riparian vegetation, accelerated erosion of stream banks, and increased siltation. These factors would reduce habitat quality and potentially affect fish health and production. Approximately 9.5 miles of Big Jacks Creek would remain in fair condition. The portion of Duncan Creek in fair condition (.9 miles) would remain in fair condition because of limitations on increases in grazing with wilderness designation. The combined impact would be an improvement of one condition class in 19 miles of redband habitat with a decline of one condition class on three miles of the habitat.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Because domestic livestock grazing would remain near existing levels, no significant impacts are anticipated to 5,800 acres of near pristine rangelands.

Scenic Values (Big Jacks Creek Canyon) - No significant impacts are expected to occur to the existing scenic values of Big Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 110 acres affected by road closures. Increasing recreation use would diminish opportunities for solitude in the canyons. California bighorn sheep would benefit from recreation use management and road closures. About 19 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing. Another three miles of redband habitat would decline in condition because of increased livestock grazing. The bighorn sheep population would expand and fully occupy available habitat.

Nonsuitable Area

Naturalness - Increased livestock use would decrease naturalness around livestock water sources. The construction of 4.5 miles of new laterals on the Jacks Creek livestock watering pipeline would create at least 4.5 miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. It is anticipated that the area disturbed by pipeline construction and associated service roads would be visible on about 5,350 acres of the plateau west of Big Jacks Creek Canyon. This area would be unnatural in appearance since visitors would frequently see these obvious manmade elements of the landscape. New underground utility lines located in the 1/4 mile wide utility corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Utility construction would reduce the natural appearance of about 550 acres.

Solitude - Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipeline spurs would reduce opportunities for solitude on the 5,350 acres visible from the pipeline service roads. Opportunities for solitude could also be diminished by increased ORV use on 4,400 acres on the east side of Big Jacks Creek Canyon. This area is adjacent to established ORV use areas and portions have been used in the past for desert motorcycle racing.

Primitive Recreation - Opportunities for primitive recreation would also be diminished on the 9,750 acres affected by livestock water pipeline construction and increased ORV use since the loss of naturalness and/or opportunities for solitude would also diminish the value of the area for primitive recreation experiences.

Supplemental Values - Supplemental wilderness values in the nonsuitable portion of the WSA include 10,200 acres of good to excellent condition Sagebrush Steppe vegetation.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 10,200 acres of good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. The value of these areas as natural ecosystem laboratories is directly related to their limited use by domestic livestock. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960). While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes. Because increased grazing could interfere with these natural ecological relationships on the 10,200 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished.

Conclusion: Naturalness would be lost on 5,350 acres and decreased around livestock water sources. Opportunities for solitude/primitive recreation would be diminished on 9,750 acres. Underground utility construction could reduce naturalness on about 550 acres. Scientific/ecological values could be diminished on 10,200 acres of good condition Sagebrush Steppe rangeland.

Impacts on Recreation Use

Suitable Area

The 44,525-acre wilderness area would be available for backcountry recreation opportunities. Following reintroduction of bighorn sheep, indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to bighorns. Motorized vehicles would be prohibited in the wilderness area with nine miles of motor vehicle routes closed.

In 20 years, total annual recreation use is projected to be about 7,975 visitor days, an increase of 7,225 annual visitor days over current use. Fall hunting is expected to account for about 10% of the total recreation use.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas, such as the Owyhee Front ORV area, to adequately meet projected demand. Although wilderness designation would close nine miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Current hunting use of 500 visitor days is projected to increase to 875 visitor days in 20 years.

Conclusion: In 20 years, annual recreation use would be 7,975 visitor days, an increase of 7,225 visitor days over current use. Hunting would increase from a present annual use of 500 visitor days to 875 visitor days. Backcountry activities would increase from a current use of 100 visitor days to 7,100 visitor days in 20 years. The closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

The 10,308 acres recommended nonsuitable for wilderness would be open to general dispersed recreation use with no special recreation management regulations or objectives. This area would be available for off-road-vehicle use.

Because the areas recommended nonsuitable for wilderness under this alternative do not have any specific features to attract recreation users, little recreation use would occur. Current use is estimated to be less than 100 annual visitor days with an occasional hunting party accounting for most of the use. Increased livestock grazing would have no impact on recreation use.

Little ORV use occurs in most of this area, although desert motorcycle races have used portions of the plateau in the northeast corner of the WSA. Some desert motorcycle racing would probably occur in this area, but would amount to less than 100 visitor days/year in 20 years.

Conclusion: There would be no significant impact on recreation use. In 20 years, recreation use for hunting and ORV would total about 150 visitor days. Little, if any, backcountry use does or would occur in the area.

Impacts on Jacks Creek Livestock Watering Pipeline Extensions

Suitable Area

The 4.5 miles of livestock watering pipeline would be constructed in portions of the WSA recommended nonsuitable for wilderness. The only impacts identified within the suitable area would occur to redband trout habitat. It

is estimated that about three miles of redband trout habitat would decline in condition because of increased livestock grazing facilitated by construction of the pipeline. These three miles are in portions of the canyon where livestock would continue to have access to riparian areas.

Conclusion: Three miles of redband trout habitat would decline in condition.

Nonsuitable Area

Construction of the laterals would result in an additional 797 AUMS for the affected livestock operators. The purpose of the laterals is to provide for better distribution of livestock in conjunction with development of allotment management plans. Without the laterals there would be fewer opportunities to redistribute livestock use as allotment management plans are developed.

Construction of the 4.5 miles of buried pipeline and its associated service roads would result in the loss of basic wilderness characteristics on about 5,350 acres creating 4.5 miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. It is anticipated that the area disturbed by pipeline construction and associated service roads would be visible on about 5,350 acres of the plateau west of Big Jacks Creek Canyon. This area would be unnatural in appearance since visitors would frequently see these obvious manmade elements of the landscape. Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipeline spurs would reduce opportunities for solitude on the 5,350 acres visible from the pipeline service roads. Opportunities for primitive recreation would also be diminished on these 5,350 acres since the loss of naturalness and opportunities for solitude would also diminish the value of the area for primitive recreation experiences.

This project would also result in increased livestock grazing on about 4,400 acres of rangeland in good ecological condition. Because increased grazing could interfere with natural ecological relationships, the value of these areas as repositories for future ecological and scientific research could be diminished.

The new laterals would improve water distribution in sage grouse nesting areas and pronghorn seasonal use range. The system would be designed to provide wildlife water even during periods of rest from livestock grazing. The pipeline would not extend livestock grazing into potential bighorn sheep habitat.

Conclusion: Naturalness would be lost and opportunities for solitude/ primitive recreation diminished on 5,350 acres. Scientific values (supplemental wilderness values) could be diminished on 4,400 acres of good condition rangeland affected by increased livestock grazing. There would be a slight improvement in wildlife habitat.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 20% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use, including closure of 9 miles of roads and ways, would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 20% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions,

this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include extending the Jacks Creek pipeline with 4.5 miles of laterals. This action would improve water distribution in sage grouse nesting areas and pronghorn seasonal use range. This system would be designed to provide wildlife water even during periods of rest from livestock grazing. Negative impacts associated with the pipeline would include severe trampling of vegetation adjacent to water troughs with subsequent invasion by weedy species and increased competition in drought years for succulent vegetation between livestock and wildlife in areas not now used by livestock (particularly meadows used for brood rearing by sage grouse). The net impact of the water pipeline on mule deer, antelope, and sage grouse populations is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or proposed range developments. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the Proposed Action include the costs of proposed range development projects and wilderness management costs. The 20 year forecast is that with the Proposed Action recreation use would increase 7,225 annual visitor days over current use while domestic livestock grazing would increase by 1,713 AUMS (67% above current use).

The Proposed Action would add $23,337 in annual income due to increased grazing by year 20. This would amount to an increase of 67% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $169,631 to the local economy or an increase of 792% above current income generated from recreation use in the WSA. The total income increase would amount to $192,968. This would be an increase above the current level of income generated by the WSA of 343%.

The Proposed Action would increase grazing-related employment by .5 jobs by year 20. This would amount to a 70% increase above current employment generated by the WSA. Recreation use of the WSA would add 15.75 jobs to the economy. This would be a 788% increase above current employment generated

from recreation activities in the WSA. The total employment gain would be 16.25 jobs or an increase of 602% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the Proposed Action would be a total of $63,850. The annual average wilderness management costs (following designation) would be $4,500.

Conclusion: There would be $192,968 of additional annual income and 16.25 new jobs. Implementation costs would total $63,850 for range improvements and $4,500 annually for wilderness management.

All Wilderness Alternative

All 54,833 acres in the WSA would be recommended as suitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 54,833 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 225 acres adjacent to the 19 miles of roads/primitive vehicle routes closed to motorized vehicles. Naturalness would improve along the 19 miles of creek excluded to livestock use.

Solitude - Opportunities for solitude could be impacted on 4,400 acres on the east side of Big Jacks Creek Canyon by unintentional motorized vehicle trespass. This area is adjacent to established motorcycle and 4-wheel drive use areas. The open terrain would make it difficult to effectively post vehicle use restrictions. Existing opportunities for solitude would be maintained on the remaining 50,433-acre wilderness area with the exception of reduction in opportunities in the canyons due to increased recreation use. Opportunities would be enhanced in areas visible from the 19 miles of roads/primitive vehicle routes slated for closure since vehicle traffic would be eliminated.

Primitive Recreation - Unauthorized vehicle traffic would also cause a reduction in the quality of primitive recreation experiences on the 4,400 acres described under impacts to solitude. Existing opportunities for primitive recreation would be maintained on the remaining 50,433 acres. Opportunities would be enhanced in areas adjacent to 19 miles of road closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep habitat, redband trout, 16,000 acres of good to excellent condition Sagebrush Steppe vegetation, and scenic values of Big Jacks Creek Canyon.

California bighorn sheep - Anticipated increases in recreational use have the potential for detrimental impacts in potential bighorn sheep habitat. Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. The proposed acquisition of state lands would increase the amount of bighorn habitat under federal jurisdiction. This would preclude any actions taking place on this land that are potentially detrimental to bighorn sheep or their habitat. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. About 19 miles of Big Jacks Creek have been gap fenced to exclude livestock grazing. The physical habitat condition of fisheries/aquatic habitat is expected to improve one condition class with maintenance of this fence. The remaining 12.5 miles is presently in fair condition, is accessible to livestock, and will remain in fair condition. The portion of Duncan Creek in fair condition (.9 miles) would remain in fair condition because of limitations on increases in grazing with wilderness designation. The combined impact would be an improvement of one condition class in 19 miles of redband habitat.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 5,800 acres of good condition rangeland if it has been conclusively shown that increased grazing would have no adverse impact on wilderness values including plant communities. No increases in livestock grazing are projected on areas in excellent ecological condition. The value of this area as a natural ecosystem laboratory is directly related to its limited use by domestic livestock. Even light grazing of the 5,800 acres of good condition rangeland could significantly change the ecological relationships. After designation of the area as wilderness, changes in livestock grazing use which would adversely impact the value of the wilderness as a repository for future ecological and scientific research would not be permitted. Consequently, no loss to the supplemental wilderness value of the scientific and ecological values of plant communities in good and excellent condition would occur.

Scenic Values (Big Jacks Creek Canyon) - No significant impacts would occur to the existing scenic values of Big Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 225 acres affected by road closures. Opportunities for solitude and primitive recreation could be diminished on 4,400 acres affected by increased vehicle traffic. Existing opportunities

for solitude and primitive recreation would be maintained on 54,833 acres with the exception that increased recreation use would diminish opportunities for solitude in the canyons. California bighorn sheep would benefit from recreation use management and road closures. About 19 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing. Scientific values would be maintained on 5,800 acres of good condition rangeland. The bighorn sheep population would expand and fully occupy available habitat.

Impacts on Recreation Use

Suitable Area

The 54,833-acre wilderness area would be available for backcountry recreation opportunities. Following reintroduction of bighorn sheep, indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to bighorns. Motorized vehicles would be prohibited in the wilderness area with about 19 miles of primitive vehicle routes closed to motorized vehicles.

Total recreation use and use of Big Jacks Creek Canyon would be the same as described under the Proposed Action. Little recreation use occurs or is expected to occur in the relatively mundane plateau areas that would be added to the proposed wilderness area under this alternative. Increased livestock grazing would have no impact on recreation use.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand. Under this alternative the northeast corner of the WSA would not be available for desert motorcycle races. This impact, however, would not be significant since sufficient areas would exist outside the proposed wilderness area to meet the demand for desert motorcycle races.

Although wilderness designation would close 19 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Current hunting use of 600 visitor days is projected to increase to 875 visitor days in 20 years.

Conclusion: In 20 years, annual recreation use would be 7,975 visitor days, an increase of 7,225 visitor days over current use. Hunting would increase from a present annual use of 600 visitor days to 800 visitor days. Backcountry activities would increase from a current use of 100 visitor days to 7,175 visitor days in 20 years. The closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities with the exception that motorcycle racing would not occur in the northeast corner of the area (less than 100 visitor days/year in 20 years).

Impacts on Jacks Creek Livestock Watering Pipeline Extensions

Suitable Area

The proposed extensions of the Jacks Creek pipeline would not be constructed under this alternative. Livestock operators would not realize the additional 797 AUMS that could be available after construction of the pipeline.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 20% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use, including closure of 19 miles of roads and ways, would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the All Wilderness Alternative include the costs of proposed range development projects (the 19-mile Jacks Creek livestock watering pipeline which lies just outside the WSA) and wilderness management costs. The 20 year forecast is that with the All Wilderness Alternative recreation use would increase 7,225 annual visitor days while domestic livestock grazing would increase by 916 AUMS (36% above current use).

The All Wilderness Alternative would add $12,479 in annual income due to increased grazing by year 20. This would amount to an increase of 36% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $169,631 to the local economy or an increase of 792% above current income generated from recreation use in the WSA. The total income increase would amount to $182,110. This would be an increase above the current level of income generated by the WSA of 324%.
The All Wilderness Alternative would increase grazing-related employment by .25 jobs by year 20. This would amount to a 36% increase above current employment generated by the WSA. Recreation use of the WSA would add 15.75 jobs to the economy. This would be a 788% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 16 jobs or an increase of 593% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range development costs for the All Wilderness Alternative would be a total of $48,100. The annual average wilderness management costs (following designation) would be $4,500.

Conclusion: There would be $182,110 of additional annual income and 16 new jobs. Implementation costs would total $48,100 for range improvements and $4,500 annually for wilderness management.

No Wilderness/No Action Alternative

All 54,833 acres is the WSA would be recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Nonsuitable Area

Naturalness - Increased livestock use would adversely impact naturalness around water sources. The construction of 4.5 miles of new laterals on the Jacks Creek livestock watering pipeline would create at least 4.5 miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. It is anticipated that the area disturbed by pipeline construction and associated service roads would be visible on about 5,350 acres of the plateau west of Big Jacks Creek Canyon. This area would be unnatural in appearance since visitors would frequently see these obvious manmade elements of the landscape. The upgrading of an existing livestock trail within Big Jacks Canyon would eliminate apparent naturalness on 200 acres. New underground utility lines located in the 1/4 mile wide utility corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic

vegetation creating an unnatural line on the plateau between the two canyon systems. Utility construction would reduce the natural appearance of about 550 acres. The exclusion of livestock along 19 miles of Big Jacks Creek would improve naturalness.

Solitude - Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipeline spurs would reduce opportunities for solitude on the 5,350 acres visible from the pipeline service roads. If new underground utilities were installed outside the corridor, then opportunities for solitude would also be diminished by increased vehicle traffic to service the utilities. Opportunities for solitude could also be diminished by increased ORV use on 4,400 acres on the east side of Big Jacks Creek Canyon. This area is adjacent to established ORV use areas and portions have been used in the past for desert motorcycle racing.

Primitive Recreation - Opportunities for primitive recreation would also be diminished on the 9,750 acres affected by livestock water pipeline construction and increased ORV use since the loss of naturalness and/or opportunities for solitude would also diminish the value of the area for primitive recreation experiences. Opportunities for primitive recreation would also be diminished on 200 acres in the canyon where apparent naturalness would be eliminated by livestock trail construction.

Supplemental Values - Supplemental wilderness values in the WSA include California bighorn sheep habitat, redband trout, 16,000 acres of good to excellent condition Sagebrush Steppe vegetation, and scenic values of Big Jacks Creek Canyon.

California bighorn sheep - Bighorns are expected to continue to prosper in the absence of wilderness management since an ACEC would be established to protect/preserve bighorn habitat. Management actions to protect bighorn habitat would be similar under either wilderness designation or ACEC designation. Under ACEC designation, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and elimination of motorized vehicle use. There would be no range development projects or increases in grazing in bighorn habitat, therefore these activities would not impact the bighorn population. Anticipated increases in recreational use have the potential for detrimental impacts in potential bighorn sheep habitat. Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. About 19 miles of Big Jacks Creek have been gap fenced to exclude livestock grazing. The physical habitat condition of fisheries/aquatic habitat would improve one condition class with maintenance of this fence. The remaining 12.5 miles is presently in fair condition and is accessible to livestock. About three of these miles would decline to poor condition due to increased livestock use resulting from construction of the Jacks Creek pipeline spurs. Increased grazing at watering points would result in additional trampling and eventual loss of riparian vegetation, accelerated erosion of stream banks, and increased siltation. These factors would reduce habitat quality and potentially affect fish health and production. Approximately 9.5 miles of Big Jacks Creek would remain in fair condition. The portion of Duncan Creek in fair condition (.9 miles) would remain in fair condition. The combined impact would be an improvement of one condition class in 19 miles of redband habitat with a decline of one condition class on three miles of the habitat.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 11,300 acres of good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. The value of these areas as natural ecosystem laboratories is directly related to their limited use by domestic livestock. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960). While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes.

Because increased grazing could interfere with these natural ecological relationships on the 11,300 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished.

Scenic Values (Big Jacks Creek Canyon) - There would be no impacts on scenic values.

Conclusion: Increased livestock use would decrease naturalness around water sources. Naturalness would be lost on 5,550 acres due to livestock water pipeline and trail construction. Underground utility construction could reduce naturalness and primitive recreation of another 550 acres. Outstanding opportunities for solitude and primitive recreation could be diminished on 9,750. Nineteen miles of redband trout habitat would improve but another three miles would decline in condition. Scientific/ecological values could be diminished on 11,300 acres of good condition Sagebrush Steppe rangeland. The bighorn sheep population would expand and fully occupy available habitat.

Impacts on Recreation Use

Nonsuitable Area

Recreation use within the 29,500 acres of potential bighorn habitat would be regulated as necessary to minimize adverse impacts to bighorns with motorized vehicles limited to designated roads and trails. The 25,333 acres that are outside of potential bighorn habitat would be available for general recreation use with no special recreation management regulations or restrictions. These areas would be open to off-road-vehicle use.

In 20 years, total annual recreation use is projected to be about 3,665 visitor days, an increase of 2,915 annual visitor days over current use. Use would be about 75% backcountry activities and 25% hunting. Increased livestock grazing would have no impact on recreation use.

Even without wilderness designation, Big Jacks Creek would be a popular destination for visitors seeking backcountry recreation opportunities. Use would be less than with wilderness designation, however, since annual increases are expected to be about 4% rather than the 10% forecast for designated wilderness areas.

Opportunities for hunting and off-road-vehicle use would not be affected since most use occurs on the existing primitive vehicle routes which would not be affected by vehicle restrictions in bighorn sheep habitat. Outside bighorn habitat there would be no restrictions on off-road-vehicle use. Some desert motorcycle racing would probably occur on the plateau in the northeast portion of the WSA. Very little off-road-vehicle use would occur in the remainder of the WSA because of natural terrain restrictions.

Conclusion: In 20 years, annual recreation use would be 3,665 visitor days, an increase of 2,915 visitor days over current use. Hunting would increase from a present annual use of 600 visitor days to 800 visitor days. Backcountry activities would increase from a current use of 100 visitor days to 2,015 visitor days in 20 years. In 20 years, motorcycle use within the northeast portion of the area would about double to approximately 100 visitor days per year.

Impacts on Jacks Creek Livestock Watering Pipeline Extensions

Nonsuitable Area

Construction of the laterals would result in an additional 797 AUMS for the affected livestock operators. The purpose of the laterals is to provide for better distribution of livestock in conjunction with development of allotment management plans. Without the laterals there would be fewer opportunities to redistribute livestock use as allotment management plans are developed.

Construction of the 4.5 miles of buried pipeline and its associated service roads would result in the loss of basic wilderness characteristics on about 5,350 acres creating 4.5 miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. It is anticipated that the area disturbed by pipeline construction and associated service roads would be visible on about 5,350 acres of the plateau west of Big Jacks Creek Canyon. This area would be unnatural in appearance since visitors would frequently see these obvious manmade elements of the landscape. Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipeline spurs would reduce opportunities for solitude on the 5,350 acres visible from the pipeline service roads. Opportunities for primitive recreation would also be diminished on these 5,350 acres since the loss of naturalness and opportunities for solitude would also diminish the value of the area for primitive recreation experiences.

About three miles of redband trout habitat would decline in condition because of increased livestock grazing facilitated by construction of the pipeline. These three miles are in portions of the canyon where livestock would continue to have access to riparian areas.

This project would also result in increased livestock grazing on about 4,400 acres of rangeland in good ecological condition. Because increased grazing could interfere with natural ecological relationships, the value of these areas as wilderness repositories for future ecological and scientific research could be diminished.

The new laterals would improve water distribution in sage grouse nesting areas and pronghorn seasonal use range. The system would be designed to provide wildlife water even during periods of rest from livestock grazing. The pipeline would not extend livestock grazing into potential bighorn sheep habitat.

Conclusion: Naturalness would be lost and opportunities for solitude/ primitive recreation diminished on 5,350 acres. Scientific values (supplemental wilderness values) could be diminished on 4,400 acres of good condition rangeland affected by increased livestock grazing. Three miles of redband trout habitat would decline in condition. There would be a slight improvement in wildlife habitat.

Impacts on Selected Wildlife Species

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 20% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include extending the Jacks Creek pipeline with 4.5 miles of laterals. This action would improve water distribution in sage grouse nesting areas and pronghorn seasonal use range. This system would be designed to provide wildlife water even during periods of rest from livestock grazing. Negative impacts associated with the pipeline would include severe trampling of vegetation adjacent to water troughs with subsequent invasion by weedy species and increased competition in drought years for succulent vegetation between livestock and wildlife in areas now not used by livestock (particularly meadows used for brood rearing by sage grouse). The net impact of the water pipeline on mule deer, antelope, and sage grouse is that their population would be unaffected.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Limiting motorized vehicle use to designated roads and ways in bighorn sheep habitat (34,500 acres) would reduce access and human disturbance to wildlife populations but no increase in population numbers is projected. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the No Wilderness/No Action Alternative include only the costs of proposed range development projects. The 20 year forecast is that with the No Wilderness/No Action Alternative recreation use would increase 2,915 annual visitor days while domestic livestock grazing would increase by 2,004 AUMS (78% above current use).

The No Wilderness/No Action Alternative would add $27,302 in annual income due to increased grazing by year 20. This would amount to an increase of 78% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $69,510 to the local economy or an increase of 325% above current income generated from recreation use in the WSA. The total income increase would amount to $96,812. This would be an increase above the current level of income generated by the WSA of 172%.

The No Wilderness/No Action Alternative would increase grazing- related employment by .6 job by year 20. This would amount to a 86% increase above current employment generated by the WSA. Recreation use of the WSA would add 6.5 jobs to the economy. This would be a 325% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 7.1 jobs or an increase of 263% above the current level of employment generated by the WSA.

Implementation costs include only range development costs since there would be no wilderness management costs. Range developments costs for the No Wilderness/No Action Alternative would be a total of $63,850.

Conclusion: There would be $96,812 of additional annual income and 7.1 new jobs. Implementation costs would total $63,850 for range improvements.

All Manageable Wilderness Alternative

About 49,875 acres would be recommended as suitable for wilderness with 4,958 acres recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 49,875 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 200 acres adjacent to the 17 miles of roads/primitive vehicle routes closed to motorized vehicles. Exclusion of livestock along 19 miles of Big Jacks Creek would improve naturalness.

Solitude - Opportunities for solitude would be maintained in the 49,875-acre wilderness area with the exception that increased recreation use would decrease opportunities for solitude in the canyons. Opportunities would be enhanced in areas visible from the 17 miles of roads/primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 49,875-acre wilderness area. Opportunities would be enhanced in areas adjacent to 17 miles of road closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep habitat, redband trout, 16,000 acres of good to excellent condition Sagebrush Steppe vegetation, and scenic values of Big Jacks Creek Canyon.

California bighorn sheep - Anticipated increases in recreational use have the potential for detrimental impacts in potential bighorn sheep habitat. Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. The proposed acquisition of state lands would increase the amount of bighorn habitat under federal jurisdiction. This would preclude any actions taking place on this land that are potentially detrimental to bighorn sheep or their habitat. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following the construction of short gap fences. About 19 miles of Big Jacks

Creek have been gap fenced to exclude livestock grazing. The physical habitat condition of fisheries/aquatic habitat would improve one condition class with maintenance of this fence. The remaining 12.5 miles is presently in fair condition and is accessible to livestock, and would remain in fair condition. The portion of Duncan Creek in fair condition (.9 miles) would remain in fair condition because of limitations on increases in grazing with wilderness designation. The net impact would be an improvement of one condition class in 19 miles of redband habitat.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 5,800 acres of good condition rangeland if it has been conclusively shown that increased grazing would have no adverse impact on wilderness values including plant communities. No increases in livestock grazing are projected on areas in excellent ecological condition. The value of this area as a natural ecosystem laboratory is directly related to its limited use by domestic livestock. Even light grazing of the 5,800 acres of good condition rangeland could significantly change the ecological relationships. After designation of the area as wilderness, changes in livestock grazing use which would adversely impact the value of the wilderness as a repository for future ecological and scientific research would not be permitted. Consequently, no loss to the supplemental wilderness value of the scientific and ecological values of plant communities in good and excellent condition would occur.

Scenic Values (Big Jacks Creek Canyon) - No significant impacts would occur to the existing scenic values of Big Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 200 acres affected by road closures. Existing opportunities for solitude and primitive recreation would be maintained on 49,875 acres with the exception that increased recreation use would decrease solitude in the canyons. California bighorn sheep would benefit from recreation use management and road closures. About 19 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing. Scientific values would be maintained on 5,800 acres of good condition rangeland. The bighorn sheep population would expand and fully occupy available habitat.

Nonsuitable Area

Naturalness - Increased livestock use would adversely impact naturalness around livestock water sources. New underground utility lines located in the 1/4 mile wide utility corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Utility construction would reduce the natural appearance of about 550 acres.

Solitude - Opportunities for solitude could be impacted on 4,400 acres on the east side of Big Jacks Creek Canyon by increased off-road-vehicle use. This area is adjacent to established motorcycle and 4-wheel drive use areas.

Primitive Recreation - Increased ORV use would also cause a reduction in the quality of primitive recreation experiences on the 4,400 acres described under impacts to solitude.

Supplemental Values - There are no known supplemental wilderness values in portions of the WSA recommended nonsuitable under this alternative.

Conclusion: Increased livestock use would decrease naturalness around water sources. Underground utility construction could reduce naturalness on about 550 acres. Opportunities for solitude and primitive recreation could be diminished on about 4,400 acres affected by increased ORV use.

Impacts on Recreation Use

Suitable Area

The 49,875-acre wilderness area would be available for backcountry recreation opportunities. Following reintroduction of bighorn sheep, indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to bighorns. Motorized vehicles would be prohibited in the wilderness area with about 17 miles of primitive vehicle routes closed to motorized vehicles.

In 20 years, total annual recreation use is projected to be about 7,975 visitor days, an increase of 7,225 annual visitor days over current use. Fall hunting is expected to account for about 10% of the total recreation use. Big Jacks Creek would be a popular destination for visitors seeking backcountry or wilderness recreation opportunities.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close 17 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand. Hunting use is projected to increase from 500 visitor days to 875 visitor days in 20 years.

Conclusion: In 20 years, annual recreation use would be 7,975 visitor days, an increase of 7,225 visitor days over current use. Hunting would increase from a present annual use of 500 visitor days to 875 visitor days. Backcountry activities would increase from a current use of 100 visitor days

to 7,100 visitor days in 20 years. The closure of the area to recreational motor vehicle use would not significantly impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

The 4,958 acres recommended nonsuitable for wilderness would be open to general dispersed recreation use with no special recreation management regulations or objectives. This area would be available for off-road-vehicle use.

Because the areas recommended nonsuitable for wilderness under this alternative do not have any specific features to attract recreation users, little recreation use would occur. Current use is estimated to be less than 100 annual visitor days with an occasional hunting party accounting for most of the use. Increased livestock grazing would have no impact on recreation use.

Little ORV use occurs in most of this area, although desert motorcycle races have used portions of the plateau in the northeast corner of the WSA. Some desert motorcycle racing would probably occur in this area. Present ORV use of less than 50 visitor days per year would double in 20 years.

Conclusion: There would be no significant impact on recreation use. In 20 years, recreation use would total about 150 visitor days.

Impacts on Jacks Creek Livestock Watering Pipeline Extensions

Suitable/Nonsuitable Area

The proposed extensions of the Jacks Creek pipeline would not be constructed under this alternative. Livestock operators would not realize the additional 797 AUMS that could be available after construction of the pipeline.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 20% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Elimination of motorized vehicle use, including closure of 17 miles of roads and ways, would reduce access and human disturbance to wildlife populations. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat. No adverse impacts to these species would result from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased wildlife use would not affect populations of mule deer, antelope, or sage grouse.

Conclusion: There would be no significant impact on mule deer, pronghorn, or sage grouse populations.

Impacts on Income and Jobs

Implementation costs for the All Manageable Wilderness Alternative include the costs of proposed range development projects and wilderness management costs. The 20 year forecast is that with the All Manageable Wilderness Alternative recreation use would increase 7,225 annual visitor days while domestic livestock grazing would increase by 916 AUMS (36% above current use).

The All Manageable Wilderness Alternative would add $12,479 in annual income due to increased grazing by year 20. This would amount to an increase of 36% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $169,631 to the local economy or an increase of 792% above current income generated from recreation use in the WSA. The total income increase would amount to $182,110. This would be an increase above the current level of income generated by the WSA of 324%.

The All Manageable Wilderness Alternative would increase grazing-related employment by .25 jobs by year 20. This would amount to a 36% increase above current employment generated by the WSA. Recreation use of the WSA would add 15.75 jobs to the economy. This would be a 788% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 16 jobs or an increase of 593% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the All Manageable Wilderness Alternative would be a total of $48,100. The annual average wilderness management costs (following designation) would be $4,500.

Conclusion: There would be $182,110 of additional income and 16 new jobs. Implementation costs would total $48,100 for range improvements and $4,500 annually for wilderness management.

Rim to Rim Wilderness Alternative

Under this alternative 10,800 acres would be recommended as suitable for wilderness with the remaining 44,033 acres recommended as nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 10,800 acres would be maintained since no developments are proposed. The exclusion of livestock along 19 miles of Big Jacks Creek would improve naturalness.

Solitude - Opportunities for solitude would be maintained on 10,800 acres with the exception that increased recreation use would decrease solitude.

Primitive Recreation - Opportunities for primitive recreation would be maintained on 10,800 acres.

Supplemental Values - Supplemental wilderness values in the wilderness area include California bighorn sheep habitat, redband trout, and scenic values of Big Jacks Creek Canyon.

California bighorn sheep - Anticipated increases in recreational use have the potential for detrimental impacts in potential bighorn sheep habitat. Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use.

Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. The proposed acquisition of state lands would increase the amount of bighorn habitat under federal jurisdiction. This would preclude any actions taking place on this land that are potentially detrimental to bighorn sheep or their habitat. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Redband trout - Redband trout would benefit from projected improvement in riparian conditions. This improvement in riparian conditions would occur in portions of the streams where domestic livestock grazing would be excluded following construction of short gap fences. About 19 miles of Big Jacks Creek have been gap fenced to exclude livestock grazing. The physical habitat condition of fisheries/aquatic habitat would improve one condition class with maintenance of this fence. The remaining 12.5 miles is presently in fair condition and is accessible to livestock. About three of these miles would decline to poor condition due to increased livestock use resulting from construction of the Jacks Creek pipeline spurs. Increased grazing at watering points would result in additional trampling and eventual loss of riparian vegetation, accelerated erosion of stream banks, and increased siltation. These factors would reduce habitat quality and potentially affect fish health and production. Approximately 9.5 miles of Big Jacks Creek would remain in fair condition. The portion of Duncan Creek in fair condition (.9 miles) would remain in fair condition because of limitations on increases in grazing with wilderness designation. The combined impact would be an improvement of one condition class in 19 miles of redband habitat with a decline of one condition class on three miles of the habitat.

Scenic Values (Big Jacks Creek Canyon) - No significant impacts are expected to occur to the existing scenic values of Big Jacks Creek Canyon.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be maintained on 10,800 acres with the exception that increased recreation use would decrease solitude. California bighorn sheep habitat would benefit from recreation use management. About 19 miles of redband trout habitat would benefit from improved riparian condition resulting from gap fencing which would exclude livestock grazing. Another three miles of redband habitat would decline in condition because of increased livestock grazing. The bighorn sheep population would expand and fully occupy available habitat.

Nonsuitable Area

Naturalness - Increased livestock use would adversely impact naturalness around water sources. The construction of 4.5 miles of new laterals on the Jacks Creek livestock watering pipeline would create at least 4.5 miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. It is anticipated that the area disturbed by pipeline construction and associated service roads would be

visible on about 5,350 acres of the plateau west of Big Jacks Creek Canyon. This area would be unnatural in appearance since visitors would frequently see these obvious manmade elements of the landscape. New underground utility lines located in the 1/4 mile wide utility corridor separating Little Jacks Creek and Big Jacks Creek WSAs would create new disturbance on the landscape similar to the existing Northwest (El Paso) natural gas pipeline. The present Northwest natural gas pipeline is a 20-50 foot wide band of exposed sub-surface rocks and exotic vegetation creating an unnatural line on the plateau between the two canyon systems. Utility construction would reduce the natural appearance of about 550 acres.

Solitude - Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipeline spurs would reduce opportunities for solitude on the 5,350 acres visible from the pipeline service roads. Opportunities for solitude could also be diminished by increased ORV use on 4,400 acres on the east side of Big Jacks Creek Canyon. This area is adjacent to established ORV use areas and portions have been used in the past for desert motorcycle racing. If new under- ground utilities were installed outside the 1/4 mile corridor, then opportunities for solitude would also be diminished by increased vehicle traffic to service the utilities.

Primitive Recreation - Opportunities for primitive recreation would also be diminished on the 9,750 acres affected by livestock water pipeline construction and increased ORV use since the loss of naturalness and opportunities for solitude would also diminish the value of the area for primitive recreation experiences.

Supplemental Values - Supplemental wilderness values in the nonsuitable portion of the WSA include California bighorn sheep habitat and 16,000 acres of good to excellent condition Sagebrush Steppe vegetation.

California bighorn sheep - Bighorns are expected to continue to prosper in the absence of wilderness management since an ACEC would be established to protect/preserve bighorn habitat. Management actions to protect bighorn habitat would be similar under either wilderness designation or ACEC designation. Under ACEC designation, measures which would benefit bighorn and result in continued high productivity include restrictions on recreation use and elimination of motorized vehicle use. There would be no range development projects or increases in grazing in bighorn habitat, therefore these activities would not impact the bighorn population. Anticipated increases in recreational use have the potential for detrimental impacts in potential bighorn sheep habitat. Critical use areas for bighorn sheep will be identified following reintroduction of the sheep, and recreation users would be directed away from the critical use areas. Recreation use would be closely monitored and management techniques would be used to minimize the frequency and number of bighorn-human encounters. These measures are expected to reduce any significant impact from recreation use. Specific visitor management techniques proposed include selective road/trail maintenance and information dispersal. Rangeland and livestock management actions would be designed to accommodate bighorn sheep needs. The bighorn sheep population would expand and fully occupy the available habitat.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Livestock grazing would be substantially increased on 11,300 acres of good rangeland. Increases in grazing use would be monitored to assure that these areas remain in good ecological condition. The value of these areas as natural ecosystem laboratories is directly related to their limited use by domestic livestock. Domestic livestock grazing has been the most significant impact on the Sagebrush Steppe ecosystem in the last 1,000 years (Young, Eckert, and Evans 1979). It is probable that the sagebrush grass community is not adapted and did not evolve under grazing pressure from large herbivores. Consequently even light grazing on those areas in good ecological condition could significantly change the ecological relationships (Stoddard, Smith and Box 1975). Even in areas which do not experience a change in ecological condition class, increased grazing could have the following impacts of ecological processes: accelerated introduction of exotic species, increased trampling, reduction of litter, loss of highly palatable forbs, increased fertilization, removal of undergrowth, increased herbage growth at the expense of root storage, and retardation of natural fire (Ellison 1960). While some of these changes could actually benefit the health of the plant community, they are still negative impacts from a scientific baseline perspective since they are man-induced changes that alter natural ecological processes. Because increased grazing could interfere with these natural ecological relationships on the 11,300 acres where increases are proposed, the value of these areas as repositories for future ecological and scientific research could be diminished.

Conclusion: Naturalness would be lost on 5,350 acres and decreased around livestock water sources. Outstanding opportunities for solitude and primitive recreation would be diminished on 9,750 acres. Underground utility construction could reduce naturalness on another 550 acres. Scientific/ecological values could be diminished on 11,300 acres of good condition Sagebrush Steppe rangeland. The bighorn sheep population would expand and fully occupy available habitat.

Impacts on Recreation Use

Suitable Area

The 10,800-acre wilderness area would be available for backcountry recreation opportunities. Following reintroduction of bighorn sheep, indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to bighorns. Motorized vehicles would be prohibited in the wilderness area.

In 20 years, total annual recreation use is projected to be about 7,000 visitor days, an increase of 6,250 annual visitor days over current use. Fall hunting is expected to account for about 10% of the total recreation use. Big Jacks Creek would be a popular destination for visitors seeking backcountry or wilderness recreation opportunities.

Wilderness designation would not have an impact on off-road-vehicle recreation opportunities because natural terrain precludes motor vehicle use.

Hunting use would not be impacted by wilderness designation. Chukar and sage grouse hunters would not be impacted by wilderness designation since there would be no restrictions on vehicle use in areas currently accessible to motorized vehicles. Hunting use is projected to increase from 400 visitor days to 675 visitor days in 20 years.

Conclusion: In 20 years, annual recreation use would be 7,000 visitor days, an increase of 6,250 visitor days over current use. Hunting would increase from a present annual use of 500 visitor days to 675 visitor days. Backcountry activities would increase from a current use of 80 visitor days to 6,325 visitor days in 20 years. The closure of the area to recreational motor vehicle use would not impact hunting or off-road-vehicle opportunities.

Nonsuitable Area

Recreation use within the 18,700 acres of potential bighorn habitat would be regulated as necessary to minimize adverse impacts to bighorns with motorized vehicles limited to designated roads and trails. The 25,333 acres that are outside of potential bighorn habitat would be available for general recreation use with no special recreation management regulations or restrictions. These areas would be open to off-road-vehicle use.

Because the areas recommended nonsuitable for wilderness under this alternative do not have any specific features to attract recreation users, relatively little recreation use is expected to occur. Increased livestock grazing would have no impact on recreation use.

Opportunities for hunting and off-road-vehicle use would not be affected since most use occurs on the existing primitive vehicle routes which would not be affected by vehicle restrictions in bighorn sheep habitat. Outside bighorn habitat there would be no restrictions on off-road-vehicle use. Some desert motorcycle racing would probably occur on the plateau in the northeast portion of the WSA. Very little off-road-vehicle use would occur in the remainder of the area because of natural terrain restrictions.

Conclusion: In 20 years, annual recreation use would be 975 visitor days, an increase of 855 visitor days over current use. Hunting would increase from a present annual use of 100 visitor days to 125 visitor days. Backcountry activities would increase from a current use of 20 visitor days to 850 visitor days in 20 years. In 20 years, desert motorcycle use would total about 100 visitor days per year, double present use.

Impacts on Jacks Creek Livestock Watering Pipeline Extensions

Suitable Area

The 4.5 miles of livestock watering pipeline would be constructed in portions of the WSA recommended nonsuitable for wilderness. The only impacts identified within the suitable area would occur to redband trout habitat. It is estimated that about three miles of redband trout habitat would decline in

condition because of increased livestock grazing facilitated by construction of the pipeline. These three miles are in portions of the canyon where livestock would continue to have access to riparian areas.

Conclusion: Three miles of redband trout habitat would decline in condition.

Nonsuitable Area

Construction of the laterals would result in an additional 797 AUMS for the affected livestock operators. The purpose of the laterals is to provide for better distribution of livestock in conjunction with development of allotment management plans. Without the laterals there would be fewer opportunities to redistribute livestock use as allotment management plans are developed.
Construction of the 4.5 miles of buried pipeline and its associated service roads would result in the loss of basic wilderness characteristics on about 5,350 acres creating 4.5 miles of new visual disturbance on the landscape. Construction of these buried water pipelines would result in surface disturbance resembling a two-track road with a one to two foot berm down one side. It is anticipated that the area disturbed by pipeline construction and associated service roads would be visible on about 5,350 acres of the plateau west of Big Jacks Creek Canyon. This area would be unnatural in appearance since visitors would frequently see these obvious manmade elements of the landscape. Increased vehicle traffic on service roads constructed for maintenance of the livestock watering pipeline spurs would reduce opportunities for solitude on the 5,350 acres visible from the pipeline service roads.

Opportunities for primitive recreation would also be diminished on these 5,350 acres since the loss of naturalness and opportunities for solitude would also diminish the value of the area for primitive recreation experiences.

This project would also result in increased livestock grazing on about 4,400 acres of rangeland in good ecological condition. Because increased grazing could interfere with natural ecological relationships, the value of these areas as wilderness repositories for future ecological and scientific research could be diminished.

The new laterals would improve water distribution in sage grouse nesting areas and pronghorn seasonal use range. The system would be designed to provide wildlife water even during periods of rest from livestock grazing. The pipeline would not extend livestock grazing into potential bighorn sheep habitat.

Conclusion: Naturalness would be lost and opportunities for solitude/ primitive recreation diminished on 5,350 acres. Scientific values (supplemental wilderness values) could be diminished on 4,400 acres of good condition rangeland affected by increased livestock grazing. There would be a slight improvement in wildlife habitat.

Impacts on Selected Wildlife Species

Suitable Area

Increased recreation use, particularly in Little Jacks Creek Canyon, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. The net impact of increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: The net impact of increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 20% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations and would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include extending the Jacks Creek pipeline with 4.5 miles of laterals. This action would improve water distribution in sage grouse nesting areas and pronghorn seasonal use range. This system would be designed to provide wildlife water even during periods of rest from livestock grazing. Negative impacts associated with the pipeline would include severe trampling of vegetation adjacent to water troughs with subsequent invasion by weedy species and increased competition in drought years for succulent vegetation between livestock and wildlife in areas not now used by livestock (particularly meadows used for brood rearing by sage grouse). The net impact of the water pipeline on mule deer, antelope, and sage grouse is that their populations would be unaffected.

Increased recreation use, particularly in the canyons, would displace wildlife species sensitive to human disturbance. Increased human use would force abandonment of critical habitat areas such as fawning areas, water sources and bedding grounds. Since mule deer, pronghorn, and sage grouse would travel to other available areas to avoid disturbances, population losses due to increased recreation use would be insignificant. Limiting motorized vehicle use to designated roads and ways in bighorn sheep habitat (29,000 acres) would reduce access and human disturbance to wildlife populations but no increase in population numbers is projected. The net impact of reduced motor vehicle use and increased recreation use on mule deer, pronghorn, and sage grouse is that their populations would be unaffected.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit from anticipated improvement in ecological condition of the habitat and from proposed range development projects. No adverse impacts to these species would occur from anticipated increases in livestock use or recreation use, or from reduced motor vehicle use. The overall change from the present situation would be a slight increase in wildlife numbers. Populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impacts on Income and Jobs

Implementation costs for the Rim to Rim Wilderness Alternative include the costs of proposed range development projects and wilderness management costs. The 20 year forecast is that with the Rim to Rim Wilderness Alternative recreation use would increase 7,225 annual visitor days while domestic livestock grazing would increase by 2,004 AUMS (78% above current use).

The Rim to Rim Alternative would add $27,302 in annual income due to increased grazing by year 20. This would amount to an increase of 78% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $169,631 to the local economy or an increase of 792% above current income generated from recreation use in the WSA. The total income increase would amount to $196,933. This would be an increase above the current level of income generated by the WSA of 350%.

The Rim to Rim Alternative would increase grazing-related employment by .6 job by year 20. This would amount to a 86% increase above current employment generated by the WSA. Recreation use of the WSA would add 15.75 jobs to the economy. This would be a 788% increase above current employment generated from recreation activities in the WSA. The total employment gain would be 16.35 jobs or an increase of 606% above the current level of employment generated by the WSA.

Implementation costs include range developments and wilderness management costs. Range developments costs for the Rim to Rim Wilderness Alternative would be a total of $63,850. The annual average wilderness management costs (following designation) would be $4,500.

Conclusion: There would be $196,933 of additional annual income and 16.35 new jobs. Implementation costs would total $63,850 for range improvements and $4,500 annually for wilderness management.

POLE CREEK WSA (ID-111-18)

Proposed Action (No Action Alternative)

The Proposed Action is to recommend all 24,509 acres nonsuitable for wilderness.

Impacts on Wilderness Values

Nonsuitable Area

Naturalness - The Proposed Action includes herbicide spraying and seeding with primarily non-native species of about 440 acres in the middle of Avery Table. Seeded areas would be interspersed throughout the central part of the plateau. These seedings would be unnatural in appearance since seeding with seed drills would produce a row effect visually similar to a cultivated field. They would affect the natural appearance of the entire 4,000-acre Avery Table since the unnatural landscape created by the seeding would be visible throughout the table. Juniper firewood cutting in the western part of the WSA would transform juniper woodlands into a landscape dominated by tree stumps and slash. This would severely impact naturalness and aesthetic values of 400 acres. Increased livestock grazing would adversely impact naturalness around water sources. Proposed juniper burning projects are not expected to affect apparent naturalness because the burnings would be designed to resemble natural wildfire and would not be apparent to the visitor as an unnatural modification of the landscape. The construction of 2 to 3 small livestock water reservoirs would have only localized impacts on naturalness. The exclusion of livestock from 1.5 miles of Camas Creek would improve naturalness.

Solitude - None of the proposed actions are expected to have a significant impact on opportunities for solitude with the exception of adverse impacts from noise from chainsaws on or near the firewood cutting area in the western part of the WSA. Activities on private inholdings could also impact solitude.

Primitive Recreation - Opportunities for primitive recreation would be diminished on the 4,400 acres affected by seedings and firewood cutting since the loss of naturalness and solitude would also diminish the quality of primitive recreation experiences.

Supplemental Values - Supplemental wilderness values of the WSA include more than 150 known prehistoric archaeological sites with eleven separate petroglyph panels. Thirty-five percent of the WSA is on the National Register of Historic Places as part of the Pole Creek/Camas Creek Archaeological District.

Pole Creek/Camas Creek Archaeological District - The proposed 47% increase in livestock grazing would accelerate damage from livestock trampling to prehistoric sites located adjacent to natural water sources. Damage to some sites would be prevented by the construction of livestock exclosures along Camas Creek. Opportunities would remain available for future scientific excavations, archaeological interpretative exhibits, and archaeological site stabilization.

Conclusion: Naturalness would be lost and opportunities for primitive recreation would be diminished on 4,400 acres. Increased grazing would decrease naturalness around water sources. The operation of chainsaws in the western part of the WSA would degrade solitude. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District. Exclusion of livestock from 30 acres in Camas Creek Canyon would prevent trampling of archaeological sites and would improve naturalness.

Impacts on Recreation Use

Nonsuitable Area

The 24,509-acre WSA would be available for general recreation use with no specific restrictions or recreation management objectives and would be available for off-road-vehicle use.

Recreation use is expected to remain very light in this WSA with recreation use increasing from current 325 annual visitor days to 550 annual visitor days in 20 years. Over 70% of this use would be for hunting. Existing opportunities for hunting and off-road-vehicle use would not be affected since there would be no restrictions on the use of motorized vehicles. It is anticipated, however, that little ORV use would occur because of natural terrain limitations, low visitor use, and the availability of more suitable areas to meet projected demand. Increased livestock grazing would have no impact on recreation use. Although hunting would remain the predominant use, archaeological sightseeing is expected to grow at a 5% annual rate compared to 2% annual growth rate forecast for hunting (Idaho Dept. of Parks and Recreation (1978). Dramatic increases in archaeological sightseeing are not anticipated, however, because several equivalent rock art locations are located much closer to Boise and would meet most of the projected demand.

Conclusion: In 20 years, annual recreation use would be about 550 visitor days, an increase of 225 visitor days over current use. Hunting would increase from a present annual use of 275 visitor days to 400 visitor days in 20 years. Backcountry activities would increase from a current use of 50 visitor to 150 visitor days in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be affected.

Impacts on Selected Wildlife Species

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 80% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Range development projects proposed under this alternative include 440 acres of spray/seeding. There is a sage grouse strutting ground on Avery Table in the proposed spray/seeding project. The understory has been severely depleted. Sage grouse are expected to benefit from this project since the choice of seed mixtures, cover ratios, and boundary configuration would be governed by stipulations designed to enhance sage grouse habitat. An irregular spray/seed pattern would retain sufficient cover to meet most wildlife species needs. Canopy openings and additional ecotonal edge between vegetation types created by the irregular spray pattern would increase habitat diversity. These would provide improved foraging opportunities for wildlife. Negative impacts associated with shrub removal would be temporary (15 year) loss of overstory vegetation which provides winter cover and forage for wildlife. Because of the small area treated and availability of habitat nearby, this temporary loss would not be significant.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat, and from 440 acres of seedings. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impact on Income and Jobs

Implementation costs would be limited to range development costs since there are no wilderness management costs. The 20 year forecast is that with the Proposed Action recreation use would increase 225 annual visitor days (70% above current use) while domestic livestock grazing would increase by 1,172 AUMS (47% above current use).

This alternative would add $15,967 in annual income due to increased grazing by year 20. This would amount to an increase of 47% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $5,826 to the local economy or an increase of 68% above current income generated from recreation use in the WSA. The total income increase would amount to $21,793. This would be an increase above the current level of income generated by the WSA of 51%.

This alternative would increase grazing-related employment by .3 jobs by year 20. This would amount to a 43% increase above current employment generated by the WSA. Recreation use of the WSA would add .5 jobs to the economy. This would be a 63% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .8 jobs or an increase of 53% above the current level of employment generated by the WSA.

Implementation costs would be limited to the costs of range developments since there would be no wilderness management costs under this alternative. Range development costs would be $11,000.

Conclusion: There would be $21,793 additional annual income and .8 new jobs. Implementation costs would total $11,000 for range improvements.

All Wilderness Alternative

All 24,509 acres in the WSA would be recommended as suitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 24,509 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 85 acres adjacent to the 6.5 miles of roads/primitive vehicle routes closed to motorized vehicles. Juniper burning projects would not impact naturalness. Along 1.5 miles of Camas Creek, the exclusion of livestock would improve naturalness.

Solitude - Opportunities for solitude would be maintained in the 24,509-acre wilderness area. Federal acquisition of the scattered private inholdings would assure that opportunities for solitude and primitive recreation are not compromised by private landowners. Opportunities would be enhanced in areas visible from the 6.5 miles of roads/primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 24,509-acre wilderness area. Opportunities would be enhanced in areas adjacent to 6.5 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values of the WSA include more than 150 known prehistoric archaeological sites with eleven separate petroglyph panels. Thirty-five percent of the WSA is on the National Register of Historic Places as part of the Pole Creek/Camas Creek Archaeological District.

Pole Creek/Camas Creek Archaeological District - The exclusion of livestock from 30 acres in Camas Creek Canyon would prevent trampling of archaeological sites. Scientific excavations would be allowed and ongoing scientific research conducted in this area since 1975 would continue. This research and efforts to physically stabilize eroding sites would become more costly. Vehicle use restrictions and design modifications to minimize impacts on naturalness and primitive recreation would increase the costs of these efforts. The Camas Creek petroglyph field would not be available for development of an interpretive exhibit. Public access to this area is currently severely restricted by private property posted "No Trespassing" and no exhibit is planned. Three other rock art sites located closer to Boise are currently being considered for interpretive displays.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 85 acres affected by road closures. Excluding livestock from a portion of Camas Creek would improve naturalness and prevent trampling of archaeological sites. Ongoing archaeological research and site stabilization would become more costly.

Impacts on Recreation Use

Suitable Area

The 24,509-acre wilderness area would be available for backcountry recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites. Motorized vehicle use would be prohibited and 6.5 miles of roads/primitive vehicle routes would be closed to public use.

Recreation use is expected to remain very light with recreation use increasing from current 325 annual visitor days to 475 annual visitor days in 20 years. Recreation use would be less than under the Proposed Action because of potential displacement of some sage grouse hunters. Wilderness designation would not have a significant impact on the numbers and distribution of backcountry visitors.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close 6.5 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or

horseback. Some sage grouse hunters could be displaced by proposed road closures, however, this impact would not be significant since it is anticipated that these hunters will use habitat areas adjacent to the WSA that remain open to motorized access.

Conclusion: In 20 years, annual recreation use would be about 475 visitor days, an increase of 150 annual visitor days over current use. Some sage grouse hunters could be displaced. Hunting use would increase from a present annual use of 275 visitor days to 325 visitor days in 20 years. Backcountry activities would increase from a current use of 50 visitor days to 150 visitor days in 20 years. Due to the lack of opportunities, closure to motor vehicle use would have minimal impact on ORV use.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 80% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impact on Income and Jobs

Implementation costs would be limited to wilderness management costs since there are no range development costs under this alternative. The 20 year forecast is that with this alternative recreation use would increase 150 annual visitor days while domestic livestock grazing would increase by 253 AUMS (10% above current use).

This alternative would add $3,448 in annual income due to increased grazing by year 20. This would amount to an increase of 10% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $4,676 to the local economy or an increase of 55% above current income generated from recreation use in the WSA. The total income increase would amount to $8,124. This would be an increase above the current level of income generated by the WSA of 19%.

This alternative would increase grazing-related employment by .1 jobs by year 20. This would amount to a 14% increase above current employment generated by the WSA. Recreation use of the WSA would add .4 jobs to the economy. This would be a 50% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .5 jobs or an increase of 33% above the current level of employment generated by the WSA.

Implementation costs would be limited to wilderness management costs since there would be no range development costs. The annual average wilderness management costs (following designation) would be $4,400.

Conclusion: There would be $8,124 of additional annual income and .5 new jobs. Implementation costs would be $4,400 annually for wilderness management.

SHEEP CREEK WEST WSA (ID-111-36A)

Proposed Action

Under the Proposed Action all 11,680 acres in the WSA would be recommended as suitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 11,680 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 50 acres adjacent to the 4.5 miles of primitive vehicle routes closed to motorized vehicles.

Solitude - Opportunities for solitude would be maintained in the 11,680-acre wilderness area. Opportunities would be enhanced in areas visible from the 4.5 miles of primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation visitor use increases, opportunities for solitude could be slightly diminished in Sheep Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 11,680-acre wilderness area. Opportunities would be enhanced in areas adjacent to 4.5 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values in the wilderness area include redband trout, 7,200 acres of good to excellent condition Sagebrush Steppe vegetation, and the exceptional scenic values of the entire WSA.

Redband trout - Because of the existing water temperatures, limited site potential, and sediment load coming out of Nevada, no change in redband trout habitat is anticipated within the WSA.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Because domestic livestock grazing would remain near existing levels, no significant impacts are anticipated to these near pristine rangelands.

Scenic Values - No significant impacts are expected to occur to the existing scenic values of the WSA.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 50 acres affected by road closures. Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases. Redband trout habitat, scientific/ecological values of the rangeland, and scenic values would not be affected.

Impacts on Recreation Use

Suitable Area

The 11,680-acre wilderness area would be available for backcountry recreation opportunities. Motorized vehicle use would be prohibited and 4.5 miles of primitive vehicle routes would be closed to public use.

Recreation use is expected to remain very light in this WSA with about 200 annual visitor days anticipated in 20 years. Wilderness designation would not have a significant impact on the numbers and distribution of backcountry visitors in this WSA. Backcountry activities would account for about 60% of total recreation use.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close 4.5 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand.

Conclusion: In 20 years, annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. Hunting would increase from a present annual use of 50 visitor days to 80 visitor days in 20 years. Presently non-existent or very low backcountry activities would total about 120 visitor days in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be significantly impacted.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 10% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 5%.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit slightly from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 5%.

Impact on Income and Jobs

Implementation costs for the Proposed Action include only the costs of wilderness management since no range improvement projects are proposed. The 20 year forecast is that with the Proposed Action recreation use would increase 150 annual visitor days while domestic livestock grazing would increase by 75 AUMS (5% above current use).

The Proposed Action would add $1,022 in annual income due to increased grazing by year 20. This would amount to an increase of 5% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $3,683 to the local economy or an increase of 236% above current income generated from recreation use in the WSA. The total income increase would amount to $4,705. This would be an increase above the current level of income generated by the WSA of 21%.

The Proposed Action would not increase grazing-related employment jobs by year 20. Recreation use of the WSA would add .3 jobs to the economy. This would be a 300% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .3 jobs or an increase of 60% above the current level of employment generated by the WSA.

Implementation costs include only wilderness management costs since no range improvements are proposed. The annual average wilderness management costs (following designation) would be $1,800.

Conclusion: There would be $4,705 of additional annual income and .3 new jobs. Implementation costs would be $1,800 annually for wilderness management.

No Wilderness/No Action Alternative

All 11,680 acres in the WSA would be recommended nonsuitable for wilderness.

Impacts to Wilderness Values

Naturalness - Naturalness within the 11,680 acres would be maintained. No projects are proposed.

Solitude - As recreation visitor use increases, opportunities for solitude could be slightly diminished in Sheep Creek Canyon.

Primitive Recreation - Opportunities for primitive recreation would not be impacted.

Supplemental Values - Supplemental wilderness values in the WSA include redband trout, 7,200 acres of good to excellent condition Sagebrush Steppe vegetation, and the exceptional scenic values of the entire WSA.

Redband trout - Because of the existing water temperatures, limited site potential, and sediment load coming out of Nevada, no change in redband trout habitat is anticipated within the WSA.

Good/excellent condition Sagebrush Steppe rangeland (scientific/ ecological values) - Because domestic livestock grazing would remain near existing levels, no significant impacts are anticipated to these near pristine rangelands.

Scenic Values - No impacts would occur to the existing scenic values of the WSA.

Conclusion: Opportunities for solitude could be slightly diminished as recreation use increases. There would be no significant impact to naturalness, opportunities for primitive recreation, redband trout habitat, scientific/ecological values of the rangeland, and scenic values.

Impacts on Recreation Use

Nonsuitable Area

The 11,680-acre WSA would be available for general recreation use with no specific restrictions or recreation management objectives and would be available for off-road-vehicle use.

Recreation use is expected to remain very light in this WSA with about 200 annual visitor days anticipated in 20 years. Existing opportunities for hunting and off-road-vehicle use would not be affected since there would be no restrictions on the use of motorized vehicles. It is anticipated, however, that little ORV use would occur because of natural terrain limitations and the availability of more suitable areas to meet projected demand. Very little ORV use currently occurs in the area and is usually in conjunction with hunting. This use normally occurs adjacent to primitive vehicle routes which provide vehicle access to the interior of the WSA.

Conclusion: In 20 years, annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. Present hunting use of 50 visitor days per year would increase to 80 visitor days in 20 years. Backcountry activities would total 120 visitor days per year in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be affected.

Impacts on Selected Wildlife Species

Nonsuitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 10% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 5%.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit slightly from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 5%.

Impact on Income and Jobs

There would be no implementation costs under this alternative since there are no wilderness management costs and no range improvement projects are proposed. The 20 year forecast is that with this alternative recreation use would increase 150 annual visitor days while domestic livestock grazing would increase by 75 AUMS (5% above current use).

This alternative would add $1,022 in annual income due to increased grazing by year 20. This would amount to an increase of 5% above current income generated by the WSA. This includes both direct and secondary income gains.

Additional recreation use by the end of 20 years would add annual income of $3,683 to the local economy or an increase of 236% above current income generated from recreation use in the WSA. The total income increase would amount to $4,705. This would be an increase above the current level of income generated by the WSA of 21%.

This alternative would not increase grazing-related employment. Recreation use of the WSA would add .3 jobs to the economy. This would be a 300% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .3 jobs or an increase of 60% above the current level of employment generated by the WSA.

Conclusion: There would be $4,705 of additional annual income and .3 new jobs. There would be no implementation costs.

SHEEP CREEK EAST WSA (ID-111-36B)

Proposed Action (No Action Alternative)

Under the Proposed Action the entire 5,050-acre WSA would be recommended nonsuitable for wilderness.

Impacts on Wilderness Values

Nonsuitable Area

Naturalness - Naturalness within the 5,050 acres would be maintained with the exception that increased grazing would adversely impact naturalness around water sources.

Solitude - As recreation visitor use increases, opportunities for solitude could be slightly diminished in Sheep Creek Canyon.

Primitive Recreation - Opportunities for primitive recreation would not be impacted.

Supplemental Values - Supplemental wilderness values in the WSA include redband trout and the exceptional scenic value of Sheep Creek Canyon.

Redband trout - Because of the existing water temperatures, limited site potential, and sediment load coming out of Nevada, no change in redband trout habitat is anticipated within the WSA.

Scenic Values (Sheep Creek Canyon) - No impacts are expected to occur to the existing scenic values of the WSA.

Conclusion: Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases. There would be no significant impact to naturalness, opportunities for primitive recreation, redband trout habitat or scenic values with the exception of decreased naturalness around livestock water sources.

Impacts on Recreation Use

Nonsuitable Area

The 5,050-acre WSA would be available for general recreation use with no specific restrictions or recreation management objectives and would be available for off-road-vehicle use.

Recreation use is expected to remain very light in this WSA with about 200 annual visitor days or less anticipated in 20 years. Hunting will account for 60% of this use. Existing opportunities for hunting and off-road-vehicle

use would not be affected since there would be no restrictions on the use of motorized vehicles. It is anticipated, however, that little ORV use would occur because of natural terrain limitations and the availability of more suitable areas to meet projected demand. Very little ORV use currently occurs in the area and is usually in conjunction with hunting. This use normally occurs adjacent to primitive vehicle routes which provide vehicle access to the interior of the WSA. Increases in livestock grazing would have no impact on recreation use.

Conclusion: In 20 years, annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. Hunting would increase from a current annual use of 50 visitor days to 120 visitor days in 20 years. Presently non-existent to very low backcountry use would total 80 visitor days in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be affected.

Impacts on Selected Wildlife Species

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 45% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impact on Income and Jobs

There would be no implementation costs under this alternative since there are no wilderness management costs and no range improvement projects are proposed. The 20 year forecast is that with this alternative recreation use would increase 150 annual visitor days while domestic livestock grazing would increase by 229 AUMS (75% above current use).

This alternative would add $3,120 in annual income due to increased grazing by year 20. This would amount to an increase of 75% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $3,683 to the local economy or an increase of 236% above current income generated from recreation use in the WSA. The total income increase would amount to $6,803. This would be an increase above the current level of income generated by the WSA of 118%.

This alternative would increase grazing-related employment by .1 jobs by year 20. This would amount to a 100% increase above current employment generated by the WSA. Recreation use of the WSA would add .3 jobs to the economy. This would be a 300% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .4 jobs or an increase of 200% above the current level of employment generated by the WSA.

Conclusion: There would be $6,803 of additional income and .4 new jobs. There would be no implementation costs.

All Wilderness Alternative

All 5,050 acres in the WSA would be recommended as suitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 5,050 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about five acres adjacent to the .5 miles of primitive vehicle routes closed to motorized vehicles.

Solitude - Opportunities for solitude would be maintained in the 5,050-acre wilderness area. Opportunities would be enhanced in areas visible from the .5 miles of primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. As recreation use increases opportunities for solitude could be slightly diminished in Sheep Creek Canyon.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained in the 5,050-acre wilderness area. Opportunities would be enhanced in areas adjacent to 0.5 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values in the wilderness area include redband trout and the exceptional scenic values of the entire WSA.

Redband trout - Because of the existing water temperatures, limited site potential, and sediment load coming out of Nevada, no change in redband trout habitat is anticipated within the WSA.

Scenic Values - No impacts would occur to the existing scenic values of the WSA.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be enhanced on about five acres affected by road closures. Redband trout habitat and scenic values would not be affected. Opportunities for solitude could be slightly diminished in Sheep Creek Canyon as recreation use increases.

Impacts on Recreation Use

Suitable Area

The 5,050-acre wilderness area would be available for backcountry recreation opportunities. Motorized vehicle use would be prohibited and .5 miles of primitive vehicle routes would be closed to public use.

Recreation use is expected to remain very light in this WSA with about 200 annual visitor days or less anticipated in 20 years. Wilderness designation would not have a significant impact on the numbers and distribution of backcountry visitors in this WSA.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, very low ORV use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close .5 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand.

Conclusion: In 20 years, annual recreation use would be about 200 visitor days, an increase of 150 annual visitor days over current use. Hunting would increase from a current annual use of 50 visitor days to 120 visitor days in 20 years. Presently non-existent to very low backcountry use would increase to 80 visitor days in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be significantly impacted.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 45% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would benefit slightly from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impact on Income and Jobs

Implementation costs for the this alternative include only the costs of wilderness management since no range improvement projects are proposed. The 20 year forecast is that with this alternative recreation use would increase 150 annual visitor days while domestic livestock grazing would increase by 31 AUMS (10% above current use).

This alternative would add $422 in annual income due to increased grazing by year 20. This would amount to an increase of 10% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $3,683 to the local economy or an increase of 236% above current income generated from recreation use in the WSA. The total income increase would amount to $4,105. This would be an increase above the current level of income generated by the WSA of 71%.

This alternative would not increase grazing-related employment. Recreation use of the WSA would add .3 jobs to the economy. This would be a 300% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .3 jobs or an increase of 150% above the current level of employment generated by the WSA.

Implementation costs include only wilderness management costs since no range improvements are proposed. The annual average wilderness management costs (following designation) would be $5,500.

Conclusion: There would be $4,105 of additional annual income and .3 new jobs. Implementation costs would be $5,500 annually for wilderness management.

UPPER DEEP CREEK WSA (ID-111-44)

Proposed Action (No Action Alternative)

Under the Proposed Action all 11,510 acres in the WSA would be recommended nonsuitable for wilderness.

Impacts on Wilderness Values

Nonsuitable Area

Naturalness - Increased grazing would adversely impact naturalness around livestock water sources. Juniper firewood cutting could destroy natural appearance of about 640 acres. Firewood cutting would transform juniper woodlands into a landscape dominated by tree stumps and slash. This would severely impact naturalness and aesthetic values. These potential firewood cutting areas are located adjacent to the WSA's eastern boundary on the southeast slope of Slack Mountain. Proposed juniper burning projects are not expected to affect apparent naturalness because the burnings would be designed to resemble natural wildfire and would not be apparent to the visitor as an unnatural modification of the landscape. The exclusion of livestock from 1.5 miles of Deep Creek would improve naturalness.

Solitude - As recreation use increases, opportunities for solitude would be slightly decreased on 1,155 acres. These areas are relatively flat elongated plateaus between the existing road and the canyon rims. Hunters and other motorized visitors are likely to drive vehicles across these areas to get to the canyon rims. Noise from chainsaws cutting firewood adjacent to WSA boundary roads would detract from solitude.

Primitive Recreation - Increased motorized vehicle traffic would also cause a reduction in the quality of primitive recreation on the 1,155 acres described above since a loss of solitude would also reduce the quality of primitive recreation experiences. Opportunities for primitive recreation would also be diminished on the 640 acres affected by firewood cutting since the loss of naturalness would also diminish the quality of primitive recreation experiences.

Supplemental Values - Supplemental wilderness values of the WSA include more than 20 known prehistoric archaeological sites with about twenty percent of the WSA on the National Register of Historic Places as part of the Pole Creek/Camas Creek Archaeological District, and scenic values of Deep Creek Canyon.

Pole Creek/Camas Creek Archaeological District - The proposed 76% increase in livestock grazing would accelerate damage from livestock trampling to prehistoric sites located adjacent to natural water sources.

Scenic Values (Deep Creek Canyon) - Firewood cutting would not occur in the vicinity of the canyon. No impacts to scenic quality of the canyon area are anticipated.

Conclusion: Increased grazing would decrease naturalness around water sources. Naturalness would be lost and opportunities for primitive recreation would be diminished on 640 acres affected by firewood cutting. The exclusion of livestock from 1.5 miles of Deep Creek would improve naturalness. Noise from firewood cutting would adversely impact solitude. Opportunities for primitive recreation and solitude would also be diminished on 1,150 acres affected by increased ORV use. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District. Scenic values would not be affected.

Impacts on Recreation Use

Nonsuitable Area

The 11,510-acre WSA would be available for general recreation use with no specific restrictions or recreation management objectives and would be available for off-road-vehicle use.

Recreation use is expected to remain very light in this WSA with recreation use increasing from current 325 annual visitor days to 600 annual visitor days in 20 years. Hunting would account for 75% of this use. Opportunities for hunting and off-road-vehicle use would not be affected since there would be no restrictions on the use of motorized vehicles. Very little ORV currently occurs in the area and is usually in conjunction with hunting. Some additional ORV use could occur on 1,150 acres that lie in two narrow elongated strips between the wilderness study area boundaries and the canyon rim. Because this area is relatively flat and void of large boulders, hunters and other visitors could drive across these narrow plateaus to approach the canyon rims. Very little additional ORV use is anticipated in other areas because of natural terrain limitations and the availability of more suitable areas to meet projected demand. Fall hunting would remain the predominant use. Increases in livestock grazing would have no impact on recreation use.

Conclusion: In 20 years, annual recreation use would be about 600 visitor days, an increase of 275 annual visitor days over current use. Present hunting use of 325 visitor days per year would increase to 450 visitor days in 20 years. Presently very low to non-existent backcountry use would total 150 visitor days per year in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be affected.

Impacts on Selected Wildlife Species

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 90% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impact on Income and Jobs

There would be no implementation costs under this alternative since there are no proposed range developments and no wilderness management costs. The 20 year forecast is that with the Proposed Action recreation use would increase 275 annual visitor days while domestic livestock grazing would increase by 529 AUMS (76% above current use).

This alternative would add $7,207 in annual income due to increased grazing by year 20. This would amount to an increase of 76% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $7,584 to the local economy or an increase of 75% above current income generated from recreation use in the WSA. The total income increase would amount to $14,791. This would be an increase above the current level of income generated by the WSA of 75%.

This alternative would increase grazing-related employment by .1 jobs by year 20. This would amount to a 50% increase above current employment generated by the WSA. Recreation use of the WSA would add .7 jobs to the economy. This would be a 78% increase above current employment generated from

recreation activities in the WSA. The total employment gain would be .8 jobs or an increase of 73% above the current level of employment generated by the WSA.

Conclusion: There would be $14,791 of additional annual income and .8 new jobs. There would be no implementation costs.

All Wilderness Alternative

All 11,510 acres in the WSA would be recommended suitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 11,510 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 40 acres adjacent to the 3.25 miles of roads/primitive vehicle routes closed to motorized vehicles. Naturalness along 1.5 miles of Deep Creek would improve due to the exclusion of livestock. Prescribed burning of 2,000 acres would not impact naturalness.

Solitude - Opportunities for solitude would be maintained on 10,360 acres. Opportunities would be enhanced in areas visible from the 3.25 miles of primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated. About 1,150 acres on two elongated plateaus between WSA boundary roads and canyon rims would be susceptible to unintentional motorized vehicle trespass. Terrain features would make it difficult to inform potential users of motorized vehicle use restrictions. As recreation use increases, opportunities for solitude would be decreased in this area due to increased vehicle traffic.

Primitive Recreation - Unauthorized vehicle traffic would also cause a reduction in the quality of primitive recreation experiences on the 1,150 acres described under impacts to solitude. Outstanding opportunities for primitive recreation would be maintained on the remaining 10,360 acres. Opportunities would be enhanced in areas adjacent to 3.25 miles of vehicle route closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values of the wilderness area include more than 20 known prehistoric archaeological sites with about twenty percent of the WSA on the National Register of Historic Places as part of the Pole Creek/Camas Creek Archaeological District, and scenic values of Deep Creek Canyon.

Pole Creek/Camas Creek Archaeological District - Scientific excavations would be allowed. Excavations were conducted at a cave site in Deep Creek Canyon during 1983. Efforts to physically stabilize eroding sites would become more

costly. Vehicle use restrictions and design modifications to minimize impacts on naturalness and primitive recreation would increase the costs of these efforts.

Scenic Values (Deep Creek Canyon) - No impacts to scenic quality of the canyon area are anticipated.

Conclusion: Exclusion of livestock along 1.5 miles of Deep Creek would enhance naturalness. Naturalness and opportunities for solitude/primitive recreation would be enhanced on about 40 acres affected by road closures. Opportunities for solitude and primitive recreation could be diminished on 1,150 acres affected by increased vehicle traffic. Existing opportunities for solitude and primitive recreation would be maintained on 10,360 acres. Ongoing archeological research and site stabilization would become more costly. Scenic values would not be affected.

Impacts on Recreation Use

Suitable Area

The 11,510-acre wilderness area would be available for backcountry recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites. Motorized vehicle use would be prohibited and 3.25 miles of roads/primitive vehicle routes would be closed to public use.

Recreation use is expected to remain very light in this WSA with recreation use increasing from current 325 annual visitor days to 600 annual visitor days in 20 years. Wilderness designation would not have a significant impact on the numbers and distribution of backcountry visitors in this WSA.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations and the availability of more suitable areas to meet projected demand.
Although wilderness designation would close 3.25 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand.

Conclusion: In 20 years, annual recreation use would be about 600 visitor days, an increase of 275 annual visitor days over current use. Current hunting use of 325 visitor days per year would increase to 450 visitor days in 20 years. Backcountry activities would total 150 visitor days per year in 20 years. Opportunities to participate in off-road-vehicle use or hunting would not be significantly impacted.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 90% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 10%.

Impact on Income and Jobs

Implementation costs would be limited to wilderness management costs since there are no range development costs. The 20 year forecast is that with this alternative recreation use would increase 275 annual visitor days while domestic livestock grazing would increase by 69 AUMS (10% above current use).

This alternative would add $940 in annual income due to increased grazing by year 20. This would amount to an increase of 10% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $7,584 to the local economy or an increase of 75% above current income generated from recreation use in the WSA. The total income increase would amount to $8,524. This would be an increase above the current level of income generated by the WSA of 43%.

This alternative would not increase grazing-related employment. Recreation use of the WSA would add .7 jobs to the economy. This would be a 78% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .7 jobs or an increase of 64% above the current level of employment generated by the WSA.

Implementation costs include only the cost of wilderness management since no range developments are proposed under this alternative. The annual average wilderness management costs (following designation) would be $1,800.

Conclusion: There would be $8,524 of additional annual income and .7 new jobs. Implementation costs would be $1,800 annually for wilderness management.

All Manageable Wilderness Alternative

The area recommended suitable for wilderness would include 10,355 acres. The remaining 1,155 acres would be recommended nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 10,355 acres would be maintained. In five to ten years, natural revegetation along existing vehicle routes would result in a more natural appearance of about 40 acres adjacent to the 3.25 miles of roads/primitive vehicle routes closed to motorized vehicles. Prescribed burning of 2,000 acres would not impact naturalness. The exclusion of livestock along 1.5 miles of Deep Creek would enhance naturalness.

Solitude - Opportunities for solitude would be maintained on 10,355 acres. Opportunities would be enhanced in areas visible from the 3.25 miles of primitive vehicle routes closed to motorized vehicles since vehicle traffic would be eliminated.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained on 10,360 acres. Opportunities would be enhanced in areas adjacent to the 3.25 miles of road closures since enhanced naturalness and opportunities for solitude would also enhance the quality of primitive recreation opportunities.

Supplemental Values - Supplemental wilderness values of the wilderness area include more than 20 known prehistoric archaeological sites with about twenty percent of the WSA on the National Register of Historic Places as part of the Pole Creek/Camas Creek Archaeological District, and scenic values of Deep Creek Canyon.

Pole Creek/Camas Creek Archaeological District - Scientific excavations would be allowed. Excavations were conducted at a cave site in Deep Creek Canyon during 1983. Efforts to physically stabilize eroding sites would become more costly. Vehicle use restrictions and design modifications to minimize impacts on naturalness and primitive recreation would increase the costs of these efforts.

Scenic Values (Deep Creek Canyon) - No significant impacts to scenic quality of the canyon area are anticipated.

Conclusion: The exclusion of livestock along 1.5 miles of Deep Creek would enhance naturalness. Naturalness and opportunities for solitude/primitive recreation would be maintained on 10,355 and would be enhanced on 40 acres affected by road closures. Ongoing archeological research and site stabilization would become more costly. Scenic values would not be affected.

Nonsuitable Area

Naturalness - No significant impacts to naturalness of this area are anticipated with the exception that increased livestock grazing would have adverse impacts around water sources.

Solitude - As recreation use increases, opportunities for solitude would be slightly decreased in these areas due to increased vehicle traffic. These areas are relatively flat elongated plateaus between the existing road and the canyon rims. Hunters and other motorized visitors are likely to drive vehicles across these areas to get to the canyon rims.

Primitive Recreation - Increased motorized vehicle traffic would also cause a reduction in the quality of primitive recreation since a loss of solitude would also reduce the quality of primitive recreation experiences.

Supplemental Values - There are no known supplemental wilderness values in the areas recommended nonsuitable under this alternative.

Conclusion: Opportunities for solitude and primitive recreation would be diminished by increased ORV use. Naturalness would not be affected with the exception of decreased naturalness around livestock water sources.

Impacts on Recreation Use

Suitable Area

The 10,355-acre wilderness area would be available for backcountry recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites. Motorized vehicle use would be prohibited and 3.25 miles of roads/primitive vehicle routes would be closed to public use.

Recreation use is expected to remain very light in this WSA with recreation use increasing from current 275 annual visitor days to 525 annual visitor days in 20 years. Wilderness designation would not have a significant impact on the numbers and distribution of backcountry visitors in this WSA. Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, low visitor use, and the availability of more suitable areas to meet projected demand.

Although wilderness designation would close 3.25 miles of primitive vehicle routes, hunting use would not be significantly impacted. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand.

Conclusion: In 20 years, annual recreation use would be about 525 visitor days, an increase of 250 annual visitor days over current use. Current hunting use of 275 visitor days per year would increase to 375 visitor days in 20 years. In 20 years, backcountry activities would total 150 visitor days per year. Opportunities to participate in off-road-vehicle use or hunting would not be significantly impacted.

Nonsuitable Area

The 1,115 acres recommended nonsuitable for wilderness would be available for general dispersed recreation use with no special recreation management regulations or objectives. This area would be available for off-road-vehicle use. Increases in livestock grazing would have no impact on recreation use.

Because the areas recommended nonsuitable for wilderness under this alternative do not have any specific features to attract recreation users, little recreation use is expected to occur. Current use is estimated to be less than 50 annual visitor days with an occasional hunting party accounting for the use. Because this area is relatively flat and void of large boulders, a little ORV use is expected primarily as hunters and other visitors drive across these narrow plateaus to approach the canyon rims. In 20 years, hunting use would total 75 visitor days per year, while little, if any, backcountry activities would occur.

Conclusion: There would be no significant impact on recreation use. Present hunting use of 50 visitor days per year would increase to 75 visitor days in 20 years.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 90% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this improvement would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 10%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). All (100%) of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this would result in a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impact on Income and Jobs

Implementation costs would be limited to wilderness management costs since there are no range development costs. The 20 year forecast is that with this alternative recreation use would increase 275 annual visitor days while domestic livestock grazing would increase by 105 AUMS (15% above current use).

This alternative would add $1,430 in annual income due to increased grazing by year 20. This would amount to an increase of 15% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $7,584 to the local economy or an increase of 75% above current income generated from recreation use in the WSA. The total income increase would amount to $9,014. This would be an increase above the current level of income generated by the WSA of 46%.

This alternative would not increase grazing-related employment. Recreation use of the WSA would add .7 jobs to the economy. This would be a 78% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .7 jobs or an increase of 64% above the current level of employment generated by the WSA.

Implementation costs include only the cost of wilderness management since no range developments are proposed under this alternative. The annual average wilderness management costs (following designation) would be $1,800.

Conclusion: There would be $9,014 of additional annual income and .7 new jobs. Implementation costs would be $1,800 annually for wilderness management.

Minimum Resource Conflict Alternative

Under this alternative 5,700 acres would be recommended suitable for wilderness with the remaining 5,810 acres recommended nonsuitable for wilderness.

Impacts on Wilderness Values

Suitable Area

Naturalness - Naturalness on 5,700 acres would be maintained. The exclusion of livestock along 1.5 miles of Deep Creek would enhance naturalness.

Solitude - Opportunities for solitude would be maintained on 5,700 acres.

Primitive Recreation - Outstanding opportunities for primitive recreation would be maintained on 5,700 acres.

Supplemental Values - Supplemental wilderness values of the wilderness area include the scenic values of Deep Creek Canyon.

Scenic Values (Deep Creek Canyon) - No impacts to scenic quality of the canyon area are anticipated.

Conclusion: Naturalness and opportunities for solitude/primitive recreation would be maintained on 5,700 acres. Scenic values would not be affected.

Nonsuitable Area

Naturalness - None of the proposed actions are expected to have a significant impact on the natural appearance of this area with the exception that increased livestock use would have adverse impacts on naturalness around water sources.

Solitude - As recreation use increases, opportunities for solitude would be decreased on 1,155 acres. These areas are relatively flat elongated plateaus between the existing road and the canyon rims. Hunters and other motorized visitors are likely to drive vehicles across these areas to get to the canyon rims.

Primitive Recreation - Increased motorized vehicle traffic would also cause a reduction in the quality of primitive recreation on the 1,155 acres described above since a loss of solitude would also reduce the quality of primitive recreation experiences.

Supplemental Values - Supplemental wilderness values of the nonsuitable area include more than 20 known prehistoric archaeological sites with about twenty percent of the WSA on the National Register of Historic Places as part of the Pole Creek/Camas Creek Archaeological District.

Pole Creek/Camas Creek Archaeological District - The proposed 75% increase in livestock grazing would accelerate damage from livestock trampling to prehistoric sites located adjacent to natural water sources.

Conclusion: Opportunities for solitude and primitive recreation would be diminished on 1,155 acres affected by increased ORV use. There would be increased livestock trampling of archaeological sites in the Pole Creek/Camas Creek Archaeological District. Naturalness and scenic values would not be affected with the exception of decreased naturalness around livestock water sources.

Impacts on Recreation Use

Suitable Area

The 5,700-acre wilderness area would be available for backcountry recreation opportunities. Indirect recreation management techniques (selective road/trail maintenance and information dispersal) would be used to minimize visitor impacts to cultural resource sites. Motorized vehicle use would be prohibited.

Recreation use is expected to remain very light in this WSA with recreation use increasing from current 225 annual visitor days to 425 annual visitor days in 20 years. Wilderness designation would not have a significant impact on the numbers and distribution of backcountry visitors in this WSA.

Wilderness designation would not have a significant impact on off-road-vehicle recreation opportunities because of natural terrain limitations, low visitor use, and the availability of more suitable areas to meet projected demand.

Hunting use would not be significantly impacted by wilderness designation. Big-game hunters are expected to continue to pursue deer and antelope despite vehicle use restrictions. Some road hunters may be replaced by hunters on foot or horseback. Chukar and sage grouse hunters would not be impacted by wilderness designation since numerous access routes to habitat will remain open to meet the light demand.

Conclusion: In 20 years, annual recreation use would be about 425 visitor days, an increase of 200 annual visitor days over current use. Current hunting use of 225 visitor days per year would increase 275 visitor days in 20 years. In 20 years, backcountry activities would total 150 visitor days per year. Opportunities to participate in off-road-vehicle use or hunting would not be significantly impacted.

Nonsuitable Area

The 5,810 acres recommended nonsuitable for wilderness would be available for general dispersed recreation use with no special recreation management regulations or objectives. This area would be available for off-road-vehicle use.

Because the areas recommended nonsuitable for wilderness under this alternative do not have any specific features expected to attract recreation users, little recreation use would occur in these areas. Current use is estimated to be less than 50 annual visitor days with hunting accounting for the use. Increases in livestock grazing would have no impact on recreation use.

Conclusion: There would be no significant impact on recreation use. Current hunting use of 100 visitor days per year would increase to 175 visitor days in 20 years. Little backcountry use would occur in the area.

Impacts on Selected Wildlife Species

Suitable Area

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting, hiding, escape and thermal). About 80% of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer, pronghorn, and sage grouse would increase by up to 10%.

Nonsuitable Area

Permanent increases in livestock use would only be permitted following monitoring to assure that adequate forage is available without compromising wildlife forage needs. Consequently, increased livestock use would not affect populations of mule deer, antelope, or sage grouse.

Grazing system management (deferred grazing, rest rotation, and season of use adjustments) would change livestock use patterns and improve the ecological condition of the vegetation community, resulting in a greater proportion of preferred wildlife food plants and more diverse wildlife cover (nesting,

hiding, escape and thermal). All (100%) of the rangeland is expected to show improvement by progressing from poor to fair condition or from fair to good ecological condition. Because of livestock/wildlife social interactions, this would result in only a slight increase in wildlife populations but would moderate normal population cycle declines by keeping animal populations from dropping as low as they would on poorer condition ranges. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Conclusion: Mule deer, pronghorn, and sage grouse would generally benefit from anticipated improvement in the ecological condition of the habitat. Once the expected change in ecological condition occurs, populations of mule deer and pronghorn would increase by up to 5%. Sage grouse populations would increase by up to 10%.

Impact on Income and Jobs

Implementation costs would be limited to wilderness management costs since there are no range development costs. The 20 year forecast is that with this alternative recreation use would increase 275 annual visitor days while domestic livestock grazing would increase by 522 AUMS (75% above current use).

This alternative would add $7,112 in annual income due to increased grazing by year 20. This would amount to an increase of 75% above current income generated by the WSA. This includes both direct and secondary income gains. Additional recreation use by the end of 20 years would add annual income of $7,584 to the local economy or an increase of 75% above current income generated from recreation use in the WSA. The total income increase would amount to $14,696. This would be an increase above the current level of income generated by the WSA of 75%.

This alternative would increase grazing-related employment by .1 jobs by year 20. This would amount to a 50% increase above current employment generated by the WSA. Recreation use of the WSA would add .7 jobs to the economy. This would be a 78% increase above current employment generated from recreation activities in the WSA. The total employment gain would be .8 jobs or an increase of 73% above the current level of employment generated by the WSA.

Implementation costs include only the cost of wilderness management since no range developments are proposed under this alternative. The annual average wilderness management costs (following designation) would be $1,800.

Conclusion: There would be $14,696 of additional annual income and .8 new jobs. Implementation costs would be $1,800 annually for wilderness management.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

Implementation of the Proposed Action would not have a significant impact on long-term productivity. Management actions on wilderness and nonwilderness lands would not significantly affect the land's capability to produce renewable resources on a sustained yield basis. Under all alternatives, the basic resources of vegetation and soil would improve with only minor variations between alternatives. The principles of multiple use and sustained yield would govern the allocation of all renewable resources under each alternative.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Wilderness designation would preclude future resource commodity development. This commitment, however, is not irreversible or irretrievable. Resources within designated wilderness would be available for use at a future date should national priorities and needs change. Congress has the option to relinquish wilderness designation and open designated lands.

In areas not designated wilderness, commodity development including range management facilities, utility lines, firewood cutting, and increased livestock grazing, could cause irreversible and irretrievable damage to wilderness characteristics and cultural resource sites. Wilderness characteristics and cultural resource sites are both non-renewable resources and historically, their supply has diminished with resource commodity development on public lands. These resource values would likely continue to be diminished in the foreseeable future in areas not designated wilderness.

CHAPTER FIVE
COORDINATION, CONSISTENCY, AND PUBLIC PARTICIPATION

COORDINATION AND CONSULTATION

Coordination and consultation has been a continuing process beginning in 1978 with the wilderness inventory of BLM lands. Throughout the process, formal and informal contacts have been maintained with federal, state, and local government agencies; interest groups; and affected individuals. Informational packets were sent to 570 individuals and organizations to solicit comments on EIS issue and alternative development. Eighty-nine written comments were received. More than 130 people attended two public meetings in Boise and Bruneau, Idaho. The scoping process for the EIS is described in Chapter I. The U.S. Fish and Wildlife Service was consulted regarding the presence of endangered and threatened species (see comment letters #3 and #48).

CONSISTENCY

The Proposed Action is consistent with Idaho Fish and Game Department management plans for this region. The Owyhee County Land Use Plan Update does not address wilderness.

PUBLIC PARTICIPATION

Public participation during the scoping process is described in Chapter I. The Draft EIS was sent to selected state, federal, and local officials; interest groups; and affected individuals for review and comment. Notice of public hearings and availability of the Draft EIS was published in the Federal Register on July 27, 1984. A 90-day public comment period ended on November 2, 1984. Public hearings were held in Grand View, Idaho on September 4, 1984 and in Boise, Idaho on September 5, 1984.

The Draft EIS was sent to the following individuals and organizations. This list is representative but not inclusive.

Federal Agencies

Department of Agriculture:
- U.S. Forest Service
- U.S. Soil Conservation Service

Department of Defense:
- U.S. Air Force

Department of Energy:
- Bonneville Power Administration

Coordination, Consistency and Public Participation

Department of the Interior:
National Park Service
U.S. Bureau of Indian Affairs

U.S. Bureau of Reclamation
U.S. Bureau of Mines
U.S. Fish and Wildlife Service
U.S. Geological Survey

Department of Transportation:
Federal Aviation Administration
Federal Highway Administration

Environmental Protection Agency

Federal Energy Regulatory Commission

State Agencies, Commissions or Boards

Idaho Department of Agriculture
Idaho Department of Fish and Game
Idaho Department of Health, Welfare and Environmental Services
Idaho Department of Highways
Idaho Department of Lands
Idaho Department of Parks and Recreation
Idaho Department of Water Resources
Idaho Historic Preservation Office
Idaho Public Utilities Commission
Idaho State Clearinghouse
Idaho Outfitters and Guides Board

Advisory Councils

Boise District Multiple Use Advisory Council
Boise District Grazing Advisory Board

Organizations

Ada County Fish and Game League
Appaloosa Horse Club
American Fisheries Society
American Wilderness Alliance
Association of Idaho Cities
Association of Western Native Plant Societies
Audubon Society
Boise Chamber of Commerce
BSU Conservation Group

Caldwell Chamber of Commerce
Committee for Idaho's High Desert
Desert Bighorn Sheep Council
Desert Fishes Council
Desert Raiders
Desert Rats
Desert Research Institute
Desert Tortoise Council
Eagle Valley Environmentalists, Inc.
Earth First
Federation of Western Outdoor Clubs
Friends of the Earth
Gem County Rock and Mineral Society
Good Sam Club
Idaho Archaeological Society
Idaho Association of Counties
Idaho Carey Act Association
Idaho Cattlemen's Association
Idaho Conservation League
Idaho Environmental Council
Idaho Historical Society
Idaho Mining Association
Idaho Native Plant Society
Idaho Natural Areas Coordinating Committee
Idaho Outdoor Association
Idaho Outfitters and Guides Association
Idaho Petroleum Council
Idaho Rare Birds Committee
Idaho State Grange
Idaho Trail Machine Association
Idaho Wildlife Federation
Idaho Woolgrowers Association
Institute for High Desert Studies
League of Women Voters
Magic Valley Gem Club
Mountain Home Air Force Base Sportsman Club
National Council of Public Land Users
National Public Land Advisory Council
National Public Lands Task Force
National Rifle Association of America
National Wildlife Federation
Natural Resource Defense Council
Nature Conservancy
Northwest Mining Association
Oregon Wilderness Coalition
Owyhee Cattlemen's Association
Owyhee County Historical Society
Owyhee Gem and Mineral Society
Pacific League Foundation
Pacific Northwest 4-Wheel Drive Association

Public Lands Council
Sagebrush Rebellion, Inc.
Sierra Club
Snake River Audubon Society
Snake River Gem Club
Society for Range Management
Treasure Valley Club
Treasure Valley Rock and Gem Club
United 4 Wheel Drive Association
Wilderness Institute
Wilderness Society
Wildlife Management Institute
Wildlife Society
Wildlife Research Institute

Concerned Individuals, Businesses, and Schools

ARCO
Noranda Exploration, Inc.
Rivers Odysseys West
Salmon River Kayaks
TEXACO
Affected grazing permittees
Other businesses and industries
Colleges and universities
Other individuals

Elected Officials

Federal:
Senator James McClure
Senator Steve Symms
Congressman Larry Craig
Congressman George Hansen

State:
Governor John Evans
Senator James Risch
Senator Walt Yarborough
Representative Gerry Montgomery
Representative Lyman Winchester

Local:
Ada County Commissioners
Ada County Sheriff
Canyon County Commissioners
Owyhee County Commissioners
Owyhee County Sheriff

SUMMATION OF PUBLIC COMMENT ON THE DRAFT EIS

A total of 151 individuals/organizations provided formal public comment on the Draft Jacks Creek Wilderness EIS. One-hundred and sixteen written comments were received while 46 individuals provided oral testimony at public hearings (11 individuals provided both written and oral testimony).

Seventy percent of the public comments were received from local residents (Ada, Elmore, Canyon and Owyhee Counties) while 11% were from other portions of Idaho, 13% from other western states (Washington, Oregon, California, Colorado and Utah), and 5% from eastern states (Washington D.C., Massachusetts, Virginia and Alabama).

Most public comments supported All Wilderness or No Wilderness/No Action alternatives. There was little public support for partial wilderness alternatives (only 5% of public comments). Public comment support for the alternatives for each WSA is summarized below:

Little Jacks Creek WSA (ID-111-6)

Alternative	# acres Proposed for Wilderness	# of Supporters	% of Total Public Comment
Proposed Action	34,000	4	3%
All Wilderness Alternative (or more)	58,040	77	51%
No Wilderness/No Action Alternative	0	40	26%
All Manageable Wilderness Alternative	50,690	3	2%
Minimum Resource Conflict Alternative	33,240	0	0%
Rim to Rim Wilderness Alternative	6,350	1	1%
No Preference Indicated		26	17%
		151	100%

Duncan Creek WSA (ID-111-7B)

Alternative	# acres Proposed for Wilderness	# of Supporters	% of Total Public Comment
Proposed Action	9,400	59	39%
All Wilderness Alternative (or more)	10,645	22	15%
No Wilderness/No Action Alternative	0	41	27%
All Manageable Wilderness Alternative	10,085	3	2%
No Preference		26	17%
		151	100%

Big Jacks Creek WSA (ID-111-7C)

Alternative	# acres Proposed for Wilderness	# of Supporters	% of Total Public Comment
Proposed Action	44,525	0	0%
All Wilderness Alternative (or more)	54,833	77	51%
No Wilderness/No Action Alternative	0	40	26%
All Manageable Wilderness Alternative	49,875	7	5%
Rim to Rim Wilderness Alternative	10,800	1	1%
No Preference Indicated		26	17%
		151	100%

Pole Creek WSA (ID-111-18)

Alternative	# acres Proposed for Wilderness	# of Supporters	% of Total Public Comment
Proposed Action	0	48	32%
All Wilderness Alternative (or more)	24,504	77	51%
No Preference Indicated		26	17%
		151	100%

Sheep Creek West WSA (ID-111-36A)

Alternative	# acres Proposed for Wilderness	# of Supporters	% of Total Public Comment
Proposed Action (All Wilderness)	11,680	28	19%
No Wilderness/No Action Alternative	0	41	27%
More Wilderness than Proposed Action	11,680+	56	37%
No Preference Indicated		26	17%
		151	100%

Sheep Creek East WSA (ID-111-36B)

Alternative	# acres Proposed for Wilderness	# of Supporters	% of Total Public Comment
Proposed Action	0	48	32%
All Wilderness Alternative (or more)	5,050	77	51%
No Preference Indicated		26	17%
		151	100%

Upper Deep Creek WSA (ID-111-44)

Alternative	# acres Proposed for Wilderness	# of Supporters	% of Total Public Comment
Proposed Action	0	41	27%
All Wilderness Alternative (or more)	11,510	77	51%
All Manageable Wilderness Alternative	10,355	3	2%
Draft EIS Proposed Action	5,700	4	3%
No Preference Indicated		26	17%
		151	100%

RESPONSE TO SUBSTANTIVE COMMENTS

All letters and public hearing comments were reviewed and considered during preparation of the Final EIS. Many of the comments have been incorporated into the Final EIS. Substantive comments have been reproduced and are responded to in the following section. Comments that are not reproduced are those that only indicated support for a particular alternative without addressing a specific environmental issue. Because of the length of public hearings transcripts, only that portion of the transcript responded to is reproduced in the EIS. Table 44 is a log of all public comment received. Each comment has been assigned a log number. Responses have been numbered to correspond to the appropriate comment.

Table #44
JACKS CREEK DRAFT EIS PUBLIC COMMENT LOG

Log #	Name	Address	Representing
	WRITTEN COMMENTS		
1	John McGown	Boise, ID	Self
2	Martin Gabica*	Boise, ID	Self
3	USDI Fish & Wildlife Service+*	Boise, ID	Federal Agency
4	Gail & Edgar Robinson*	Marlboro, MA	Self
5	Neil Rimby*	Caldwell, ID	Cooperative Extension Service
6	Peter Briggs*	Denver, CO	Atlantic Richfield Co.
7	Forrest Fretwell*	Marsing, ID	Owyhee Cattleman's Assn.
8	Zachary Murphy	Homedale, ID	Self
9	Elliot Bernshaw	Salt Lake City, UT	Self
10	Federal Aviation Agency*	Seattle, WA	Federal Agency
11	Tom Olsen+	Boise, ID	Idaho Cattle Assn.

+ Provided more than one public comment on the Draft EIS.
* Substantive comments which are responded to in the following section.

Log #	Name	Address	Representing
	WRITTEN COMMENTS (continued)		
12	Cliff Aldrich	UT	Self
13	Jerry Welsh	Boise, ID	Self
14	Leonard Johnson	Eagle, ID	Self
15	Dave Bivens*	Meridian, ID	Self
16	John Sellman	Mountain Home, ID	Self
17	Martin Albert	Charlottesville, VA	Self
18	petition - 52 names	various (Idaho)	Owyhee Gem & Mineral Society
19	Lloyd Knight+	Grand View, ID	Self
20	Idaho Dept. of Fish & Game*	Boise, ID	State Agency
21	Richard Anderson	Jackson, NH	Self
22	Michael Baldwin	Seattle, WA	Self
23	John Marshall	Boise, ID	Self
24	Bruce Bowler	Boise, ID	Self
25	J.H. & Louise Daniels	Weiser, ID	Self
26	Christine Jansen	Boise, ID	Self
27	William Meiners*	Boise, ID	Idaho Wildlife Federation
28	Ethel Thorniley	Detroit, MI	Self
29	Lynne Schnupp+	Boise, ID	Self
30	Charles Fisher	Boise, ID	Self
31	Loyal Hower	Nampa, ID	Self
32	Brent Knapp+*	Boise, ID	Self
33	Harold Miles	Nampa, ID	Idaho Consumers Affairs, Inc.
34	Ilene Joyce	Boise, ID	Self
35	Edwina Allen	Boise, ID	Self
36	Dusty Young		Self
37	Jerry Jayne	Idaho Falls, ID	Self
38	Dave Prouty	Boise, ID	Self
39	Paul Fritz	Boise, ID	American Wilderness Alliance
40	Orvall & Roberta Nelson	Eagle, ID	Self
41	Ruth Herrington	Boise, ID	Self
42	Frank Vaughn*	Lakeview, OR	Self
43	William Chisholm	Buhl, ID	Self
44	Pete Wyman*	Spokane, WA	Self
45	James McFarling	Spokane, WA	Self
46	Ed Speer*	Lakewood, CO	Tenneco Minerals
47	William Mullens*	Boise, ID	Self
48	USDI Fish & Wildlife Service+*	Boise, ID	Federal Agency

+ Provided more than one public comment on the Draft EIS.
* Substantive comments which are responded to in the following section.

Log #	Name	Address	Representing
	WRITTEN COMMENTS (continued)		
49	David Meyers*	Boise, ID	Idaho Power Company
50	Jack Trueblood+*	Boise, ID	Idaho Sportsmen's Coalition
51	Jack Trueblood+	Boise, ID	Field & Stream Magazine
52	Rich & Jackie Anderson	Kuna, ID	Self
53	Susan Clark	Boise, ID	Self
54	Ann Montgomery	Star, ID	Self
55	Juanita Collete	Grand View, ID	Self
56	Roger Applegate	Pocatello, ID	Self
57	Cynthia Strine	Boise, ID	Self
58	Thomas von Alten	Boise, ID	Self
59	Alan Kofoed	Boise, ID	Self
60	Robert Tyler	Boise, ID	Self
61	petition - 14 names	various (Idaho)	Committee for Idaho's High Desert
62	Bruce Boccard*	Boise, ID	Committee for Idaho's High Desert
63	Richard Weaver*	Sacramento, CA	Desert Bighorn Council
64	Linda Miller	Boise, ID	Self
65	Steve Jakubowics*	Boise, ID	Self
66	James Breszinsky	Eagle, ID	Self
67	Lynne Bachman*	Eagle, ID	Self
68	Ernie Day*	Washington, D.C.	Wilderness Society
69	Tom Robinson+*	Boise, ID	Wilderness Society
70	Gary Shue	Boise, ID	Self
71	Don Crawford	Moscow, ID	Self
72	Lewis Nelson*	Boise, ID	Idaho Chapter, Wildlife Society
73	Alan McNeely	Boise, ID	Self
74	Janet Ward+*	Boise, ID	Self
75	Edwin Stockly*	Boise, ID	Idaho Natural Resource Legal Foundation, Inc.
76	H.W. Praetorius	Denver, CO	Exxon Company
77	Robert Luntey	Buhl, ID	Self
78	Ellen Trueblood*	Nampa, ID	Self
79	Berta Youtie	Moscow, ID	Self
80	Fred Rabe	Moscow, ID	Self
81	John Swanson	Berkeley, CA	Self
82	Craig Gehrke	Boise, ID	Idaho Conservation League
83	Jill Wyatt	Bremerton, WA	Self
84	Jospeh Ultican	Boise, ID	Self
85	Larry & Donna Hallock	Boise, ID	Self

+ Provided more than one public comment on the Draft EIS.
* Substantive comments which are responded to in the following section.

Log #	Name	Address	Representing
	WRITTEN COMMENTS (continued)		
86	J.R. Blake	Boise, ID	Self
87	Environmental Protection Agency*	Seattle, WA	Federal Agency
88	Dan Grzenia	Boise, ID	Self
89	Dennis Baird*	Moscow, ID	Self
90	Dorian Duffin+*	Boise, ID	Self
91	Susanne Vader+*	Boise, ID	Self
92	Maureen Laughlin	Boise, ID	Self
93	Charles Yoder+*	Boise, ID	Sierra Club
94	Carol Bradford-Goble	Moscow, ID	Self
95	Brian Schaeffer+	Boise, ID	Self
96	Peter Bowler*	Bliss, ID	Self
97	Ronald Newton	Moscow, ID	Self
98	Florence Orth	Enterprise, AL	Self
99	Celia Tindall	Bruneau, ID	Self
100	Fred Birdsall*	Denver, CO	Conoco, Inc.
101	Jim Chu	Boise, ID	Self
102	David Tindall+	Bruneau, ID	Self
103	Tom Green*	Boise, ID	Idaho State Historical Society, State Agency
104	Ed & Jane Cisek	Boise, ID	Self
105	Roger Duffin	Boise, ID	Self
106	Hubert Hazelett	Moscow, ID	Self
107	Alice Frell*	Denver, CO	Rocky Mountain Oil & Gas Assn., Inc.
108	Lawson LeGate	Bend, OR	Self
109	U.S. Air Force*	San Francisco, CA	Federal Agency
110	Sherl Chapman*	Boise, ID	Idaho Water Users Assn.
111	Leroy Heinse	Mountain Home, ID	Self
112	Curtis Spalding	Susanville, CA	Self
113	P.J. DeNiro	Denver, CO	Sohio Petroleum Co.
114	Robert Jones	Pocatello, ID	Self
115	Warren Miller	Nampa, ID	Self
116	Richard Smart	Coeur d'Alene, ID	Self
117	Richard Morris	Coeur d'Alene, ID	Self
	HEARING TESTIMONY		
118	Guy Colyer*	Bruneau, ID	Colyer Cattle Co., Owyhee Cattlemen's Assn.

+ Provided more than one public comment on the Draft EIS.
* Substantive comments which are responded to in the following section.

Log #	Name	Address	Representing
HEARING TESTIMONY (continued)			
119	Frank Bachman*	Bruneau, ID	Simplot Livestock Co., Owyhee Cattleman's Assn.
120	Gene Davis*	Bruneau, ID	Idaho Cattlemen's Assn., Bruneau Cattle Co.
121	Steve Wood		Self
122	Eric Davis*	Bruneau, ID	Owyhee Cattlemen's Assn.
123	Lloyd Knight+	Glenns Ferry, ID	Self
124	Clay Atkins	Bruneau, ID	Self
125	Donald Davis	Bruneau, ID	Owyhee County Commissioners
126	George Turner	Bruneau, ID	Self
127	Terry Downs	Caldwell, ID	Self
128	Virgil Gottsch	Grand View, ID	Owyhee County Historical Society
129	Bruce Jacobsen	Grand View, ID	Self
130	David Lahtinen*	Bruneau, ID	Self
131	Tom Robinson+*	Boise, ID	Wilderness Society
132	Brent Knapp+*	Boise, ID	Self
133	Keith Tondrick*	Boise, ID	Sierra Club
134	David Tindall+*	Grasmere, ID	Tindall & Sons
135	Alan Hausrath	Boise, ID	Idaho Environmental Council
136	Tom Olsen+	Boise, ID	Idaho Cattle Assn.
137	Chet Sellman	Bruneau, ID	Self
138	Mike Hanley	Jordan Valley, OR	Self
139	Lynne Schnupp+	Boise, ID	Self
140	Andy Anderson*	Boise, ID	Idaho Farm Bureau Federation
141	Paul Nettleton*	Murphy, ID	Sagebrush Rebellion, Inc
142	Lawrence Miller	Parma, ID	Self
143	Howard Emry	Boise, ID	Northwest Federation of Mineralogical Societies
144	David Hawk	Boise, ID	Self
145	Brian Schaeffer+	Boise, ID	Self
146	Tom Hovenden*	Boise, ID	Alliance for Resource & Recreation Management
147	Susanne Vader+	Boise, ID	Self
148	Dorian Duffin+	Boise, ID	Self
149	Roger Graham*	Meridian, ID	Self
150	Randall Morris	Mountain Home, ID	Self
151	Rick Downing*	Boise, ID	Elmore County Motorcycle Club
152	Bonnie Gilbert	Boise, ID	Self
153	Bill Gilbert	Boise, ID	Self
154	LeRoy Smith	Nampa, ID	Southern Idaho Desert Racing Assn.

Log #	Name	Address	Representing
	HEARING TESTIMONY (continued)		
155	Kathy Sticklen	Boise, ID	Self
156	Janet Ward+*	Boise, ID	Self
157	Jack Chappell	Bruneau, ID	Self
158	Chris Yoder+	Boise, ID	Self
159	Larry Meredith	Caldwell, ID	Self
160	Mike Ramsower		Self
161	Craig Moore	Boise, ID	Self
162	Bill Baker	Boise, ID	Self
163	Twyla Montano	Boise, ID	Self

+ Provided more than one public comment on the Draft EIS.
* Substantive comments which are responded to in the following section.

Response 2.01 - The regional demand for wilderness recreation opportunities is much higher than the projected demand for non-wilderness dispersed recreation in Owyhee County (see Jungst 1979 and Idaho Department of Parks and Recreation 1982). We agree that wilderness designation does not necessarily lead to increased recreation use. We have, however, projected increased use in three of the seven WSAs following wilderness designation (Little Jacks Creek, Big Jacks Creek, and Duncan Creek WSAs). Studies of wilderness users indicate that four primary factors influence the choice of a wilderness area by recreationists. These factors are: 1) proximity to home; 2) scenery; 3) attractive water; and 4) opportunities to view wildlife (Roggenbuck 1980 and Lucas 1980). The three Jacks Creek WSAs excel in each of these features and we believe would become popular destinations for recreationists seeking wilderness experiences. The major vehicle routes providing access to canyon hiking areas would remain open following wilderness designation.

Response 3.01 - Your comment has been incorporated in the text of the Final EIS (Chapter III, vegetation section).

Response 3.02 - We have reviewed our records on specific locations for Astragalus yoder-williamsii, and there are no known locations of this species in any of the WSAs being considered in this study. This species is now considered threatened, and all known sites will be protected from any hazards.

Response 4.01 - Management of BLM wilderness areas is governed by the BLM's Wilderness Management Policy (USDI 1981). This policy allows hunting to continue in BLM wilderness areas subject to applicable State and Federal laws and regulations. Trapping of furbearers is also permitted if it is not the trapper's sole source of livelihood.

Response 5.01 - An Economics Appendix showing gross output multipliers, earnings/gross output ratios, and examples of calculations for one alternative have been included in the Final EIS (Appendix B).

Response 5.02 - In the example you cited, 5,303 AUMs of the total 35,637 allotment AUMs would come from within the WSAs while the remainder would come from outside the WSAs. In the example you cited, percentile projected increases within the WSAs are actually higher (43%) than projected increases in the allotment as a whole (38%). Data is provided in the EIS on anticipated livestock increases or limitations on increases within each wilderness study area under the various alternatives. Information on other resources such as wildlife, recreation, cultural resources, etc., is also specific to each WSA. In the Final EIS, analysis of livestock grazing impacts have been limited to changes in grazing levels within the WSA.

Response 5.03 - We realize that the quality factors would be absent from all alternatives. However, since the value of these factors could outweigh resource commodity values, including a B/C ratio without quantifying the quality factors could portray an inaccurate assessment of the benefits and

costs of the proposed action and alternatives. The CFR cited in the Draft EIS (40 CFR Part 1500) are regulations governing implementation of the National Environmental Policy Act and specifying legal requirements for Environmental Impact Statements. Regarding cost-benefit analysis, the regulations state, "For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." (emphasis added).

Response 6.01 - Because the potential for mineral development is low, we do not feel that a map showing special or standard stipulation areas is warranted. Most of Little Jacks Creek and Big Jacks Creek WSAs require special stipulations because of bighorn sheep habitat, while most of Duncan Creek WSA has special stipulations to protect crucial mule deer winter range. The remaining WSAs do not have any special stipulations other than those required by the BLM's Wilderness Interim Management Policy (USDI 1979). At this time, we do not know which areas would require an EIS prior to mineral exploration or development.

Response 7.01 - Bighorn sheep is a special feature that enhances an area's wilderness values. The Federal Register Vol. 47, No. 23, page 5106 states under Component No. 2: Special Features: Quality of the Area's Optional Wilderness Characteristics: "as part of the wilderness study process, these characteristics (special features) should also be thoroughly considered when assessing an area's overall value as wilderness. For example, in some areas, outstanding opportunities for solitude may be the primary reason for recommending an area as suitable for wilderness designation. In other areas, The presence of special wildlife values or a special geological feature may provide additional reasons for recommending an area for wilderness designation." (emphasis added). Please see Chapter V of the Final EIS for clarification of which wilderness values are "special features" and which are "multiple resource benefits." Bighorn sheep habitat is not the sole reason for the Proposed Action's wilderness suitability recommendations. Numerous other factors contribute to the overall wilderness values of each WSA including size, naturalness, opportunities for solitude, opportunities for primitive recreation, ecological values, scenery, other sensitive wildlife species, multiple resource benefits, and opportunities to expand diversity in the National Wilderness Preservation System. These values are identified in Chapter III for each WSA. The Wilderness Inventory Handbook cited in your letter provided guidance for identification of Wilderness Study Areas. Once WSAs have been identified, policy guidance for the study process is contained in the Wilderness Study Policy (USDI 1982c).

Response 7.02 - The Draft EIS assumed that a mandatory permit system and visitor use restrictions would not be imposed if the Little Jacks Creek Canyon was not designated wilderness. Since publication of the Draft EIS, the Bruneau-Kuna Land Use Plan has been updated to incorporate these measures needed to assure protection of bighorn sheep habitat. The Final EIS now assumes that these recreation control measures will be implemented if necessary to protect bighorn habitat, regardless of the wilderness decision.

Response 7.03 - The summary table is a representation of environmental impacts identified during analysis of the various alternatives. Because of space limitations, the summary table concentrates on significant environmental changes rather than emphasizing maintenance of status quo conditions. The analysis does not indicate that wilderness values would remain unchanged on 97,055 acres under the No Wilderness/No Action Alternatives. The Final EIS assumes that recreation control measures will be taken if necessary to protect bighorn regardless of the wilderness decision. Vandalism of archaeological sites is a major problem in the Boise District today, and the District receives no funding to combat this problem. No increases in funding are anticipated. The impact estimates are not based on optimum funding. They are based on a realistic assessment of future management and assume implementation of the present land use plan and continuation of present management trends. Observations in the River of No Return Wilderness indicate that vandalism of archaeological sites can be expected to decline following wilderness designation despite increases in recreation use (see comment letter #103). The impact assessment does not state that scenic quality would remain unchanged on 109,415 acres. It does state that few major impacts on visual resources are anticipated. Scenic degradation could occur, however, in conjunction with firewood cutting, livestock watering pipelines and utility construction. These impacts are all expected to occur. Scenic quality on all other areas could be affected by new development or resource use activities not currently anticipated. By contrast, following wilderness designation, scenic quality would remain unchanged. The impact assessment reflects this difference.

Response 7.04 - Discussions regarding "Manageability" have been deleted from the Final EIS since manageability is not an environmental issue or impact. Manageability issues will be addressed in Wilderness Study Reports which will be prepared following distribution of the Final EIS.

Response 10.01 - Additional information in response to your comment has been incorporated in the text of the Final EIS (Chapter III, wilderness section).

Response 15.01 - Designated wilderness areas will be patrolled by both BLM patrols and volunteers. Annual wilderness management costs are expected to range from $11,300 to $11,500 depending on the amount of acreage designated wilderness. It is anticipated that most public land users will voluntarily comply with wilderness management regulations. Willful violators of wilderness management regulations would be subject to fines up to $1,000 and imprisonment up to 12 months.

Response 15.02 - Earnings increases related to AUM increases result from increased sales of beef cattle by local ranchers. The recreation related earnings result from expenditures of funds by recreational users of the WSAs for such items as food, lodging, guide services, etc. This would translate into income for the retail suppliers of these items (also see response to comment 5.01).

Response 20.01 - Figures for increased grazing are 20 year projections based on anticipated forage availability. Increases in grazing would not be permitted until monitoring studies verified that the additional forage was available without compromising plant maintenance requirements, watershed protection, or wildlife needs. The condition and structure of vegetative

communities are considered the most important characteristic of pronghorn habitat. Proper livestock use can enhance key species in pronghorn habitat, or can reduce existing competition in ranges where overlapping use by pronghorn and livestock occurs (i.e., spring ranges). It is important to obtain good range condition by reasonable methods so that diverse plant communities are present in all wildlife ranges rather than monotypic communities such as cheatgrass, sagebrush with little to no understory, or crested wheatgrass seedings without forbs or shrubs. Project proposals would be designed to incorporate measures to maximize benefits and minimize adverse impacts to pronghorn and sage grouse (see Appendix A). Impacts of proposed projects on sage grouse were evaluated using Guidelines for Habitat Protection in Sage Grouse Range prepared by the Western States Sage Grouse Committee as guidance (Western States Sage Grouse Committee 1974). Following application of this guidance, it has been determined that the beneficial aspects of these projects would outweigh negative impacts resulting in a slight net gain for wildlife habitat.

Response 27.01 - The wilderness study acreage in the Bruneau-Kuna Grazing EIS is being evaluated in three separate studies. The Jacks Creek EIS is evaluating 175,627 acres in seven WSAs. An additional 86,700 acres in the Bruneau and Jarbidge WSAs have been evaluated in the Jarbidge Wilderness EIS. The remaining 254,473 acres have been included in the Owyhee Canyonlands Wilderness EIS.

Response 27.02 - Alternative #2 was the No Wilderness/No Action Alternative in the Draft EIS. In the Final EIS, a No Wilderness/No Action Alternative is also analyzed for each WSA. It forms an effective baseline for determining impacts of wilderness designation or non-designation. This alternative assumes continuation of present land management practices and implementation of the current land use plan.

Response 27.03 - The analysis is based on a realistic assessment of actions expected to occur on these public lands in the next 20 years. Our impact assessment is based on the best available data and professional judgment of our staff specialists. We believe the impact analysis provided for wilderness, bighorn sheep, vegetative communities, etc. is the most realistic expectations of what will occur. In all cases where data is insufficient or inconclusive, our impact assessment has assumed a most probable case scenario. This is particularly true in our evaluation of impacts on bighorn sheep populations.

Response 27.04 - The bighorn sheep impact assessment is a most probable case scenario. We recognize the value of these rare animals and realize that when data is inconclusive, our responsibility is to be overly protective of bighorn rather than risk the loss of these rare resources. Our impact assessment and our management strategies for bighorn reflect this philosophy and our concern for this species.

Response 27.05 - Our predictions for improvement in ecological condition of the rangelands is based on professional judgment as well as documented literature. Specific documentation and relevant studies are discussed in the

Bruneau-Kuna Grazing EIS. Proposed increases in grazing would not be permitted until monitoring studies verified that the additional forage was available without compromising plant maintenance requirements, watershed protection, or wildlife needs. Therefore, if the projected improvements in ecological condition do not occur, the primary impact will be on livestock grazing where adjustments will have to be made to assure adequate protection of watershed, wildlife, fisheries, wilderness and other public values on the lands.

Response 27.06 - See response to comment 27.03

Response 27.07 - The Jacks Creek Wilderness EIS evaluates area of critical environmental concern (ACEC) status for bighorn sheep habitat that is outside proposed wilderness areas. Management actions proposed under ACEC classification and the relative permanence of ACEC designation are discussed under the description of the Proposed Action in Chapter II of the Final EIS.

Response 32.01 - A three-member team composed of a Landscape Architect and two members of our wilderness staff completed the scenic quality evaluation of Shoofly Canyon. This evaluation considered such factors as landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modifications. Each of these factors was rated independently by each member of the team during field examination of the canyon. Scores were tabulated, and consensus rating placed the Shoofly Canyon in the B category. A separate evaluation was completed by the same team at Little Jacks Creek Canyon, and a consensus rating placed this canyon in the A category. Specific elements that were scored higher for Little Jacks Creek Canyon include landform, water, scarcity, and the lack of cultural modifications. These scenic quality evaluations are available for your review at the Boise District Office of the BLM.

Response 32.02 - Wilderness study area boundaries were established during the inventory phase of the wilderness study process. This inventory identified those public lands which had the minimum characteristics to be designated wilderness under the Wilderness Act of 1964. Lands with these characteristics were identified as wilderness study areas (WSAs). For the seven WSAs in this study, the inventory process was completed in 1981. Only areas identified as WSAs during the wilderness inventory are being considered in this study. Sheep Creek East and Sheep Creek West WSAs are separated by private property and a road. The majority of the southern boundary of Sheep Creek West WSA also adjoins private property.

Response 32.03 - See response to comment 32.02.

Response 42.01 - Wilderness study area boundaries were established during the inventory phase of the wilderness study process. For the seven WSAs in this study, the inventory process was completed in 1981. In addition to roads, WSA boundaries were delineated by such factors as private property, state property, fencelines, and other impacts of man. Specific guidance for establishing WSA boundaries is found in the Wilderness Inventory Handbook (USDI 1978).

Response 42.02 - Behavioral research indicates that recreationists have satisfactory experiences when they participate in a desired activity within a desired setting. Those seeking primitive recreation experiences prefer natural environments where the sights and sounds of other visitors can be avoided. For more information on the integration of visitor satisfaction and physical, social, and managerial settings, please refer to the following sources (Driver and Brown 1978; Brown, Driver and McConnell 1978; and Clark and Stankey 1979).

Response 42.03 - These proposed projects impact wilderness characteristics in many acres beyond the area actually physically disturbed by access road or pipeline construction. Wilderness impacts were determined by evaluating what areas would have been excluded from wilderness study area status had the proposed projects already been developed. These are the areas that would no longer meet the minimum requirements to be designated wilderness. In both cases, pipeline and access road construction would affect naturalness and opportunities for solitude and primitive recreation on much of the adjacent plateau.

Response 42.04 - This proposal has been dropped from further consideration.

Response 42.05 - Additional information in response to your comment has been incorporated in the text of the Final EIS.

Response 42.06 - This chapter has been revised and includes a detailed discussion of the specific project proposals expected to impact wilderness characteristics.

Response 42.07 - Bureau of Land Management wilderness studies are governed by the BLM's Wilderness Study Policy (USDI 1982c) which was published in the Federal Register on February 3, 1982. On page 5103, the policy states "The area must be capable of being effectively managed to preserve its wilderness character."

Response 42.08 - Guidance on treatment of cherry-stem roads is contained in BLM Washington Office Information Memorandum No. 82-176 (April 22, 1982) titled, "Application of the Manageability Criterion in Wilderness Studies." This guidance states, "If the cherrystem does not provide access to a valid existing claim or lease, a grazing facility, or a State or private inholding, you may consider a road closure."

Response 42.09 - Guidance on this matter is also contained in the aforementioned BLM Washington Office Information Memorandum. It states, "Manageability was not a factor considered during the inventory phase. Now that studies must determine if this criterion can be met before recommending a WSA as suitable, it is possible a boundary may be expanded slightly when the additional acreage would enhance wilderness manageability."

Response 42.10 - While the demand for wilderness recreation opportunities is high, this does not translate into automatic increases in recreation use for all wilderness areas following wilderness designation (see Johst 1983 and Peterson 1981). The wilderness "label" alone does not appear to attract

recreationists. Other factors such as proximity to urban areas, scenery, attractive waters, and opportunities to view wildlife appear to be strong factors influencing a recreationists choice of which wilderness area to visit (see Roggenbuck 1980 and Lucas 1980).

Response 42.11 - Additional information in response to your comment has been incorporated in the text of the Final EIS.

Response 42.12 - The Wilderness Act of 1964 requires that proposed wilderness areas have outstanding opportunities for solitude or primitive recreation. Outstanding opportunities for solitude are not required if the area has outstanding opportunities for primitive recreation. The wilderness inventory documented that Sheep Creek West WSA has outstanding opportunities for primitive recreation. A permit system may be necessary to maintain these opportunities and enhance wilderness values by ensuring opportunities for solitude. More than half of all designated wilderness areas currently require permits for overnight visits while about 15% ration use (Washburne and Cole 1983).

Response 42.13 - A reevaluation of our data and projections indicate that use of Big Jacks Creek Canyon would be the same under the Draft EIS Proposed Action and Alternative #5. The text of the Final EIS has been altered to reflect this change.

Response 42.14 - Federal acquisition of these areas is proposed only under the All Wilderness Alternative. This would be necessary to assure long-term maintenance of wilderness characteristics in this canyon system. The BLM's Proposed Action does not include federal acquisition of any private lands.

Response 42.15 - Opportunities for primitive recreation were evaluated during the inventory phase of the wilderness study process. Each of the seven WSAs was judged to have outstanding opportunities for primitive recreation when compared to other public lands in the region.

Response 42.16 - The referenced statement is a quote from Wildlife Management in Wilderness by John C. Hendee and Clarence A. Schoenfeld (1978).

Response 42.17 - The Pole Creek WSA has not been identified as potential bighorn habitat because of limited availability of sufficient escape terrain (i.e., cliff structure) and juniper encroachment. The existence of petroglyphs does not substantiate that bighorn once occupied this area. It does mean that the prehistoric inhabitants who etched the petroglyphs were familiar with bighorn sheep.

Response 42.18 - Additional information in response to your comment has been incorporated in the text of the Final EIS.

Response 42.19 - See response to comment 42.04.

Response 42.20 - Spring runoff, icing, and scouring contribute to the natural instability of most of our desert streams. A healthy riparian growth resists the effects of scouring and creates a higher degree of stability. Livestock use of these bottoms amplifies the instability of streams by reducing amounts and condition of streamside riparian vegetation, causing trampling, compaction, and bank sloughing into the stream channel. In the Bruneau

Resource Area, grazing impacts on riparian vegetation condition and stream morphology range from minor (10%) to major (90%) depending on the stream segment.

Response 42.21 - The 19-mile Jacks Creek livestock watering pipeline has already been approved for construction between Little Jacks Creek and Big Jacks Creek WSAs. Other pipeline proposals (within WSAs) would be deferred until a wilderness decision is reached. The text of the Final EIS has been altered to clarify these points.

Response 42.22 - Management of BLM designated wilderness areas is governed by the BLM's Wilderness Management Policy (USDI 1981). This policy states that prescribed burning is permitted to reintroduce or maintain the natural condition of a fire-dependent ecosystem.

Response 42.23 - Additional dates of 4/1 to 6/30 should be added to the table.

Response 42.24 - When BLM archaeologists collect artifacts during cultural resource surveys, painstaking efforts are made to record detailed locational, environmental, and typological data. The artifacts are placed in curated storage. Data collected and the artifacts are available for use by other professional archaeologists conducting research. Surface collections, when collected under proper professional controls, can be a valuable source of data in the quest to reconstruct prehistory. For additional discussion of the value of these surface collections, please consult the following study, The Importance of Small, Surface, and Disturbed Sites as Sources of Significant Archaeological Data (Talmage and Chesler 1977).

Response 42.25 - The cultural resource inventory of the Bruneau Resource Area was completed using a stratified random sample. Site data collected was then statistically analyzed and correlated with environmental variables. Site density was found to be related to elevation, slope, and water accessibility. Site density projections are the product of this research. The complete cultural resource inventory report is available for review at the Boise District Office of the BLM (Young 1984).

Response 42.26 - Signs are only placed at archaeological sites that are being actively vandalized where continued unabated vandalism is expected to result in total loss of the site.

Response 42.27 - See response to comment 42.24.

Response 42.28 - The area proposed for fencing is about 30 acres. Projected loss of AUMs has been adjusted to 30-40 AUMs.

Response 42.29 - In the examples cited, significant increases in grazing are expected to occur under the Proposed Action in portions of the WSAs recommended as nonsuitable for wilderness. Increased trampling of archaeological sites will occur primarily in these portions of the WSA. For those portions of the WSA recommended as suitable for wilderness, one of the multiple resource benefits would be preventing this increased trampling of archaeological sites by restricting large increases in grazing.

Response 42.30 - A three-member team composed of a Landscape Architect and two members of our wilderness staff completed the scenic quality evaluations of Pole Creek WSA. This evaluation considered such factors as landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modifications. Each of these factors were rated independently by each member of the team during a field examination of the WSA. Scores were tabulated and a consensus rating placed the Pole Creek WSA in the B category. These scenic quality evaluations are available for your review at the Boise District Office of the BLM.

Response 42.31 - The statement quoted from page 167 of the Draft EIS is a listing of wilderness values of the WSA, not impacts of the Proposed Action. One of the multiple resource benefits from wilderness designation would be preservation of existing scenic quality. Under the Proposed Action, this WSA is recommended as nonsuitable for wilderness and scenic degradation could occur particularly in areas available for firewood cutting. Scenic quality ratings (existing situation) for Pole Creek WSA are depicted on Map 12b.

Response 42.32 - See response to comment 32.01.

Response 42.33 - Response to comment 42.30 for Pole Creek WSA also applies to scenic quality evaluations for these two WSAs.

Response 42.34 - Vegetation diversity was only one factor rated during the scenic quality evaluation of Sheep Creek West WSA. Response to comment 42.30 also applies to this comment.

Response 42.35 - A new Economics appendix (Appendix B) has been added to the Final EIS showing gross output multipliers, earnings/gross output ratios, and examples of calculations for one alternative. Examination of this appendix should clarify methods used to determine grazing related income gains.

Response 42.36 - Visitor use estimates are based on the best available data. Estimates were generated from the following sources: BLM and volunteer WSA patrols; registration boxes; vehicle counters; and consultation with livestock operators and Idaho Department of Fish and Game officials.

Response 42.37 - Studies that project future recreation demand incorporate numerous other factors in addition to past annual growth rate. Factors other than population growth clearly affect recreation use on public lands in general and wilderness use in particular. For example, wilderness use in Montana and Idaho increased 15% between 1976-1978. During the 1970's, recreation use of Forest Service wilderness increased annually at a 9.2% rate. Both of these statistics far exceed annual population growth rates. Other factors expected to influence future demand for recreational use of public lands include amount of leisure time, family income, educational levels, mobility, and the availability of recreation opportunities.

Response 42.38 - In the Final EIS, wilderness management costs have been summarized as an annual cost figure for each proposed wilderness area. Also see response to comment 42.35.

Response 44.01 - The Rough Mountain Intensive Inventory Unit was not identified as a wilderness study area during the inventory phase of the BLM wilderness review process. During this inventory, all lands that met the minimum criteria to be designated wilderness under the Wilderness Act of 1964 were identified. These criteria were size, naturalness, and outstanding opportunities for solitude or primitive recreation. The decision not to identify the Rough Mountain Intensive Inventory Unit as a WSA has been appealed to the Interior Board of Land Appeals (IBLA). It is BLM policy to include only those inventory units identified as wilderness study areas in wilderness study EISs. On February 14, 1985, the IBLA issued a decision affirming the Idaho BLM State Director's decision that this area lacks wilderness characteristics and therefore does not qualify for further wilderness consideration.

Response 44.02 - During the BLM wilderness inventory, about 24 million acres (14%) of the approximate 174 million acres surveyed were found to have wilderness characteristics and were designated wilderness study areas. The Sagebrush Steppe ecosystem historically occupied about 10% of the continental U.S. or about 130,000,000 acres. Of this amount, about 3.6% (4,658,071 acres) remains available for wilderness review. Other portions of the ecosystem are roaded, unnatural in appearance, lack outstanding opportunities for solitude or primitive recreation, or are in private or state ownership.

Response 44.03 - Range improvement projects proposed for WSAs (pipelines, seedings, etc.) are part of an overall package of projects developed for an allotment. These projects have been developed by our range management specialists as the most cost-effective and efficient method for improving range conditions, increasing forage availability for livestock and wildlife, and enhancing watershed protection. These benefits are expected to occur throughout the affected allotments, not just within WSAs. Figures for increased grazing in the Draft EIS are 20-year projections based on anticipated forage availability. Increases in grazing would not be permitted until monitoring studies verified that additional forage was available without compromising plant maintenance requirements, watershed protection, or wildlife needs. Our predictions for improvement in ecological condition of the rangelands is based on professional judgment as well as documented literature. Specific documentation and relevant studies are discussed in the Bruneau-Kuna Grazing EIS (USDI 1982a and 1982b).

Response 44.04 - The BLM Wilderness Study Policy (USDI 1982c) requires that all areas recommended as suitable for wilderness must be capable of being managed in the long-term to preserve wilderness characteristics. The pattern of private land ownership in Shoofly Canyon precludes long-term maintenance of wilderness characteristics in this canyon. A new map (see Map #4) has been added to the Final EIS to show the relationship of the topography to the existing road and the private inholdings. Discussions regarding "Manageability," however, have been deleted from the Final EIS since manageability is not an environmental issue or impact. Manageability issues will be addressed in Wilderness Study Reports which will be prepared following distribution of the Final EIS. Bighorn sheep habitat located adjacent to Shoofly Creek Canyon outside the proposed wilderness would be

designated an area of critical environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC). The primary management objective within this ACEC would be protection of bighorn sheep habitat. No increases in domestic livestock grazing are anticipated within bighorn habitat. For more information on specific management actions proposed within the ACEC, please see description of the Proposed Actions in Chapter II of the Final EIS.

Response 46.01 - Additional information in response to your comment has been incorporated in the text of the Final EIS (Chapter III, energy and mineral resources section).

Response 46.02 - Mineral study reports completed for the WSAs indicate that similar host rocks are not found in the WSAs and that similar deposits are unlikely to exist. The policy of conducting detailed mineral surveys after wilderness suitability recommendations have been made is Congressional direction included in the Federal Land Policy and Management Act of 1976 (FLPMA).

Response 47.01 - Under the Proposed Action and all alternatives, livestock watering troughs would be located at least one mile from bighorn sheep habitat. One of the primary reasons for this restriction is to prevent the transmission of bluetongue.

Response 48.01 - Riparian habitat protection measures would be implemented under the Proposed Action and all alternatives for all major streams in the WSAs. In Chapter II of the Final EIS (Description of the Alternatives Including the Proposed Action), proposed riparian habitat measures have been described under a separate subheading for each WSA.

Response 49.01 - Above ground utilities were not considered in the EIS because they would not be permitted in the Jacks Creek corridor under the existing land use plan. Above ground utilities were considered during development of the land use plan (URA-MFP) and were rejected at that time because of unacceptable visual impacts. After a review of potential environmental impacts, we anticipate that the policy of not allowing above ground utilities in this corridor would be continued regardless of the wildenress decision. Above ground utilities, therefore, are not addressed as an issue in this EIS since they are not affected by the wilderness recommendation.

Response 49.02 - Under all alternatives, utilities could be routed through any areas that are not designated wilderness if environmental analysis indicates the corridor is not the best route. As you correctly state in your letter, the designation of a utility corridor is only a planning decision and does not imply authorization or denial of a specific right-of-way request. The purpose of designating a utility corridor is to channel future utility right-of-way needs in areas where sprawl and conflict with other resources can be minimized. If utility needs cannot be met within the designated corridors, authorization of specific right-of-ways can be granted outside the corridors.

Response 49.03 - Depending on the point of origin or point of termination, future transmission lines could likely be routed adjacent to the WSAs at no additional cost. Areas adjacent to the Jacks Creek WSAs would be available for utility construction if it is not feasible to route the line between Little Jacks Creek and Big Jacks Creek WSAs. We did not address the impact of above ground utility development on wilderness characteristics because this type of development would not be allowed under our current land use plan, regardless of the wilderness decision. Also see response to 49.01.

Response 49.04 - See response to comment 7.01.

Response 50.01 - About one mile of fence would be needed to exclude livestock from the portions of Camas Creek where significant damage is occurring to the archaeological sites. Materials and labor would cost about $2,000. Annual maintenance costs should not exceed $200. Several good livestock reservoir sites have been identified within one mile of Camas Creek. Water would also be available for livestock in portions of Camas Creek that are not proposed for fencing.

Response 50.02 - The area proposed for seeding is currently in poor ecological condition. The site is dominated by shrubs with a very limited understory of forbs and grasses. The seeding will be designed to assure maintenance of adequate shrub cover for sage grouse while improving the understory for better opportunities for young birds and hens. This project was evaluated using Guidelines for Habitat Protection in Sage Grouse Range prepared by the Western States Sage Grouse Committee as guidance (Western States Sage Grouse Committee 1974).

Response 50.03 - See response to comments 20.01 and 27.05.

Response 50.04 - Those portions of Pole Creek and Camas Creek in poor condition have been identified for riparian improvement measures. Riparian condition is expected to respond to proposed changes in grazing management practices. These practices would be adopted in conjunction with allotment management plans and include such methods as deferred grazing, rest rotation, and adjustments in season of use. If riparian conditions fail to improve following implementation of these practices, then livestock grazing would be excluded from these riparian areas with gap fencing.

Response 50.05 - Areas potentially available for firewood cutting are on the west and south side of Avery Table. The access road is suitable for firewood cutting, and juniper immediately adjacent to the road has already been cut, despite a closure on this area to firewood cutting.

Response 50.06 - The statement apparently being referenced from the Draft EIS states, "There are no existing roads or vehicle routes in the proposed wilderness." The roads/vehicle routes cited in your comment are not within the above referenced proposed wilderness area.

Response 50.07 - The vehicle ways cited in your comment are included in our 4-mile total.

Response 50.08 - The EIS does not attempt to identify all wildlife species found in each WSA. It concentrates on highly visible species that can function as general indicators of the condition or quality of the biological component of the ecosystem. Mountain quail are included because they are a "sensitive" species and there is concern for their continued existence.

Response 50.09 - The statement in the Draft EIS is correct. Most of the mule deer habitat is in fair or good ecological condition. Ecological condition is the relationship of the current vegetation to climax vegetative communities (see discussion in the vegetation section of Chapter II of the Final EIS). This does not necessarily translate into good or fair habitat condition for mule deer. Because of this confusion the statement has been deleted from the Final EIS. The Bruneau-Kuna Grazing EIS (USDI 1982a and 1982b) found that most of the mule deer habitat in the Bruneau Resource Area (which includes the WSAs) was in unsatisfactory condition.

Response 50.10 - The text of the Final EIS has been modified to acknowledge these minor inclusions of woodland/mixed mountain shrub communities in Upper Deep Creek and Pole Creek WSAs.

Response 50.11 - We have identified increased damage to archaeological sites from livestock trampling as one of the anticipated impacts resulting from proposed increases in livestock grazing. We agree that fencing to protect all of these significant sites is not a practical or feasible alternative.

Response 62.01 - Following distribution of the Final EIS, a Wilderness Study Report will be prepared which will provide extensive narratives on factors used in the selection of the BLM's final wilderness recommendation. The initial Proposed Action for the Draft EIS was developed in conjunction with preparation of the Bruneau Resource Area land use plan. Rationales for specific boundary proposals are included in the current land use plan and are available for your review at the Boise District BLM Office.

Response 62.02 - See response to comment 44.04 and 62.01.

Response 62.03 - See response to comment 62.01.

Response 62.04 - We have carefully reviewed your proposal for expansion of the All Manageable Wilderness Alternative. Our evaluation indicates that the acreage you suggest adding to the alternative cannot be managed in the long-term as wilderness. Private property in the canyon bottoms is readily visible from much of the proposed additions. Non-conforming uses on the private land would compromise naturalness and opportunities for solitude and primitive recreation on this adjacent federal land as well. A new map (Map #4) has been added to the Final EIS which shows the relationship of the Shoofly Canyon topography to the existing road and the private inholdings. The fact that this portion of the bighorn sheep habitat cannot be managed in the long-term as wilderness does not, however, deter our commitment to manage this area as bighorn habitat. Under all alternatives, this acreage would be included in an area of environmental concern (Jacks Creek-Shoofly Creek Bighorn Sheep Habitat ACEC). For more information on specific management actions proposed within the ACEC, please see description of the Proposed Action for Little Jacks Creek WSA in Chapter II of the Final EIS.

Response 62.05 - While the Minimum Resource Conflict Alternative would not prevent construction of any specific range management projects, it would prevent realization of potential increases in livestock grazing over the next 20 years. It is anticipated that about 1,291 AUMs would not be realized by livestock operators if the Minimum Conflict Alternative was adopted.

Response 62.06 - We believe that the discussion of impacts, described in terms of ecological condition, adequately addresses impacts to the vegetative community. Ecological condition, as it was used in the Jacks Creek Wilderness DEIS, is not merely "a management tool for livestock...," rather ecological condition ratings were used to stratify and quantify observed differences in species composition for individual ecological sites. Species composition is the single most useful and quantifiable variable which we can use in measuring how an ecological site has varied from its climax (potential natural community). It should be noted that any future increases in livestock grazing will only be implemented after monitoring verifies improvement in ecological condition and/or maintenance of desired ecological condition.

Response 62.07 - The discussion of livestock grazing impacts on ecological/scientific values has been expanded in the Final EIS. Please refer to the Impacts to Wilderness Values portion in Chapter IV. We are not aware of any obligatory species inhabiting the WSAs under consideration in this study. There are more than 40 mammals, 70 birds and 30 reptiles and amphibians found in this ecosystem. Obviously it is not feasible to monitor impacts on each species. The Jacks Creek EIS evaluated impacts using highly visible species some of which are very sensitive to habitat modification such as sage grouse, pronghorn antelope, mule deer, and bighorn sheep. A wilderness decision is not expected to have a significant impact on these or other wildlife species. Under all alternatives, the majority of acreage would be managed to maintain or restore natural vegetative communities. Significant improvement in ecological condition of the rangeland is anticipated under all alternatives with no substantial differences between alternatives. The maintenance/restoration of natural vegetative communities and improvement in ecological condition are expected to benefit most wildlife species, improving the health of populations and complementing the diversity of species represented in the ecosystem. Projected increases in livestock grazing would not occur until monitoring verified that additional forage was available without compromising plant maintenance requirements, watershed protection, or wildlife needs.

Response 62.08 - Some monitoring studies have already been established in near pristine sagebrush/grasslands communities in the 1,000 acre Jacks Creek Research Natural Area. More monitoring studies will be established over the next two years. Monitoring techniques will follow standards set in "Minimum Monitoring Standards for BLM Administered Land in Idaho" (USDI 1983b). There are no plans under the Proposed Action or any of the alternatives to increase grazing in the Research Natural Area or on an additional 17,000 acres of good condition range within bighorn sheep habitat.

Response 62.09 - The purpose of this EIS is to evaluate the environmental impacts of a wilderness suitability decision. The proposed study to compare the relative impacts of fire and grazing on near pristine sagebrush/ grasslands is not within the scope of this EIS. We are, however, presently considering a study of fire effects on near pristine sagebrush/grasslands in the Jacks Creek vicinity. If you wish to participate in the development or implementation of this study or any other future studies, please submit a formal proposal to the Boise District Manager for review and consideration.

Response 62.10 - The areas identified in the Jacks Creek Wilderness DEIS for herbicide spraying and seeding are currently in fair to poor ecological condition. These sites are dominated by shrubs with little understory of forbs and grasses. The grass that is available is frequently cheatgrass or bluegrass. These annual grasses are an unstable forage source for wildlife as well as livestock. The current land use plan requires a seed mixture of grasses, forbs, and shrubs in seedings within mule deer or pronghorn range as well as a mosaic pattern retaining existing thermal and escape cover. These stipulations are designed to assure that seeding projects enhance wildlife habitat. These seedings will expand forage opportunities without the sacrifice of critical thermal and escape cover.

Response 62.11 - The statement on page 28 of the DEIS states that new livestock waters would not be allowed unless adverse impacts to bighorn could be avoided. "Avoidance of adverse impacts" is defined as "there would be no adverse impact on bighorn sheep or bighorn sheep habitat including but not limited to forage, space, and water competition." The BLM has not developed threshold levels for bighorn population stress or loss. It is more appropriate to measure population health in a sensitive species by reproduction rates and sex ratios. Until better research is available, separation of livestock and bighorn use areas is considered necessary to assure survival of these bighorn populations.

Response 62.12 - There are no proposals under the Proposed Action or any of the alternatives to increase livestock grazing in existing or potential bighorn habitat. All projected increases in grazing would occur outside bighorn habitat.

Response 62.13 - The spraying and seeding project adjacent to Mud Flat Road is within mule deer and pronghorn winter range. The area is currently in poor ecological condition. Shrub species palatable to big game will be included in the seeding mixture. The long-term benefits of enhancing this area's value to wildlife (for both winter and spring needs) outweigh the temporary loss of shrub cover that will occur during development of the seeding. About 20% of antelope winter range, 70% of mule deer winter range, 100% of critical deer winter range and 30% of sage grouse winter range are affected by the WSAs evaluated in the Jacks Creek Wilderness EIS. Livestock increases will not be implemented until monitoring verifies that additional forage is available without compromising wildlife needs.

Response 62.14 - The point that must be stressed again is that increases in grazing will not be implemented until monitoring studies verify that additional forage is available without compromising plant maintenance requirements, watershed protection, and wildlife needs. Some impacts on the ecology of the area could occur and are discussed under Impacts to Wilderness Values in Chapter IV. There was no intent to imply that there would be no impact on ecological relationships. Please review the aforementioned section. Under all alternatives, there would be no increase in grazing in potential or existing bighorn habitat. There was no intent to imply that increases in grazing do not affect wilderness recreation users. Studies of user preferences have overwhelmingly shown that wilderness users object to livestock grazing. However, most recreation use is expected to occur in the Jacks Creek/Duncan Creek Canyons where significant increases in livestock grazing are not proposed under any alternatives. A lengthy discussion of the impact of increased livestock grazing on aesthetics is found under Impacts of the Proposed Action to visual resources in Chapter IV of the Draft EIS. Both temporary and localized impacts are projected, however, most of these impacts are expected to occur in areas seldom visited or seen by the public.

Response 62.15 - It is our intent to adhere to the guidance contained in the BLM's Wilderness Interim Management Policy (USDI 1979). All WSA acreage, whether recommended suitable or nonsuitable, will be managed under this policy until Congress acts on the proposed wilderness recommendations.

Response 62.16 - The local economy used in this EIS is Owyhee County, Idaho. Ada and Canyon Counties were excluded because they are economically large and diverse. Their inclusion would have distorted the data to such a degree that no impacts would have been discernable. Recreation use figures for WSAs were based on data from BLM and volunteer patrols, registration boxes, vehicle counters, and consultation with livestock permittees and Idaho Department of Fish and Game officials. An Economics Appendix (Appendix B) has been added to the Final EIS providing specifics on values used and calculations. Neither the values from the Idaho Wildlife Valuation Study or the report by John Loomis (which is part of the Idaho Study) are used in this EIS since the reports are both draft documents and have not been released for publication of results.

Response 62.17 - Little Jacks Creek has high flushing flows which create an unstable stream channel. Despite fencing and livestock exclusion, it is not expected to improve to excellent condition because of this limitation on site potential. Portions of Little Jacks Creek are at their maximum potential at this time. Upper Deep Creek has not shown any improvement because of natural limitations which inhibit riparian and fish habitat improvement. These natural features include topographic limitations and spring scouring. Soils, topography, flushing, and bank-rock content are among the natural features of a stream that can affect site potential. Other factors that can affect site potential include water rights (up-stream water diversions), ephemeral vs. perennial stream, adjacent roads, mining activity, past burns, and fire occurrence. Riparian/fisheries habitat conditions are rated using the following factors with ranking done on a percentile basis: 1) stream bank cover and percent shading; 2) stream bank stability; 3) stream channel

stability; 4) sedimentation, percent fine sediments covering bottom; 5) instream cover, pools, overhanging banks, boulders, debris, overhanging vegetation; 6) stream channel morphology; 7) chemical/physical measurements of water (water quality); 8) invertebrate loads; 9) fish survey, species present, average length, weight and condition, number of fish; and 10) pool/riffle ratio.

Response 62.18 - This proposal has been dropped from further consideration.

Response 62.19 - Wilderness designation would preclude major water developments and land treatment practices. Rangeland improvements such as livestock pipelines provide the range manager flexibility in developing grazing systems to improve the range condition, watershed, and wildlife resources within an allotment. These benefits would occur throughout the affected allotments, not just within the WSAs. For additional discussion, see response to comment 44.03.

Response 62.20 - Frequent BLM and volunteer patrols of the Little Jacks Creek WSA determined that average party size is 3.5 individuals while the average stay was two visitor days (12 hour increments). Vehicle counter data indicates an average of five groups per weekend and six groups during weekdays each week during the ten week "heavy" use season (April 1 to June 15). During early spring and the remainder of the summer, visitor use averages two groups per week. Registration box data also indicated that there are about four group visits each year with group size averaging about 20 individuals. From this data, the following calculations were made: average party size (3.5) x average stay (2.0) x weekend groups (5) + weekday use (20) x weeks of "heavy" use (10) = visitor use during high season; + group visits (4 x 20 per group); + low season visitors (16 weeks x 2 groups per week) = 800 annual visitor days.

Response 62.21 - No impacts to bobcat or river otter are anticipated under the Proposed Action or any of the alternatives.

Response 62.22 - The BLM's legal responsibility is to prevent or mitigate any damage to archaeological sites of National Register quality. The current land use plan identifies certain sites including the Shoofly Rock Alignments for nomination to the National Register of Historic Places. The nomination process, however, has not been implemented because of funding limitations. It is anticipated that field studies to initiate the nomination process will begin in 1988.

Response 62.23 - The grazing increases proposed in the DEIS are 20-year projections. No increases will be permitted until monitoring verifies that additional forage is available without compromising plant maintenance requirements, watershed protection, or wildlife needs. There are no proposals to increase livestock usage in the Tigert Springs area since this is within existing bighorn sheep habitat. Construction of the approved portion (19 miles) of the Jacks Creek pipeline will improve livestock distribution and should reduce livestock pressure on Tigert Springs and the surrounding area.

Response 62.24 - This area was recommended as nonsuitable for wilderness because of manageability problems. Rationale for selection of the final Proposed Action will be addressed in the Wilderness Study Report which will be completed following publication of the Final EIS.

Response 62.25 - Opportunities for solitude were evaluated during the wilderness inventory process. This WSA was judged to lack outstanding opportunities for solitude because of a combination of factors including size, poor vegetative screening, limited topographic screening, and the corridor effect of the relatively short canyon.

Response 62.26 - Behavioral research indicates that recreationists have satisfactory experiences when they participate in a desired activity within a desired setting. Those seeking primitive recreation experiences prefer natural environments where the sights and sounds of other visitors can be avoided. Because of the factors listed in the previous response, Sheep Creek East WSA does not have outstanding opportunities for solitude. Even small increases in recreation use could make it difficult for visitors to avoid the sights and sounds of others. Recreation experiences could be less than satisfactory. If this area is designated wilderness with a primary management objective of providing primitive recreation opportunities, then we have a responsibility to assure that those experiences are satisfactory. This area is located more than 100 miles from the nearest BLM office, and we do not believe its wilderness values warrant the intensive management that would be necessary to assure satisfactory primitive recreation experiences. For more information on the integration of visitor satisfaction and desired physical, social and managerial settings, please refer to the following sources (Driver and Brown 1978; Brown, Driver, and McConnell 1978; and Clark and Stankey 1979).

Response 62.27 - See response to 62.01.

Response 62.28 - Communication from the State Historic Preservation Officer (see letter #103) indicates that vandalism of archaeological sites has diminished in the River of No Return Wilderness since wilderness designation and that a similar pattern would be expected in the Jacks Creek WSAs. The Final EIS has been changed to reflect this new data.

Response 62.29 - Your comment has been incorporated in the text of the Final EIS.

Response 62.30 - Consideration of this new alternative is addressed in the Final EIS in Chapter I in the "Alternatives Eliminated from Detailed Study" section.

Response 62.31 - See response to comment 62.01.

Response 62.32 - See response to comment 62.10. The analysis of impacts to wildlife from spraying and seeding projects has been expanded in the Final EIS. Spraying and seeding projects can be harmful to wildlife. The projects proposed in this document, however, have incorporated specific measures designed to assure that the projects would benefit wildlife populations as

well as provide additional livestock forage (see Appendix A). While some negative impacts would occur to wildlife, the overall net impacts of the proposed projects would be a slight improvement of wildlife habitat.

Response 62.33 - See response to comments 62.06, 62.07, and 62.08.

Response 62.34 - See response to comment 62.16.

Response 63.01 - An additional map (map #3) showing bighorn sheep habitat on the plateaus between Little Jacks Creek and Big Jacks Creek has been added to the Final EIS. Livestock generally use all portions of the allotments, however, use is generally light in areas of good condition rangeland. Areas of fair or poor condition rangeland within bighorn habitat are the areas where overlap between bighorn and cattle are most likely to be occuring. The Idaho Department of Fish and Game and the BLM began a three year study in Little Jacks Creek WSA during 1987 with a primary objective to determine the effect of various cattle management practices and human disturbances on California bighorn sheep. At the completion of this study, more refined data on the interrelationships of bighorn and livestock use areas will be available.

Response 63.02 - A new photo has been substituted for the Rocky Mountain bighorn in the Final EIS. A new map (map #3) showing the 19-mile Jacks Creek pipeline has been added to the Final EIS. The pipeline has also been added to the WSA maps in the Final EIS.

Response 65.01 - Anticipated increases in livestock grazing would all occur outside of bighorn habitat. No increases in livestock grazing are being proposed within bighorn habitat.

Response 65.02 - See response to comment 27.05.

Response 67.01 - See response to comment 27.05.

Response 68.01 - See response to comments 27.05 and 62.12.

Response 68.02 - The existence of non-market values is acknowledged in the EIS (see Chapter III - Economics, "non-market values"). We have also not included a cost/benefit analysis in recognition of the significant non-market values involved in this study.

Response 69.01 - The study cited by John Loomis is a draft which has not been released for publication of results. As such, it is not appropriate to cite this draft study in the EIS. Also see response to comment 68.02.

Response 72.01 - See response to comment 65.01.

Response 72.02 - The term "moderate grazing levels" as used on page 100 of the Draft EIS is a relative term that must be quantified by the season of use and the grazing scheme in place before it can be quantified by species. As used on page 100, in reference to bluebunch wheatgrass and Idaho fescue, moderate grazing levels would approximate 40-50% utilization by weight under

the current grazing scheme and season of use (summer). The standard breakdown of utilization levels used with the key forage plant method of determining range utilization is as follows:

slight	0-20%
light	21-40%
moderate	41-60%
heavy	61-80%
severe	81-100%

The above rating system is used as a tool in rating utilization levels, however, the range of values presented in each category may be narrowed for individual species when factors such as season of use and grazing scheme are considered.

Response 72.03 - See response to comment 63.01.

Response 74.01 - Wilderness management costs have been recomputed for the Final EIS. Costs of implementing a permit system in Little Jacks Creek Canyon have been deleted from the wilderness management costs for the Final EIS since a decision has been made to implement the permit system regardless of the wilderness decision. See response to comment 7.02.

Response 74.02 - Keeping livestock water sources at least one mile from bighorn habitat would maintain a separation of use areas between livestock and bighorn sheep. Little overlap in use areas is expected to occur since the vast majority of livestock use would occur less than one mile from the water source. The Wickney Tree Dome pipeline has been proposed to improve livestock distribution on the range and enhance opportunities for developing an effective allotment management plan. It is expected to benefit improvement of range condition, watershed protection, and forage production for wildlife as well as livestock. These benefits are expected to occur throughout the allotment, not just within the WSA. The pipeline would eliminate this area from future consideration for wilderness because of its impacts on naturalness and opportunities for primitive recreation and solitude. These are not justifications for the action but rather a statement of trade-offs or impacts if the proposed pipeline is constructed. The pipeline would not be constructed until after Congress acts on the proposed wilderness recommendation and then only if Congress agrees that this portion of the WSA should not be designated wilderness.

Response 74.03 - The Jacks Creek Research Natural Area would be managed as an area of livestock exclusion. Because of the lack of reliable water sources, livestock seldom venture into this area. If necessary to prevent livestock use, a fence about 1-mile long will be constructed to prevent livestock from grazing in this area. This area will be available for scientific research studies.

Response 74.04 - The area that would be affected by the 8 mile pipeline is currently grazed by domestic livestock. Livestock use several reservoirs as water sources. These reservoirs, however, are not reliable sources of water during fall use period. Consequently the area is used each spring.

Construction of the pipeline would allow spring use to be alternated with fall use. This should result in substantial improvement in ecological condition of vegetation in this area.

Response 74.05 - See response to comment 50.02.

Response 74.06 - See response to comment 62.10.

Response 75.01 - None of the proposed spraying projects would be implemented until after Congress makes a wilderness decision relative to these WSAs. We anticipate this decision may not be made for several years.

An environmental assessment will be completed on these projects prior to a final decision to implement any specific range improvement project. If significant environmental impacts are identified during the environmental assessment, an Environmental Impact Statement will be completed prior to a final decision.

Response 75.02 - While manageability is the primary reason cited for a nonsuitable recommendation in Shoofly Canyon, manageability and resource conflicts with proposed grazing projects (the Wickney Tree Dome pipelines) are cited as rationale for a nonsuitability recommendation on Wickney Tree Dome. A new map (Map #4) has also been added to the Final EIS to show the relationship of the Shoofly Canyon topography to the exiting road and the private inholdings. Review of this map should clarify how development of these private lands could affect the natural appearance and opportunities for solitude/primitive recreation on the adjacent Federal land.

Response 75.03 - The statutory authority for area of critical environmental concern (ACEC) designation is contained in the Federal Land Policy and Management Act of 1976 (FLPMA).

Response 75.04 - Management actions to protect bighorn would not be significantly different under wilderness designation or ACEC designation. The only action anticipated that could have a significant impact on bighorn in this area is the potential for development of private inholdings. The impact of this potential development has been analyzed in the EIS.

Response 78.01 - No locations within the affected WSAs have been identified for this species.

Response 78.02 - Fungi are not currently being listed for protective status designations.

Response 87.01 - See response to comment 75.01.

Response 87.02 - Improvement in soil stability is expected to be the same under all the alternatives. This is the maximum improvement that can be expected given the same background conditions. Maximum improvement of fisheries habitat condition is expected to occur under the Draft EIS Alternative #1 (All Wilderness Alternative).

Response 89.01 - See response to comment 62.07.

Response 90.01 - See response to comment 44.04.

Response 91.01 - See response to comment 27.05.

Response 91.02 - A review of the watershed sections in Chapter III and IV of the Draft EIS should help clarify the summary of impacts found in tabular form in Chapter II. The analysis of soil stability is based on two main factors: 1) erosion hazard (inherent soil erodibility) and 2) ground cover (vegetation, rock, and litter protecting the soil surface). Erosion hazard is determined by soil characteristics and is not affected by management actions. The vegetation and plant litter components of ground cover are affected by management actions. Some plants are more effective soil stabilizers than other plants. As a general rule, improving ecological range condition through management action increases the vegetation component of ground cover with those fibrous-rooted, perennial plants which are effective as soil stabilizers. Referring to the vegetation section in the Draft EIS Chapter IV (Environmental Impacts), we see that improvements in ecological condition are expected under the Proposed Action and all alternatives. For additional discussion of the relationships between anticipated improvements in ecological condition and projected increases in livestock grazing, refer to response to comment 27.05.

Response 91.03 - The fisheries impact assessment for Sheep Creek East under the All Wilderness Alternative contained a typographical error. This has been corrected in the Final EIS. Additional explanation on how riparian and fish habitat condition is determined can be found in response to comment 62.17.

Response 93.01 - See response to comments 44.01 and 62.30.

Response 93.02 - The determination that Pole Creek WSA is not manageable in the long-term as wilderness considered the impact development of the private land and providing vehicle access across the public land would have on wilderness characteristics in the WSA. The location of the private inholdings and the broad open vistas characteristic of this WSA suggest that this development potential could compromise naturalness and opportunities for primitive recreation in much of the WSA. This would be inconsistent with wilderness management objectives. Under the All Wilderness Alternative, this WSA would be recommended as suitable, however, long-term management would require federal acquisition of the private inholdings. We believe federal acquisition of the private inholdings is the only practical solution to this wilderness manageability problem.

Response 96.01 - See response to comment 27.05

Response 96.02 - See response to comment 27.05.

Response 96.03 - Improved distribution of water sources for livestock and wildlife can provide benefits for wildlife (see Urness 1979). An initial assessment of proposed pipeline routes shows that these troughs would reduce

pressure on existing water sources. This will help improve livestock distribution and reduce competition between livestock and wildlife for water and forage near existing water sources. It is a goal of our wildlife program to improve range condition and water distribution in pronghorn antelope range. Careful evaluation of the pipeline proposals indicates it would improve water distribution and enhance antelope seasonal use range.

Response 96.04 - Guidance for consideration of partial wilderness alternatives is contained in the BLM's Wilderness Study Policy (USDI 1982c). This guidance states that partial wilderness alternatives should be considered when they can resolve manageability or resource conflict problems. We have carefully reviewed the two WSAs in question. Both WSAs have been recommended as nonsuitable in the Proposed Action because of manageability problems that affect the entire WSA. Partial wilderness alternatives would not resolve the manageability problems in either case. Another rationale for developing partial wilderness alternatives would be to reduce or eliminate conflicts with other resource uses. In both of these WSAs, conflicts with proposed increases in grazing over the next 20 years could not be significantly reduced by altering the boundaries of a proposed wilderness. We believe the EIS provides an adequate range of alternatives for all WSAs, including Pole Creek and Sheep Creek East WSAs. In addition to the Proposed Action (No Wilderness/No Action Alternative), an All Wilderness Alternative is considered. Partial wilderness alternatives for these two WSAs would not help clarify environmental impacts of a wilderness suitability decision or contribute to understanding or resolution of the issues addressed in this EIS.

Response 96.05 - The Duncan Creek recommendation under alternatives three, four and six included a 640 acre state section. This accounts for the additional acreage noted. The discrepancy in Big Jacks Creek WSA acreage has been corrected.

Response 96.06 - The BLM's Wilderness Study Policy (USDI 1982c) provides guidance for BLM wilderness suitability studies. This policy states "The BLM does not view wilderness designation as a form of temporary resource protection; therefore only those areas which can be managed as wilderness in the long term will be recommended as suitable for wilderness."

Response 96.07 - This data has been included in the Final EIS. See response to comment 7.04.

Response 96.08 - We do not believe surplus lands and privatization should be added as an additional issue. Lands immediately adjacent to WSA boundaries are not currently being considered for transfer to private ownership. In addition, the BLM Wilderness Management Policy (USDI 1981) clearly states that "buffer zones" should not be established around BLM administered wilderness areas. If lands adjacent to wilderness areas are considered for transfer to private ownership in the future, full consideration would be given to the impact the transfers would have on wilderness values or management.

Response 96.09 - At this time, there is no reason to believe that areas recommended nonsuitable for wilderness will be available for transfer to private ownership. These lands are not identified for disposal under the current land use plan. It is anticipated that they will remain in public ownership in the foreseeable future. Please review the description of the Proposed Action in Chapter II for clarification of our ACEC proposals. These ACEC proposals are part of the current land use plan and have been implemented pending a wilderness suitability decision.

Response 96.10 - The removal of all livestock grazing from the WSAs and an assessment of the impacts of such an action were not addressed in the EIS because the Wilderness Act of 1964 provides for continuation of existing livestock grazing as a non-conforming use within designated wilderness areas. Therefore, it is unlikely that livestock grazing would be excluded from proposed wilderness areas. The impacts of removing all livestock grazing from the Bruneau Resource Area, which includes all of the WSAs in this study, were addressed in the Bruneau-Kuna Grazing EIS (USDI 1982a and 1982b).

Response 96.11 - See response to comment 7.04 and 62.24.

Response 100.01 - Our energy and minerals assessment is based on the best available data. We recognize that detailed geologic data is not available for this area and that active energy exploration has not occurred. A statement to this effect has been added to the energy and minerals section in Chapter III of the Final EIS. Please note that a mineral survey will be conducted by the U.S. Geologic Survey and U.S. Bureau of Mines on areas recommended as suitable for wilderness before the recommendations are forwarded to the President (see Beikman, et al. 1983).

Response 103.01 - The assessment of impacts is based on the best available data. Cultural resource inventories within the affected WSAs range from 100% in Upper Deep Creek WSA to none in Sheep Creek East WSA. The percentage of each WSA that has been examined for cultural resources is included in Table #13 (Cultural Resources) in Chapter III of the Final EIS. The assessment of cultural resource impacts relied heavily on the BLM's Class II cultural resource inventory (Young 1984) and our staff archaeologists' personal knowledge of these areas and their resources (see also response to comment 42.25).

Response 103.02 - We have reviewed our data and have found that livestock trampling is currently causing significant damage to archaeological sites in Little Jacks Creek WSA, Duncan Creek WSA, Pole Creek WSA, and Upper Deep Creek WSA. Much of this damage is occurring on archaeological sites located adjacent to perennial streams and in wet meadows. Recent research indicates that archaeological sites in the Boise District are more frequently associated with perennial streams than in conjunction with spring sources (Young 1984). Please notify our staff if you wish to examine sites in the Boise District where livestock trampling is currently a problem.

Response 103.03 - Your comment has been incorporated in the analysis of impacts to cultural resources in the Final EIS.

Response 107.01 - See response to comment 100.01.

Response 109.01 - The BLM's Wilderness Management Policy (USDI 1981) governs management of BLM designated wilderness areas. Regarding military overflights this policy states: "There is no specific prohibition of overflight of wilderness by aircraft. Low-flying aircraft cause disturbance of the solitude of an area. Except in bona fide emergencies, such as search and rescue efforts and essential military missions, low flight should be discouraged. Where low overflight is a problem or expected to become a problem, wilderness management plans will provide for liaison with proper military authorities, the Federal Aviation Administration, and contact with pilots in the general area in an effort to reduce low flight."

Response 110.01 - We do not anticipate any major impacts to upstream or downstream water users as a result of wilderness designation. There are no identified upstream uses that would be affected if court rulings (i.e., Sierra Club vs. Block) establish wilderness related water rights. Wilderness designation and wilderness uses of water is not expected to affect the amount of water available for use downstream from the wilderness areas. We do not feel that the EIS is an appropriate document to issue disclaimer statements regarding water rights.

HEARING TESTIMONY EXCERPTS

RESPONSES TO HEARING TESTIMONY

COMMENT #118 - GUY COLYER

Comment 118.01 - "One of the most important criteria is that the area be roadless. I realize we have fought this battle before, but the plain truth is that there are roads in some of the areas. One glaring example is the roads into Tigert Springs in the Jacks Creek wilderness study area. This area was not even in the wilderness study area, but it is in the Proposed Action and it states that the roads will be closed."

Response 118.01 - See response to comment 42.09.

Comment 118.02 - "Another high priority item on the list of criteria was manageability. Local citizens that know these areas realize that it will be nearly impossible to enforce the closure of these areas to motorized vehicles. BLM's use of enforcement authority to prevent this encroachment by motorized vehicles will be costly and most likely very cumbersome. The references to a permit system in Jacks Creek sounds idealistic, but in reality, it would be ineffective due to the easy access to this area."

Response 118.02 - It is anticipated that most public land users will abide by wilderness management regulations. Intentional violators of vehicle use restrictions would be subject to $1,000 fine and/or one year imprisonment. Areas where unintentional vehicle use violations could be frequent have been recommended nonsuitable for wilderness under the manageability criteria. The majority of designated wilderness areas in the U.S. currently have mandatory permit systems. Studies of users indicate the vast majority (86%) of wilderness users comply with permit restrictions.

Comment 118.03 - "The subject of livestock grazing is dealt with throughout the Draft EIS. One problem is that many of the statements are contradictory. And in several places in the text it leads us to believe that there would be no significant changes in livestock grazing. In other places it states, and I quote, 'Wilderness designation could handicap development of effective allotment management plans.' Also, and I quote, 'In all ten allotments, wilderness designation could affect efficiency of operations by restricting vehicle access and future development proposals.'"

Response 118.03 - We have carefully reviewed sections of the Draft EIS pertaining to livestock grazing and have not found any contradictory statements. While all allotments would have some impact from wilderness designation, a distinction has to be made between significant and insignificant impacts. Some allotments have opportunities for potential range management developments within the WSAs while others do not. Impacts of wilderness designation have been assessed on all anticipated projects. Some allotments have opportunities for increased grazing and AUMs within WSAs while others do not. Impacts to livestock operators because of restrictions

on motorized vehicle use, generally, are expected to be insignificant. The BLM's Wilderness Management Policy is very permissible regarding the use of motorized vehicles by livestock operators in BLM designated wilderness areas. The policy requires that the following 12 criteria be applied when making a determination on the use of motorized vehicles: 1) minimizing threat to or loss of property; 2) minimum use of motorized equipment within wilderness; 3) develop and manage the rangeland resource in a cost-effective manner; 4) achieve least amount of impact by non-conforming uses on wilderness values through a) scheduling during periods of low use, b) harmonizing improvements to surrounding landscape, c) locate improvements to achieve maximum screening and fully utilize natural feature opportunities; 5) type of practice or construction material; 6) timeliness, including frequency and time of year; 7) need to deal with emergency or urgent situations that develop through acts of nature, such as drought, heavy snow; 8) location of nearest ranch facilities in relation to the project; 9) availability of primitive transport, e.g. team and wagon, saddle and pack stock, etc.; 10) length of time to complete a project by alternative methods; 11) availability of temporary camp and feed sites; and 12) age and health factors of permittee.

Comment 118.04 - "The figures that pertain to livestock grazing are misleading. The 38% increase in available forage for livestock use in the ten affected areas amounting to 130,000 AUMs is due mainly to improved management practices outside the designated wilderness areas."

Response 118.04 - The figures are not intended to be misleading. AUM projections are provided for WSAs as well as for allotments. Providing the allotment wide figure gives a more accurate assessment of the economic impact to livestock operators. It places any sacrifice of potential future gains because of wilderness designation within perspective of the operator's total operation in the allotment. Note that for the example you cited, potential grazing increases within the WSAs is expected to be about 43% which is substantially higher than the 38% average increases projected for the allotment as a whole. In the Final EIS, only WSA specific data has been included for analysis of economic impacts.

Comment 118.05 - "There's one paragraph in particular in the section on recreation under the Proposed Action that is a terrible insult to the intelligence of sportsmen. It states, and I quote, 'A wilderness decision is not expected to have a significant impact on motorized recreation uses because of natural terrain limitations, low visitor use, and the availability of more suitable areas to meet projected demand. Rough topography and rocky soil severely limit off-road use in more than 85 percent of the area. Very little ORV use currently occurs in the WSAs and is usually in conjunction with hunting. This use normally occurs adjacent to 'cherry-stem roads' and primitive vehicle routes which provide vehicle access to the interior of most WSAs.' This not only is contradictory, but couldn't be farther from the truth. Many of these areas consist of large plateaus that are readily accessible by four-wheel-drive vehicles."

Response 118.05 - Extensive field evaluations were conducted by BLM staff in each WSA. Driveability assessments were completed for all WSA acreage. These assessments considered such factors as topography, soils, vegetation, fences, and rocky soils. While primitive vehicle routes often provide

motorized access to WSA interiors, vehicles are frequently restricted to these vehicle routes because of features listed above. Documentation of these assessments and maps depicting the results are available for your review at the Boise District Office of the BLM.

COMMENT #119 - FRANK BACHMAN

Comment 119.01 - "The acreages speak for themselves. Recent polls found that vast majorities of Idahoans do not favor wilderness expansion."

Response 119.01 - The most recent public opinion survey regarding wilderness in Idaho that we are familiar with is the "Idaho Opinion Survey" conducted by Marcept in 1984 for the Idaho Statesman and Idaho Public Television. The following question was included in the survey: "Do you favor or oppose adding more forest land to the existing wilderness in Idaho?" Responses were: Favor = 47%; Oppose = 43%; Undecided/Don't Know = 9.7%.

Comment 119.02 - "The proposed action states in the summary that by designating 110,000 acres wilderness, the local income will be increased $620,000 and 22 new jobs will be created. No explanation is given as to where this great new source of revenue comes from. By digging into the document I finally found some interesting information. It is stated that 485,000 (dollars) and ten new jobs would be the result of increased grazing. The recreation related to wilderness designation would add 135,000 (dollars) and 12 jobs. The writer further states that this is a 47 percent increase over current income generated. Presenting this information in this manner is completely misleading and I feel was done solely to justify the Proposed Action. It is a known fact that if there are any increases in grazing use, wilderness designation will have no beneficial contribution to that effort. Improvements in the amount of forage available to the livestock in a given allotment were outlined in the Bruneau-Kuna Grazing EIS. Those improvements were outlined and analyzed. Wilderness designation would certainly not augment the program. We all know wilderness is not intended and would not compliment a modern range management program."

Response 119.02 - See response to comments 5.01, 5.02 and 118.04.

Comment 119.03 - "The document not only stresses that wilderness will increase grazing use, it goes on to say $46,700 is generated in Owyhee County at the retail level. I talked to the local merchants of Bruneau, the primary access point to many of these study areas, and we came to the conclusion that the users must be entering from Nevada and spending the $46,700 in Grasmere, or the other income is generated somewhere other than Owyhee County."

Response 119.03 - A new Economics Appendix (Appendix B) has been added to the Final EIS. This appendix includes examples of calculations for one alternative. Examination of this appendix should clarify these questions regarding the economics analysis. Also see response to comment 15.02.

Comment 119.04 - "Number 4. A major difference between the Proposed Action and Alternative 2 is the discussion that with designation, BLM can control human use with a permit system, thus preventing disruption to bighorn sheep. Under Alternative 2 it states that unregulated use could threaten the entire Jacks Creek sheep population. If the Bureau felt that unrestricted recreation use was damaging the sheep population, a permit system could be initiated as a part of a recreation management plan without formal wilderness designation. The EIS failed to even address this existing management alternative. Was this discussion overlooked to make the Proposed Action more appealing."

Response 119.04 - See response to comment 7.02.

Comment 119.05 - "Another point missed in the wilderness section beginning on page 59: This section outlines all the species present, but fails to include the chukar. Chukar hunting is very popular in this area and certainly restrictions on vehicle use would hinder that activity. Access to the canyon rim is essential for late season chukar hunters. The EIS also states that the recreation management plan developed under the Proposed Action would prohibit dogs in the wilderness area. Most chukar hunters will agree that a good dog is essential to be successful, and yet you state that your Proposed Action will have a minimal effect on hunting."

Response 119.05 - The wildlife section does not attempt to mention all species found in the WSAs (see response to comment 50.08). Chukar hunting in the WSAs is addressed in the recreation sections of Chapters III and IV. Dogs would only be prohibited from Little Jacks Creek Canyon. This restriction is necessary to prevent unnecessary stress on bighorn populations and is expected to be implemented regardless of the wilderness decision (see response to comment 7.02).

Comment 119.06 - This proposal has been dropped from further consideration.

Response 119.06 - Additional specifics on the proposed livestock trail have been added to the Final EIS under the description of the Proposed Action for Big Jacks Creek WSA in Chapter II (also see response to comment 62.18).

COMMENT #120 - GENE DAVIS

Comment 120.01 - "You state that in the Tigert Springs area where there is heavy cattle use, and I would question that there is not heavy cattle use. There are two water troughs in the area there. You indicated there has been no sheep sighting since 1976. I don't get into that area very much, anymore; but just a little over a year ago I was in the area and I saw four head of sheep, and I was in a party -- two cars of us, three people from the Boise District advisory counsel were in that party. They also saw those sheep. It amazes me that people don't see some sheep out there when we see them regularly."

Response 120.01 - The Draft EIS did not state that the Tigert Springs area received heavy livestock use. In Appendix A (Impacts of Additional Pipelines on Bighorn Sheep Habitat), the Draft EIS states, "This area (Tigert Springs) receives heavier livestock use than the remainder of the Little Jacks Creek

habitat area which receives only minor livestock use." The text of the Final EIS has been modified to incorporate your data regarding bighorn use in the Tigert Springs area.

Comment 120.02 - "I spoke to the numbers earlier, and I guess we've never been able to get from you, nor from the Fish and Game, how many sheep have been harvested for transplant to other areas. I guess maybe 15 have been taken by permits, or somewhere in that area; and with a 40 percent loss for transplant, we think maybe 37 to 50 sheep have gone out of the area. We don't understand why you continually harp on the fact that we need to do something to protect those sheep."

Response 120.02 - Thirty-two sheep have been transplanted from the Little Jacks Creek population including 15 sheep that were removed in January 1985. These sheep have been transplanted to Granite Mountain (Nevada), the East Fork of the Jarbidge River (Nevada), the South Fork of the Owyhee River, and the West Fork of the Bruneau River.

Comment 120.03 - "We -- Of course you know we question your method of transferring roads into ways and as was alluded to earlier by one of the folks testifying here, we're particularly upset over the roads, ways, whatever it is, into the Tigert Springs area. We know and you know that in your original lines for the proposed wilderness area you left Tigert Springs area out because of roads. Then you came back and included it and said, 'Hey, they're ways.' We took issue with that and now you're talking in your Proposed Action of closing one of the roads and we ask, again, Why is it wilderness if it's a road? We don't think you're consistent."

Response 120.03 - See response to comments 42.08 and 42.09.

Comment 120.04 - "We all know if we study history, if we read the newspaper, if we are cognizant at all of what the economy of Idaho is based upon, it is largely agriculture, and that agriculture is certainly in the southern part of the state of Idaho is largely tied to irrigation, the reservoiring of water, and it doesn't say that you let the water that falls on the wilderness area go downstream, let existing water rights be subordinated, if you please, because of a suit brought by in this case the Sierra Club."

Response 120.04 - See response to comment 110.01.

Comment 120.05 - "We question the ability of the Bureau to manage in a wilderness area. What do you do about fire in a wilderness area? What do we who live in the area who have deeded lands adjacent thereto when you do not combat a fire, it gets off the wilderness area, is that the time to combat the fire?

We are at great hazard, we think, with the wilderness area declared in our area knowing that it is not the policy to fight fire in a wilderness area. I realize it can be done, but it is a judgment decision on the part of the people administering the area, and I doubt that it would be done in our area.

What happens to air quality when we have fires; pollution of the air. What happens to siltation of streams when you have vast areas of fire; burned over rangelands. We all know that."

Response 120.05 - Management of BLM wilderness areas is governed by the BLM's Wilderness Management Policy (USDI 1981). This policy states under the section titled "Overriding Fire Guidance": "All fires will be controlled to prevent loss of human life or property within wilderness areas or to prevent the spread of fire to areas outside of the wilderness where life, resources, or property may be threatened."

Comment 120.06 - "Page 26 of the document speaks of eminent domain, it speaks of 400 acres in the Shoofly drainage area, an area that was referred to by a person who testified earlier here who enjoys coming into that area, enjoys camping on the creek. And I would bet that he probably camped on some of that deeded land there that we own a good share of in the Shoofly area, and we like it, we have no problem with people camping on that land. We just say, why do we have to change the thing, and why should the Bureau suggest eminent domain where in no place in any of the regulations can we find, and if you can find it, we would hope that that would be shown in the final draft, that eminent domain may be used for the acquisition of private lands in a wilderness area."

Response 120.06 - Federal acquisition of these areas is proposed only under the All Wilderness Alternative. This would be necessary to assure long-term maintenance of wilderness characteristics in this canyon system. The All Wilderness Alternative is a mandatory alternative that must be analyzed in all BLM wilderness EISs. The statement in the Draft EIS states, "It may be necessary for Congress to use eminent domain....if other methods of acquiring this property are not successful." (emphasis added). If Congress feels that eminent domain is appropriate, they do not need legislative authority to include federal acquisition of the property in the enabling legislation creating the proposed wilderness area. We would like to stress that the Proposed Action (which is also the BLM's Preferred Alternative) does not include acquisition of any private lands.

COMMENT #122 - ERIC DAVIS

Comment 122.01 - "The Wilderness Act and FLPMA call for consideration for wilderness of land areas of 5,000 acres or more that are roadless in nature. Nevertheless, the Proposed Action and alternatives #1, 3, 4 and 5 call for the closure of existing roads and ways to the general public. We must ask how these areas could even be designated as wilderness study areas if road closures are necessary to facilitate their management as wilderness. We must also ask why 1,030 acres of federal land in the Tigert Springs area of the Little Jacks Creek study area is included as wilderness in the Proposed Action when it did not meet the criteria required to become a part of the previously designated study area."

Response 122.01 - See response to comments 42.08 and 42.09.

Comment 122.02 - "We're also concerned by the several references to the use of the doctrine of eminent domain to acquire private property within the wilderness study areas. Sections 4(c), 4(d) and 5(c) of the Wilderness Act address existing private rights and provide for land acquisition authority. The use of eminent domain to acquire private property is not mentioned in these sections of the Wilderness Act. It is very disconcerting that this EIS immediately assumes that land exchanges or the purchase of private properties by agreement with the current owners, as outlined in the Wilderness Act, are not to be considered in the case of Owyhee County."

Response 122.02 - See response to comment 120.06.

Comment 122.03 - "I also would like to see a cost benefit analysis of the proposed action and the seven alternatives. The narrative explains that there are nonquantifiable values associated with livestock grazing and recreation use. The summation of economic impacts on Table 16 indicates that Alternative Number 2, with a projected income gain over 20 years of $596,000 and implementation costs of $159,000 is far superior on a cost/ benefit basis to the Proposed Action or any of the other alternatives."

Response 122.03 - See response to comment 5.03.

Comment 122.04 - "I have difficulty understanding where the increases in AUMs are supposed to come from. As a cattlemen, I suppose that I should embrace increased livestock use of 35 to 40 percent, as indicated on Table 14, no questions asked. However, it hasn't been that long ago that the Bruneau-Kuna Grazing EIS came to a very different conclusion. Which are we to believe? Do the increases come in nonwilderness areas of the affected allotments or on the total allotment acreages? How do such increases become available if wilderness designation prohibits range improvements, water developments, and the implementation of effective allotment management plans? Do the management techniques that will bring about these increases begin immediately or after Congress acts on the recommendations from these documents. If they do not begin until after Congress acts in '92, then the 20 years will be compressed into 10 or 12 years, and I find it hard to understand how that's going to occur. Hopefully, the final EIS will address these questions in detail."

Response 122.04 - Projected AUM figures used in the Draft Jacks Creek Wilderness EIS are based on figures used in the Bruneau-Kuna Grazing EIS. There is no discrepancy between AUM projections in the two EISs. AUM increases within WSAs come from three sources: 1) project development in areas recommended nonsuitable for wilderness; 2) increases resulting from improved ecological condition in areas recommended as nonsuitable for wilderness; and 3) small increases (10% average) within proposed wilderness areas. The 20-year projection is that increases due to better range management will occur regardless of the wilderness decision or the level of project development. These increases are, however, expected to occur more rapidly if proposed range management projects (pipelines, seedings, etc.) are permitted.

Comment 122.05 - "If increased recreation use of the bighorn habitat area is he problem -- and I would emphasize "if" -- it can be solved without wilderness designation. If recreation use must be monitored and controlled, the BLM currently has the authority to institute a recreation management plan without wilderness designation, as stated in Alternative Number 2."

Response 122.05 - See response to comment 7.02.

Comment 122.06 - "The EIS expresses concern about the construction of a livestock trail across Big Jacks Creek Canyon and the effects this trail would have on potential bighorn habitat and visual resource values. I hope the final EIS will acknowledge that this trail has been in existence for decades."

Response 122.06 - See response to comment 62.18 and 119.06.

Comment 122.07 - "Manageability should be evaluated based on size of areas, accessibility by vehicle to the interior of the areas, location to available management. The roads to the interior are present from virtually all sides of these units. I can't imagine what it would take to manage these areas short of complete fencing. It is hard to imagine how many people it would take to manage something like this."

Response 122.07 - See response to comments 15.01 and 118.02.

Comment 122.08 - "The effect of designation or nondesignation on California bighorn should not be an issue. This species was introduced and has increased in almost unbelievable numbers under multiple use management. If it must be an issue, I wonder what the effect will be when many backpackers and horseback riders are in the area just to look at them, especially about fawning time."

Response 122.08 - Restrictions on recreation use in Little Jacks Creek have been included in the Proposed Action and all alternatives in the Final EIS. The purpose of these visitor use restrictions is to minimize the impact backcountry users will have on bighorn populations, particularly fawning areas. Refer to the description of the Proposed Action for Little Jacks Creek WSA in Chapter II of the Final EIS for additional details.

Comment 122.09 - "Why does this EIS preclude the options of land exchanges or the purchase of private properties by agreement with the current owners as provided for in the Wilderness Act? What would be the impact to the tax base of Owyhee County if this doctrine (eminent domain) were to be used?"

Response 122.09 - The Draft EIS states, "It may be necessary for Congress to use eminent domain to acquire 400 acres of private property in the Shoofly drainage if other methods of acquiring this property are not successful." (emphasis added). Also see response to comment 42.14. The maximum amount of private land that would be acquired by the federal government is 960 acres (All Wilderness Alternative). The publication "County Profiles of Idaho" published by the Idaho Department of Economic and Community Affairs in 1980 stated that there were 780,297 acres in private ownership in Owyhee County.

The 960 acres to be acquired would represent only 8/100 of 1 percent of the total private inholdings in the county. It is unlikely that this change in ownership would have any significant effect on the county's tax base. This was not addressed in the Draft EIS because of the insignificance of any potential impact.

COMMENT #130 - DAVID LAHTINEN

Comment 130.01 - "If these things were put into wilderness, if this area was put into wilderness, I understand that on this wilderness criteria, there would be no chemical allowed to spray anything; moths that kill, tussock moth in the forest, if it happened to be a forest, which this isn't. There is not a tree on it. Or the weeds itself, we could spray them, but what good does it do us to spray them on our own places if when our irrigation ditches come out of these creeks pack these weed seeds right back down on our property again?"

Response 130.01 - The BLM's Wilderness Management Policy (UDSI 1981) governs management of BLM designated wilderness areas. Regarding noxious weeds this policy states, "Plant control will be approved only for....(b) Noxious farm weeds by grubbing or with chemicals when they threaten land outside wilderness or are spreading within the wilderness, provided the control can be effected without serious adverse impacts on wilderness values."

COMMENT #131 - TOM ROBINSON

Comment 131.01 - "Studies by Fish and Game in particular, in Idaho, are showing the tremendous value from a dollar standpoint of wildlife for hunting, for fishing, for Idaho's economy, this would be true for the regional economy in this area, it would be true for the state economy, and they are basically trying to get agencies to include their new figures."

Response 131.01 - See response to comment 62.16.

Comment 131.02 - "Another assumption I would like to question in the EIS, which I feel is generally well written, is that range improvements would be good for wildlife species. I think study after study show that seeding such as crested wheatgrass is not all that great for wildlife species as compared to natural forage, and I don't understand how the statement can be made that wildlife, wild game in particular, wild birds, will benefit from some of these range improvements."

Response 131.02 - See response to comments 62.10, 62.13 and 74.02.

COMMENT #132 - BRENT KNAPP

Comment 132.01 - "The Jacks Creek Wilderness Environmental Impact Statement lists Halfway Gulch and Shoofly Creek as Class B scenery. I haven't seen Shoofly Creek, but I have been through Halfway Gulch. Halfway Gulch is no less scenic than Little Jacks Creek. This makes me distrust the designation of Shoofly Creek as Class B. Halfway Gulch should be considered Class A."

Response 132.01 - See response to comment 32.01.

COMMENT #133 - KEITH TONDRICK

Comment 133.01 - "Your summary of wilderness characteristics, table 4, says Sheep Creek East does not have outstanding opportunities for solitude, yet your current recreation use is estimated at less than 50 annual visitor days.

Based on this, I know for a fact that you would probably see less people in Sheep Creek in the height of the fall or spring when those people would be there than in the Sawtooths or Frank Church River of No Return Wilderness which are designated wilderness.

Thus, we feel that calling the Sheep Creek East WAS nonwilderness due to lack of chance for solitude is incorrect, and that solitude experience can be found there."

Response 133.01 - See response to comments 62.25 and 62.26.

COMMENT #134 - DAVID TINDALL

Comment 134.01 - "Another verbal agreement was made that we could maintain these projects by means of motorized vehicles when needed. We feel we have done a good job of keeping the range free."

Response 134.01 - The cooperative agreement authorizing construction of these projects and signed by the livestock operator and the BLM specifically states that if the area is designated wilderness motorized access may not be permitted for maintenance. This is in concurrence with the BLM's Wilderness Interim Management Policy (USDI 1979) which specifies that new, permanent range improvements in WSAs must "not require motorized access if the area were designated as wilderness."

COMMENT #140 - ANDY ANDERSON

Comment 140.01 - "Another concern we have is the reference to the use of eminent domain in acquiring private land in this area. Sections 4(c), 4(d) and 5(c) of FLPMA or the Wilderness Act while discussing acquisition of private land, do not mention eminent domain."

Response 140.01 - See response to comment 120.06.

Comment 140.02 - "The EIS states that there have been no documentation of bighorn sheep on the Tigert Springs area since 1975. In the past year, or so, there have been numerous sightings of bighorn in this area, one by the district advisory board. This leads us to wonder just what represents documentation of bighorn sheep in the area. Since wilderness designation has in the past meant an increase of use by people, what effect will this have on the bighorns?"

Response 140.02 - The text of the Final EIS has been modified to incorporate additional data regarding bighorn use in the Tigert Springs area. Regarding recreational impacts on bighorn refer to response to comment 122.08.

COMMENT #141 - PAUL NETTLETON

Comment 141.01 - "You know about the opinion polls that show up to 85 percent that Idahoans don't want anymore wilderness, and at least 20 percent of that number want yet less."

Response 141.01 - See response to comment 119.01.

COMMENT #146 - TOM HOVENDEN

Comment 146.01 - "Speaking directly to the Jacks Creek issue, I have read this statement from end to end. Perhaps I have overlooked something, but in no place did I find any mention of noxious weeds or any program to control such weeds in your proposed wilderness area."

Response 146.01 - See response to comment 130.01.

Comment 146.02 - "In discussions with Dr. Ables, acting dean of the College of Forestry at the University of Idaho, reveals that wilderness management approaches zero management. You cannot manage wildlife habitat which means little opportunity to improve this requirement for more and better wildlife. There is a large pool of Brucellocis out there in nature. We never intend to get it out of the cattle industry, because it exists out there. I see no provisions in the impact statement for the treatment of this or other diseases which the sheep are susceptible to. A great many pest and disease management problems and potentials for meeting such serious circumstances are not addressed."

Response 146.02 - The statement that wilderness management approaches zero management is incorrect. Management of BLM wilderness areas is governed by the BLM's Wilderness Management Policy (USDI 1981). This 36-page policy statement provides detailed guidance for management of all resources within wilderness areas. Portions of this document are quoted or summarized in response to the following comments; 4.01, 42.22, 109.01, 118.03, 120.05 and 130.01. Regarding control of insects and diseases, this policy states, "Insect and disease outbreaks will not be artificially controlled, unless it is necessary to protect timber or other valuable resources outside of the wilderness area, or in special instances when loss to resources within a wilderness is undesirable (e.g., absence of control would threaten rare or endangered plants or animals). Such control measures will consist of the effective combination of actions which have the least adverse impact on the wilderness resource."

COMMENT #149 - ROGER GRAHAM

Comment 149.01 - "As an example, page 34, under recreation, lists Jacks Creek canyons as major use areas. Page 58, the photo says few backpackers venture into the Jacks Creek canyons. How can this be?"

Response 149.01 - The statement cited on page 34 of the Draft EIS is a 20-year projection of anticipated impacts. Our 20-year projection is that

these canyons will become major backcountry use areas. The photo on page 58 is in Chapter III (Affected Environment) and refers to current conditions.

COMMENT #151 - RICK DOWNING

Comment 151.01 - "The Jacks Creek area is our big concern for every year we have a motorcycle race over there, a hundred mile desert race. This has been going on in that area or around that area for better than 12 years. Last year we had nearly 200, 189 entries at the race, and we had near to 500 people in the pits, people enjoying the motorcycle race. The people are all off-road vehicle users. They buy off-road permits, they pay money for these permits to the state. We pay for the use of the land at BLM. We do it to BLM standards. We clean up when we are through. So we take very good care of the land, and we do enjoy using it.

Response 151.01 - We have reviewed our files regarding motorcycle races in the vicinity of the Jacks Creek WSAs. To our knowledge, no races have been conducted and no applications have been submitted for races in any of the areas being recommended as suitable for wilderness in the Proposed Action. Races have been conducted in the past in the northeast corner of the Big Jacks Creek WSA. This portion of the WSA has been recommended as nonsuitable for wilderness because of manageability problems associated with unintentional vehicle trespass.

COMMENT #156 - JANET WARD

Comment 156.01 - "I want to emphasize that you can graze in wilderness areas, and I want to emphasize that the wilderness regulations should be read by every single rancher. The wilderness regulations say you can use your motor vehicles for salt dropoffs, you can use your motor vehicles to maintain drift fences, you can use your motor vehicles, even a backhoe to maintain a stock pond. This is what the regulations say, and when ranchers refer to restricted regulations, I assume they simply haven't read them. I think your EIS is misleading when it says it could restrict vehicle access for ranching operations."

Response 156.01 - See response to comment 118.03.

Comment 156.02 - "I question your statement that wildlife generally benefit from range land seedings. That simply is not true. There have been numerous studies that there is a decline both in the number of species and sheep number of wildlife when you have extensive grange land, crested wheatgrass, and I will document this for you in a letter which I will submit."

Response 156.02 - See response to comments 62.10 and 62.13.

Idaho Wellness Center
Steven L. Schneider, M.D.
Martin J. Gabica, M.D.
Family Practice

2

August 1, 1984

Bureau of Land Management
Jack's Creek Wilderness, EIS
3948 Development Avenue
Boise, ID 83705

Dear Sirs,

I have carefully reviewed the Jack's Creek Wilderness, EIS and wish to enter my comments in the public record.

It is clear to me that the most suitable alternative for managment of the Jack's Creek Wilderness study areas is the All Wilderness Alternative. Clearly, the impact on the areas of the Wilderness Alternative is significantly less than any of the proposed actions or any of the other alternatives. It is also clear that the fishing habitat would be improved more in this alternative, as well as the big horn sheep habitat; both of which I would like to encourage. Also, the economic impact of the All Wilderness Proposal would be essentially the same as either the Proposed Action or the No Wilderness Action impact, and would create more jobs than the No Wilderness action while creating the same number of jobs as the proposed action.

Since there is no mining or mineral activity in the region, a loss of this use would not be of significance. Realizing the restrictions on archeological excabations would hinder somewhat the scientific research in this area, I feel that there are advantages to offset this one disadvantage that I am able to see.

2.01 Also, it is noted by myself and the EIS, the recreation use proportedly would increase more with All Wilderness Proposal than with No Wilderness or Proposed Action. However, I am not sure I agree with this deduction. It appears to me that if access is limited, especially considering the difficult acquisition to this country, that the visitor use is not likely to increase as the EIS has proposed.

In conclusion, I would like to once again submit my support for the All Wilderness Proposal for the Jack's Creek Wilderness study areas.

Sincerely,

Martin J. Gabica, MD

mjg;skf

1818 W. State Street•Boise, Idaho 83702
208-344-7799

AUG 23 1984
Bureau of Land Management
State Office

[illegible] Avenue
Marlboro, Ma 01
August 16, 1984

4

Bureau of Land Management
Boise District Office
3948 Development Avenue
Boise, Idaho

Gentlemen:

These are our comments on the Draft Jacks Creek Wilderness Environmental Impact Statement.

1. We think the Statement has been very thoroughly prepared.
2. We want all of the WSA's designated as wilderness without exception.
3. We want hunting and ~~trapping~~ trapping prohibited in all the WSA's. The Supreme Court has ruled that wildlife belong to all

4.01

Americans, so don't let the hunting minority kill our wildlife.

4

Sincerely,
Gail B. Robinson
Edgar B. Robinson

United States Department of the Interior
FISH AND WILDLIFE SERVICE
ENDANGERED SPECIES PROGRAM
4620 Overland Road, Room 209
Boise, Idaho 83705

3

DATE: August 8, 1984

TO: District Manager, BLM, Boise District Office, Boise, ID

FROM: Assistant Field Supervisor, FWS, Ecological Services, Boise, ID

SUBJECT: Draft Jacks Creek Wilderness Environmental Impact Statement (EIS)

We have reviewed the draft Jacks Creek Wilderness Environmental Impact Statement (EIS). We appreciate the opportunity to respond to this draft.

3.01 On page 66, under the chapter concerning vegetation, we would like to clarify the status of one plant mentioned and identify another plant not included in the EIS. The first plant of concern mentioned in the EIS is Lepidium davisii. Lepidium davisii is a federal candidate species. The BLM and USFWS currently have a Conservation Agreement (CA) in place to protect and manage this species. As a candidate species, it is considered under petition to list when and if that should become necessary.

3.02 Another plant, not included, has recently been identified by a BLM botanist, (R. Roentretter) in one of the areas (T10S, R3W) covered by the EIS. The plant is Astragalus yoder-williamsii. This plant is also a candidate species and by virtue of being on the candidate list is also under petition to list. At the present time the USFWS and the Winnemucca, NV, BLM have a CA and ACEC protecting the only site known for this plant until the recent Idaho discoveries. We would like to discuss with you a CA on this Idaho population.

Thank you for your continued interest in the endangered species program.

Robert L. Parenti
for James F. Gore

cc: FWS, AFA, Portland

COOPE[illegible] EXTENSION SERVICE

university of Idaho

College of Agriculture
In Cooperation with the
U.S. Department of Agriculture

5

SW Idaho R/E Center
Route 8, Box 8478
Caldwell, Idaho 83605
(208) 459-6365

August 22, 1984

Martin J. Zimmer
Boise District BLM
3948 Development Avenue
Boise, Idaho 83705

Re: Jacks Creek Wilderness EIS

Dear Joe:

I have reviewed the Jacks Creek Wilderness Environmental Impact Statement and would like to offer a couple of comments.

5.01 First, I found the process of tracking the economic impact of the proposed action and various alternatives a bit confusing. Perhaps attaching an appendix showing the gross output multipliers and earnings/gross output ratios would help in this matter. If not, an example of how the analysis proceeded from the $20.72/AUM in sales to the $485,000 in grazing related income shown in Table 16 is necessary.

5.02 Second, I notice that rather than using AUMs of livestock use, wildlife numbers and other data from within the Wilderness Study Areas (WSAs), you are using total figures from the allotments. I believe that this approach is misstating the economic impact of wilderness considerations. Is there double counting between this statement and the Bruneau-Kuna EIS? For example, Tables 13 and 14 (pages 105 and 106) show current and projected livestock use within WSAs (Table 13) and within affected allotments (Table 14). How much of the 38 percent increase in livestock use in the affected allotments (35,637 AUMs) under the proposed action (Table 14) is directly tied to wilderness designation and how much is tied to management outside WSAs? Note that in Table 13, the increase is 43 percent (5,303 AUMs).

The University of Idaho is an equal opportunity/affirmative action employer and educational institution.

5.03 Finally, I note the absence of any benefit-cost analysis on the proposed action and alternatives. I feel that the absence of this important analysis is removing a tool from the decision making process, and I would encourage you to include this in revising the document. I notice on page 112, 40 CFR Part 1502.23 is quoted as justification for not including benefit-cost analysis. I am not familiar with 40 CFR Part 1502.23, but would offer that the quality factors will be absent from quantification in all of the alternatives. Thus, all alternatives will be considered on more or less equal footing (grazing and recreation use quantified) with the non-quantifiable values handled through the narrative sections of the report. During these times of fiscal austerity, benefit/cost analysis can and should be considered in the decision making process.

Thank you for the opportunity to respond to this document.

Sincerely yours,

Neil R. Rimbey
Extension Range Economist

NRR/ta

AtlanticRichfieldCompany Government Relations
555 Seventeenth Street
Denver, Colorado 80202
Telephone 303 575 7377

Public Lands

6

RECEIVED
SEP 21 1984
Bureau of Land Management
Boise District

September 20, 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3948 Development Avenue
Boise, Idaho 83705

Gentlemen:

Atlantic Richfield Company appreciates the opportunity to comment on the draft Jacks Creek Wilderness EIS. We support the proposed alternative discussed in the document.

6.01 However, we would suggest that the final EIS contain maps that clearly delineate those areas with special and standard stipulations; and areas that may require an EIS before development or exploration could take place. We have worked with such maps in other wilderness studies and have found them to be extremely helpful in the review process.

Again, we appreciate the opportunity to comment on the document. If you have any questions please feel free to contact us.

Sincerely,

Peter B. Briggs

PBB:jc

ARCO 6141

OWYHEE CATTLEMEN'S ASSOCIATION

P. O. Box 400-Nampa, Idaho 83653-(208)896-4104

OWYHEE CATTLEMEN'S ASSOCIATION SINCE 1879

7

August 29, 1984

Martin J. Zimmer
Bureau of Land Management
3948 Development Ave.
Boise, Idaho 83705

Dear Joe,

We have reviewed the Jacks Creek Wilderness EIS and find that the proposed action is in direct conflict with the guidelines for the conduct of wilderness inventories and studies.

The Federal Register/Vol. 47, No. 23/page 5106, specifically states that Multiple Resource benefits should be considered interms of those that could ONLY be insured through wilderness designation.

7.01 The EIS itself shows the only reason for the proposed action is protection of Bighorn Sheep. These sheep were planted and have prospered under Multiple Use Management. Clearly wilderness designation is not the only way to preserve this resource.

In addition the "Wilderness Inventory Handbook" September 27, 28 page 6 states that "Wilderness will not be used as a substitute for other management methods".

7.02 The EIS assumes that BLM would not attempt to control recreational use in the area unless it were designated wilderness. In the past the BLM has identified needs for and has planned for recreational use control in areas not designated wilderness. Why would this area be an exception?

The proposed action and reasons for it are clearly slanted to provide for some wilderness even though the information in the EIS does not support such action.

7.03 A glaring example of this is the cummulative summary on pages 34 and 35 of the EIS. Under the proposed action are listed all benefits of designation. Under the No Wilderness alternative are listed only the negative impacts. Under the No Wilderness alternative for Wilderness, the summary should state that wilderness values would be unchanged on 97,055 acres; under wildlife it should state that recreational use could be regulated by other management alternatives to prevent conflicts with bighorn sheep; under cultural resources it should state recreational vandalism could be prevented by other management methods; under visual resources, it should state that scenic quality would be unchanged on 109,415 acres.

Martin J. Zimmer
Bureau of Land Management
Page 2

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The no wilderness alternative would have a very insignificant impact on wilderness values or Multiple Resource values if proper Multiple Use Management were used.

1.04 One final point to be made is the issue of manageability. The EIS should address this question in much greater detail. The fact is the EIS hardly mentions this issue. We have pointed out the difficulty of proper management of previous hearings and yet the issue was not adequately addressed in this EIS.

Manageability should be a part of the information for each alternative and especially for the proposed action. We believe the manageability problems of all seven WSA's is vastly understated.

We hope you will carefully reconsider the information in the EIS and correct the errors and omissions before making any final recommendations.

Sincerely,

Forrest E. Fretwell

Forrest Fretwell, President
Owyhee Cattlemen's Association

10

U.S. Department of Transportation
Federal Aviation Administration

Northwest Mountain Region
Colorado, Idaho, Montana, Oregon, Utah, Washington, Wyoming

17900 Pacific Highway South
C-68966
Seattle, Washington 98168

JUL 3 1 1984

Mr. Martin J. Zimmer
District Manager
Bureau of Land Management
3948 Development Avenue
Boise, Idaho 83705

Dear Mr. Zimmer:

We have reviewed your draft environmental impact statement (EIS) for the proposed Jacks Creek Wilderness areas and do not foresee any impact on aviation or its activities.

10.01 As you finalize your determination of external influences that could impact the proposed wilderness areas, be apprised of the Military Operations Areas (MOA) located in southwestern Idaho (see enclosed chart). The impact of MOA on wilderness areas was addressed very well on page III-4 of your draft EIS for the Owyhee Canyonlands Wilderness which should be included in this EIS.

Thank you for the opportunity to review your proposal.

Sincerely,

Joseph W. Harrell

Joseph W. Harrell
Policy & Planning Officer

Enclosure

15

BOISE DISTRICT BLM
MARTIN J. ZIMMER/DISTRICT MANAGER

I am Dave Bivens of 2354 Star Lane, Meridian, Idaho. I am presenting these comments on my own behalf.

I want to express my strong opposition to wilderness designation of desert sagebrush lands in Idaho. This includes the designation of the Jacks Creek wilderness area in Owyhee County. Idaho has already contributed more than 3.8 million acres of forest lands to wilderness. This seems to me to be more than our fair share. This does not include legislative proposals that call for additional 526,000 or 3+ million acres. The sagebrush lands in Owyhee county are already being managed under the multiple use system by BLM. This method of management allows use and enjoyment for all. The forage that grows on these lands can be harvested by the grazing of cattle as well as big game which does include the Big Horn sheep. In addition, all individuals can enjoy these lands including the disabled and senior citizens that need motorized vehicles for hunting camping, fishing, rock hounding, and just enjoying the outdoors. Under the proposed wilderness designation, that area would be set aside for the healthy and wealthy that have the time and money to walk or ride a horse into these areas, thus discriminating against many who cannot walk or ride a horse.

The late Senator Frank Church made a promise to the residents of Owhyee County that these lands in their county should never become wilderness. The late Ted Trueblood has also put into writing his opposition to the designation of these Owyhee lands into wilderness.

Under Wilderness designation, there would be little if any management of these wilderness lands in Owyhee County. Wild fires would be allowed to burn unchecked, burning the valuable forage and brush habitat that is essential for domestic grazing and big game winter survival.

15.01 If the Jacks Creek area is designated a wilderness under Alternate #1 how will that 175,600 acres be managed or patroled?? One might visualize a situation similar to the border patrol. No doubt a permit system of some nature would have to be developed and enforced.

15.02 After reviewing the Jacks Creek EIS and the summary of the alternatives, page 3-6, I cannot accept the projected economic benefit to the local economy. Where would these funds come from & how would they be generated?

After attending a number of preliminary meetings, it has

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become evident that one of the primary concerns of the wilderness proponents employed by the BLM, environmental, and wildlife advocates is the herd of Big Horn sheep that range in this area. It is stated in the same summary that there will be an increase of 15,175 annual visitor days. With the best of efforts and management, this has to create great pressure on the Big Horn sheep as well as more vandalism and deterioration of the area.

To me, there is definitly no benefit or nothing to gain with wilderness designation of the Jacks Creek area, only increased costs, management problems, and deterioration by increased human impact.

I am for Alternative #2, No Wilderness/No Action.

Dave Bivens

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IDAHO DEPARTMENT OF FISH AND GAME
600 South Walnut • Box 25
Boise • Idaho • 83707

October 16, 1984

Mr. Martin J. Zimmer
District Manager
Boise District
Bureau of Land Management
3948 Development Avenue
Boise, ID 83704

Dear Joe:

Department of Fish and Game personnel have reviewed the Jacks Creek Wilderness Draft Environmental Impact Statement (DEIS), and we offer the following comments.

In general we concur with the Proposed Action recommended by the DEIS, and compliment the BLM on a very well done document, especially in evaluating the effects of the alternatives on the bighorn sheep population.

20.01 However, we question whether the proposed increase in livestock grazing will actually result in the predicted overall improvement in range condition.

Also, livestock use on currently unused areas as called for in the Proposed Action would be detrimental to pronghorn and sage grouse populations. Even if the general improvement in range conditions occurs, we doubt it would make up for the detrimental effects of expanding livestock use into previously unused areas.

Of the fish and wildlife values involved, our primary concern is that the important relationship between the canyons and adjacent plateaus be recognized in evaluating wildlife habitat needs and that sufficient plateau areas as well as the canyons themselves be included in wilderness. In our opinion the 110,655 acres recommended in the DEIS for wilderness will meet this need.

• EQUAL OPPORTUNITY EMPLOYER •

The improved grazing management as called for can certainly improve the very important riparian areas which would benefit many wildlife species, including the sensitive Owyhee red-banded trout.

Overall, the Department supports the Bureau of Land Management's recommended action and we appreciate the opportunity to comment.

Sincerely,

Jerry M. Conley
Director

cc: Bureau of Fisheries
Bureau of Wildlife
Bureau of I&E
Region 3

JMC:RMW:tlv

27

October 27, 1984

Martin J. Zimmer
District Manager, Boise District
Bureau of Land Management
3948 Development Avenue
Boise, Idaho 83705

Re: Jacks Creek Wilderness Environmental Impact Statement Draft

Dear Mr. Zimmer:

I read the subject draft environmental impact statement and get lost along the way from the mandate for wilderness classification and management as found in the Wilderness Act (WA) and the Federal Land Policy and Management Act (FLPMA) to that which is portrayed in the draft EIS. It appears much has fallen through the cracks with no explanation of where, why, or how that which fell through the cracks has gone. At this point the fate of wilderness in the Boise District, and specifically within the area embraced by the subject EIS, becomes critical and difficult to track. Difficult to track in terms of acreage, criteria, rationale, and recommendation.

It appears the Bureau of Land Management (BLM) has taken upon itself a decision reserved to the Congress. The WA and FLPMA set forth the mandate and criteria for wilderness classification and management and direct the BLM to inventory, study, and make recommendation to the Congress of those lands meeting the mandate and criteria. BLM undertook this task and according to the Bruneau-Kuna Grazing Environmental Impact Statement, p 3-15, identified sixteen areas totalling about 447,000 acres as Wilderness Study Areas (WSAs). This document further states that: "These areas have met the minimum criteria for wilderness as identified in the Wilderness Act of 1964. Approximately 315,500 acres are recommended as suitable for wilderness with the remaining acres recommended as nonsuitable for wilderness...." The document goes further to identify, even extoll, the excellent "mandatory requirements" of these WSAs as well as to point out many "supplemental wilderness values" with specific references to their vulnerability to irretrievable degradation from grazing management relative to the scientific and ecological values of the various WSAs involved.

Affiliate with the National Wildlife Federation

A subsequent BLM document, the Bruneau-Kuna Land Use Decisions Summary and Rangeland Program Summary, p 21, states the BLM is developing two wilderness EISs on the suitability or nonsuitability of wilderness designation for approximately 400,000 acres of WSA lands in the Bruneau and Owyhee Resource Areas. The document further states that "The Bruneau Planning Unit has some 327,610 acres in thirteen WSAs and the Garat and '45' allotments (Owyhee Resource Area) have 189,190 acres in six WSAs identified initially as possessing wilderness characterisitcs. Wilderness designation will be made by Congress. During the interim, areas identified as WSAs will be managed under the Bureau's Wilderness Interim Management Policy (IMP)" (emphasis added).

27.01 Now comes the Draft Jacks Creek Wilderness Environmental Impact Statement showing a maximum 175,627 acres as applicable for wilderness classification and recommending 110,655 acres as that acreage suitable for wilderness classification. Depending upon which document and the acreage stated as suitable for wilderness classification one chooses to use, some 200,000 acres plus have fallen through the cracks with no explanation, rationale, or referenced public input made as to where or how these acres met their demise and deletion from BLM's wilderness recommendation. BLM appears to have made a unilateral and unsupported decision that usurps Congressional authority.

The EIS is inadequate in other respects as well, as follows.

I. The EIS does not contain a "No Action Alternative."

27.02 The BLM has not fulfilled its responsibility and obligation under the National Environmental Policy Act (NEPA) to compile a No Action Alternative depicting and describing the baseline situation from and by which the proposed action and alternatives may be evaluated and judged. BLM cannot bypass this requirement by asserting the purpose and need for action ".... is required by the Federal Land Policy and Management Act of 1976 (FLPMA)." The requirement for a "No Action Alternative" assessment is well established by court record as an integral part of the NEPA process.

II. The EIS does not comply with the regulations requiring the preparation of a worst case analysis.

27.03 The EIS, in many instances, either directly or indirectly states and/or infers that ".... irretrievable wilderness characteristics could be lost if some areas are not designated wilderness." p 15. Or, p 59, the bighorn sheep is described as having critical habitat requirements in which intrusion by humans, livestock, or other disturbance could impose stress upon and retreat of bighorns to areas of lower disturbance to result in overcrowing on remaining habitat with an ultimate reduction in bighorn numbers. Given population dynamics, size of the current population, and suitable and available habitat and these matters

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become a major concern. In like manner, unique vegetative communities are at risk. It seems, therefore, a worst case analysis is both needed and appropriate to evaluate a worst case scenario relative to the gaps of data or information necessary to adequately portray the situation.

27.04 Take the proposed action for instance, what are the "worst case" implications of designating only 63% of the total WSA as suitable for wilderness and/or 68% of existing bighorn habitat upon the viability, survival, etc., of the bighorn sheep in the effected areas. This same question applies to the no action (which isn't even discussed) as well as other alternatives presented in the EIS. Moreover, such a worst case analysis must address the impacts of all the various range rehabilitation, water development, fencing - "range improvements" that are programmed in the EIS by the proposed action and alternatives. Furthermore, inasmuch as all the proclaimed "improvements" in range condition, etc., are unsubstantiated estimates of hoped-for improvement not authenticated in any manner by BLM management practices to date necessitates a worst case analysis of "what-if" such "improvements" do not occur with a resultant irretrievable loss of wilderness values, bighorn sheep habitat, fisheries, and other public values inherent to the impacted areas.

27.05

27.06 The Council on Environmental Quality regulations, 40 CFR Section 1502.22, speak to the situation where there are gaps in relevant information. If the information can be obtained, and if the costs are not exorbitant, BLM has a duty to include the information in the EIS, Southern Oregon Citizens v. Clark, 720 F. 2d 1475 (9th Cir. 1983). There are many gaps and rhetorical estimates made as have been enumerated. Either the information should be obtained to fill the gaps and/or substantiate the estimates, or, if the cost would be exorbitant, or if the information is not known and cannot be obtained, a worst case analysis should be prepared with an indication of the probability or improbability of its occurrence.

III. Designation of areas of environmental concern are ignored.

27.07 The FLPMA Section 202(c), (3) directs that the Secretary shall - "give priority to the designation and protection of areas of critical environmental concern." FLPMA defines (Section 103,(a)) what is meant by an area of critical environmental concern - an apt definition applicable to the land and resources described and impacted by the Bruneau-Kuna Grazing Environmental Impact Statement and the Jacks Creek Wilderness Environmental Impact Statement. Both documents are essentially silent in this regard. Why is not an action or alternative proposed in either document in compliance with FLPMA? And, in the instant EIS, why are those acres found unsuitable (perhaps, even some suitable acres) for wilderness described and assessed as areas of critical environmental concern for bighorn sheep, and/or sensitive vegetative and animal species?

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One could go on to citemany other inadequacies of the draft environmental impact statement. Truly, the document is a sham. The proposed action is an insult to the public who looks to BLM for management of the public's land in their interest. Tender loving care of the livestock industry appears the rule. The document attests this fact; a lack of appreciation of wilderness, its scope, need, and purpose; and, a cursory compliance with applicable law.

I suggest the draft EIS go back to the drawing board to be reworked in accordance with applicable law with goals set accordingly. Subsequent action then should be objective assessment of the land and its resources with recommendation made in the spirit of the Wilderness Act and the Federal Land Policy and Management Act. This may also necessitate an amendment to the Bruneau-Kuna Grazing Environmental Impact Statement to accommodate requirements for designation of areas of critical environmental concern.

The only alternative in the subject document (and it is woefully inadequate) that even approaches realistic recommendation of lands suitable for wilderness classification is Alternative 1 - the All Wilderness Alternative. In lieu thereof, therefore, the Conservationist Alternative of some 218,000 acres may approach a more realistic recommendation. Only an objective re-evaluation can determine that which should be wilderness and that which should be designated areas of critical environmental concern to protect the land base and assure continued viability of that land base and its dependent life forms.

Sincerely,

William R. Meiners

William R. Meiners, Chairman
Natural Resources Committee, IWF

WRM:mjm

cc: Bill Leisi
Johanna Wald
Edwin W. Stockly

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Mr. Joe Zimmer, Manager
Boise District BLM
3948 Development Ave.
Boise, Idaho 83705

Dear Friend,

The deadline for the comment period on the Jack's Creek Wilderness EIS is approaching. Please add the following comments to my testimony on the Jack's Creek Wilderness.

The areas which were studied for the EIS are Jack's Creek, Duncan Creek, Little Jack's Creek, Pole Creek, Upper Deep Creek, Sheep Creek East, and Sheep Creek West. Another area which many people felt should have been studies is Rough Mountain. I have personally been through all these areas except for Pole Creek, Upper Deep Creek, and Rough Mountain. As a veteran backpacker and landscape photographer, I typically hike all the way through an area when I see it. It is rare for me to leave an area without having seen all of it. Although I have not been to Shoofly Creek in the Little Jack's Creek WSA, I have seen photos of the area and was impressed. I intend to visit all the areas I haven't seen as soon as spring comes.

The public hearings of Sept 5 were disappointing for some people who felt the hearings were packed by people who were misinformed about wilderness. The misinformation originated in a radio advertisement paid for by cattlemen who believed that wilderness for the areas would be contrary to their interests. I believe wilderness will not harm cattlemen and that the people who testified against wilderness were poorly informed about what wilderness really is all about. I believe the BLM is better informed on desert wilderness issues than most cattlemen. People who are informed about the issues know that wilderness will not adversely affect grazing and that there are serious defects in every economic argument against wilderness. Informed people also know that the real issue in relation to wilderness is the issue of whether the areas under study have genuine wilderness characteristics such as solitude, scenery, and uniqueness. Few of the people I heard testifying at the hearings addressed this central issue adequately. Identifying areas which have qualities deserving of wilderness protection isn't a department of grazing management, although some grazing issues are impacted. Wilderness, in my view, is a department of natural history, esthetics, and character formation. It is part of the issue of the quality of life and the quality of human beings. People deprived of wilderness would be inferior in some way to people who have access to a diversity and quality of wilderness. If this is not an issue for cattlemen, it is because cattlemen live an outdoor life and can take wilderness for granted. They are nearly the only people who can, and they are to be envied for it. They have something which the rest of us have to fight for to get. In their own way, they're fighting for it too, but they're fighting for it only for themselves when it is something that should belong to everybody as a public resource.

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Now I'll talk about the areas.

I think the biggest mistake made in the EIS was deleting Shoofly Creek from the wilderness recommendation. The EIS gives the impression that Shoofly Creek and Halfway Gulch are of inferior wilderness suitability compared to the rest of the Little Jack's Creek WSA. I don't believe this judgment is right. I believe Halfway Gulch and Shoofly Creek have first rate scenic qualities including uniqueness and solitude. The EIS classifies them as belonging to a scenic category class B.

32.01 I'm convinced this classification is an error in the EIS. The entire Little Jack's Creek WSA is extraordinarily scenic. None of it is inferior to the rest. It is all part of a unit in terms of scenic quality and value to wildlife. Shoofly Creek should be included with Little Jack's Creek as wilderness.

Sheep Creek East and West aren't large individually, although Sheep Creek West is fairly large. They are close together and can be treated as a single unit for most purposes. I think they form one large unit, and perhaps the unit should be larger. I don't fully understand why the boundary of Sheep Creek West isn't further south than it is. There is an

32.02 excellent range and an impressive stand of aspen not far south of the WSA boundary. Some people think the boundary on the north should be further north, also. Altogether, Sheep Creek East and Sheep Creek West form a unit which contains a wonderful diversity of canyon types and forms of scenery on the rims. Sheep Creek East is a pleasant hike up a creek with unique cliffs bordering the riparian zone. A hill above the rim offers a splendid view to the south. Sheep Creek West is a more challenging in-canyon hike than Sheep Creek East because the stream is rapidly coming down from a higher elevation. The greater difficulty is compensated for by the presence of wild berries, primarily chokecherries and currants. Rock pillars decorate the sides of the canyon. Further up the canyon, a bench with tall grasses and aspens adds uniqueness and variety to the area. Up on the rim, hills with aspens and huckleberries promise that people on the rim will not be disappointed in the natural history of the area. To delete part of this area (Sheep Creek East) from the wilderness recommendation is an error because it robs the area of some of its variety.

I've seen impressive slides of Upper Deep Creek. I'm glad BLM recommends it for wilderness. The entire WSA should be wilderness, however, not just part of it. Plateau acreage always complements a canyon. I've never been anywhere where plateau acreage seemed unimportant.

Having been in country similar to Pole Creek, I believe Pole Creek is suitable for wilderness. I regard it as an important part of the Owyhee Canyonlands Wilderness, no portion of which ought to be dropped from wilderness consideration. I don't want to see the North Fork of the Owyhee isolated from the rest of the Owyhee Canyonlands by failure of Pole Creek and Upper Deep Creek to make wilderness. I'm anxious to see Pole Creek and take pictures there to convince others of its value.

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Jack's Creek and Duncan Creek clearly form a unit. I believe these areas are the most accessible from Boise and are available for hiking essentially all year. I've been there in March when it snowed eight inches during the night. I've also been there on sunny days when the rocks shone red like the rocks in the beautiful, sandstone canyons of southern Utah and Eastern Montana. Some of the most impressive desert scenery I've seen was in Jack's Creek. The destiny of this area has to be wilderness. It's only a matter of time before larger numbers of people find out about it. I believe many of the people who have been there already still have a lot to learn about it.

The Committee for Idaho's High Desert and the Middle Snake Group of the Sierra Club have mentioned Rough Mountain and some additions to the Little Jack's Creek WSA as regions that are believed to have wilderness potential. Having been in portions of the Owyhee Mountains, I would be very surprised 32.03 if there are no places in the Owyhees which have the character of true wilderness. I intend to check out Rough Mountain as soon as I can, possibly as soon as this winter on cross-country skis.. I urge the BLM to take this area as seriously as I do.. In view of my attachment to Sheep Creek West, the CIHD/Sierra Club Jacks Creek Wilderness Proposal seems conservative to me..

Overall, I find all the areas suitable for wilderness in their entirety. These are among the most accessible areas from Boise.. I'm sure their destiny is to become popular.. It will be tragic if any of these areas lose their wilderness characteristics before Congress acts on them. The Jack's Creek pipeline is the biggest threat to the areas right now. It is an expensive project which will cause trampling and erosion in an area of pristing grasslands. Please reconsider the decision to build this pipeline. It's an expensive project which will never pay for itself and which will generate a great deal of unnecessary animosity between cattlemen and environmentalists.. The right thing to do, from the point of view of public relations, is not to build the pipeline. You may end up building the pipeline at great expense and see it declared illegal or otherwise banned, which is trouble..

Sincerely,

Brent Knapp

Brent Knapp
4141 Nez Perce # 319
Boise, Idaho 83705

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WILDERNESS (continued)

What did our ancestors consider as wilderness 200 years ago? 100 years ago? What will our ancestors 200 years in the future consider a wilderness to be? I have of people from the eastern cities, when they visited the area west to state, "Boy, you people sure live in a wilderness." The BLM is trying to make future legislative decisions today.

42.03 on page 124. Irretrievable loss of basic wilderness chacteristics are 8,000 acres (proposed Hickney Tree Dome pipeline). This 8 mile long pipe line would have to be 1.72 miles wide to impact 8,000 acres. --5,350 acres (proposed Jacks Creek pipe line extension). This 4.5 mile long pipe line would have to be 1.85 miles wide to impact 5,350 acres.

42.04 "The construction of the livestock trail across Big Jacks Creek canyon would impact the naturalness of about 200 acres in the vicinity of the trail." (pp125). This is four-tenths of one percent of the proposed action acerage. This project is allowed under the interim management policy and should be built.

42.05 "Most of these increases are expected to occur prior to wilderness designation." (pp13b). This should have read .. prior to congressional decision. It appears that the BLM is designating wilderness areas, not congress.

42.06 "Wilderness chacteristics would be irretrievably lost on about 13,600 acres, (pp86); 8,440 acres, (pp13b); 14,240 acres (pp140& 144); 10,550 acres, (pp149) and 20,190 acres, (pp154) recommended as non-suitable for wilderness," It is odd we have not lost these wilderness chacteristics in the 20 years since the wilderness act was passed in 1964, or in the 94 years since Idaho became a state, or in the 218 years since we became a nation. When and how and why are these wilderness chacteristics going to be irrerrievably lost? The BLM dosn't tell us. Why?

42.07 "The Bureaus Wilderness Study Policy requires that areas recommended suitable for wilderness must be capable of being effectively managed to preserve wilderness chacteristics." (pp159&others). The phrase or term "effectively manage" is not to be found in the Wilderness Act of 1964, Pu 88-577; nor in the Federal Land Policy and Management Act of 1976, Pu 94-579; nor in the BLM Wilderness Management Policy document of September 24, 1981.

Section 603.c. of FLPMA states in part, "During the period of review of such areas and until congress has determined otherwise, the Secretary shall continue to manage suchlands according to his authority under this act and other applicable law in a manner so as not to impair the suitability of such area for preservation as wilderness, ..."

RECEIVED
NOV 1984
Bureau of Land Management
Boise District

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Bureau of Land Management October 27, 1984
Jacks Creek Wilderness EIS
3948 Development Avenue
Boise, Idaho 83705

Dear Sirs:

Oh, what hypocritical fools we mortals are.

The wilderness act of 1964 states that in a wilderness area the imprints of man shall be substantially unnoticed. In the Jacks Creek Wilderness DEIS it states that the density of these imprints are or are projected to be high in parts or over the entire area of the seven WSAs.

In the DEIS these imprints of man are referred to as cultural resources. Several places in the DEIS, under irreversible and irretrievable loss of resources the statement such as "wilderness chacteristics and cultural resource sites are both non-renewable resources." Nothing could be farther from the truth. as difficult at may be to imagine -- todays beer cans, backpacker's camp sites, fire wood tree stumps, livestock waterlines (in the desert), etc. are tomorrows cultural resources. --

The preparers of this DEIS erred in not treating the Proposed Action as an alternative. It could have been alternative #1, #8 or any in between. To treat the proposed action as they have is an overt attempt to prejudice this proposal in favor of wilderness designation. It must be remembered that all alternatives are in reference to the present situation, which is no wilderness.

WILDERNESS

42.01 The BLM did not give a clear and concise narrative of the boundaries of the seven WSAs. The boundaries as shown on maps 2a and 2b clearly indicate that these boundaries are not roads and that much of the adjacent ownership is public lands. an explanation is in order.

42.02 The DEIS stated "Each of the WSAs has outstanding opportunities for primative recreation. These opportunities are dependent on maintenance of naturalness and opportunities for solitude." (pp51). Opportunities for [illegible] primative recreation are not dependent on solitude and the BLM knows this. Why the false statement?

"The cumulative impacts of many small actions could slowly erode wilderness chacteristics, foreclosing the future option of wilderness designation." (pp84-134). This is not so.

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WILDERNESS (continued)

It is the mandate of the public through congress that the BLM manage our public lands by the applicable laws, rules and regulations, to do otherwise is to mismanage those lands and is a break of public trust.

The proposed 1000 acre research Natural Area (Little Jacks Ck.) would be ineffective if included within a wilderness area. Dual designation would also create management problems.

Any WSA with state and private inholdings that cannot be managed as a wilderness area with those inholdings intact should not be recommended for designation. Under no circumstances should the feueral government condem or confiscate private lands to create or add to a wilderness area.

42.08 By definition and by law a cherry stem road is not part of a WSA. To consider closing any road for so-called wilderness enhancement is contrary to wilderness intent. To close any road is discriminatory to the handicapped, the elderly and the non-athletic, that would like to use these areas. Without means of access for these groups of citizens there is no wilderness experience. If these areas cannot be managed as wilderness with all roads intact, then these areas should not be proposed for designation, but be classed as non-suitable for wilderness.

42.09 The BLM has been very secretive about the addition of 1030 acres of public lands, that are outside of Little Jacks Creek WSA, to be included within the Proposed Action for wilderness designation. I can find no other reference, proposing this addition, other than foot notes to several tables. This 1030 acres is not part of any WSA, and by law cannot be included in this DEIS proposal. I request that it be removed from further consideration. By law a designated wilderness area may be added to or enlarged, A WSA cannot.

RECREATION

42.10 "While the demand for wilderness use is high, wilderness designation does not necessarily result in increased recreation use." (pp56). "The demand for outdoor recreation opportunities has been growing rapidly in recent years. However, the demands for wilderness recreation opportunities has been growing even more rapidly." (pp56). Are our specialists giving us misinformation, double talk, newspeak, or just don't know what they are talking about? Does wilderness designation increase recreation use or not?

42.11 "The spectacular canyons of Little Jacks Creek WSA, Mr Jacks Creek WSA, and Duncan Creek WSA are expected to receive increased recreational use, following wilderness designation."(pp84). Note, increased use and assured destruction by the BLM".

RECREATION (continued)

If Little Jacks Creek W.S.A. is designated as a wilderness area, the BLM would implement a permit system that would limit the 28,000 acres to 60 people per year if they stayed 24 hours each or to 120 people per year if they only stayed 12 hours each. The annual visitor days have been set at 1,830. (one visitor day is one person for twelve hours.). Not a very efficient use of the resource.

Since Sheep Creek West does not have outstanding opportunities for solitude (pp55), why would some restrictions on recreation be used to maintain solitude opportunities, (pp25)? I guess that what the BLM is saying is, that since the area does not have outstanding opportunities as required by law, we will restrict recreation activities in order to provide mediocre opportunities.

42.12

42.13 Under alternative #5 it is stated that "Use of Big Jacks Canyon would increase more rapidly than in the proposed action." No information was supplied to back this up.

42.14 The BLM suggests federal acquision of private property in the Little Jacks Creek WSA to prevent recreation development of those private lands. Why have they taken this approach when they have recognized the need for more recreational opportunities?

42.15 "Each of the WSAs have outstanding opportunities for primitive recreation." (pp51). By definition of "outstanding" this means that each area is better than each of the other areas.

"There is a strong demand for bighorn sheep hunting opportunities." ....Seventy-five applicants applied for the two permits that were drawn to hunt bighorn sheep in Little Jacks during 1983. Wyoming sold a permit to hunt bighorn sheep in 1983 for $50,000."(pp57). Seventy-five applicants for two permits is not a very high ratio for this activity. I don't know what Wyoming bighorn sheep hunting has to do with the Jacks Creek Wilderness DEIS, except to show that Wyoming is exploiting the big horn sheep resource. I wonder if the BLM staff, in Boise, supports this exploitation?

The Bruneau Resource Area and the WSAs within are much used by the rockhound and mineral collecting hobbyist. A large percent of these hobbyist are in the senior citizen age group. Access to these areas is very important to their activity. Idaho has 20 rock clubs that are registered with the Northwest Federation of Mineralogist Societies. These 20 clubs have over 1,100 members, which would be equivalent to about one-third of the current use in the WSAs. The state of Oregon has 40 federation affeliated clubs and Washington has 58. In many areas it is estimated that for every club member there are are at least three people that pursue the rockhound hobby that are not associated with any club.

Again, it is important that all roads be kept open to provide access to our great out-of-doors for all recreationist which also helps to disperse these users over a larger area which minimizes the impact.

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RECREATION (continued)

The rockhound hobby is a multi-million dollar industry that touches many different trades.

WILDLIFE

42.16 "Bighorn sheep are second only to grizzly as species most sought after by serious wildlife viewers." (pp57). Most of the serious bird watchers would probably challenge you on this. What per cent of all wilderness users are classified as serious wildlife users?

42.17 I find it very difficult to believe that there is no potential bighorn sheep habitat in the Pole Creek WSA. To date eleven major petroglyph sites depicting bighorn sheep have been found within this WSA. This should be proof positive that these animals once inhabited this area, therefore a potential exists. The ecological condition of 60% of the acres in this WSA are expected to increase one class in the next 20 years. What in the BLMs opinion keeps this WSA from having potential habitat for bighorn sheep?

Even at the small scale of Map 9, it is difficult to believe the even flowing lines outlining the existing and potential habitat areas. These generalizations show a lack of professionalism.

42.18 It is stated several places that 100% of the potential bighorn sheep habitat area is in the Big Jacks Creek WSA. However, Map 9 shows over 900 acres as being outside of the WSA boundaries. This is no small accreage, if one subscribes to BLMs logic stated several times in the DEIS, "Any loss of habitat could threaten the survival of the entire population. Meaning the loss of one acre could trigger that loss.

In the proposed action 68% of the Little Jacks WSA existing bighorn sheep habitat would be in the proposed wilderness. In the same peragraph it states "it is also important that flexibility in managing habitat for the species be retained." The BLM will not have that flexibility under wilderness designation.

"Direct human confrontation with bighorn sheep could force the sheep to abandon critical habitat areas threatening the survival of the of the population." (pp127). To confront means to stand face to face. Since when do bighorn sheep stay around to have a confrontation with man?

It is not all that uncommon to see bighorn sheep along or crossing the main road, from Plush, Oregon, into the Hart Mountain National Antelope Refuge headquarters. They will stand and observe from a distance of 300 or 400 yards.

WILDLIFE (continued)

Also bighorn sheep seem to be doing quite well on Abert Rim in Lake County Oregon. Over 30 miles of this rim is adjacent to U.S. Highway 395. Activities along this highway are not adversly affecting this herd.

On page 127, alternative #5, no-wilderness/no action, measures are discussed that would occur under wilderness, not what would or would not occur under no-wilderness. This appears to be another attempt by the BLM to prejudice a decision for the proposed action.

42.19 The construction of the livestock trail across Big Jacks Creek canyon is in a potential bighorn sheep haultat area and would only have an adverse affect on 200 of the potential 30,000 acre area. It is permissable to build this trail under the Interim Management Plan and would be a benefit to most resources and activities.

Time and again the BLM uses the terms"sensitive" California bighorn sheep; "sensitive" mountain quail; "sensitive" red-band trout; with emphasis added in each case, little realizing that putting these species under so-called wilderness protection can do them more harm than good, as the BLM would then loose the needed management options to enhance these wildlife.

FISHERIES

42.20 The current physical conditions of the perennial streams are chiefly related to area topography, channel geology and stability. The steep slopes of the topography generates fast runoff carrying silt into the streams and scouring of the channels. Livestock grazing has less than a 10% influence on the physicial habitat conditions of these streams.

The BLMs proposals in all alternatives seem to be in line with standard management policies.

VEGETATION

42.21 "None of the proposed livestock waterlines or seeding projects would be allowed." (pp119). "Presently available AUMs are additional AUMs that will be available following construction of a 10-mile livestock watering pipeline between Little Jacks Creek and Big Jacks Creek WSAs. This pipe line will be constructed under the Bureau's Wilderness Interim Management Policy prior to a wilderness decision. (pp120).

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VEGETATION (continued)

42.21 How does the BLM defend the continued use of these contradictory statements? Do their pseudo-environmentalist know what the On-the-ground line managers are doing? Or to put it another way, does the left hand of the BLM know what the right hand is doing?

42.22 Several places the DEIS mentions prescribed or controlled burning. These actions in a wilderness area or in a area proposed for designation, is contrary to wilderness intent. These burns are an imprint of man and they have a devistating impact on the naturalness of the area and cannot be allowed.

The BLM never addresses the impact of burning, herbicides or pesticides one one of our most important of animal communities, the insect. WHY? Could the poor ecological condition in many areas be due to the loss of the insect pollinators?

If the BLM intends to manipulate the vegetation of an area then it should not be proposed for wilderness designation.

LIVESTOCK GRAZING

Wilderness designation would handicap development of effective allotment management plans. These AMPs contain both cultural and environmental improvements that not only benefit the livestock program but are also beneficial to the wildlife sector. Most of these improvements could not be had under wilderness designation.

Closing of roads and ways under any alternative not only adds to the cost by livestock owners it also increases the BLM administrative cost. Closing of roads also contribute to growing congestion by all public lands users and it is discriminatory.

42.23 Table 9 shows that under allotment #49-antelope Creek, the season of use to be 11-15 to 11-26 for 11AUMs. This is only 10 days of use for 333 head of livestock. Could this be a typo? If not this sure is good pasture.

WATERSHED

Prudent watershed management can best be accomplished under a no-Wilderness designation. This would allow for seeding of many acerages to non-native plants that would help stabilize those areas with high erosion hazard ratings.

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CULTURAL RESOURCES

The dealings with these resources, at times, are as much emotional as they are factual.

Unpublished reports indicate that most of our major colleges and universities, especially those with archaeological departments, have more artifacts from surface sites and digs than they can get catalogued and they are also having trouble finding storage space for these materials. Most of these artifacts are not of rare enough or of museum quality for most museums to be interested in them for their own display use.

Wilderness designation, per se, will not protect cultural sites from deterioration or vandalism. I know of some sites in California and Colorado where chain link fencing has been the most effective answer.

42.24 Wildfires in the past few years have burned tens-of-thousands of acres of public lands under BLM control, in eastern Oregon. Before some of the areas were reseeded, using mechanical drills, the BLM sent teams over the areas to pick up the surface artifacts. Without doubt some of these artifacts will show-up, in frames, on various BLM office walls. None will any more scientific value than if you or I had gathered them up.

42.25 The BLMs classification of areas as high, medium or low projected density for archaeological sites are meaningless to the public without some yard-stick of quantity for each class, and the surface size of each site.

The lithic scatter sites in the Pole Creek WSA are 5.36 times more plentiful than in the Upper Deep Creek WSA yet both have high projections for the entire WSAs. One-hundred percent of Upper Deep Creek has been examined and one site, of all classes, was found for each 523 acres; while 45% of Pole Creek has been examined and one site of all classes is being found for each 76 acres. To me this makes projection ratings in all WSAs questionable.

42.26 "Small unobtrusive signs to warn vandals would be allowed if necessary for site protection." (pp109). These signs could do more harm than good, by calling attention to the sites, increasing vandalism.

42.27 Speaking of livestock trampling of artifacts, (pp106-109)--- "Much of the Scientific value of the site is lost." This is contrary to published scientific belief. Site-surface artifacts are subject to varying amounts of disturbance of, add-to or misplacements of objects; therefore most surface artifacts have minimal scientific value.

VISUAL RESOURCES

I first started to say that it is difficult to believe that Pole Creek WSA does not have any Class A scenic quality. I am going to change that to say it is impossible to believe.

42.30 "This 25,220 acre WSA has a wide diversity of topographic features including shallow basalt-rimmed basins, 15 plus miles of rugged 100 to 350 deep canyons, juniper covered hills and flat basalt tablelands."(pp14). "Excellent topographic and vegetative screening in 15 plus miles of canyon. Landform diversity includes narrow canyons, shallow basins, juniper covered hills and flat to gently rolling plateaus; 15 miles of perennial creeks in canyons." (pp58).

Although the ecological condition of this WSA is shown to be mostly in poor to fair condition, the diversity of major vegetation and topographic features more than indicates the gross error in visual classification.

42.31 The BLM states that the Pole Creed WSA is non-suitable for wilderness designation; yet the Proposed Action will provide for long term preservation of scenic quality. (pp167). One the one hand, what class of scenic quality and on the other, how is this to be accomplished?

42.32 It is also difficult to believe that none of either fork of Shoofly Creek, in Little Jacks WSA, has any Class A scenic quality. "Five miles to the northwest Shoofly Creek has cut a 600-foot deep canyon...The Shoofly Canyon complex forms a stark contrast to the surrounding sage covered hills and plateaus."(pp13). The area has a mix of major vegetation types, between Big Sagebrush and Low Sagebrush in fair to good ecological conditions. I find it very odd that a 700 foot canyon in Big Jacks creek (proposed for wilderness) is class A scenery, while a 600 foot deep canyon in Shoofly Creek canyon (proposed as non-suitable for wilderness designation) is only Class B scenery.

Can someone be trying to influence the decision to favor wilderness designation?

42.33 Conversely, I believe that parts of Sheep Creek East and Sheep Creek West are over calssified in visual quality. Sheep Creek East has no major vegetation type diversification, the WSA being all Big Sagebrush. Those areas above the canyon rim in sections 7,17,13,18,23, and 26 that are shown as visual Class A, Map 18b, should be of a lower classification, and that part of the creek canyon in section 1 should have a Class A rating.

CULTURAL RESOURCES (continued)

For instance, what if someone broughn in rather large amounts of mid-west artifacts, consisting of lithic tools and pottery shards, and scattered them on the surface of twenty different sites in the Boise district, BLM? Then several years later an archaeologist team found all twenty sites with these foreign, but authentic, artifacts intermingled with the items in these original sites. What happens to the integrity of the scientific value of the surface finds of these sites?

The biggest loss due to trampling and erosion on surface artifacts is, the breaking of these specimens.

42.28 "Fencing archaeological sites along camas creek would eliminate 90 AMUs from livestock use." (pp103). Based on usage in this allotment, this would amount to about 650 acres, excluded by this fence. This seems to a rather large artifact enclosure.

Proposed Action, Duncan Creek WSA, "A proposed 26% increase in grazing would accelerate damage from livestock trampling."(pp110). Proposed Action, Duncan Creek WSA, under Multiple Resourse Benefits--"Protection of archaeological sites from increased livestock trampling."(pp163). Seems the BLM can cut it both ways.??

Proposed Action, Little Jacks Creek WSA, .. 10% increase in livestock use, (pp107); "Increases in grazing levels could have significant impacts."(pp108). Damage by trampling. (pp109).

42.29 Proposed Action, Little Jacks Creek WSA, Under Multiple Resource Benefits-- "Protection of archaeological sites from increased livestock trampling."(Pp160-161). ???????

Proposed Action, Upper Deep Creek WSA, Increased grazing damage (pp107-08-09). Protection from increased grazing, (pp172). ????

It is stated time and again in the BLMS that increases in livestock grazing will cause increased damage to archaeological sites.

Then time after time the BLM staff states that wilderness designation will protect these sites in spite of increased grazing.

Maybe the livestock will wear crepe soled shoes.

VISUAL RESOURCES (continued)

The small scale of these maps, in all WSAs, is no excuse for not doing an accurate and professional job at all times.

42.34 Although Sheep Creek West has the widest variety of plant communities among WSAs in the Boise district, these communities are not wide spread enough, nor is the topographic diversification enough for this entire WSA to carry a Class A visual rating. The majority of those diversified plant communities are within four areas, ranging in size from about 100 to 450 acres, all within the southern one-half of this WSA. Over 80% of the vegetation in this WSA is wyoming Big Sagebrush and Low Sagebrush. Over 11% of Sheep Creek West WSA(1630 acres) are barren.(pp169); while this provides some change in basic visual elements, all barren areas are not Class A scenery. This WSA has been highly over classified in the visual quality category.

ECONOMICS

To address the economics of all of Owyhee, county, Idaho is not out of line as long as the impacts caused by those actions within the WSAs are kept in the proper perspective. This DEIS has not fulfilled this requirement.

Instead of dealing only with those grazing AMUs within the WSAs, the BLM has used the entire allotments in the Bruneau resource area. This not only confuses the issue but grossly inflates the total income gain as shown in Table 16

42.35 At the end of 20 years the AMU gain in the seven WSAs (proposed action) is 5,303, from 12,265 to 17,568 AMMs. This would only produce a grazing related gain of $72,300 annually, instead of $465,000 as shown in Table 16. This same ratio applies to all alternatives.

The BLM either lost sight of the fact that only are these actions within the WSAs for grazing and recreational related activities are to be included as total income gain in Table 16, or this is still further attempts to show favorable conditions which would prejudice a decision in favor of the Proposed Action and Wilderness Designation.

42.36 The projected recreational use increase, in annual visitor days, is subject to question, as all methods of gathering data, other than visual, are questionable. The WSAs are in a semi-isolated desert region and are from 65 to 110 miles from Boise, Idaho, which makes it very difficult to obtain reliable visitor information.

42

ECONOMICS (continued)

12.37 The AUD increase projected under the Proposed Action is at an 8% annual rate for the next 20 years. The national population growth rate for the last 20 years has averaged 1.1% annually; while the average annual growth rate for Idaho has been 1.6%.

I do not believe that our life styles are changing that much or that rapidly to meet the the Annual visitor Day increase projected under all alternatives including the Proposed Action.

The BLM should have stated the methods used, locations of check points and periods of observation in order to support credibility of their projections.

12.38 While I don't agree with the economic analysis shown in this EIS, as much of it is of little or no value to the reviewer, because of a lack of facts and data, such as multipliers and earnings/gross output ratios. Also it is not clear as to why the BLM showed the total wilderness management cost, to the year 2004, in Table 1f. This is inconsistant with the annual summation of Economic Impacts, in that table, for grazing and recreation.

I want to thank Stanley Frazier, of the Boise staff, for the courteous and prompt replies to my inquiries, which he furnished on very short notice.

GENERAL

It appears the main reason for including part of Upper Deep Creek WSA in the Proposed Action, was to be include about 1275 acres of Sagebrush Steppe/Juniper Woodland ecosystem into the NWPS. This ecosystem is only in fair ecolorical condition and should not be in wilderness. Wilderness areas should be like museums, and only have the prime items/areas entered. To do otherwise is, merely to assemble a collection of items/areas.

Also that part of Upper Deep Creek proposed for designation is, a long narrow strip of land, unmanageable for wilderness purposes. This area is 8.5 miles long from north to south and from one-forth to 2.5 miles wide east to west. Because of its small size, very poor configuration, and being surrounded on all sides by lands non-suitable for wilderness, this area should never haven proposed for designation.

The Proposed Action could possibally save or protect 10,790 acres more than would be protected under the No-Action/No-Wilderness Alternative #2. This is about 6% of the 175,427 acres in the seven WSAs. This is not enough of a non-guranteed saving to tie 110,655 acres up, in wilderness designation.

42

GENERAL (continued)

While most rank-and-file government employees are doing a good job, they are often misdirected from top management, their hands are tied by antiquated or ill conceived laws, rules and regulations. In turn they often interpret those laws, rules and regulations to their own personal likes or dislikes while failing to give the public sector the same option.

The Jacks Creek Wilderness DEIS concept is impossible to support when it:
1. Repeatedly contains contradictory statements.
2. Proposes condemnation of private property.
3. Proposes areas outside of the WSAs for designation, which is contrary to law.
4. Proposes actions that discriminates against the handicapped, the elderly, and the non-athletic.
5. Continually uses words or phrases that are easily construed to be prejudiced in favor of wilderness designation.
6. That does not allow for the selection of only one of the seven WSAs discussed for designation or one-designation.

I support the No-Action/No-Wilderness Alternative #2.

As this is the poorest of all of the many DEIS that I have reviewed both from the Bureau of Land Management and the U.S. Forest Service, I request that this be redrafted and resubmitted to the public for review.

Sincerely;

Frank Vaughn
936 N. 7th
Lakeview, Oregon
97630

Pete Wyman
RT 5 Box 309
Spokane, WA 99208

44

October 30, 1984

Mr. Joe Zimmer, Manager
Boise District, BLM
3948 Development Av.
Boise, Idaho 83705

Although the Proposal Alternative for Jacks Creek is a thoughtful proposal for the BLM, there are several areas that should be added as Wilderness to the proposed action. I was born and raised in Boise, Idaho and spend time in the high desert country in the spring and summer months.

Once again the BLM fails to show all WSA's in the Boise and contuguous districts (Vale?). In particular the Owhyee and Jarbridge Canyonlands WSA's should have been included. There appears to be a fragmentation process by the BLM of existing roadless areas so that larger ecosystems can not be protected. Is Rough Mountain a roadless area? If so, why was it not included in the Draft EIS?

44.01

Appendix C needs to have a table showing how much BLM land and USFS public land is roaded or not deemed suitable for wilderness. How much non-wilderness is there in the Intermountain Sagebrush Province/ Sagebrush Steppee ecosystem? The importance of Wilderness can be better seen when we compare it with what is not available for Wilderness. If one spends any time in the high desert, one finds that the impact of cattle is virtually everywhere.

44.02

Additional cattle grazing can be obtained through range improvements in non-WSAs. The pan range conditions and high erosion hazzard of a significant area of the WSA's as noted in the EIS would seem to argue for a maximum Wilderness with no or little increase in grazing. Why should overgrazing be rewarded even if some of it ocurred in "historical" times?

What studies indicate that you will receive the greatest dollar output for grazing by investing a dollar in costs on these WSA's rather than on existing roaded allotments?

44.03

What studies do you cite for an increased supply of grazing land? Short run? Long run?

Private in-holdings along with State land should be considered for land exchange rather than purchase since money is unlikely to be available. Acquisition through exchange would reduce one of the reasons for declaring areas unsuitable for Wilderness.

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Little Jacks Creek

Shoofly Creek should remain as wilderness. The EIS states that it is a major recreational use area and it provides for a quarter of the existing bighorn habitat. Yet, nonsuitable areas are to be managed for grazing despite the incompatibility with bighorn sheep as pointed out in the EIS. Further, Appendix A says "any reduction in the availibility of habitat for the Little Jacks Creek herd could result in the potential loss of the entire population." Cultural resources would be better protected as Wilderness as noted in the EIS.

44.04

Upper Deep Creek

The entire area should be included in the Wilderness proposal due to the proximity of the Owyhee River WSA's.

Pole Creek

Wilderness protection is needed for cultural sites from the insatiable demands of cattle grazing.

Sheep Creek East

The area should remain as wilderness. Since Sheep Creek is worthy of preservation, it is ludicrous to leave out the East area of an ecosystem.

When one compares the cummulative impacts (p.35), it is clear that Alternative I-All Wilderness is superior to the proposed action in terms of wilderness, recreation, wildlife, fisheries, soils, cultural resources, visual resources and economics (benefits minus cost).

Only in the potential for grazing a few extra cattle is the proposed action rate marginally higher. One would be hard pressed to show that our nation would suffer serious nutritional problems now or in the future if we are unable to add cows to the existing WSA's. Rather, there is potential damage to wildlife, cultural and grasslands resources for present and future generations. If Jacks Creek is one of the few ungrazed or lightly grazed high plateau areas in the state, then the potential for destroying genetic diversity is very great. Future generations benefit from the greatest diversity possible and a maximum wilderness system will do that.

Sincerely,

Pete Wyman

Tenneco Minerals
A Tenneco Company

3600 Union Boulevard
P.O. Box 277
Lakewood, Colorado 80227
(303) 987-1200

46

October 30, 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3948 Develpment Avenue
Boise, Idaho 83705

RE: Comments conerning mineral potential on the seven Wilderness Study Areas in southwestern Idaho and covered by the Jacks Creek Wilderness EIS.

Dear Sirs:

We at Tenneco Minerals support the BLM in its efforts to formulate resource management plans for the land under its jurisdiction, and we appreciate the opportunity to make comments that may be of use in formulating those plans.

We have reviewed the BLM's draft Environmental Impact Statement and the GEM reports for the following Wilderness Study Areas in southwestern Idaho:

Little Jacks Creek	Sheep Creek West
Duncan Creek	Sheep Creek East
Big Jacks Creek	Upper Deep Creek
Pole Creek	

46.01 Based on our experience in mineral resource evaluation, we are concerned about the lack of detailed geologic data available for the areas in question. As pointed out in the GEM reports, there is a serious lack of published geologic information, which of course results in very low confidence in any resource management decisions based on this limited information. Our review of the available geologic data coupled with our knowledge of similar geologic environments elsewhere in the western United States suggests to us that potential for mineral resources does exist in the Wilderness Study Areas. Therefore we must support Alternative #2 (No Wilderness/No Action) at this time. We simply find that the lack of detailed geologic data for areas that appear to be similar to highly mineralized terrains elsewhere, prevents us from passing confident judgment until more field data is collected. Some of our specific concerns for the areas in question are covered later in this letter. We support a multiple-use plan that allows mineral resource development until detailed geological field research finds no potential for mineral resources. It is unfortunate that the detailed field studies by the U.S. Bureau of Mines and the U.S. Geological Survey cannot come at this early stage in the resource management planning instead of later, as currently scheduled. Accurate mineral potential evaluations can only confidently be made based on the review and interpretations of this detailed field data.

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We understand and appreciate the need to establish new wilderness areas in the U.S. and support the BLM and Congress in their efforts to do so. Indeed it appears to us that the seven Wilderness Study Areas in question will make excellent Wilderness Areas, if found unfavorable for mineral resources. However, our review of the geology suggests that mineral resources may be currently unrecognized because of the lack of detailed geologic field studies in the area. We base this on the following observations:

1. The similarity of rocks in the WSAs to rocks which host known mineral deposits elsewhere. The GEM reports show favorable Tertiary volcanics in some, but perhaps not all of the WSAs. These rocks include the Challis Volcanics which are known to host numerous mineral deposits in southcentral Idaho.

2. The existence of Tertiary silicic welded tuffs in some, but perhaps not all of the WSAs suggests the presence of currently unrecognized caldera environments. This brings to mind the thousands of mineral deposits associated with calderas in Nevada, Colorado, New Mexico, Texas, Arizona, and even elsewhere in Idaho. The relationship between calderas and ore deposits has only been recognized in the last ten years. In fact, the recognition of calderas is also a new phenomenon and much of the U.S. has yet to be inspected in detail. In the past six years alone, the U.S. Geological Survey has identified numerous previously unrecognized calderas, several with significant mineral resources, in southeast Oregon and southcentral Idaho, both immediately adjacent to the southwest Idaho area in question. The published literature on the association between calderas and mineral resources is truly vast, but the reader is directed to the following general references in order to grasp the significance of this recently recognized association:

Rytuba, J.J., 1981, Relation of calderas to ore deposits in the western United States; Ariz. Geol. Soc. Digest, Vol. 14.

McKee, E.H., 1979, Ash-flow sheets and calderas: Their genetic relationship to ore deposits in Nevada; Geol. Soc. Am., Special Paper 180.

Steven, T.A. et. al., 1974, Relation of mineralization to calderas in the San Juan Volcanic Field, southwestern Colorado; U.S.G.S. Jour. Research, Vol. 2, No. 4.

Elston, W.E.,1978, Mid-Tertiary cauldrons and their relationship to mineral resources, southwestern New Mexico: A brief review; New Mexico Geol. Soc., Special Paper No. 7.

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McAnulty, N., 1976, Resurgent cauldrons and assocated mineralization, Trans-Pecos, Texas; New Mexico Geol. Soc., Special Paper No. 6.

References covering the U.S.G.S.'s recent identification of calderas in nearby areas would include Circular 838 and the numerous reports on the Challis 2° sheet project.

3. Numerous small and several large mineral deposits occur near the WSAs. These include McDermitt, Delamar, Silver City, Mountain City, and Jarbridge. Do the host rocks for these deposits occur on the WSAs and are similar deposits likely?

46.02 We feel that these concerns should be addressed before the areas in question are designated proposed Wilderness Areas, not afterwards. Until such time that these concerns are addressed by detailed geological field studies, we can only support a management plan that does not eliminate mineral resource development.

Thank you for the opportunity to present our comments.

Sincerely,

TENNECO MINERALS COMPANY

Ed Speer

Ed Speer
Senior Exploration Geologist

ES/rf

William H. Mullins
Outdoor Photography

Nature, Wildlife, Wilderness Sports

2254 Independence Drive
Boise Idaho 83706
(208) 344-6231

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October 30, 1984

Martin J. Zimmer, District Manager
Bureau of Land Management, Boise District
3948 Development Avenue
Boise, Idaho 83705

Re: Jacks Creek Wilderness EIS

Dear Joe:

I am writing to express my support for Alternative #1, the All Wilderness Alternative, with one exception; I do not believe the proposed Jacks Creek pipeline should be built. While there are several reasons for my support of this alternative, I will only address one in this letter. As a wildlife biologist, I feel the protection of bighorn sheep habitat is of paramount importance.

The bighorn is a very fragile and sensitive species. Highly susceptible to disease and harassment, they virtually need all the help they can get. I feel the single greatest potential threat to sheep in the Owyhees is disease introduced by livestock. Direct competition for forage is also a potential threat.

47.01 For example, bighorn sheep are very susceptible to the disease known as bluetongue. This disease is carried by cattle and transmitted by the insect vector Culicoides variipennis, which in turn thrives in still water, such as livestock watering holes. This disease has the potential to wipe out the tremendous investment made by your agency and the Idaho Department of Fish and Game in reestablishing bighorn sheep in the Owyhees. Such die offs have already occurred in Lava Beds National Monument, California. This is the main reason I support maximum wilderness protection for all bighorn sheep habitat, and oppose the construction of the Jacks Creek pipeline.

I also feel that wilderness designation would protect species such as mule deer, pronghorn, and red-band trout, and would help create a balance in the overall management of public lands within Owyhee County.

I appreciate the opportunity to comment on the DEIS.

Sincerely,

Bill

William H. Mullins

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
4620 Overland Road, Room 209
Boise, Idaho 83705

DATE: October 30, 1984

TO: District Manager, BLM, Boise District Office, Boise
(Attn: Ted Milesnick)

FROM: Field Supervisor, FWS, Ecological Services, Boise

SUBJECT: Boise District BLM 1006.01 Jacks Creek Wilderness (EIS)

The Fish and Wildlife Service (FWS) strongly supports the action proposed by the Bureau of Land Management (BLM) for the Seven Wilderness Study Areas (WSA) in Owyhee County. The BLM proposal appears to balance the protection of valuable public resources with the existing use of the land by private individuals (mainly cattle grazing allotments). The proposal augments the local economy by expanding and improving grazing values in the area while simultaneously preventing habitat degradation for valuable wildlife species.

49.01 Of the six designated major vegetation types on the WSA's, riparian habitat occurring adjacent to the perennial streams and low-lying areas of water accumulation, is categorized as Resource Category 2 under the FWS Mitigation Policy (CFR, Vol. 46, No. 15, January 1981). Resource Category 2 includes habitat which is of high value and relatively scarce, and the mitigation goal is no net loss of habitat value. Since less than .6 percent of Idaho remains as riparian habitat (B. Boccard, 1980 Important Fish and Wildlife Habitats of Idaho, USFWS, 165 pp.), the FWS recommends its protection.

Endangered species concerns involve two candidate plant species, Lepidium davisii and Astragalus yoder - williamsii, as referenced in a letter from the FWS on August 8, 1984. Thank you for the opportunity to comment on this important resource issue.

John P. Wolflin

cc: FWS, HR-EC, Washington, D.C.
FWS, AHR, Portland

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SNAKE RIVER HYDRO POWER

IDAHO POWER COMPANY

BOX 70 • BOISE, IDAHO 83707

October 31, 1984

Mr. Martin Zimmer
District Manager
Boise District Office
Bureau of Land Management
3948 Development Avenue
Boise, ID 83705

Dear Mr. Zimmer:

Idaho Power Company (Company) offers the following comments on the Draft Jacks Creek Wilderness Environmental Impact Statement, prepared by the Bureau of Land Management, Boise District, Idaho, 1984.

49.01 The Company strongly opposes the management recommendations for the Northwest Gas Pipeline utility corridor included under the proposed action and all alternative actions in the Draft EIS. Limiting this corridor to Underground use only would effectively prohibit its use for construction of needed electrical transmission facilities in the future.

We are greatly concerned with the effects these recommendations will have on the existing utility corridor, which is otherwise suitable for the transmission of electrical energy necessary to meet the needs of potentially millions of the region's residents.

Idaho Power, and others in the utility industry, have provided on several occasions, information regarding the importance of a viable electrical transmission corridor through the Jacks Creek study area. The Bureau of Land Management appears to have largely ignored this input. Specifically:

1. Provision for a useable electrical transmission corridor was not considered a major land use issue, when in fact it is. At least two published documents from the utility industry and three letters from Idaho Power Company have been provided to the BLM on this subject over the past four years. One of these, the Western Regional Corridor Study, developed by utilities in cooperation with state and federal agencies, provides information regarding existing and future transportation and utility corridors for use in the planning process and wilderness considerations. Additionally, several meetings have been held with the BLM concerning this corridor. Input also has been provided to adjacent BLM districts in Nevada concerning the importance of the corridor for transmission of electrical energy.

2. Limiting the Northwest Pipeline corridor to underground use is not acceptable. The viability of the corridor for electrical purposes lies in the ability to transport large quantities of electrical energy within the region. It is likely that future needs for transmission of energy will require at least one high voltage transmission line in the study area. Further, the underground constraint placed on the existing corridor would result in increased economic costs due to construction of a transmission line in an alternate, and probably less desirable location, since construction of underground high voltage lines over long distances is simply not practicable. Thus, the DEIS proposed action effectively eliminates use of the existing corridor for the transmission of electric energy.

3. The limitation of the corridor width to 1/4 mile, presumably, 1/8 mile on either side of the pipeline, is not sufficient. Designated corridors should be a minimum of three (3) miles in width to allow flexibility to minimize visual impacts and avoid other site specific concerns, and provide sufficient room to accommodate future facilities.

4. The Draft Environmental Impact Statement does not address the consequence of the defacto elimination of a viable electrical transmission corridor on energy production and transmission throughout the Western United States. Further, it is not clear that allowing above ground transmission lines within the corridor would result in unacceptable negative environmental impacts on existing natural resources. Designation of a corridor is not authorization for a right-of-way or construction. It is simply a planning tool which can be used by government and industry for the reasonable and timely utilization of the nation's resources.

49.02

We believe the designation of Big Jacks Creek and Little Jacks Creek WSA's as wilderness is designed primarily as a management tool for the protection of California Big Horn Sheep which have become established in the areas since their introduction in the late 1950s. Such protection is the single consistent theme throughout the DEIS. Use of wilderness designation as an environmental management tool is inconsistent with policy, direction, procedure and guidance for conducting wilderness inventory on the public lands. Quoting from the "Wilderness Inventory Handbook" (USDI-BLM, 1978)

49.03

> ..."Wilderness protection is but one of many methods available to BLM to protect and manage environmental values. Wilderness designation will not be used as a substitute for these other management methods.
>
> Under FLPMA the Bureau will identify Areas of Critical Environmental Concern and provide for their protection. This includes management of cultural and historic resources, endangered species; critical wildlife habitat, environmental education areas, outstanding research and natural areas and the like.
>
> Information regarding critical environmental values which does not relate specifically to wilderness characteristic

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49.03

> criteria may be obtained during the wilderness inventory. This information is important and will be used in making management decisions to provide the most appropriate protection for the critical environmental resources identified. This will be done as part of the BLM's ongoing land use planning and multiple resource management program." (emphasis added)

Clearly, it is the intent of the Department of Interior that other appropriate management options be used in lieu of wilderness designation for the protection of environmental resources.

Idaho Power is firmly committed to the principles of sound management and multiple use of public lands. It also is committed legally and morally to provide reliable electrical service to the many residential, farm and industrial customers it serves in southern Idaho, eastern Oregon and northern Nevada. Reliable electrical service is essential for our area's future economic growth.

The company plans to take the steps necessary to insure its concerns are not ignored.

Sincerely,

David W. Meyers
Manager
Environmental Affairs

DWM:lf

IDAHO SPORTSMEN'S COALITION

P.O. Box 4716 • Boise, Idaho 83711-4716
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SECRETARY/TREASURER: Bill Bach SPOKESMEN: Ron Mitchell & Steve Hall

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Jack Trueblood, Press Agent
Jaqueline Trueblood
Gail Ward
Marcia Wicklow-Howard

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Mr. Joe Zimmer, Manager
Boise District BLM
3948 Development Ave.
Boise, ID 83705

October 29, 1984

Dear Mr. Zimmer:

Please enter this letter as testimony on the draft EIS for the proposed Jacks Creek Wilderness. It is offered on behalf of myself personally and as an officer of the Idaho Sportsmen's Coalition, an organization dedicated to the preservation and improvement of wildlife habitat.

For the benefit of wildlife, and improvement of the range, it is very important that you adopt the proposed boundaries offered by the Committee for Idaho's High Desert. Bruce Boccard, whom you no doubt know, helped develop these boundaries. Far from being a radical in any sense of the word, I know Bruce to be a thorough researcher and technician, a scientist well-qualified to propose boundaries based on his actual research in the desert ecology of the area. Since I have considerable field experience in the Pole Creek-Deep Creek areas, Bruce asked me to comment at length on those areas. Please do not interpret this as a lack of support for the other areas under consideration.

The entire Shoofly Creek drainage should be included with the Little Jack's Creek wilderness proposal, as should any other areas of existing or potential bighorn sheep range.

All-wilderness boundaries should be adopted for the Upper Deep Creek area. This would give protection to critically important mule deer winter range in the Deep Creek drainage.

The entire Pole Creek WSA should be included in wilderness. Critical winter range, as mentioned above, would be protected under this proposal.

I support the BLM proposal to add to the southern edge of the Little Jack's Creek WSA.

The Rough Mountain area, which was not studied as a WSA, should be brought into consideration.

Stockmen should be aware of the statement in the draft EIS which allows them to continue access by vehicle for maintenance of existing developments. They should also be aware of the statement on page 20 that no curtailment of grazing priveleges would occur under wilderness, and also that limited access would be allowed on some routes to accomodate existing livestock operations. State and private property owners will be allowed to continue access route use to their property. All of these provisions eliminate the arguments I have most commonly heard against wilderness by ranchers, and seem to make it an ideal type of management for them, since it would restrict ORV use by the general public but allow stockmen to continue much as they are.

50.01 On page 24, under Pole Creek, the statement is made that under the proposed alternative cattle would be excluded from canyon bottoms if other water is available. This would involve fencing at great expense to taxpayers if possible to undertake at all, and also the development of new watering sites. I suspect that the scarcity of other water would make this suggestion impossible.

50.02 Also in the Pole Creek area, a spraying and seeding project is proposed on Avery table. This is yet another direct subsidy to the cattle industry at taxpayer expense, and should not occur. The statement that it would be done to "enhance sage grouse habitat" is ludicrous in view of several facts. First, the sagebrush that would be killed is a required part of sage grouse habitat. Second, if there were no cattle these projects would not be proposed. Third, sage grouse are not greatly attracted to seeding areas. I have hunted them in Owyhee County for 17 years, and have never found large concentrations of them in seeded areas, but rather in big and/or low sagebrush. In addition, the

50.03 dominance of sagebrush in the area is a direct result of overuse by domestic livestock operators. Increased use, such as the 47% increase proposed, will simply exacerbate the problem. The way to improve that range, and increase the numbers of wildlife, is to cut back on grazing rather than increase it.

As stated, I have hunted grouse in the Pole Creek area for years, and have hunted deer in that and the Upper Deep Creek area for fifteen years. In addition, in 1973 I spent the entire summer in the Pole Creek area. Water

50.04 in the area is very scarce, and cattle are drawn to locations with water as a means of survival. As a result, riparian areas suffer heavy trampling. These riparian zones are the key to a healthy fishery, and the assertion made in the EIS that fisheries would improve while grazing increases is absurd.

50.05 The proposed firewood cutting in Hawes Pasture is a joke. There isn't enough juniper there to support such a project, the road is very primitive, and access to this area through the Avery ranch would be dependant on crossing private property. For years this ranch has been owned or operated by the Black family, and my acquaintance with them

50.05 has given me some insight to the frustration experienced by landowners over gates left open, trash scattered, livestock harrassed, and roadways damaged. Additionally, the area is too far over too rough of roads for economical firewood cutting.

50.06 The statement that there are no roads within the Upper Deep Creek area is innaccurate. There is a primitive track going wouth from Sunshine Valley for a half mile or so, and the roads to developed springs at Jackass and Little Jackass may fall within the area. Dilapidated fencing from old livestock operations is also in this area.

50.07 In the Pole Creek area, there are more vehicle ways than mentioned in the draft. One goes from the spring in Wagon Box Basin in a northerly direction almost to the edge of the Camas Creek canyon, another goes west toward Pole Creek, and another goes northeast from the private land at Indian Crossing (southwest corner of the WSA) to a small parcel of private land in section five of township 11 south, range two west.

50.08 In the wildlife section of the EIS, on page 62, mountain quail are mentioned. The EIS fails to include California Valley Quail and chukar partridge in the Upper Deep Creek area. I have found both of these game birds along the Deep Creek canyon and in the vicinity of the confluence of Pole and Deep creeks.

50.09 In the area south of Sunshine Valley I have watched mule deer reaching to feed on juniper branchesduring October. Though this species of browse is used by mule deer, it is much less palatable and less preferred than bitterbrush. Knowing this, I began to pay more attention to the condition of preferred browse species and found that most of the more accessible shrubs were severely browsed. Research in "The Deer of North America" (Wildlife Management Institute 1956) backed up my theory that juniper is not preferred by mule deer in autumn, and the report "Physical Condition and Range Relationships of the Owyhee Deer Herd" (Idaho Fish and Game Department 1973) concluded that the decline in the Owyhee deer herd is a direct result of the condition of the range, which is termed "relatively poor" insummer range areas and "deteriorated" in winter areas. The report goes on to state that this range condition is a result of overuse by domestic livestock. This is in direct conflict with the statement in the DEIS that most mule deer habitat is in fair or good ecological condition. In light of this, an increase of any amount in the use of range by livestock is unacceptable.

50.10 In the "vegetation" section of the environmental consequences part of the EIS the existance of small aspen groves in the Upper Deep Creek and Pole Creek areas is overlooked. These are located (some of them) on Slack Creek and Sunshine Valley Creek south of Sunshine Valley, on Jackass and Little Jackass Creeks and on a branch of Pole Creek in the west part of Wagon Box Basin. Also present in many locations are

choke cherry and currant.

50.11 Archaeoligical sites, presently being damaged by livestock trampling, would suffer drastically under the proposed increase in allowable AUMs. Fencing to protect these sites would be very expensive and in many cases unreasonable because it would prevent livestock from getting to water. The best solution for these areas is to establish wilderness boundaries and reduce rather than increase livestock use. The EIS states that scientific research would be limited or stopped under wilderness designation, but neglected to include a statement from the state and federal agencies who have studied in the area which might better delineate the need for further study. The use of the archeological issue to downplay the benefits of wilderness is, in my opinion, not one of the goals of such a document.

In conclusion, I must say that I am surprised at the number of innaccuracies in just the physical description of the areas with which I am most familiar. This leads me to believe that either the possibility of a wilderness being considered seriously in the area was given no credibility, there was an insufficient amount of on-the-ground research conducted, or the document was deliberately skewed to downplay the viability of wilderness. This line of thought brings one closer in line with the allegations that the BLM is more interested with subsidizing and promoting the livestock industry at the expense of taxpayers than in promoting the ecological good health of the Owyhee high desert.

Though my evaluation may seem harsh toward livestock operators, I wish to assure you that I am acquainted with many ranchers in Owyhee County, and know the majority of them to be honorable, hard-working people faced with a staggering economic burden. It is only natural for any person in such a situation to take advantage of any break he might get. These "breaks" are formulated and enacted by the policies of the Bureau, an agency with the experience and foresight to realize that further development and use is often the surest and fastest way to irretrievable resource depletion. Wilderness in many cases would stabilize the range resources, lengthening and enhancing the lifespan of cattle production on public lands. the EIS and other documents should point out long-term benefits to ranchers of range stability attainable under wilderness designation.

Though some of my own enjoyment of Owyhee County would be less mobile than it has been in the past, I must at this point support all of the CHID proposed boundaries for wilderness in Owyhee County because doing so seems the only way to keep these lands at least in the state of quality in which I have enjoyed them. Any further deterioration is unnacceptable.

As a final point, I would like to comment on the actions of Gene Davis, a member of the Boise District Advisory Board. Each time I have recently made a statement in support

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of BLM wilderness, Mr. Davis (and lately his son, also) has been quick to point out that my father, Ted Trueblood, once wrote a letter in which he said he would not support a wilderness in Owyhee County. This summer, at a public hearing, I admitted to the Board that this quote by Mr. Davis was true, but went on to say that my father would not have held the same opinion at the present date. I am sure I know my father's method of reasoning much better than Mr. Davis, and can assure you that he would have felt differently in light of the physical condition and state of management in Owyhee County today. He was a man who was not above formulating new opinions based on his own thorough investigations. In addition, though I am my father's son, I am not bound by his every word, and I wish, in short, that Mr. Davis would just knock it off. My father has been dead for more than two years, and if there is anyone who has a right to make interpretations of his words or philosophy, it is me, not his critics and opponents.

Thank you,

Jack Trueblood, Vice President
Idaho Sportsmen's Coalition

COMMITTEE FOR IDAHO'S
HIGH DESERT
P.O. BOX 463 BOISE, IDAHO 83701

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November 1, 1984

Mr. Joe Zimmer,
District Manager
Boise District Office
Bureau of Land Management
3948 Development Avenue
Boise, Idaho 93705

Dear Joe:

The Committee for Idaho's High Desert is a statewide, grassroots orginazation dedicated to protecting Idaho's outstanding desert lands, waters, and resources. Members of the Committee make extensive use of Idaho's high desert - including the lands being considered in the Jacks Creek Wilderness EIS - for hiking, hunting, fishing, horseback riding, photography, scientific study, and other uses. On behalf of the Committee and its members statewide, I would like to submit the following comments on the Draft Jacks Creek Wilderness EIS.

GENERAL COMMENTS

The Jacks Creek Wilderness EIS covers some of the most spectacular wilderness in Idaho. The plateaus and canyons of Big and Little Jacks Creek, Duncan Creek, Deep Creek, and Sheep Creek offer outstanding scenery and recreation, high wildlife values, and other valuable resources. The Jacks Creek plateau contains one of Idaho's most precious natural resources - near-pristine sagebrush grasslands, the last remnants of what the high desert was like before the coming of white man. These lush grasslands and deep canyons are a haven for wildlife, including antelope, mule deer, bobcat, and the rare California bighorn sheep.

We are pleased that the BLM is now studying the Jacks Creek roadless areas for possible wilderness protection. We believe that wilderness designation is the only long-term means of protecting the recreation, wildlife, and other values of the area, and keeping the land much the way it is today.

We would like to compliment you for a well-written and easily understandable DEIS. The document has good graphics and maps (and good photos, although the reproduction could have been better). We believe your staff is to be commended for a high-quality document. We have serious concerns, however, about the Wilderness recommendations, and about the analyses given for

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specific wilderness resources (notably economics and wildlife). These concerns will be discussed in more detail below.

SPECIFIC COMMENTS

1) Alternatives Considered

We believe the BLM has presented a reasonable range of alternatives, one which meets the requirements of the California vs. Block decision. If anything, there may be too many alternatives which are basically similar (for example, substituting Sheep Creek West for Duncan Creek). We think that conceptually your agency did a good job in arraying alternatives, and are pleased you have included the All-Manageable and Minimum Resource Conflict alternatives.

62.01 Our major concern with the alternatives considered, and we believe a major flaw in the entire DEIS, is the lack of a detailed discussion and rationale for the development of the Preferred Alternative. The DEIS (page 20) simply states that the Preferred Alternative was developed by an interdisciplinary team which considered all potential resource values on these public lands, and then cites three factors affecting this recommendation. Nowhere in the text is there a description of why the specific boundary recommendations where made.

62.02 A case in point, and one of the major shortcomings in the entire DEIS, is the exclusion of the Shoofly Creek drainage from the Little Jacks Creek wilderness recommendation. The Shoofly Creek drainage, covering 11,600 acres, comprises 24% of the California bighorn sheep habitat for the Jacks Creek herd. The DEIS states on page 178 that "any reduction in the availability of habitat for the Little Jacks Creek herd could result in potential loss of the entire population", a sobering point since the construction of the Jacks Creek pipeline could well reduce the current population to close to the minimum viable population of the species (see final Bruneau-Kuna EIS). The DEIS further states (page 91) that recreational use of Shoofly Creek is expected to increase dramatically, and (page 94) that wilderness offers the strongest -indeed, the only guaranteed - protection for bighorn sheep through allowing a recreation management plan to minimize visitor impacts on the sheep. We further estimate, based on Table 15 on page 107, that the Shoofly Creek drainage will receive a 30% increase in livestock grazing, which will further stress the bighorn herd through social avoidance, direct competition with livestock for food, and indirect competition with accompanying decreased reproductive viability. These facts lead the reader to the logical conclusion that the Shoofly Creek drainage is an integral part of the Jacks Creek wilderness, a vital component in assuring the continued survival of the wilderness's premier species. Yet not only is the area not included in the wilderness proposal, there is no explanation as to why it was deleted, nor a discussion of why the All-Manageable Alternative boundaries were not adopted for Little Jacks Creek.

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62.03 Similar problems exist for the plateaus of Upper Deep Creek, which were excluded without a clear reason. At a minimum, the FEIS should include an alternative which includes Shoofly Creek in wilderness while excluding Wickney Tree dome, and which includes all the Upper Deep Creek. In all cases, the rationale for excluding areas from the wilderness recommendation needs to be clearly stated in the FEIS.

62.04 Given the critical nature of the Shoofly Creek drainage to the Jacks Creek bighorn herd and the absence of a rationale for excluding the area, we would like to suggest the following boundary modifications for the All-Manageable Alternative. We propose that you include the State Section in T 8 S, R 2 E, S 16 (the State of Idaho has a policy to exchange lands within designated Wilderness as quickly as can be worked out, and inclusion of this area would enhance protection of bighorn range as well as guaranteeing that the State land would not be sold and developed at a future date). We also request that you include all of the following in this proposal: T 8 S, R 2 E, Sections 10, 15, all BLM land in 17, and Section 8, SE SE 1/4, NE SE 1/4, and SE NE 1/4. We also propose that T 9 S, R 3 E, Section 16 be included for the same reasons.

62.05 What specific resource conflicts still exist in the Minimum Resource Conflict Alternative? Is it possible to alter this alternative so that it can once again be called the No Resource Conflict Alternative?

2. Wildlife and Ecology

62.06 The DEIS fails to discuss the impacts of wilderness designation, range developments and increased livestock grazing on the ecology of high desert grasslands within the Jacks Creek area. Despite our repeated requests, BLM has still not done a scientific analysis of these rare grasslands, only a range potential analysis oriented towards livestock. The BLM's "ecological condition" classification scheme is a tool for livestock management, and does not adequately quantify or characterize the native environment of the high desert. It fails to take into account several of the major indicators of a healthy hgih desert environment - for example, the percent of moss cover on the desert floor. It does not look at wildlife species composition or abundance, nor does it examine the presence and populations of obligatory wildlife species.

62.07 This lack of a critical, detailed discussion of the impacts of increased livestock grazing on the ecology of the near-pristine grasslands of the Jacks Creek WSAs is a major shortcoming of the DEIS. In addition to addressing the points above, the FEIS needs to identify obligatory species and discuss the impacts of increased livestock grazing on small mammal populations and other indicators of an undisturbed environment.

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Because the near-pristine grasslands of the Jacks Creek

study area are extremely rare and valuable, we believe that a detailed, scientific study of these areas must be conducted before any grazing increases take place. We believe such a study
2.08 ought to be developed by the scientific community, including experts such as Dr. Minura Hironaka of the University of Idaho, Dr. Yensen of the College of Idaho, Jay and Lynda Smithman, Dr. Charles Wellner, and others. (Members of the Committee for Idaho's High Desert would be happy to help in data collection).

We further propose a study to undertake a comparison of the impacts of fire with those of grazing on a native high desert ecosystem. Although the effects of fire and grazing may be similar on range condition, we cannot accept the assertion that they have similar impacts on the native ecosystem. As pointed out above, Yensen (1980) states that moss was an important component of the original high desert groundcover; she further
2.09 points out that this component was eliminated through grazing by domestic livestock. Livestock grazing produces substantial soil compaction and disturbance, and a selective pressure on grasses and forbs which did not take place prior to grazing. These are important aspects of the ecology of the Jacks Creek plateau, but ones which are not considered in the BLM range (ecological condition class) analysis of these grasslands. We propose that two moderate-sized (100 - 200 acre) adjacent pastures be established, one grazed and one burned. These should be studied in detail to determine scientifically if burning and grazing are similar in their effects on the natural ecosystem, before grazing increases are allowed on the near-pristine grasslands.

The DEIS states repeatedly (pages 3, 6, 8, 10, 94, 95, 117, 126) that wildlife would generally benefit from proposed seedings and pipelines. This statement contradicts most of the available literature on native high desert wildlife species (see attached reference sheet, particularly Braun et al, 1976; Markham, 1978; Reynolds, 1978; Reynolds and Trost, 1979; and Yensen, 1980).
2.10 While certain species (particularly large herbivores) may benefit from increased water in previously dry areas if the water is available from spring through fall, the effect of seeding exotic species, removing the brush which many of these same animals depend on during the critical winter months, and the cropping of forage previously available to wildlife by cattle can have a severe impact on native wildlife. Small mammals and nongame birds are particularly susceptible. This statement needs to be thoroughly explained in the FEIS, detailing both those species which benefit and those which are harmed by such projects. Obviously, the best thing for wildlife would be decreased livestock grazing and the return to a natural fire regime (impossible in most places now because there simply isn't enough forage left after grazing to carry a fire).

On page 28 of the DEIS the statement is made that range
2.11 development projects could be allowed in bighorn sheep range if "adverse impacts to bighorn sheep could be avoided." How does BLM define "avoidance of adverse impacts"? What threshold levels has BLM established for bighorn population stress or loss? How

does BLM intend to monitor the populations to ensure adverse
62.11 impacts do not occur? Since this was never defined in the final Bruneau-Kuna Grazing EIS and is a key concern to a major wilderness resource in the Jacks Creek area, these points should be addressed in the FEIS.

Another concern we have regarding wildlife is the bias toward identifying recreation as a major threat while downplaying to an unreasonable extent the threat posed by dramatically increased cattle grazing. The discussion on page 127 is a case in point. We have no doubts that recreation us is a threat to bighorn sheep. These sensitive animals have a well-documented
62.12 social avoidance pattern that makes them abandon optimal habitat for less favorable areas if the preferred habitat is being visited by humans. Bighorn sheep also exhibit the same social avoidance toward cattle, and moreover, compete directly with cattle for food. The Wildlife Impacts discussion on page 127 virtually ignores the probable impacts of increased cattle grazing on the Jacks Creek bighorn herd. What will the impact of increased livestock grazing be on the Jacks Creek herd, particularly in the area not impacted by the Jacks Creek pipeline? What is the overall % grazing increase inside bighorn sheep habitat in both Big and Little Jacks Creeks?

The Wildlife Impacts discussion for the Proposed Action
62.13 (page 95) states that in Little Jacks Creek, a proposed spray and seeding project would harm wildlife by removing thermal cover and a winter food source, but improve it by increasing forage during early spring. What is the limiting factor for wildlife in this area? Is winter food and cover more limited than early spring forage (which certainly is widespread over the entire area, whereas winter cover is confined to relatively limited areas)? What proportion of the mule deer, antelope, and sage grouse winter range for eastern Owyhee County is found within the WSAs? What percent grazing increase is anticipated for these areas?

This leads us to one of our major difficulties with the entire Jacks Creek Wilderness DEIS - the proposition that major grazing increases can take place within the WSAs without any significant impact on the natural environment. The DEIS indicates that grazing pressure on near-pristine grasslands will increase nearly 600% - a huge increase. Substantial grazing increases are proposed for all WSAs - 54% for Little Jacks Creek,
2.14 36% for Big Jacks Creek, 47% for Pole Creek, and an astounding 75% for Sheep Creek East and Upper Deep Creek. Most astonishing to us is that BLM claims these increases can take place with no significant adverse impacts on ecology, recreation, aesthetics and wildlife, and with no decrease in ecological condition. Given our extensive experience observing existing range condition and recent range developments, we find this assertion almost unbelieveable. Even recent projects, such as the stock-watering pipeline at the base of the Little Jacks Creek escarpment, have to our knowledge had virtually no positive impact on range condition in this area. A recent CIHD field trip here showed a landscape virtually devoid of forage, a pipeline which had the

lids removed from almost every water storage box, with dead mammals in each, and almost no wildlife. We simply have not seen examples to date where pipelines and major grazing increases have led to an improvement in ecological condition.

This is a critical point, because Congress has stated very clearly that the wilderness characteristics of Wilderness Study
62.15 Areas are to be maintained until Congress has an opportunity to determine the suitability of these areas for Wilderness designation (43 USC 1701, Section 603). As interpreted by BLM through the Interim Management Policy, this involves (1) preserving the wilderness characteristics of thew area; and (2) maintaining the relationships between the area's wilderness values and its values for other uses. Furthermore, the Interim Management Policy specifically states (page 8) that grazing is to continue in the same manner and degree as when the wilderness study was begun.

Based on these legal and policy mandates, we believe that the massive grazing increases proposed within the WSAs are clearly illegal so long as they are Wilderness Study Areas. A 75% increase in grazing certainly does not comply with the "same manner and degree" clause of the IMP. Second, we believe that before any grazing increases are allowed within WSAs, BLM must clearly demonstrate that such increases are not going to impair the native ecology or other irreplaceable wilderness values.

As indicated above, based on past experience in Owyhee County, we are very sceptical that even moderate grazing increases can take place without substantially impacting the wilderness characteristics of the WSAs. We would very much like to be proved wrong. However, we believe that legally and ecologically it would be a grave error to "practice" on the few remnants of high-quality grassland left in the WSAs. We propose, instead, that BLM set up a demonstration project outside the WSAs in a similar physical environemnt, then enact the range management practices proposed within the WSAs (similar stocking rates, turnout dates, etc.). After carefully monitoring the project for several years to determine if the management program is meeting its objectives (and after getting detailed information on the ecology of the remnant grasslands through the studies suggested above), if it is apparent that such a program will not adversely affect the natural environment, then it could be cautiously applied (with continued monitoring) to areas within the WSAs. We still believe that there ought to be significant areas left intact (particularly the ecologically priceless near-pristine grasslands) which should not have grazing increases: we also believe there are areas where moderate grazing increases could be allowed if it can be proven that these increases will not harm the ecology and other wilderness values of the area. We believe such proof is required before any grazing increases take place, not after.

3. Economics

The economics discussion in the DEIS is difficult to analyze and interpret, largely because the underlying assumptions and economic values are never explained. What is (page 12) the "local economy"? Why were Ada and Canyon Counties apparently excluded from the economic analysis, when most of the recreation use - and hence the economic benefits of recreation - will come from these counties? What were the per day dollar values attributed to recreation users? Hunters? Fishermen? Did these calculations use the figures developed by Dr. Nelson of the Idaho Department of Fish and Game, incorporating the most recent economic value for hunter and fisher days developed specifically for Idaho? How were recreation use figures developed (the figures for Little Jacks Creek, in particular, seem very low)? Did the income generated from cattle grazing in each alternative factor in the cost of range developments? The FEIS should clearly state the values and parameters used in the economic analysis.

The economics discussion on page 83 does not give a
62.16 summation figure for the value of grazing in the WSAs to the total economy of Owyhee County. According to our calculations (based on the figures and percentages given on page 83), the WSAs being considered contribute only 4/ths of 1% of the economy of Owyhee county. Is this assessment correct? If so, it would clearly demonstrate the miniscule impact of wilderness designation on the local economy. A similar analysis should be completed for employment.

The discussion on Non-market values (pages 83-84) is inadequate. The DEIS states elsewhere that bighorn sheep are one of the most sought-after wildlife species by recreationists, yet it fails to attribute any economic value to the Jacks Creek California bighorn herd. We ask that you examine and incorporate into the FEIS a recent study by John Loomis of the Western Energy and Land Use Team of the US Fish and Wildlife Service in Ft. Collins, Colorado. This study, (The Net Economic Value of Hunting Unique Species in Idaho: Bighorn Sheep, Mountain Goat, Moose and Antelope) was released in draft form in May 1984, and gives some economic values which would be very applicable to the Jacks Creek bighorn herd, and which could have a significant impact on assessment of the economic value of preserving the herd through wilderness designation.

A second study which we believe needs to be carefully examined by BLM is that completed by Phillip Myer of the U.S. Fish and Wildlife Service in Sacramento. He recently completed (1984) a "Fair Price" study on the economic value of remnant high-quality riparian habitat along the Sacramento River in California. In a situation very similar to that of Jacks Creek, he found that the remaining near-pristine riparian forest (which represents the last 2-3% of that habitat type) was given an economic value of $22,000/acre/year by area residents. Although the arguments presented in the Jacks Creek DEIS regarding non-

market studies raise some valid points, we are dealing with a unique and highly valuable resource - remnant high desert grasslands - and we believe that studies of non-market goods are not only vaulable, but necessary to a valid economic analysis of these WSAs.

4. Fisheries and Riparian Areas

62.17 We find the discussion of riparian areas and fisheries difficult to understand, probably because the DEIS does not contain a discussion of how riparian habitat quality was determined. We cannot understand, for example, why there is no excellent-quality riparian habitat in Little Jacks Creek after 20 years of gap-fencing. Is the fencing adequate, or is trespass grazing taking place? Why has Upper Deep Creek not shown any response? The FEIS needs to explain how riparian habitat quality was determined. Was it done on a site potential basis, or a comparison of all riparian areas in the Resource Area or District? If it was done on a District or RA-wide basis, there should be some indication in the FEIS of what the maximum potential is for areas such as Little Jacks Creek. If these areas have not responded due to trespass livestock use or similar management problem, that should be included as well.

5. Specific WSA Comments

Big Jacks Creek

Big Jacks Creek is a spectacular area, with outstanding recreational and ecological values. The scenery is superb, and the grasslands on the plateau west of Big Jacks Creek are nationally significant. The WSA is close to the metro Boise, and one of the most easily accessible WSAs in southern Idaho. We strongly support wilderness designation for the WSA.

62.18 The DEIS (pages 7, 28) makes reference to construction of a livestock trail across Big Jacks Creek if the area is not protected as wilderness. What would this trail be? Would it be mechanically constructed? How large would the viewshed of the trail be? Would driving livestock along it increase grazing within the riparian zone?

62.19 On page 103 (and in a number of other WSAs and instances as well) the DEIS states that a wilderness designation for the area would "prevent development of the the most effective AMP." Most effective for what? Why (specifically) would wilderness handicap development of an effective AMP? It appears that this is a bais towards a single-use of the public lands - that of livestock grazing. If wilderness designation would prevent development of an AMP which would maximize cattle production on the lands in question, that should be clearly stated. As it is now, the wording is ambiguous.

Little Jacks Creek

Like adjacent Big Jacks Creek, Little Jacks Creek is an ecological, recreational and scenic treasure. It is habitat for a number of sensitive wildlife species, contains spectacular canyons, near-pristine grasslands, and significant archaeological value. We whole-heartledly endorse widlerness protection for this outstanding area. We also have a number of specific points which we would like to see addressed in the Little Jacks Creek discussion; these are given below.

62.20 How were recreation user days determined?

62.21 Bobcat are not mentioned in your discussion on page 62, and yet they are considered a senstive species in Idaho and are found in this WSA. The wildlife discussion should include this species. River otter are in the same category, and should be mentioned in the FEIS.

62.22 What BLM's legal responsibilities to prevent the destruction of archaeological sites through construction of range developments or livestock trampling? Of particular concern to us are the Shoofly rock alignments. Have the areas of suitable quality in this WSA been nominated to be placed on the National Register? What is their status in this nomination process?

62.23 How does the density of cattle at Tigert Springs compare to those anticipated elsewhere in the Little Jacks Creek WSA under the grazing increases proposed in the DEIS?

As mentioned earlier, we find the ommission of the Shoofly Creek drainage completely contradictory to the information presented in the DEIS. This is a very valuable area, not only for wildlife but for recreation and watershed integrity as well. We urge you to include this area in the Proposed Action recommended in the FEIS.

Duncan Creek

Duncan Creek is an integral part of the Jacks Creek Wilderness complex. It has over 10 miles of scenic, meandering canyon, habitat for red-band trout, and a healthy mule deer population. We support your resommendation for a 9,400-acre wilderness, with the stipulation that the wilderness be managed as a pristine area.

Sheep Creek East

Sheep Creek East contains over four miles of spectacular gorge similar to Sheep Creek West. We support wilderness for this area, plus inclusion of some additional Intensive Inventory Area lands.

62.24 Page 25 of the DEIS states that there are "no site-specific management proposals for this area." Why, given the absence of resource conflicts, was this area recommended non-suitable?

62.25 The description of the WSA indicates that it has over 4 miles of scenic, 600-foot deep meandering canyon. How do you account for the lack of solitude in the WSA?

62.26 The description of the WSA also says it currently has low recreational use, with little increase expected even under wilderness designation. Why do you believe that visitor use restrictions would be required for this area if it is designated as Wilderness?

Sheep Creek West

Sheep Creek West is a very diverse area, supporting six native plant communities. The plateau is sharply broken by the 800-foot gorge of Sheep Creek Canyon. A series of cliffs, rock outcrops and talus slopes lead to some of the best riparian habitat in the area. We support wilderness designation for this area, with some additions (see following section).

Pole Creek

Pole Creek is a diverse area of shallow basins, rugged canyons, juniper-covered hills and basalt tablelands. It is an area rich in archaeological sites. We urge you to recommend the WSA for wilderness, and acquire conservation easements for the scattered private inholdings so that they cannot be developed in ways incompatible with wilderness. Pole Creek is part of the conservationist's Owyhee Canyonlnads Wilderness Proposal, and has been incorporated into our comments on that DEIS. We would like to express support for the comments on this area submitted by Ellen Trueblood and Jack Trueblood.

Upper Deep Creek

62.27 Upper Deep Creek is another integral part of our Owyhee Canyonlands Proposal, an area of sagebrush plateau, rugged canyon, and juniper woodland. The DEIS does not explain how the boundary configuration for the Proposed Action was established, nor what resource conflicts resulted in the strange lolli-pop shape. This information should be included in the FEIS. Again, we would like to reference our earlier comments on the Owyhee Canyonlands and the letters by Ellen and Jack Trueblood.

6. Additional Detailed Comments

Page 7 - why would a dramatic increase in backcountry use

62.28 result in increased vandalism of archaeological sites? Has this occurred in other designated wilderness areas in the past? How does this increased vandalism compare with the increased vandalism which would occur if the area were not designated wilderness?

Page 24 - if any development is undertaken in the right-of-way between the Big and Little Jacks Creek WSAs by El Paso or any other company, we believe the EA should stipulate that only native species found in the immediate area be included in the reseeding mixture.

62.29 Page 31 - in the discussion of Alternative 2, the last sentence should read "Under this alternative, consumptive resource use and development activities would be maximized." We believe that wilderness alternatives maximize resource use as well.

Page 60 - the map of bighorn sheep habitat should use the term "occupied" bighorn sheep habitat, instead of "existing".

Pages 69 - 70 - maps are good quality, but confusing because the symbols change between them too much. A pattern which identifies one type of plant community on Pole Creek may identify a completely different type of community for Little Jacks Creek. This makes it hard for the reader to understand.

The CIHD Wilderness Proposal

62.30 After examining the wilderness characteristics and resource values of the Jacks Creek roadless areas, we are proposing the 218,400 acres be protected as wilderness. This corresponds roughly with the All-Wilderness alternative, with the exception of deletions for private property in the Shoofly Creek drainage and range developments in Duncan Creek (in this WSA, we support the Proposed Action). We have made minor additions in Sheep Creek East and West, Little Jacks and Big Jacks Creek. We are also including the Rough Mountain (Poison Creek) roadless area which adjoins Little Jacks Creek to the north. The specific acreage figures (approximately) we are recommending are:

Little Jacks Creek - 58,680 acres
Big Jacks Creek - 61,533 acres
Duncan Creek - 9,400 acres
Upper Deep Creek - 11,510 acres
Pole Creek - 24,509 acres
Sheep Creek East - 8,250 acres
Sheep Creek West - 14,180 acres
Rough Mountain - 30,400 acres

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We believe this alternative offers the best protection to the outstanding wilderness values of these areas, while still

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allowing the local ranchers to make a reasonable livelihood off the public lands. We will be submitting to you shortly a 1/2 inch to the mile map of our proposal (a large scale map is enclosed). We hope you will give our proposal careful consideration.

Thank you for this opportunity to comment. Please include these comments in the official hearing record and FEIS for Jacks Creek.

Sincerely,
COMMITTEE FOR IDAHO'S
HIGH DESERT

Bruce R. Boccard

by Bruce R. Boccard
Executive Director

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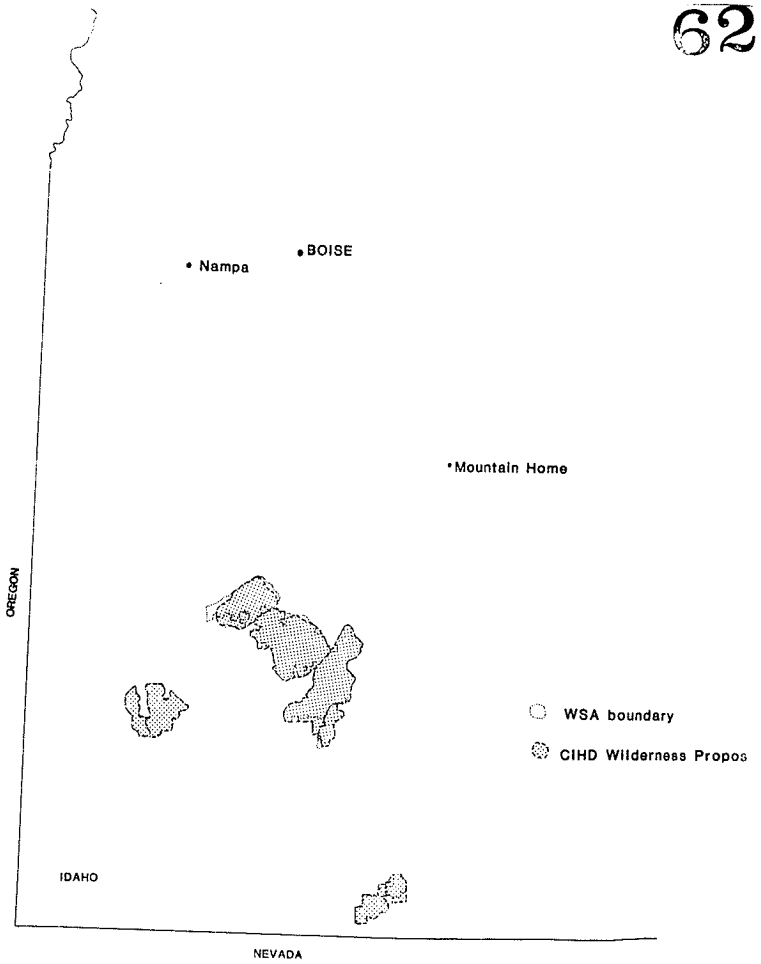

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COMMITTEE FOR IDAHO'S
HIGH DESERT
P.O. BOX 463 BOISE, IDAHO 83701

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November 1, 1984

Joe Zimmer, Manager
Boise District, BLM
3948 Development Avenue
Boise, Idaho 83705

Dear Joe,

The Committee for Idaho's High Desert has a vital interest in the lands under wilderness review in the Jacks Creek Wilderness DES. Although we are sending detailed comments on the DES later today, we want to make sure you receive some of our major comments by November 2.

Our major concerns with the DES follow.

62.31 (1) The DES fails to adequately document how the proposed action was developed, and, specifically, why key areas were excluded from the wilderness recommendation. An example is the Shoofly Creek drainage which supports 24 percent of the Jacks Creek bighorn sheep habitat. The DES simply does not explain why this area was excluded nor the effect of excluding it on bighorns. There is no rationale for excluding the plateaus of Upper Deep Creek nor for proposed deletions in Big Jacks Creek. These need to be thoroughly discussed in the FES.

62.32 (2) The DES asserts that spraying and seeding projects would generally be beneficial to wildlife. This completely contradicts most of the available scientific literature (see references in our forthcoming letter). This assertion needs to be thoroughly documented in the FES.

62.33 (3) The DES fails to discuss the impacts of range development and increased livestock grazing on the ecology of high desert grasslands. Ecological condition class is a management tool for livestock and does not adequately address the effects of grazing on the natural ecosystem. The FES needs to discuss the ecological impacts of increased livestock grazing on all aspects of the natural environment (especially small mammals and other indicators of undisturbed ecosystems) and not just plant vigor and species composition. Dr. Hironaka, Chuck Wellner and other experts should be consulted for this information. The FES should also include a detailed monitoring program to insure that the ecology of the near pristine grasslands are not damaged by increased grazing.

62.34 (4) The economic analysis is inadequate. The assumptions and value figures for recreation are not explained. We disagree with the assertion that further economic analysis of the benefits of preserving the natural environment are unnecessary. Meyr (1984) has done an excellent study showing the economic value of remnant, near pristine riparian habitat in central California and Loomis (1983) has completed a very good study on the nonconsumptive economic value of bighorn sheep. Both studies need to be incorporated in the FES.

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The Jacks Creek Wilderness DES covers some of America's desert wilderness treasures -- areas not only of high ecological and scenic value, but also easily accessible to a major regional population center. After studying these areas in detail, we are submitting a 218,000 acre wilderness proposal which deletes private property in Little Jacks Creek and range development in Duncan Creek, but generally corresponds with your "All Wilderness" alternative. We are also proposing additional acreage in several WSA's and the addition of the Rough Mountain (Poison Creek) appeal unit. At a minimum, we urge you to adopt the "All Manageable" alternative.

Our detailed letter will address more specific points. We respectively ask that both these comments and those sent later today be included in the FES.

Sincerely,

Steven Jablonowski
for Bruce Boccard
Executive Director

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of the existing habitat would be protected and in alternative 3, 87 percent would be protected. All wild sheep population numbers are directly proportional to the quality and quantity of habitat available. Habitat quality can be improved, but bighorn habitat quantity is finite in North America. The same cannot be said for livestock where thousands can be supported on a very few acres.

63.02 We would also like to raise a couple of minor points. The photo on page 61 appears to be a Rocky Mountain bighorn rather than a California bighorn. We would recommend the source of this picture be checked. Also, the pipeline (19 miles long) between Little Jacks and Big Jacks WSA's should be shown more boldly on the maps. This is a major impact on bighorn habitat. This pipeline should be included in Table 19 under water developments.

As previously stated, we support Alternatives 1 and 3. We also believe the visitor management program described for all three alternatives would function best under alternatives 1 or 3.

We greatly appreciate the opportunity to comment on this DEIS. The DEIS is a highly professional and well prepared document.

Sincerely,

Richard A. Weaver
Richard A. Weaver
Chairman, Technical Staff

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DESERT BIGHORN COUNCIL

Established to promote the advancement of knowledge concerning the Desert Bighorn Sheep and the long-range welfare of these animals.

1416 Ninth Street, Sacto., CA 95814

October 31, 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3894 Development Avenue
Boise, Idaho 83705

To Whom This Letter May Concern:

The Desert Bighorn Council is comprised of wildlife biologists, scientists, administrators, managers and others interested in the welfare of the desert bighorn sheep. The California Bighorn is considered a desert bighorn species. Also, the Desert Bighorn Council has a Technical Staff comprised of members having considerable desert bighorn sheep expertise. The Technical Staff reviews desert bighorn projects, programs, EIS's or other proposals. Members of the Technical Staff have reviewed the Jacks Creek Wilderness EIS. Following are the comments developed by the Technical Staff for the Little Jacks, Big Jacks and Duncan Creek WSA's. These are the WSA's having California bighorn or suitable habitats for which the Technical Staff did an intensive review of the EIS.

There are obviously some conflicts between livestock and/or livestock projects and California bighorn and their habitat. We would recommend the need for the proposed pipeline extension between Shoofly and Little Jacks Creeks be explored in detail. This would appear to be important in light of all the waters and reservoirs that already exist as shown on the WSA maps. Obviously, there is already some conflict between livestock and California bighorn. If the objective is to increase livestock numbers and/or stocking rates with additional water developments, a greater conflict will result with the possible habitat abandonment by some bighorn sheep; thus reduced California bighorn numbers. At this time there has never been a viable bighorn population established and/or maintained in North America where livestock is concentrated for any period of time. Therefore, we recommend the BLM consider eliminating the pipelines.

63.01 We believe two additional maps would be of benefit to interested parties; (1) one showing livestock allotment boundaries super-imposed on WSA maps; (2) actual cattle use areas and stocking rates similar to the existing wildlife use map displayed on page 60 in the DEIS (Map 9). This would help resolve some of the bighorn-livestock conflicts.

Based on the data presented, we recommend considerable consideration be given to Alternative 1 and Alternative 3. In alternative 1, 92 percent

October 31, 1984

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Mr. Joe Zimmer, Manager
Boise District, BLM
3948 Development Avenue
Boise, Idaho 83705

Dear Sir:

I am writing in response to your Jacks Creek Wilderness Environmental Impact Statement. My concerns are many.

I am disturbed that your proposal for the Little Jacks Creek WSA does not include the Shoofly Creek drainage. The need to include this area in your wilderness proposal is apparent and supported by the information presented in the environmental statement. The DEIS clearly states, for example, that the Little Jacks Creek Canyon and the Shoofly Canyon complex provide most of the habitat for the 150+ herd of rare California bighorn sheep. In addition, the DEIS makes a strong point that any reduction in suitable habitat seriously threatens the bighorn population. With these facts in mind, it is difficult to understand how your wilderness proposal can fail to include this critical component of the canyon complex -- essential habitat for the bighorn population. I therefore urge the BLM to include the Shoofly drainage in the wilderness recommendation for the Little Jacks Creek WSA.

65.01 Your present proposal for WSA 111-6 (Little Jacks Creek) appears to permit a 50 percent increase in AUM's for the Little Jacks Creek allotment. In the absence of including the Shoofly drainage in your wilderness proposal, most of this AUM increase would have to occur in the Shoofly Creek drainage since AUM allocations in wilderness areas have been limited to an increase of about 10 percent. Such an increase in livestock use would probably have a significant adverse affect on the bighorn population.

I do not support your proposal to include only half of the Upper Deep Creek WSA and none of the Pole Creek WSA as wilderness. These WSA's contain more than 170 prehistoric archeological sites and the juniper component of the sagebrush-steppe vegetative community which is not yet represented in the National Wilderness Preservation System. The 75 percent and 47 percent increase in livestock AUM's proposed for these WSA's, respectively, would accelerate damage from livestock trampling to the archeological sites located within them. It would seem highly desirable and reasonable to significantly expand the acreage proposed for wilderness within these two WSA's. Furthermore, these areas are an integral part of the Owyhee Canyonlands Wilderness proposal -- a proposal which has been presented to you by the Committee for Idaho's High Desert -- and are a key link between the main Owyhee River and the North Fork of the Owyhee.

I do support your proposals for the Duncan Creek and Sheep Creek West WSA's. Your recommended action for these areas would indeed protect the wilderness values within them.

-2-

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Of the alternatives presented in the DEIS, I would urge the BLM to adopt the "All Wilderness" alternative -- Alternative #1. This is the only alternative which includes a smaller, less destructive increase in livestock AUM's (18 percent) compared to the highly undesirable increases proposed or would occur under the other 7 alternatives (30-62 percent). The "All Wilderness" alternative also would provide long-term protection for the greatest amount (92 percent) of the occupied bighorn sheep habitat -- an essential ingredient if the existing herd is to be protected and allowed to expand into adjacent suitable habitat. I have visited the Jacks Creek Wilderness EIS study area on several occasions and believe it is most deserving of wilderness protection. The Jacks Creek area provides outstanding recreational opportunities for about a third of Idaho's population.

I also wish to go on record in support of the Committee for Idaho's High Desert proposal for the Jacks Creek Wilderness complex. In addition, I urge you to consider their recommendation to include Rough Mountain in any wilderness recommendation for the Jacks Creek Wilderness complex.

I have an extremely difficult time swallowing the continued misuse of the public lands and public funds for the benefit of a few livestock operators. This issue really upsets me. I cannot understand how so few can control the decisions which affect these public resources, especially since passage of the Federal Land Policy and Management Act of 1976.

The Jacks Creek Wilderness DEIS describes the ecological condition of the vegetative types found in the 7 WSA's. An average of about 45 percent of the vegetative types are in a poor/barren condition with 5 out of the 7 WSA's having from 52 to 61 percent of their vegetation in a poor/barren condition. Yet, the BLM is proposing additional livestock watering pipelines (e.g. Wickney Tree Dome) and has approved the controversial 19-mile long pipeline between Little Jacks Creek and Big Jacks Creek. In addition you are proposing AUM increases ranging from 18 to 62 percent under the wilderness alternatives under consideration in the Jacks Creek Wilderness DEIS. I cannot understand how a resource which is still suffering from past (and probably present) overgrazing practices can absorb further increases in livestock AUM's without further detioration of the range condition. I strongly oppose these pipeline development projects which benefit so very few to the detriment of public wildlife, watershed, soil and other range resources including the relic tracts of "native" vegetation which are so rare. These pipeline projects are simply unethical and a gross misuse of public funds and resources. The 19-mile Jacks Creek pipeline, for example, is an economically unjustified project which could easily jeopardize the continued existence of the bighorn sheep population. Once this project is in place, there are no guarantees that at some future time laterals would not be constructed into adjacent bighorn sheep habitat. Its like building a sewer interceptor pipeline across prime agricultural land to serve outlying residential developments and saying that its existence would not have any effect on the future of those agricultural lands -- at some point in time, those lands would inevitably be developed. It is a fact of infrastructure development, like it or not.

65.02

Rather than considering livestock AUM increases in these WSA's, the BLM should be considering livestock AUM decreases to bring all the vegetative types into good ecological condition. Only in this manner can the range and wildlife resource return to a healthy state and be enjoyed by all of Idaho's citizens. The Federal Land Policy and Management Act mandates a shift from the single

-3-

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purpose management policies of the past and towards multiple purpose management of the public lands and the return of range conditions to a healthy and sustainable condition. If these grazing increases are permitted, populations of deer, elk, bighorn sheep, antelope, and sage grouse would be adversely impacted and would decline further from their already low levels. It is about time for wildlife to also get a fair shake in the allocation of AUM's on the public lands.

In closing, I wish to reiterate my support for the Committee for Idaho's High Desert wilderness proposal or BLM's "All Wilderness" alternative for the Jacks Creek Wilderness complex. I also urge the BLM to reconsider their position regarding livestock AUM increases and the pipeline developments which are strongly opposed by many taxpaying citizens. Wildlife, archeological sites, watershed, soils, native "relic" vegetation, wilderness values, etc. should not be sacrificed for the benefit of so few. Wilderness designation currently is the only mechanism we have to preserve outstanding roadless areas such as the Jacks Creek wilderness complex for the future enjoyment of Idaho's citizens and all Americans. Wilderness is "multiple use"-- it is an effective way of maintaining and protecting wildlife, watershed, range, cultural resources, recreational and other resource values.

I thank you for the opportunity to comment on your Jacks Creek Wilderness DEIS.

Please send me a copy of the final EIS when it has been completed, it appears that I have been taken off your mailing list.

Sincerely,

Steve Jakubowics

Steve Jakubowics
903 N. 21st Street
Boise, Idaho
83702

10/30/84

PAGE 1 OF 2

67

Hi,

Being an Idaho resident for the last 5 years, I have been lucky to explore parts of Idaho & see some of the beauty and uniqueness of our state. An area I have a fondness for is Owyhee County. I have spent time exploring the little Jacks Canyon (and was blessed to see 2 bighorns) near Oxbow Canyon; the Big Jacks area near Parker trail; and the Deep Creek / Pole creek canyons & plateau in between. I was disheartened to hear your intention to exclude all of Pole Creek & parts of Upper deep creek plateaus. I have seen so many antelope on the plateaus that I would be sad to think they would have to fight the cattle for grazing. In addition I was surprised at your intention to exclude all of Shoofly Canyon. I understand that Shoofly is critical to the bighorn population, contains many indian historical sites and 1% of the excellent condition grasslands left in our state. To jeopardize these things is unthinkable to me. Therefore I support the CHID / Sierra Club proposal for Wilderness.

67.01

Lastly, I feel in general, after reading your EIS on Jacks Creek, that grazing for cattle has been increased to the detriment of all ~~so~~ wild animals. I would encourage you to reconsider this policy. As well I oppose ~~the~~ any pipeline to be built between little Jacks & Shoofly. This would certainly deteriorate the grassland quality of the area and thus hurt the wild animals.

10/30/84

PAGE 2 OF 2

67

Thanks your your time!

LYNNE BACHMAN
253 AMANITA
EAGLE IDAHO 83616

68

THE WILDERNESS SOCIETY

FOUNDED 1935

November 1, 1984

Martin J. Zimmer, Distict Manager
Boise District
Bureau of Land Management
3948 Development Avenue
Boise, Idaho 83705

Re: Jacks Creek Wilderness DEIS

Dear Joe,

The Jacks Creek Wilderness Study Areas possess some of the most outstanding high desert grassland and desert canyon environment in the country. It is mostly us Idahoans who know and appreciate the area's values, but the areas has national significance not only for its scenic and non-market values but for its unique and rare wildlife and vegetation as well. These are not only of great importance for their natural value but for their economic value too. These are public lands and they deserve the protection only wilderness designation can provide. I support the conservationists proposal of 218,000 acres which includes the entire WSAs plus additions of 30,400 in Rough Mountain and smaller additions in Little Jacks Creek, Sheep Creek East and Sheep Creek West.

68.01 The Proposed Action would inevitably result in the elimination of the California bighorn sheep herd that now thrives there. The sheep as well as the mule deer and antelope cannot tolerate human intrusions and the impact on available forage such grazing increases would have. The development and management activities required to maintain the increase in grazing planned for under the Proposed Action would exacerbate disruption of the wildlife habitat and living conditions. The scenic quality that would be ravaged by these activities is truely terrible. Many of the archaeological sites would be needlessly trampled and forever lost. The degradation that would occur is even more tragic considering the potential utilization the area would provide because of its easy access from the Treasure and Magic Valleys. The need for and economic benefit of increased domestic livestock grazing does not exist in terms of the public interest, certainly not on these particular public lands that possess so many benefits in their wild state.

1901 PENNSYLVANIA AVENUE, N.W., WASHINGTON, D.C. 20006
(202) 828-6600

68.02 The DEIS does not address the values of non-consumptive benefits including by not limited to bequest values, existence values, option values, and air and water quality values, in any responsible manner. This ommission has resulted in a completely unrealistic analysis of the public's asset these lands possess. Maintenance of these lands as wilderness is both the most productive treatment for the resources there and for the American people. I urge you to complete the economic analysis and revise your recommendation to include all of the WSAs plus the acres mentioned above (boundary map is available).

Thank you for this opportunity to comment.

Sincerely,

Ernie Day, Jr.

Ernie Day, Council Member
The Wilderness Society

69

THE WILDERNESS SOCIETY

FOUNDED 1935

November 1, 1984

Martin J. Zimmer, District Manager
Bureau of Land Management, Boise District
3948 Development Avenue
Boise, Idaho 83705

Dear Mr. Zimmer,

The Wilderness Society supports the conservationists proposal of 218,000 acres for the Jacks Creek Wilderness. The seven (7) WSAs included in the DEIS are a fraction of the original acreage inventoried and represent rare lands all of which possess maximum wilderness characteristics. Acres in addition to the 175,627 of the WSAs include 30,400 in the easternmost part of the Owyhee Mountain range known as Rough Mountain, one of the highest mountains in the Owyhees (7,090 feet) and minor additions to Little Jacks Creek, Sheep Creek East and Sheep Creek West. All alternatives of the DEIS are inadequate in that irretrivable losses would be sustained in the ecosystem under them.

Although The Wilderness Society recognizes the local importance of livestock grazing these lands in question are rare remnant grasslands in near pristine condition, rare California bighorn sheep habitat, support rare native redband trout in perennial desert streams, contain over 150 archaeological sites and spectacular canyons surrounded by high desert plateaus. These lands have national significance. It is clear that the analysis of these lands has been artifically limited and is inadequate resulting in conclusions that are inappropriate. Interest, ownership of, and worth of these lands extends far beyond Owyhee County.

Prior to addressing specific issues of the DEIS The Wilderness Society would like to be on record for once again adamently rejecting the 19-mile Jacks Creek Pipeline supposedly allowable under the Bureau's Wilderness Interim Management Policy. This decision by the BLM and Department of Interior to allow the pipeline and resultant widespread, adverse impacts that substantial increases in livestock grazing and the accompanying management tools would have on nearly 8,000 acres of good condition, native grasslands is abhorant. This pipeline should not be constructed to the detriment and irreversible degradation of this superlative desert grassland and canyon wilderness and all its values. Projected management that would prevent any negative impact on bighorn sheep habitat is experimental and an uncertain administrative perogative. Real protection is guaranteed only by wilderness designation.

NORTHERN ROCKIES REGIONAL OFFICE
413 WEST IDAHO STREET, SUITE #102, BOISE, IDAHO 83702
(208) 343-8153

In the case of this DEIS and thus the process of determining whether the greater public interest lies in developing this land or leaving it wild, comparisons of economic values play a significant role. Economic values are significant not only because of their direct and obvious impact on local communities but also because this way of describing benefits allows all parties to weigh components with a common denominator. The Jacks Creek DEIS has omitted comparisons of nearly all high priority benefits while comparing only livestock grazing, wildlife and recreation. This handling of the economic analysis is grossly inadequate and has resulted in a skewed analysis. Nonetheless, if only those values that were considered are examined, wilderness would still create four (4) more jobs and generate a mere $1,000 less in annual income than no wilderness (See DEIS Table #2 page 34). A wilderness designation would cost 9% less than the Proposed Action and would service thousands more people than the few that would benefit from the costs of the Proposed Action.

69.01 Non-market, non-consumptive values including option value (the benefit of knowing such areas will be available for us to use at some future time), existance value (the benefit of knowing such areas exist and provide a protected habitat for plants, fish and animals) and bequest value (the benefit of knowing future generations will be able to use the wilderness resources) are now embraced by a wide and rapidly increasing spectrum of Americans. A recent study conducted by the Economics Department of Colorado State University has provided the tools for estimating the economic value of these benefits. It has also studied why people value wilderness. (See Outdoor American, "What's Wilderness Worth?", Summer 1984). This study revealed that protection of water and air quality are the top two priorities people have with regard to wilderness protection with protection of wildlife habitat, bequest values and recreation following in that order. One specific example of non-consumptive value is the observer and existance values for a unique species, the bighorn sheep. The net present value for preserving an area for one bighorn sheep herd unit is six (6) million dollars. This evaluation is specific for Idaho. (See "The Net Economic Value of Hunting Unique Species in Idaho: Bighorn Sheep, Mountain Goat, Moose and Antelope," John B. Loomis, Economicst, US Fish & Wildlife Service, May 1984). It is alarming that the Jacks Creek DEIS analysis of economic values excluded calculations such as this for all the wilderness benefits found in Jacks Creek. The economic analysis as such must be regarded as incomplete. This significant flaw must be corrected before a final decision can justifiably be made on the wilderness recommendation for these seven (7) WSAs.

Very special wilderness values are found in these study areas. A full 4% of the California Bighorn sheep population and their habitat are here. The last remaining high desert grasslands in pristine condition cover the plateaus near Jacks Creek and Little Jacks Creek. Over 100 miles of sheer-walled canyons, terraced canyons, juniper laced hills and basins offer outstanding wilderness recreation opportunities within a mere two hours' drive of Idaho's major metropolitan center. Perennial desert streams provide the habitat for sensitive native red-band trout. There are major concentrations of archaeological sites attesting to human occupation in these study areas for over 6,000 years. They are priceless and highlite the travesty this generation could reek if we allow these lands to be degraded without just cause. These lands support a wide diversity of plant communities and animal species. Certainly there are other public and private lands with no comparable redeeming features that can be used for increasing domestic livestock grazing while current grazing levels can be maintained or slightly enhanced under wilderness designation.

69

In conclusion, I would emphasize that the sensitive wildlife species whose critical habitat are found in these WSAs are characterized by their intolerance to human and domestic livestock pressures. The Jacks Creek study areas provide the critical environment and santuary needed to sustain in particular the bighorn sheep population. The good condition grasslands too are unique. To spend substantial taxpayer dollars for grazing developments in this area is unwise. The conservationists 218,000 acrea wilderness proposal is the best and highest use for these public lands.

Thank you for this opportunity to comment on this important issue.

Sincerely,

Tom Robinson, Regional Director

72

We do not recommend the proposed action because of the decrease in wilderness acreage (with a corresponding 20% decrease in bighorn sheep habitat) and the installation of 8.5 miles of water pipeline in the Little Jacks Creek study area. While there may be some wildlife benefits associated with expanded water distribution as a result of the pipeline, the increase in livestock grazing and human intrusion would be detrimental to wildlife in the long term. We believe that Alternative 3 represents a fair compromise between the resource uses on public land for the wilderness alternatives proposed in this document. We also request that the BLM re-evaluate the appropriateness of increasing livestock grazing levels in or near designated wilderness areas. This management decision appears to be in direct conflict with the aesthetic and ecological values associated with wilderness areas.

Sincerely yours,

Signe Sather-Blair for

Dr. Lewis Nelson
President, Idaho Chapter of
the Wildlife Society

cc: BLM, State Office, Boise
ICL, Boise
Wildlife Federation, Boise
Gov't. Evans

IDAHO CHAPTER
THE WILDLIFE SOCIETY

NATIONAL HEADQUARTERS
SUITE 611
7101 WISCONSIN AVE. N.W.
WASHINGTON, D.C. 20014

72

November 2, 1984

Mr. Joe Zimmer
Boise District Manager
Bureau of Land Management
3948 Development Avenue
Boise, Idaho 83705

Dear Mr. Zimmer:

The Idaho Chapter of the Wildlife Society has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Jacks Creek Wilderness. We recommend that the Bureau of Land Management (BLM) adopt Alternative 3 as the preferred plan rather than the one proposed in the DEIS.

During our review of the document we contacted biologists familiar with the wildlife resources of the area. Our recommendation encompasses most (87%) of the habitat for the California bighorn sheep in the study areas as well as habitat for numerous other native wildlife species. The life requisites of these indigenous species must be provided for if the proposed areas are to maintain their wilderness value. Increases in livestock grazing levels would be detrimental to these wildlife species.

72.01 After review of this document we conclude that the report is generally biased towards livestock uses of the area and there are contradictory statements made throughout. For example, on page 20 the report indicates that the BLM estimates that increases in livestock numbers could average 10% in areas after they have been designated as wilderness. Then on page 59 the report acknowledges that "...increasing the amount and distribution of humans or livestock in bighorn sheep habitats can result in a corresponding reduction in bighorn use..." Since bighorn sheep and other indigenous wildlife species are so vital for the natural and ecological values associated with the proposed wilderness designations why does the BLM suggest that increases in livestock use will be allowed?

72.03 On page 100 the report trys to justify 8.5 miles of watering pipeline and increased livestock use under the proposed action alternative. Several statements are made as to how good range condition would be maintained even under increased livestock use in areas near the watering pipeline. Moderate grazing levels are mentioned and referenced as being beneficial to native bunch grasses. However, there is no indication as to what constitutes heavy, moderate, or light grazing levels. What may be moderate to one person may not be to another. The report also cites substantial increases in livestock AUM's for specific grazing allotments but we could find no maps that located these allotments in relation to the boundaries of the wilderness areas or bighorn sheep habitat. Definite explanations, definitions, and locations of related management actions should be provided so that the public can evaluate the alternatives.

74

1910 Manitou
Boise, Idaho 83706
November 1, 1984

Martin J. Zimmer
District Manager
Bureau of Land Management
Boise District Office
3948 Development Avenue
Boise, Idaho 83705

Dear Mr. Zimmer,

During the Boise hearing on the Jack's Creek Wilderness EIS, September 5, 1984, I supported Alternative 1, the all wilderness alternative. I would like to add a few comments to my statement.

I support the all wilderness alternative for the WSA's remaining in the Boise District after the intensive wilderness inventory all have unquestionably high wilderness characteristics. The inventory was amazingly thorough and exceedingly rigorous.

74.01 At the hearing many questioned the feasibility of back country permits. These are a necessary part of wilderness management. They are readily accepted as most realize the permit process is beneficial: a chance to get maps, ask questions, and learn of possible hazards. The BLM could use this educational opportunity to emphasize the ecological needs of the bighorn and the need to preserve petroglyphs and other historical sites. I assume the supervision of this permit system is the main cost of wilderness management, the $360,000 listed in Table 16, page 113. However, under alternative 2, the no wilderness alternative, the costs are listed as $0. This is very disturbing. The projected increase in visitor use from the present 3525 to 10,225 under alternative 2 mandates the use of back country permits regardless of wilderness designation. The BLM should protect the resource, the bighorns and the petroglyphs, under all management options.

Protection of the bighorn habitat is the issue. The EIS notes "wilderness designation of Little Jacks' Creek WSA is the strongest protection for the bighorn habitat" (page 94). Since alternative 1, all wilderness, protects 92% of the habitat and the proposed action just 68%, the all wilderness alternative is the obvious choice.

74.02 The EIS is disturbing for it proposes even more pipelines. The EIS does document cattle-bighorn incompatibility (Appendix A page 178) yet proposes pipelines just one mile from bighorn habitat. This is inconsistent. Why has the Hickney Tree Dome pipeline been proposed for the Little Jacks' Creek WSA? Why justify the proposed action because a proposed pipeline would destroy the naturalness, a necessary wilderness characteristic? What a circular argument! All the WSA is suitable for wilderness now. In keeping with the spirit of the law, you should preserve the natural integrity of the WSA until Congress decides.

V-69

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The joy is that parts of these areas are essentially ungrazed, a natural remnant of the climax ecosystem. This is extremely rare, and to its credit the BLM has proposed a 1000 acre research natural area in the Little Jacks' Creek WSA (page 66). How would this be protected?

74.03

The EIS notes "sites in good range condition are poorly watered and consequently grazing use is currently very low." (page 99) Yet 8½ miles of pipeline are proposed to open this undisturbed range to grazing, with the hope that " moderate grazing will improve plant vigor" (page 100). It may in theory, but theory and practice are very different, and the record of grazing impacts on BLM lands in the Boise District is dismal. A far more likely outcome is downgrading of the range to fair, poor, or barren. As this EIS notes in the WSA's 17% of the range condition is barren and 33% is poor.

74.04

Spraying projects too are questionable. The one on Avery Table (Pole Creek WSA) involves a sage grouse lek (strutting ground). Yet the EIS says "sage grouse are expected to benefit". (page 95) . That's incredible! Sage grouse are dependent on sage for cover, nesting, and food. Nests are usually within 2 - 3 miles of leks. Nesting ceases in sprayed areas. Studies in Montana show a 21% reduction in sage near a lek results in a 63% reduction in strutting cocks for they rarely move more than ¼ mile from a lek for feeding and resting. Cocks will not return to a lek devoid of surrounding sage cover. All this is documented in an article by Bob Autenrieth, "Struttin Sage: the Sagebrush Connection"in Idaho Wildlife, 2(3) 1980: 2-13 p. At the very least the BLM should follow the guidelines of the Western Sage Grouse Committee: 1. no control programs within ¼ mile of a lek and nearby programs should not affect more than 50% of the sagebrush stand. 2. Block spraying should be limited to 80 acres or less and no more than ¼ mile wide. Such treated areas should be no more than 25% of the area. 3. Partial kills over large areas should leave at least 435 sage/acre with 10-20% crown cover. This comes from an article by Neil Frischknecht, 1978, p 121-126 of the Sagebrush Ecosystem: A Symposium. Utah State University Department of Natural Resources.

74.05

I really question the assertion that seeding projects benefit wildlife (page 95, page 4, and others.)Tim Reynolds' research (Idaho Wildlife, 1980, 2(5): 10 - 13 p.) has shown sage/grasslands grazed or not "far superior to crested wheatgrass plantings in supporting native wildlife populations...both in species diversity and in species density." For example Reynolds found 7 species of non-game birds and two species of game birds in the sage, but only 2 bird species in the wheatgrass. He concluded crested wheatgrass seedings "dramatically change the habitat and reduce the level of most native non-game species." Furthermore, antelope and mule deer are browsers, not grazers. Sage is 60 - 90% of the antelope forage (Reynolds, 1980). All this indicates seedings do not benefit wildlife. Can you document your claim otherwise?

74.06

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The protection of archeological sites is another reason the all wilderness alternative is preferable. The proposed action would increase cattle trespass by 150 miles in the Pole Creek-Cedar Creek area (Pole Creek WSA) (page 110) and to the Shoofly Rock Alignments and other sites on the Hickey Tree Dome (page 109).

Please reconsider and recommend the all wilderness alternative as it will best protect the resource values of the areas while permitting grazing.

Sincerely,

Janet D. Ward

Janet D. Ward

IDAHO NATURAL RESOURCES LEGAL FOUNDATION, INC.
"To Restore, Preserve and Protect"
P.O. Box 1946 Boise, Idaho 83701 (208) 343-8978

William R. Meiners, Chairman
James Weaver, Vice Chairman
Randall Morgan, Secretary
Harold Thomas, Treasurer
Paul Fritz
Dennis Gratton
Helen Langworthy
L.A. Mehlhoff
Scott Reed
Edwin W. Stockly, Lawyer and Chief Executive Officer

75

November 1, 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3948 Development Avenue
Boise, Idaho 83705

Gentlemen:

Enclosed are INRLF's comments on the Jacks Creek Wilderness Draft Environmental Impact Statement.

Very truly yours,

EDWIN W. STOCKLY

EWS/ps
cc: (with copies of enclosure)
William R. Meiners
Committee for Idaho's High Desert
Sierra Club

75

IDAHO NATURAL RESOURCES LEGAL FOUNDATION'S
COMMENTS ON JACKS CREEK WILDERNESS
DRAFT ENVIRONMENTAL IMPACT STATEMENT

The frequent references to plans to spray herbicides on some of the areas not recommended for wilderness seem to emphasize the BLM's lack of understanding of the NEPA process. The BLM environmental documents for herbicide applications are inadequate, Southern Oregon Citizens Against Toxic Sprays, Inc., v. Clark, 720 F.2d 1475 (9th Cir. 1983), Save Our Ecosystems v. Clark, ___ Fed ___ (9th Cir. 1984). The documents were inadequate because they did not contain sufficient information (worst case analysis) to enable the responsible agency official, the decision maker, to evaluate the risks of herbicide use in terms of the problems, such as health problems, animal, land and water poisoning, that could result from the herbicide use and then, after such evaluation, to make a reasoned decision concerning herbicide use. The environmental documents are still inadequate and the reasoned decision has yet to be made. But the Jacks Creek Wilderness DEIS, in describing the various alternatives, states that areas will be subject to sage brush removal by herbicide treatment. See, e.g. DEIS, pp. 24, 99.

75.01

The point of discussing the seemingly minor statements that herbicides will be used is to demonstrate

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that BLM apparently makes the decision and defers implemantation until the environmental documents are in shape. This indeed corresponds to Tom Hovenden's description of the environmental process as "little legal games." Idaho Statesman, August 23, 1984, p. 6A. If that is the way BLM personnel view the environmental process, they should seriously consider their obligation and oath "to support the laws of the United States." NEPA sets forth a policy of the United States, that decisions should not be made until the environmental consequences are known and understood. Reversing the process may make it easier to make politically palatable decisions, but it does nothing to promote the interests NEPA was enacted to protect and advance.

It is easy to suspect that the DEIS was prepared to support politically palatable decisions previously reached.

An example, the Shoofly drainage is not included in the proposed wilderness, and the only reason given is because of private inholdings which "impact 2700 acres." The private inholdings actually total 360 acres in Sections 8, 9, and 17, T8S, R2E. Land owned by the State of Idaho, Section 16, T8S, RLE, is not counted because of the continuous land exchange program between the State and BLM. BLM will be able to acquire Section 16 if it is within the

75.02

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California Bighorns. The proposed alternative places this valuable resource at a very real risk.

The DEIS does not contain a discussion of the fact that overgrazing has destroyed all of Idaho's high desert grass lands -- all, that is, except for the Jack's Creek Plateau. Just as "Idaho is as the U.S. used to be," so Jacks Creek Plateau is as Idaho used to be. There is some mention of native grasses (which will be destroyed in the areas not designated wilderness), but no real analysis of the wilderness values of this pristine land, values arising from the fact that it is all that is left.

The DEIS should be rewritten, to contain "a reasonably thorough discussion of the significant aspects of the probable environmental consequences." Trout Unlimited, Inc. v. Mortan, 509 F.2d 1276, 1283 (9th Cir. 1974). It should foster both informed decision-making and informed public participation. Warm Springs Pan Task Force v. Gribble, 565 F.2d 549, 552 (9th Cir. 1977).

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wilderness. The DEIS contains no description of the nature of the "impact" these 360 acres have on the 2700 acres. Two hundred of the 360 acres are located within the existing bighorn sheep habitat, the remaining 160 acres abut the habitat as it is shown on Map 9, p. 60. The private inholdings do not appear to be an adequate reason to carve the Shoofly drainage and 24% of the Bighorn Sheep habitat out of the wilderness. An alternate reason is evident upon examination of Map 2a. Behold, proposed livestock watering pipelines appear in Section 4 and in Sections 29, 30, 31 and 32, all T8S, R2E, all within the area that should be wilderness if the bighorn sheep habitat were to be protected as wilderness. The interests being advanced, then, are those of the cattlemen, not of the nation.

75.02

That portion of the Bighorn Sheep habitat not included in wilderness in the proposed alternative is to be designated an area of critical environmental concern. DEIS p.24. The DEIS does not indicate the statutory authority for or meaning of such designation. Nor is there the assurance of permanency that wilderness gives.

75.03

More to the point, the DEIS does not discuss the effect on the Bighorn Sheep of the removal of 24% of the habitat from wilderness protection. We are told the herd is of 150 sheep, just above the minimum of 125 necessary for stability. The 150 sheep represent about 4% of all

75.04

76

EXXON COMPANY, U.S.A.
POST OFFICE BOX 120 • DENVER COLORADO 80201

EXPLORATION DEPARTMENT
WESTERN DIVISION
H.W. PHAETORIUS
MANAGER

November 2, 1984

Mr. Ted Milesnick
Jacks Creek Wilderness EIS Team Leader
Bureau of Land Management
3948 Development Avenue
Boise, Idaho 83705

Dear Mr. Milesnick:

Exxon Company, U.S.A. is pleased to have this opportunity to comment on the Jacks Creek Wilderness Environmental Impact Statement. Exxon has a strong interest in the planning process for federal public lands because it believes many of these areas have definite potential for oil and gas reserves. Therefore, Exxon wishes to submit the following comments concerning recent developments in the Owyhee Basin as a result of the petroleum industry's growing confidence for hydrocarbon potential near the Jacks Creek Wilderness Study Areas (WSAs).

The WSAs described in the Jacks Creek Wilderness EIS are coincident with the northern portion of the Juniper/Owyhee Basin. This Basin is a large structural depression which has not been previously explored for oil and gas. The southern (Nevada) portion of the Juniper/Owyhee Basin has recently experienced significant seismic exploration activity. The presence of extensive and very thick basalt flows and associated volcanic debris has discouraged oil and gas exploration activities until now. New developments in seismic technology and computer processing appear to have some promise, especially in areas like the Juniper/Owyhee Basin.

Based on geological literature, surface geology, and recently acquired geophysical information, Exxon believes that favorable conditions may exist throughout the Basin for oil and gas generation, reservoir occurrence, and trapping mechanisms. To date, approximately one hundred fifty miles of seismic lines have been completed by Exxon in the Nevada portion of the Juniper/Owyhee Basin. We anticipate a similar program will be required by industry to initiate an evaluation of the petroleum potential in the northern portions of the Basin in the area of the Jacks Creek WSAs.

Two recent developments in the Juniper/Owyhee Basin are significant. One is an application by Exxon for lands available for regular noncompetitive leasing. The second is an application by Oil and Gas Reserves, Incorporated to drill a 10,000 foot (estimated depth) exploration wildcat in Section 29, Township 14 South, Range 3 East, of Owyhee County, Idaho.

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In summary, prospects for the existence of hydrocarbon reserves in the Juniper/Owyhee Basin are encouraging and continue to improve as evidenced by the new developments. A conclusive determination of their presence is still dependent on actual drilling regardless of the sophistication of surface exploration techniques. Because WSA lands are effectively closed to energy and mineral exploration, the opportunity to determine hydrocarbon potential on these lands is lost. Therefore, Exxon firmly believes that the amount of land recommended for wilderness should be kept to a practical minimum. In this regard, the Rim to Rim Wilderness Alternative offers what we believe to be a reasonable compromise between wilderness values and subsurface mineral exploration and development activities. Exxon strongly recommends this alternative to the Bureau.

Thank you for the opportunity to comment and your consideration of our views. Please feel free to contact Fernando Blackgoat at 303/789-7488 if you desire additional information.

Sincerely,

H. W. Praetorius

FB:dnf

78

I have enjoyed Owyhee county, its desert plateaus, canyons, mountains, wildlife and birds for many years. I shared them with my late husband Ted Trueblood and others. After becoming interested in the study of fungi, I developed an expertise not shared by many others in desert experiences.

Through Professor Harold Tucker of the College of Idaho, I became acquainted with Dr. Alexander H. Smith, leading agaricologist in North America. Helen, Dr. Smith and his wife, daughter of Dean Orma J. Smith of the College of Idaho, spent many summers at McCall collecting fungi. They invited me to study with them in 1958. Dr. Smith asked me to collect desert mushrooms for him and send them to the U. of Michigan herbarium.

In 1969, and again in 1971, I was awarded a grant from the Max C. Fleischmann Foundation in Reno, Nev. "to collect desert mushrooms from southwestern Idaho, southeastern Oregon and northern Nevada--namely the area drained by the Owyhee river and its tributaries.

I've been collecting for Dr. Smith ever since and have approximately 6,000 collections in the U. of Michigan herbarium. There have been many species new to science in those collections. Mycologists from many parts of the world check over my collections.

Last September, I enjoyed the privilege of being a guest in the Smith home and checking over many of the collections I have in the herbarium.

Dr. Smith has told friends in Southern Idaho Mycological Association that I know more about desert mushrooms than any other person. If I can share that knowledge with you, I will be pleased to do so.

He has asked me to work with him on a paper describing Calvatias (a type of puffball) of the arid or semiarid regions of the West.

78.02 Among the new species I have collected in or near the Jacks Creek Wilderness area are Psathryella grasmerensis Trueblood & A. H. Smith, sp. nov. in the Duncan Creek area, Psathryella populorum, Trueblood & A. H. Smith, sp. nov. and Psathryella griseopallida, Trueblood #4505. The latter two collections were from Sunshine Valley adjoining Upper Deep Creek.

Among the species of Calvatia new to science from the Jack's Creek Wilderness area or in nearby or adjacent areas are: Calvatia dextrinospora, Tr. 4471, from near Sunshine Valley, Calvatia impolita, Tr. # 2970, Pole Creek; Calvatia frustrata, Tr. 4510, Deep Creek Road east of Thistle Springs; Calvatia subargillaceae, Deep Cr. Road east of Thistle Springs, Tr.4523; C. subareolata Tr. 3838 from between turn off from Juniper Mt. to North Fork of the Owyee River.

Calvatia packardae has been found near the Tex Payne cabin but I fear this is out of the area presently under consideration. This was named for Dr. Packard at the C. of I.

78

719 8th Ave. S.
Nampa, ID 83651
Nov. 1, 1984

Mr. Joe Zimmer, Manager
Boise District, BLM
3948 Development Avenue
Boise, Idaho 83705

Dear Mr. Zimmer:

Kindly enter this letter as my testimony for the draft EIS on the Jacks Creek Wilderness proposal.

I support the boundaries for a 218,000 acre Jacks Creek Wilderness recommended by the Committee for the High Desert and the Sierra Club.

The Shoofly drainage should be included in the BLM's Wilderness proposal. We support the BLM's proposal to add to the southern edge of the Little Jacks Creek Wilderness.

Duncan Creek is important and I support BLM's recommendation for it being part of the Jacks Creek Wilderness. Also, all of Deep Creek (11,510 acres) should be included in Wilderness in the Jacks Creek WSA.

We support BLM's recommendation for including all of Sheep Creek West but disagree with them on excluding 5,050 acres from Sheep Creek East as nonsuitable and support boundary adjustments to increase its size.

I believe most of Rough Mountain, an area of 30,400 acres, should have been studied for Wilderness by the BLM.

I also believe the entire Pole Creek WSA should be included in Wilderness.

78.01 A flower of the Campanulaceae that I collected Sept. 17, 1971, between Camas creek and Dickshooter Creek, will be proposed for the State Watch List Nov. 30, 1984 according to Dr. Patricia L. Packard of the College of Idaho. The flower is Downingia bacgugalupii Weiler.

My husband, Ted Trueblood, at the request of Dr. Lyle Stanford of the College of Idaho, collected little fish from the head of Battle Creek and Camas Creek. So far they have only been identified in the family Atherinidae.

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Archaeological sites should be protected from further damage from trampling from livestock and allowable AUMs should not be increased.

Please protect new species and other fungi by choosing the boundaries of the CIHD/ Sierra club for Jacks Creeks Wilderness. I'd like to receive any bulletins or information regarding Jacks Creek or other range management proposals in your district.

Thank you for considering my testimony.

Sincerely,

Ellen Trueblood

Mrs. Ellen Trueblood

82

Idaho Conservation League
Box 844 Boise, Idaho 83701 (208) 345-6933

Nov. 2, 1984

Mr. Joe Zimmer, Manager
Boise District, BLM
3948 Development Av.
Boise, ID 83705

Dear Mr. Zimmer,

The Idaho Conservation League wishes to go on record supporting the Committee for Idaho's High Desert and Sierra Club's wilderness recommendation for the Jacks Creek Area.

It is our feeling that the CIHD/Sierra Club proposal is a well-thought out, careful proposal which does much to protect the Jacks Creek bighorn sheep herd. The BLM proposal for Little Jacks Creek is woefully inadequate. The entire Shoofly Creek drainage must be wilderness.

The ICL believes that the entire Upper Deep Creek area should be designated wilderness. The exclusion of the southern plateaus makes little sense.

Sincerely,

Craig Gehrke
Public Lands Coordinator

89

P.O. Box 8787
Moscow, ID 83843
31 October 1984

Joe Zimmer
Boise Dist., BLM
3948 Development Ave
Boise, ID 83705

Dear Mr. Zimmer:

I am writing today concerning the draft Jacks Creek Wilderness EIS. While hardly being thoughtless, your proposals for this important area are in need of some improvements. I have personally only been in Little Jacks Creek, but have a general knowledge of the other areas. I am pretty sure that you could recommend some additional wilderness in this area without harming the ranchers and their subsidized economy.

I am especially unhappy that the Shoofly Creek drainage was left out of your otherwise fine Little Jacks Creek proposal. By moving the boundary nearer to the Mud Flat Road, a more locatable boundary would result. This road is also one of the few in the area passable by car, and having a BLM wilderness so accessable would produce great recreation benefits. This area also has a significant part of the bighorn habitat for the whole Jacks CReek area, and could be included solely for wildlife reasons.

Your Big Jacks Creek proposal is very thoughtful, and has my full support. There are no genuine resource conflicts in this area. Your Sheep Creek proposals are also very thoughtful and will do a good job protecting the Sheep Creek gorge.

Lastly, I hope that you can consider enlarging your sound proposal for Upper Deep Creek. The entire WSA deserves such protection.

89.01 There are lots of other problems with the economic and grazing impact sections of the EIS that I trust you will correct. In particular, your plans to increase grazing in Little Jacks Creek winter range areas is deeply unwise. There is far more domestic-wildlife browse conflict here than you indicate, and it is surely the wildlife that will suffer from your proposal. Surely there must be some limit to what the taxpayers must be forced to give up to the few cattlemen of this area. I know quite well that they are hardly rolling in money, and that their's is a genuinely tough life, but BLM has wider responsibilites that limitless subsidies to special interest users of the public land.

Kindly keep me fully informed on Jacks Creek issues. I also hope that future public hearings will be run more fairly that the Jacks Creek ones were. It was unfair for you to permit multiple testimony by the same people.

Sincerely,

Dennis Baird

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

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NOV 01 1984

REPLY TO ATTN OF: M/S 443

Ted Milesnick
Team Leader
Bureau of Land Management
3948 Development Avenue
Boise, Idaho 83705

RE: Jacks Creek Wilderness Draft EIS

Dear Mr. Milesnick:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for the Jacks Creek Wilderness, Idaho. The proposed action is to recommend 110,655 acres of the total wilderness study area as suitable for wilderness designation and 66,642 acres as not suitable for wilderness designation.

87.01 For the proposed action, 840 acres of land not suitable for wilderness will be sprayed with herbicides to eliminate sage brush. The Final EIS should include detail on the spraying quantities and methods with an assessment of environmental impacts. The DEIS indicates that the proposed action will result in an improvement in soil stability and fisheries

87.02 habitat. The Final EIS should indicate, for comparison, the maximum improvement in soils stability and fisheries habitat that would be feasible given the same background conditions.

Based on our review we have rated this DEIS LO-1 (LO: Lack of Objections; 1: Adequate Information) in accordance with our responsibility under Section 309 of the Clean Air Act to determine whether the environmental impacts of proposed Federal actions are acceptable in terms of public health, welfare and environmental quality.

We appreciate the opportunity to review this report. Should you wish to discuss EPA's comments, please contact Daniel I. Steinborn, Chief of EIS and Energy Review Section, at (206) 442-1755.

Sincerely,

Robert S. Burd
Director, Water Division

90

Jacks Creek Wilderness EIS
Bureau of Land Management
3948 Development Avenue
Boise, ID 83705

Ladies and Gentlemen:

This is a letter of support for 218,000 acres to be designated wilderness in the Jacks Creek study area. This recommendation does not follow BLM proposed boundaries, but those outlined by the Committee for Idaho's High Desert. The CIHD proposal is very realistic when considering resources, ecology, recreation, and natural landscape parameters.

The Jacks Creek wilderness includes some of the last remnants of high desert grasslands. Its dry and harsh climate, rugged topography, and location have buffered this unique landscape from excessive use. Now as more and more people move into the region, pressure is increasing. The area is roadless now and not limiting vehicle use will further adversely impact this limited resource.

The BLM proposal to build a 27 mile pipeline into the Jacks Creek area would open up and concentrate abnormal grazing patterns. The pipeline is basically cattle grazing welfare to ranchers and sacrifices natural habitat and wildlife. I have traveled in the Jacks Creek wilderness and the area is very unique. Except for cows, it is one of the most beautiful landscapes on earth with the combination of mellow to rugged topography, relic forage, and lack of man's influence. A mere 1% of Idaho's high desert remains lightly or ungrazed, and the Jacks Creek area offers most of this. Constructing pipelines, grazing domestic animals, and building roads in this area will reduce the entire region into a ravaged wasteland.

The Shoofly Creek drainage is of extreme importance in the wilderness complex. The draft EIS states that the Little Jacks Creek Canyon and the Shoofly Canyon complex provides most of the habitat for the herd of 150+ rare California bighorn sheep. Yet, the BLM proposed action eliminates the Shoofly area

90.01 entirely. I question the rationale behind dropping the Shoofly when the BLM states that a population size of 125 bighorn sheep is necessary to maintain a healthy population. Grazing in those areas designated wilderness will increase 10% and in the areas not designated wilderness grazing will increase 43%. This means areas like the Shoofly Creek will see dynamic change if not designated wilderness. Is this sacrificing the bighorn sheep?

Upper Deep Creek and Pole Creek are very important additions to the complex. Prehistoric archeological sites are scattered throughout. The draft EIS states that a 75% increase in grazing in undesignated areas will accelerate damage to the sites. In this case multiple use becomes multiple abuse; abuse by herds of cows.

Sheep Creek East should also be designated wilderness. It offers the sportsman an island of undisturbed sagebrush grasslands to stock game in the absence of motorized disturbances. Areas must be maintained for ability to provide a feeling of solitude. Sheep Creek East definately offers this.

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I urge the BLM to consider Rough Mountain in their wilderness designation. I realize the area was not studied for wilderness, yet it offers excellent wilderness values. It offers steep mountainous terrain and is an excellent example of Owyhee wilderness.

The Jacks Creek wilderness lands in this proposal represent islands of relic environments. In these areas we can maintain healthy populations of wildlife in a setting relative unimpacted by man and technology. Those of us whose families first settled Idaho hear the stories of waist-high grasslands, countless deer, and elk in the Owyhees. We venture out in search of these legends and find only remnant glimpses trampled over by vehicles and cattle. There must be places that we can be free from these influences--our environmental islands for the future to see and feel the past. To deny the CIHD proposal is to forsake both the past and future for the greed and interest of the now.

Thank you for this opportunity to comment.

Sincerely,

Dorian Duffin
1525 Malad
Boise, ID 83705

91

1525 Malad
Boise, ID 83705
28 October 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3948 Development Avenue
Boise ID 83705

Ladies and Gentlemen:

The following are my comments on the Jacks Creek Wilderness environmental impact statement. Please enter these on the official record.

I support the Committee for Idaho's High Desert's proposal for 218,000 acres of wilderness. Their proposal provides a manageable, realistic alternative which promotes multiple use and minimizes conflicts.

General Comments

91.01 Wildlife Management: The EIS states that wildlife needs will be addressed in the allotment management plans (page 93). I feel the EIS should address these needs in detail, weighing and evaluating existing uses in order to make decisions for intelligent future use. I question the intelligence of addressing wildlife needs after available forage has been allocated and cattle grazing has been increased. It would seem the cattle are given "first pickin's" and the wildlife are given leftovers.

The EIS states several times that any loss of bighorn sheep habitat could result in the loss of the entire herd. Given the sheeps' popularity with nature and photography enthusiasts and the sheep's delicate ecological balance, it only makes good sense to designate all of their habitat as wilderness and to maintain existing or decrease grazing levels.

Recreation: If recreation does increase as expected, I feel it is critical to designate all the proposed areas (with the addition of Rough Mountain) as wilderness. Many people will concentrate in the most accessible and scenic areas and many will spread out to find solitude. In the proposed action recreation use in Little Jacks Creek WSA is expected to become so heavy that a permit system will be necessary to minimize adverse impacts and protect the bighorn. Why not designate more lands as wilderness to provide greater opportunities for solitude and lessen the potential impacts of over-use?

91.02 Soil Stability and Watershed Management: Page 11 states that watersheds won't be impacted and that soil stability will improve regardless of designation. I couldn't find any back-up for this in the EIS and find the situation difficult to assess. Increasing grazing must, at the minimum, increase soil compaction which in turn would contribute to watershed degradation. I feel this question needs to be addressed.

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Multiple Use: I don't believe it is with the spirit of the Federal Land Policy and Management Act of 1976 to increase grazing to the extent proposed in the wilderness areas. Increased grazing may preempt wilderness values by interfering with natural succession and ecosystem balance. Increased grazing can eliminate future multiple uses such as scientific research, fishing, hunting, nature study, and archeological study. I feel the concepts deserves further investigation.

Cultural Resources: The EIS states that 10% of the prehistoric and 25% of the historic sites in the Bruneau Resource Area have been destroyed by livestock (page 77). Yet, livestock grazing is proposed to be increased 47% in the Pole Creek area and an incredible 75% in the Upper Deep Creek area.

The EIS also says vandalism to archeological sites is heaviest adjacent to roads, yet many of the finest National Register quality sites are not given roadless protection under the proposed action. It is pertinant that these areas be protected; once they are gone, they are gone forever.

WSA Comments

Little Jacks Creek: As the most popular WSA near Boise, this area certainly deserves wilderness designation. I am especially concerned that Shoofly Creek is not included in the preferred alternative. The Shoofly Creek canyon complex provides habitat for bighorn sheep (rare) and includes spectacular scenery. The areas around the historic Shoofly Rock Alignments have been damaged by cattle trampling and need immediate protection to save this resource.

91.03 I question the fisheries calculations on Shoofly Creek East, especially in the All Wilderness alternative. Please advise.

Probably one of the most important attributes of the Jacks Creek area is the relatively untouched native grasses. This EIS is a chance to save some of the extreme rarities in Idaho. Golden eagles, chukar, pronghorn antelope, mule deer, sage grouse, and rare California bighorn sheep as well as sensitive bobcats, mountain quail, and red band trout all rely on the Little Jacks Creek area. I strongly urge the BLM to consider CIHD's proposal for this area.

Big Jacks Creek: I commend the BLM's decision to not allow construction of a livestock trail across Big Jacks canyon and support the BLM proposal. This area will help take the pressure off of Little Jacks and offers exceptional wilderness values.

Duncan Creek: I support the BLM proposal to recommend a 9400 acre wilderness excluding several stock watering ponds.

Sheep Creek East: I support all wilderness for this area. It provides riparian vegetation, good hunting, and a spectacular gorge.

Sheep Creek West: This area provides the widest variety of plant communities in the Boise District and some of the best pronghorn antelope habitat. I support the BLM recommendation.

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Upper Deep Creek: Upper Deep Creek has much to offer and should be designated wilderness. It provides a key link between the main and north forks of the Owyhee and complements the other WSAs in that area very well. The area includes the juniper component of Sagebrush Steppe which is not represented in the National Wilderness Preservation System. I urge the BLM to reconsider their recommendation.

Pole Creek: Pole Creek provides a diversity of topographical features including basins, canyons, juniper covered hills, and flat tablelands. Probably the most impressive of Pole Creek's attributes is its 150+ archeological sites. I feel there should be emergency archeological excavation to prevent further vandalism and deterioration of these areas and wilderness designation to protect them.

Rough Mountain: I strongly endorse the Committee for Idaho's High Desert's proposal for Rough Mountain. It satisfies wilderness criteria and offers especially fine scenery with mountain mahogany at the higher elevations and birch along the streams. Wilderness protection of this area will help take some of the recreational pressure off Little Jacks Creek and thus, take pressure off the bighorn sheep.

In summary, I urge the BLM to adopt the Committee for Idaho's High Desert proposal. I would also like to stress that I, as a taxpayer, oppose all pipelines and other subsidized grazing "improvements" in this area. This area has too many fine qualities to risk destruction or degradation. I appreciate the effort the BLM staff has put into this EIS and am grateful for the opportunity to comment.

Sincerely,

Susanne Vader

SIERRA CLUB
MIDDLE SNAKE GROUP
Box 552 Boise, Idaho 83701

93

11-02-84

Mr. Martin J Zimmer, Director
Boise District, BLM
3948 Development Av.
Boise, ID 83705

Subject: Jack's Creek Wilderness DEIS

Dear Mr. Zimmer:

The Northern Rockies Chapter, on behalf of the entire Sierra Club, supports the Wilderness Alternative developed by the Committee for Idaho's High Desert. As you know, this alternative differs in several respects from any of the alternatives considered in the DEis.

1) Most importantly, it includes as wilderness the POISON GULCH (111-5) roadless area under the name "Rough Mountain". We felt this area more the meets the criteria for an outstanding wilderness area when BLM conducted its inventory. We still do.
The rolling terrain offers outstanding solitude and an excellent opportunity for primative recreation. The supply of natural land in Owyhee County is small and shrinking. Multiple use demands that the few natural areas left be designated Wilderness.

93.01

2) We support the boundry modification on the southern Edge of the LITTLE JACKS CREEK WSA proposed by BLM. We feel that the SHEEP CREEK EAST WSA should be expanded to include more of the roadless area on the plateau and the entire area recomended suitable for Wilderness.

We feel several of your proposals to recomend only part of a WSA to be unjustified.
1) Most importantly, the entire Shoefly drainage should be retained in the Little Jacks Creek area recomended suitable. The herd of bighorn sheep is important enough that BLM has an obligation to manage bighorn habitat so as to optimize the land and vegitation for the sheep. Even at the expense of forgoing possible increases in grazing development.
2) All of UPPER DEEP CREEK WSA should be recomended suitable for Wilderness. A canyon needs a surrounding plateau to be complete. Only with the plateau can the canyon be considered in context. The plateau helps define the canyon and should be a

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part of the Wilderness.

We support your proposal for a 9400 acre DUNCAN CREEK Wilderness and an 11,680 acre SHEEP CREEK WEST Wilderness.

We puzzled by your proposal to recomend the entire POLE CREEK unit unsuitable. While the inholdings of private land appear to present a management problem we feel that problem exists only as speculation. We propose that the unit be recomended suitable. In the event the inholder desires access it is clear that suitable provision would have to be made. That is what multiple use is all about. It does not make the area unsuitable for Wilderness.

93.02

Thank you for the opportunity to comment on this DEIS. We look forward to publication of the final.

Charles C. Yoder
Chair, Conservation Committee
Middle Snake Group.

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October 28, 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3948 Development Avenue
Boise, Idaho 83705

Attn.: Mr. Ted Milesnick, Team Leader

RE: Comments on the Jacks Creek Wilderness Environmental Impact Statement

Dear Mr. Milesnick:

I greatly appreciate this opportunity for public comment on the Jacks Creek Wilderness Environmental Impact Statement. I have a number of specific comments on your treatment of the WSAs, ecological impacts of the various alternatives, the AUM allocations under all alternatives, the Jacks Creek Pipeline, and the conflict between mandated sustained yield and true multiple use under FLPMA and the use designs forwarded in this document.

I strongly support Alernative 1, the All Wilderness Alternative because it is the only Alternative which allows true management of the linked habitats these WSAs form and because they all qualify for wilderness designation in their entirety. Staff suggestion that manageability should limit designated habitat is an abdication of mandated responsibility by the agency, and it is a vastly overplayed hand. The design of the Alternatives would make it appear that designating only 63% of the WSA acreagae is a compromise position. In fact compromise has already been made in the delineation of WSA boundaries and in assignment of WSA status to only a select anthology of sites; as you know, much of the responding public did not concur with the BLM on the limiting of WSAs in this area to these seven. These areas qualify for wilderness not because of funds spent on manageability but because of de facto situations. In fact a lack of expenditure is what has kept these areas from being ecologically mangled by crested wheat introductions, extensive vegetation manipulation using herbicides and brush/tree cutting, pipelines and other improvements which would have reduced immediate natural values to below even mitigation's ability to soon restore wilderness character. Future management should focus upon a maintenance and enhancement of naturalness, and the BLM should have the courage to address the reality that historically subsidized cattle grazing upon the public domain is just no longer economically viable - despite the subsidy. In a sense the grazing occurring today is on borrowed time, and as we live out the anachronism the BLM should be looking forward rather backward into the continuance of historic ecological abuses.

Specifically, rather than inflating grazing forage and opportunity (such as that provided by the Jacks Creek Pipeline), the BLM should be designating an increasi quantity of AUMs to wildlife, and should be seeking reintroduction of bighorn sheep in all of the habitat suitable. WSA boundaries should be changed in sculpture to include all existing and all potential bighorn sheep habitat (as depicted on all of your maps; non-contiguous disjuncts of potential habitats should be designated ACECs and carefully managed to not degrade this potential). By and large these would represent minor modifications of WSA design, yet ecologically these are needed for proper management and protection from other uses. Maximum ecological carrying capacity for bighorn sheep, antelope, mule deer, and other native species should be presented, and AUM allocations for a range of standing crops of native species should be cited for each alternative, including maximum carrying capacities (even in potential introduction sites).

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96.01

AUM allocations should be based upon extant forage levels, rather than projectio based upon future range improvements. What would the AUM levels be for each WSA unde drought conditions, and do your proposed grazing allocations leave enough room for even existing wildlife levels in a drought year scenario? What are the wildlife AUM allocations for each Alternative in each WSA? I am particularly concerned about the projected loss of bighorn sheep from formerly sequestered, native bunchgrass habitat. The Jacks Creek Pipeline is a sad case of the BLM abdicating prudent stewardship to serve one special interest beneficiary. The public interest is the big loser in that case, not only in economic terms but also in habitat degradation and the disturbance (or direct population decreases) which will result from added human activities such as pipeline maintenance, livestock monitoring, and poaching from the new access. The pipeline would enter the heart of critical wildlife winter range, and there is unsatisfactory assurance that the native grassland into which it will intrude will be sufficiently resilient to remain intact under the projected grazing pressure. Why not allocate all of the AUMs at this site to bighorn sheep and other native species without the pipeline? In wilderness character habitats the path of least environmental consequence should be the guiding light in management practices. In the waning days of grazing the public domain it is decadent and irresponsible to degrade any additional native grassland. Staff proposals to bring up livestock grazing 35% in the Bruneau Resource Area in the coming two decades, increase livestock grazing levels by 43% within the seven WSAs treated herein, and raise introduced herbivore grazing by 54% in the winter range area of Little Jacks Creek are clear evidence that the BLM is groping for a way to prop up an industry that is in a tailspin. It is also a demonstration that the staff is responding to special interest pressures over living up to the mandates of the FLPMA. The magnificent series of papers Coggins has produced over the past several years show that there is no legal reason the BLM has to continue to submit to special interest services at the sacrifice of ecological (not to mention public interest) values that will be expensive years in mending. The blunt truth is that the public interest would obviously be better served if the agency were to merely pay the welfare subsidiaries directly and allow other non-consumptive uses to inherit these lands. The following increase in wildlife and harvestable game would far outweigh private gains from the elite few who currently enjoy this subsidy. Enhancing the range from present conditions under current grazing pressure at ca. 210,000 AUMs to good range conditions would more than double current AUM values to more than 410,000 AUMs. Present depauperate populations of antelope and deer are a product of the BLMs lack of parity for wildlife compared with allocated grazing forage. While deer and antelope have different diets from cattle during much of the year, making direct comparison qualified, there is no doubt that deer, antelope and elk populations could be up to 30 times greater than their present sizes on the public domain.

96.02

A table should be presented designating wildlife AUMs under each alternative in an array of population increase sizes (with cattle AUM allocations being correspondingly decreased). To comply with the mandates of public rangeland management law (see Coggins'series of papers), the BLM has no choice but to modify its stand on grazing. The true irony is that economic decline is doing what the Taylor Grazing Act and FLPMA could not, i.e., reducing grazing on the public domain, perhaps with the most abused sites collapsing first. The public will be left picking up the pieces and wildlife will be left nibbling at the cracks. This EIS has particular significan to this reader because of the remarkable grazing pressure increases it proposes on documentedly sensitive habitats and land characters while at the same time acknowledg ing designation quality wilderness. I disagree with staff's assertions (see page 10, for example) that wildlife will benefit from the pipeline. Cattle and wildlife do not mix at the watering trough, and it seems very likely that the benefits bighorn sheep, antelope, deer, or elk would accrue from imported water will be far offset by forage competition pressures. Rather than continue to throw money at "range improvements" like the pipeline, I urge BLM to fund a longterm research effort to develop genotypes of native bunchgrass species which can withstand cheat grass competition and fire cycles more frequent than those in which they evolved.

96.03

V-75

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Much of the descriptive work in this document seemed quite good and gave a valuable and accurate portrayal of the WSA values. I urge the BLM to re-read Coggins papers and Sacred Cows, and to moderate the AUM allocations for grazing, actually designating AUMs to wildlife allowing population increases in all WSAs. I am attaching a paper, "Wildlife: Is It Necessary?", presented by Bruce Bowler at the 48th Idaho Wildlife Federation Annual Meeting, which articulates good reason for returning forage to wildlife over the current emphasis on welfare grazing privile for a few beneficiaries. Should the BLM select an Alternative other than 1, I urge you to protect the wilderness character in the excised acreage by designating it an ACEC in lieu of actual wilderness protection.

Please include this letter and the attachment in the record. Thank you for your consideration.

Sincerely,

Peter A. Bowler
Star Route
Bliss, Idaho 83314

References I urge the staff to read and cite:

Coggins, G.C., P.B. Evans, and M. Lindberg-Johnson. 1982. The Law of Public Rangeland Management I: The Extent and Distribution of Federal Power. Environmental Law 12: 535-621.

Coggins, G.C. and M. Lindberg-Johnson. 1982. The Law of Public Rangeland Management II: The Commons and the Taylor Act. Environmental Law 13: 1 - 101.

Coggins, G.C.1983. The Law of Public Rangeland Management III: A Survey of Creeping Regulation at the Periphery, 1934-1982. Environmental Law 13: 295-365.

Coggins, G.C. 1983. The Law of Public Rangeland Management IV: FLPMA, PRIA, and the Multiple Use Mandate. 1-132.

Coggins, G.C. 1984. The Law of Public Rangeland Management V: Prescriptions for Reform. Environmental Law 14: 497-546.

Ferguson, D. and N. Ferguson. 1983. Sacred Cows at the Public Trough. Maverick Publications, Bend, Oregon.

96

April 24, 1983

Mr. C. Vernon Peugh
Bruneau Area Manager
Bureau of Land Management
1948 Development Avenue
Boise, Idaho 83705

RE: Comments on significant issues and alternatives which should be addressed in the Jack's Creek Wilderness Environmental Impact Statement

Dear Mr. Peugh:

I greatly appreciate this opportunity for public comment on issues of significance and alternatives to be considered in your evaluation of the 175,630 acres of public lands comprising the WSAs analyzed in the Jack's Creek Environmental Impact Statement.

In terms of the Alternatives developed in Document 8500, I strongly support Alternative 1 (All Wilderness), since it would best serve both the legal mandates of the FLMPA and modern range law, and the true public interest. The BLM's Proposed Action seems clearly biased toward recommending Wilderness Designation for only "Highest Quality Wilderness" and to reduced levels of Alt. 3, the "All Manageable Wilderness" Alternative. This does not comply with FLMPA mandates, which requires that all wilderness resources be given better representation than your grazing system implies. The law journal of the Natural Resources Law Institute (Lewis and Clark Law School) has published the first three of a five part series on modern range law; I have sent Mr. Zimmer of your office copies of these three papers and I request that you read them. In the first paper Dr. Coggins clearly delineates the legal foundations establishing that wilderness resources must be considered a higher public interest, public benefit use and resource than the historic federal grazing subsidy given to small, private, special interest groups comprising the small segment of the national livestock industry who are recipients of this federal subsidy. Frankly, it seems likely to me that the BLM has no legal choice but to recommend designation of all identified wilderness public domain - regardless of issues like "manageability", ecological condition, and so forth; grazing actually has far lower standing and is a peripheral, secondary issue according to range law; after reading Coggins I think you'll understand this point better.

96.04 I think that the minimum recommendation BLM could forward would be all of Alt. 3, with some level of designation for Units 111-18 (Pole Creek) and 111-36b (Sheep Creek East); even then, BLM could lose a superior court challenge. Document 8500 is not legally adequate because Units 111-18 and 111-36a have no representation in the Alternatives.[1] This obviously is in clear violation of NEPA, and must be corrected in the Final E.I.S. (Unit 111-44 is also under-represented.) Failure to adequately represent all WSA Units in a NEPA-based E.I.S. could put the BLM in a position similar to the Forest Service in the recent RARE II decision. One other confusing aspect of the Alternatives as displayed in Table I is that there is great discrepancy

96.05 in the acreage levels cited in the cover letter for Document 8500 and in the acreages of some of the Alternatives, which are higher than the acreage listings for the WSAs or Alt. 1. (For example, Duncan Creek is listed as 10,085 acres in Alts. 3 and 5, but only as 10,005 acres in Alt. 1; Big Jacks Creek has two more acres in Alt. 3 than in Alt. 1.) This is confusing to the public reviewing the document.

[1] If there is no way that reasonable alternatives can be designed including options for these two Units within the framework of the seven Alternatives listed, then the BLM must construct additional Alternatives. The EIS cannot be legally adequate if no alternatives are provided for two WSAs.

96

November 1, 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3948 Development Avenue
Boise, Idaho 83705

Attn.: Mr. Ted Milesnick, EIS Team Leader

RE: Additional material for the record of the Jacks Creek Wilderness EIS

Dear Mr. Milesnick:

Attached find a letter I wrote to Mr. Peugh (April 24, 1983) regarding issues which concerned me during the formulation of the Jacks Creek Alts. and my comments on the Monument Resource Management Plan Alternatives (Shoshone District Office, May 3, 1983). Please include these letters in the Jacks Creek Wilderness EIS record because they portray concerns relevant to your design of Alternatives and the manner in which true public interest management should be carried out according to modern public rangeland management law. I think that these will clarify and complement the statement I sent to you a few days ago. As you can see from my April 24, 1983 letter, I support the CHID/Sierra Club Jacks Creek Wilderness Proposal, and within the construct of your Alternatives, Alternative 1.

Thank you for your consideration. I look forward to your response to my comments. If you have any questions regarding them, do not hesitate in contactin me.

Sincerely,

Peter Bowler

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Planning Criteria:

-Evaluation of Wilderness Quality.

All of these lands have wilderness qualities - as elucidated in the WSA records for each unit - and the E.I.S. should not constrain itself to conservative viewpoints about roads,[2] ways, and other interferences with the solitude experience at these sites. Most of these sites were severely pruned to the present WSA size, and this is no time to go back on wilderness boundary decisions for reasons that can be mitigated or obliterated over time. This area of Idaho is remote, and is unlikely to receive abusively high use levels as a wilderness which would cause management problems. The truth of the matter is that the remoteness of the area and relatively low grazing potential has been what makes the site even considerable as wilderness. This isolated desert land has little water, cannot realistically be exploited for agriculture, and it has no significant "national security" encompassing minerals, oil, coal, or the other usual and developable resources present on other public lands. In terms of grazing potential, this is not top quality land or it would likely have grazed beyond hope of ecological restoration already. The one very strong public interest value this land does possess is that of wilderness character. Yet it is this very element which has been lost on most of the public domain.

In your assessment of wilderness quality of these lands I urge you use forward looking vision. Rather than persist in the triage viewpoint of only trying to preserve wilderness in the best and biggest examples please consider the maximum potential of each of these wilderness candidates... Were remedial mitigation measures employed, over-grazed sites in poor "ecological condition" relieved of grazing pressure and allowed recover, and the marks of man obliterated or planted over, how much of each area could then be restored to good wilderness habitat? To me the recognition of maximum public interest potential of public domain is the real mandate of trust stewardship. We need to start having a more creative vision in our decisions. Is any of the habitat in question a good site for the re-introduction of desert bighorn sheep - or the expansion of existing herds? Could populations of sensitive or endangered species on these sites be enhanced by reducing grazing levels? I agree with Wallace Stegner's statement that "Something will have gone out of us as a people if we ever let the remaining wilderness be destroyed." Wilderness is the critical habitat of man, and as man's technology and urbanization of our living habitat increases, more and more we feel the need to be revitalized by seeking and touching the natural. The desert Wildernesses have been the last to be recognized, and for those that are not designated, we feel a "...deep appreciation and a sense of loss have arrived simultaneously" (Barry Lopez).

-Manageability.

While manageability of this isolated desert area should be discussed, too often this issue is a true red herring, used to deny approval of preservation because of cost; then allocating the acreage to a consumptive, secondary use such as grazing. "Manageability" problems should never be

96.06 reason for denying protection of wilderness resources. Only in Unit 111-36a does your Proposed Action include the listed "manageable wilderness" indicated in Alt. 3. As I mentioned earlier, all of Alt. 3 should be included in your Proposed Action, and the management difficulty for all of the

[2] It should be remembered that many of Idaho's montane wilderness jewels have roads, telephone or power corridors, well cleared trails, and numerous "ways" in them. Since these desert lands have not been specifically managed to enhance and retain wilderness character, it is naive to press this issue in decisions to exclude sites. Management toward wilderness enhancement would make almost all of these WSAs high quality wilderness habitat. As Frank Waters has stated, "If one is patient, if you are careful, I think there is probably nothing that cannot be retrieved."

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excluded parcels in each WSA should be clearly elucidated so that the public can see why the BLM considers their management toward wilderness character retention difficult. This is especially critical in the cases of Units 111-18 and 111-36b, for which you cite no "manageable" wilderness acreage. The management difficulty must not be a conflict with livestock use, since that is an unacceptable secondary use of public trust lands compared with public interest preservation of limited wilderness resources (see the Coggins paper). If the BLM is maintaining that there would be a use or management conflict with grazing, then the cattle must go - not wilderness characteristics. Wilderness benefits all of American society, while the grazing subsidy benefits only a few private interests. If BLM can document that management problems will cost more money, they should request additional appropriation toward that end - or re-allocate their existing resources. (I have never seen "manageability" cited as a problem associated with livestock use, yet the public domain is notorious for overgrazing conditions...we are the BLM to simply not allocate grazing permits at sites where grazing cannot be properly managed, the public interest would be better served. This is especially true in WSAs.)

96.07

Previously Identified Issues:

-Impacts of increased livestock grazing on good condition Sagebrush Steppe areas.

There is no question that if increased livestock grazing on good condition Sagebrush Steppe areas degrades the "ecological condition" of the site, then the BLM should not permit it since it would be contrary to stewardship and good management of the public domain in the public interest - which is the mandate handed down by the FLMPA. Before livestock grazing AUM levels are increased anywhere on public lands there should be a clear demonstration that the public at large would benefit from the action. A more profound question than should more cattle be allowed to graze candidate wilderness lands is why not increase wildlife AUMs and leave special interest groups like the livestock producers at their present levels, or lower them? It is my understanding that livestock raised on the federal grazing subsidy, which amounts to federal welfare in the real world of free market competition, comprises only around 3% of the poundage produced in the U.S. The BLM should strive toward a greater parity between grazing and wildlife AUMs, especially where a sensitive resource like wilderness is concerned. In most of the Units with which I am familiar, wildlife is allocated less than 5% of the forage, while cattle are given the rest (i.e., all non-cliff or non-rugged terrain habitat that can be negotiated by cattle). According to the reviews by Coggins, this kind of allocation ratio is probably illegal and would not survive superior court scrutiny. This issue is peripheral to the BLM wilderness recommendation decisions.

-Impacts of wilderness designation on livestock industry.

As has been the historic case, wilderness designation has no impact at all on existing cattle AUM allocations, unless overgrazing begins to change the "naturalness" of the area. If livestock allocations or abuse get to the point where they degrade the range or impact naturalness, they should be reduced anyway; this should in no way influence wilderness recommendation. As the public interest stewards of federally owned land, the BLM and the public are in no way beholden to the group of private interests that make money by getting free food off our land. In other words, this is a red herring issue if grazing levels are reasonable; but if they aren't then cattle - not wilderness - must go; the FLMPA allows no choice. Far better grazing subsidy sites occur elsewhere on public lands; our desert wilderness options are restricted to basically lousy grazing range in remote parts of the desert that are undesirable for any other kind of resource exploitation. Wilderness, not grazing areas, is what is limited in our public's cultural land heritage.

-A Management Plan for the portions of each WSA BLM intends not to recommend in each alternative should be presented which informs the public of how the BLM plans to steward wilderness and "naturalness" qualities in excluded parcels.

The BLM should not abdicate responsibility for wilderness qualities present in the portions of the WSAs it does not recommend for designation.

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-The maximum public interest potential of each WSA should be discussed, were wilderness and a restoration to maximum ecological potential the basis of management for each WSA.

The BLM should carry out an honest appraisal of each WSA were all livestock grazing removed and whatever mitigation measures necessary carried out to bring each WSA up to its maximum wilderness potential. What would that be at each site? Could they all be restored to "high quality wilderness" levels? I would like to see this presented in an acreage table. The BIM has evaluated these areas from the perspective of keeping the same special interest group benefits (or increasing them), but the public interest needs the other side of the coin examined as well. What is the best condition that these sites could be developed into were cattle removed and reasonable mitigative measures carried out to obliterate any existing mark s of man? Would any of the sites be likely candidates for a bighorn stocking program? What are the maximum kinds of wildlife and community species diversity measures we would anticipate in a decade, two decades, or more? The public interest demands that the maximum potential valuation of public resources be considered in these decisions, since the broader public might not only benefit more from managing toward wilderness - but might choose to do so, despite economic loss to the few cattlemen in question.

96.10

-The concepts of manageability, highest quality wilderness, and resource conflict need to be very clearly spelled out for each WSA.

This issue is essential to public review of not only your EIS but the alternatives BLM designed. We need to clearly understand why you consider none of the Pole Creek or Sheep Creek East units manageable; what are your criteria in excluding so much of each unit (all of four WSAs) as highest quality wilderness; why is BLM only proposing to designate the highest quality sites with the least resource conflict; is your concept of resource conflict objective and within the mandates of the FLMPA and modern range law; what kind of parity do you attempt to strike between wildlife and cattle AUM allocations and between cattle grazing levels and wilderness?

96.11

-Additional Alternatives.

Despite the large number of alternatives, BLM must design alternatives that include Pole Creek and Sheep Creek East to be in compliance with NEPA.

The BLM should keep in mind what the true public interest is and remember that the livestock industry is an anachronism today, and comprises a tiny minority of public land users. They should be treated as such. Grazing the public domain is one of the historic tragedies of western ecology. Modern range law, despite the hallucinations of Sagebrush Rebellion advocates, now mandates a reversal of the historic subsidy program that has served to degrade most of the public domain.

Our culture in America is famous for its Wilderness areas and its National Parks. These are all the heritage that we have in terms of the oldest elements in our society - we have no medieval cathedrals or Roman ruins. Wilderness is something unique to our society that can be cherished by our progeny; it is a sign of cultural wisdom that we have chosen to preserve these key segments of our lands. Europeans and other cultures with no wildernesses of their own admire us for this wisdom. There is no mitigation for the loss of any additional wilderness or habitat which could be restored to wilderness.

Please include this statement in the E.I.S.

Sincerely,

Peter A. Bowler
Star Route
Bliss, Idaho 83314

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-Impact of wilderness designation/non-designation on sensitive California bighorn sheep populations.

Wilderness designation can only have a positive impact on the bighorn sheep population. Designation would first of all prevent habitat degradation and encroachment by not allowing any additional roading or livestock increases that significantly degrade the existing habitat. I can see no way that wilderness designation and use could negatively affect this species; if human molestation or some other issue arose, it would be far easier to enforce special management or use regulations in a wilderness area than in a non-designated area.

-Impacts of wilderness designation/non-designation on the Jack's Creek livestock watering pipeline proposal.

I was personally adamently opposed to this sad decision which violates the public interest in every way - it benefits only a couple of ranchers and the public again gets stuck with the tab of paying federal money so a tiny minority can make a few more dollars by allowing them to raise more cattle on federal grass. I strongly oppose the addition of spurs on the Big Jack's side which would degrade candidate wilderness habitat - whether the BLM chooses to actually recommend designation or not. This lame issue should not in any way influence BLM against designation at this site. In a more enlightened time we may see mistakes like this dismantled.

Additional new issues which should be addressed:

-Already designated "surplus lands" and privatization.

One of the issues which should be clearly discussed is that of "privatization" and "surplus land" designations in any area adjacent to or within use impact reach of these WSAs. If there are any adjacent lands which will ever be considered for "surplus" designation and possible privatization they should be red-flagged and removed from surplus land consideration since they would negatively impact a higher beneficial use resource, potential wilderness quality habitat on public land. The public should have assurance from the BLM that all WSAs will have a permanent, federally held, buffer zone around them protecting them from potential impacts of privatization. I am not proposing that the federal government purchase private holdings now in existence bordering WSAs, I'm just requesting that BLM not sell any land bordering any wilderness quality resource. Any surplus lands presently up for auction should be clearly mapped in relationship to these WSAs, and a clear buffer zone mapped if any surrounding lands are to be considered for sales in future years. This should be presented in the EIS.

96.08

-WSA lands not recommended for wilderness designation.

Another real aspect of the privatization issue is that of the eventual fate of all non-special category public domain lands. Since the BLM has posited the concept of incrementally selling off increasingly large segments of land over the next four years, does this mean that any land not designated in a special category - such as wilderness - could then be considered in this sequentially increasing divestiture? Would WSA land not recommended for wilderness designation be included in this general auction evaluation category? If so, then this is another strong reason for recommending the All Wilderness Alternative. Idaho has had little land under BLM purview placed in special categories for protection; to my knowledge there has not been one ACEC designated in Idaho. The privatization issue and surplus lands must in no way interfere with wilderness qualities on public domain lands - either directly or indirectly.

96.09

-Clear maps for each WSA under each Alternative showing exactly which portion of each would be recommended for Wilderness Designation and which would not; "resource conflict" areas should also be indicated.

The public reviewing this EIS should be able to clearly understand exactly what portions of each WSA will be recommended or not recommended for wilderness designation, and how this impacts the integrity of each WSA in all Alternatives.

conoco

E. Fred Birdsall
Public Lands Coordinator

Conoco Inc.
555 17th Street
Denver, CO 80202
(303) 291-6123

100

November 1, 1984

Mr. Ted Milesnick
BLM - Boise District
3948 Development Avenue
Boise, ID 83705

Dear Mr. Milesnick:

Re: Proposed Jacks Creek Wilderness Suitability

It would appear axiomatic that energy companies do not lease in areas of zero oil and gas potential. If companies or individuals have leased 25,000 acres in the Jacks Creek WSA's 111-6, 7c, and 36A, there must have been a reason, and the only reason is that they assess some geologic potential. Your statement, "there are no known energy resources in the WSA's," is, absent drilling, accurate. To further state "geologic environments are not favorable for significant marketable energy" presupposes knowledge of the unknowns possible geothermal overheating which might have destroyed fluid hydrocarbons. Nobody knows . . . yet. Foreclosure by wilderness designation will insure that nobody knows . . . forever.

100.01

My company holds leases to the north and west of Jacks Creek; so do others. We do not agree with your geologic opinion. Jacks Creek is obviously a geologic frontier for us and we do not foresee early drilling. It would appear, therefore, much wiser to put Jacks Creek in abeyance as an ACEC, resource natural area, or other non-foreclosing designation until the subsurface can be viewed with greater accuracy.

Yours very truly,

E. Fred Birdsall

E. Fred Birdsall

bp

IDAHO STATE HISTORICAL SOCIETY
610 NORTH JULIA DAVIS DRIVE BOISE, 83702

103

November 2, 1984

Bureau of Land Management
Jacks Creek Wilderness EIS
3948 Development Avenue
Boise, Idaho 83705

Dear Sir:

We have reviewed the Jacks Creek Wilderness EIS. Our concern is with the cultural resources in the areas. We have the following comments:

1. Pages 76-78: An adequate inventory of the archaeological and historic properties in these Wilderness Study Areas does not exist. Even in the Pole Creek WSA where extensive archaeological research has been conducted, a complete inventory is not available. Because of this, it is difficult to assess the effects of wilderness designation or increased grazing on archaeological or historic properties. 103.01

2. Pages 108-110: It is our observation that damage to archaeological sites from livestock occurs mainly around springs. The BLM's current policy of fencing springs and placing the water tanks at some distance from the source minimizes livestock impacts and we encourage such spring development. We do not think "trampling" is a major problem away from springs. 103.02

Based on observations in the River of No Return Wilderness, we feel vandalism to archaeological sites will decrease if these study units are put in the wilderness system, even if visitor use increases. 103.03

Sincerely,

THOMAS J. GREEN
State Archaeologist

TJG/rm

107

November 2, 1984
Mr. Martin J. Zimmer
Boise District

page two

Finally, let me emphasize the excellent environmental record industry has developed with regard to oil and gas exploration and production activities in sensitive environments. The industry has demonstrated repeatedly that its operations are entirely compatible with special environmental resources, including wilderness values. Special stipulations provide superlative protection for these values, and one ought not presume environmental degradation if oil and gas activities were allowed in sensitive areas. We urge the BLM to keep this in mind as it considers wilderness recommendations for some of its lands; oil and gas activity can coexist with wilderness values without withdrawing these areas from multiple use. The nation has many needs in addition to augmenting its national wilderness preservation system. We urge the BLM to consider another land classification that will enable environmentally sound oil and gas activity to take place in the Jacks Creek Wilderness Study Areas.

Thank you for considering our views. Please let me know if you have any questions.

Very truly yours,

Alice I. Frell
Public Lands Director

AIF:cw

by C. Wilson

Rocky Mountain Oil & Gas Association, Inc.

345 PETROLEUM BUILDING • DENVER, COLORADO 80202
303/534-8261

Alice I. Frell
Lands Dir.

107

November 2, 1984

Mr. Martin J. Zimmer
District Manager
Boise District
3948 Development Avenue
Boise, ID 83705

RE: 8500

Dear Mr. Zimmer:

I am writing on behalf of the Rocky Mountain Oil and Gas Association (RMOGA) in response to the BLM's request for public comments on the Jacks Creek Wilderness Environmental Impact Statement (EIS) in Owyhee County.

RMOGA is a trade association comprised of hundreds of members, large and small, which represents more than 90% of the oil and gas exploration and development activities in the eight Rocky Mountain states it serves.

While the BLM's geologic evaluations of the Wilderness Study Areas (WSAs) in the Jacks Creek Wilderness Area may indicate insignificant oil and gas potential, it is important to note that those in the business of finding and producing oil and gas resources--oil and gas companies--appear to think otherwise. There are some 25,000 acres in the area under oil and gas lease, a sure indicator that the geologic potential exists for the occurrence of oil and gas resources. Further, it is extremely significant that no on-the-ground exploration has been conducted in this area, making it impossible to conclude that the area has a low potential for the discovery of oil and gas. As you may know, even if experts believe an area to be high or low in oil and gas potential, no verification can be made until drilling occurs. Unfortunately, exploration technology has not progressed sufficiently to enable surface observations or even geophysical exploration to conclude that oil and gas is or is not present in an area; drilling must occur for such conclusions to be made. 07.01

We therefore do not agree with the BLM that a wilderness decision will have an insignificant impact on energy or mineral resources in the Jacks Creek area. We encourage the BLM to minimize the amount of wilderness recommendations made in areas that are under oil and gas lease, or in areas where it is believed by industry to be favorable for oil and gas discovery.

DEPARTMENT OF THE AIR FORCE
REGIONAL CIVIL ENGINEER, WESTERN REGION (AFESC)
630 SANSOME STREET - ROOM 1316
SAN FRANCISCO, CALIFORNIA 94111

109

REPLY TO ATTN OF: ROV (Cox/556-6439)

SUBJECT: Jacks Creek Wilderness Environmental Impact Statement (EIS), your letter dated 20 July 1984

TO: Department of the Interior
Bureau of Land Management
Boise District
Mr. Martin J. Zimmer
District Manager
3948 Development Avenue
Boise, ID 83705

1. We appreciate the opportunity to comment on the subject EIS and we offer the following comments:

a. As you are aware, some of the Jacks Creek Wilderness Area has historically been subject to military overflights which should continue in the future. In the past, there have not been any problems between the Air Force and the Bureau of Land Management concerning potential conflicts between military overflights and wilderness designations. We, therefore, concur with any of the alternatives your agency designates, provided no restrictions are placed on military overflights in wilderness areas.

b. There are certain aspects of the alternatives mentioned which we would be less inclined to support because areas which are appropriate for military overflights are becoming increasingly rare. Desirable characteristics include: relatively isolated locations of sparse populations, areas presently under federal jurisdiction, diverse topography, and areas which lack heavy commercial activities such as mining.

2. Therefore, the Air Force supports the alternative (Alternative 1) that provides for the maximum amount of wilderness designation. This support would be based on the condition that no restrictions are placed on military overflights. We appreciate this opportunity to comment on the EIS concerning the Jacks Creek Wilderness. 109.01

3. Please send future environmental documents to this office for review and comment. We appreciate your past efforts to include the Air Force in your coordination. Any questions or concerns can be directed to our natural resource project officer, Mr. William Cox, (415) 556-6439 or FTS 556-6439.

ROBERT B. CAMERON, Acting Chief
Environmental Planning Division

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Representing the 2,500,000 Acres of Irrigated Land

Idaho Water Users Association, Inc.

AFFILIATED WITH NATIONAL WATER RESOURCES ASSOCIATION
410 S. ORCHARD SUITE 144 BOISE, IDAHO 83705
TELEPHONE 344-6630

SHERL L. CHAPMAN
Executive Director

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DANIEL STAPELMAN
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Insurance
DALE DEPEW
Nominating & Awards
CHUCK COLLINS
Energy

ADVISORS

A. KENNETH DUNN
Director, IDWR
[illegible] PANTER
Associate Member

110.01

November 12, 1984

Bureau of Land Management
Boise District Office
3948 Development Avenue
Boise, Idaho 83705

SUBJECT: Jack's Creek Wilderness Environmental Impact Statement

Dear Sirs:

The Idaho Water Users Association, which represents over 150 irrigation districts and canal companies as well as some 65 agri-businesses throughout the State of Idaho, wishes to provide comment regarding the Draft Environmental Impact Statement on the proposed Jack's Creek wilderness area.

Our Association is concerned with the lack of consideration of water resources in the Draft Environmental Impact Statement. While water usage within the proposed wilderness areas under all alternatives is considered insofar as grazing and site specific water resource impact, no consideration is given to impact on water resources or water resource projects upstream or downstream of the proposed wilderness areas in light of the on-going Sierra Club vs. Block litigation in Colorado. It is the recommendation of the Idaho Water Users Association that in any final Environmental Impact Statement adopted that a formal disclaimer be included that clearly states that the BLM and the Federal Government do not intend through the adoption of any wilderness area on Jack's Creek to expand the federally reserved water rights doctrine outside the boundaries of the Jack's Creek wilderness area or within the wilderness area for any purposes other than those specifically identified as a wilderness purpose.

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I look forward to commenting on the final Environmental Impact Statement.

Sincerely yours,

Sherl L. Chapman

Sherl L. Chapman
Executive Director

SLC:kje

LIST OF PREPARERS

Name	Position	Team Assignment	Education	Experience
Steve Addington	Outdoor Recreation Planner/Wilderness Specialist/ Archaeologist	Technical Coordinator, Wilderness, Recreation, Cultural Resources, Scenic Quality	B.A. Anthropology Central Washington University	4 years; Journalist; USMC 2 years; Seasonal Archaeologist; Univ. of Washington 2 years; Historical Researcher; State of Washington 7 years; Recreation Planner/ Archaeologist; BLM
Fred Anderson	Geologist	Geology, Minerals and Energy	B.S. Geology Oregon State University	4 years; U.S. Geologic Survey 4 years; Federal Highway Administration 13 years; BLM
Dana C. Danzer	Soil Conservationist	Watershed	B.S. Fish & Wildlife Mgt. Montana State University	2 years; Range Conservationist; BLM 4 years; Watershed Specialist; BLM 6 years; Soil Conservationist; BLM
Stanley Frazier	Economist	Economics	B.S. Agricultural Economics Oregon State University	13 years; Economist; BLM
Edward Gheen	Fisheries Biologist	Fisheries	B.S. Wildlife Management University of Idaho	3 years; Fisheries Technician; Alaska Dept. of Fish & Game 8 years; Range Conservationist; BLM 8 years; Wildlife Biologist; BLM 5 years; Fisheries/Wildlife Biologist; BLM
Mark Hilliard	Wildlife Biologist	Wildlife	B.S. Wildlife Management Humboldt State University M.S. Wildlife Science Utah State University	7 years; Wildlife Biologist; Utah Dept. of Fish and Game 12 years; Wildlife Biologist; BLM
Frank Jenks	Archaeologist/ Outdoor Recreation Planner/Wilderness Specialist	Cultural Resources, Wilderness, Recreation, Scenic Quality	B.S. Anthropology University of Toledo	9 years; Archaeologist; BLM
Nancy Lull	Editorial Assistant	Word Processing	University of Idaho Boise State University	2 years; Clerk-Typist; AFCOMS 2 years; Editorial Assistant; BLM
Wally Meyer	Recreation Planner	Wilderness,Recreation	B.S. Forestry Oregon State University	1 year; Ranger; NPS 6 years; Forester/Recreation; USFS 6 years; Recreation Specialist; BOR 17 years; Recreation Planner; BLM
Fred Minckler	Environmental Specialist	Team Leader	B.S. Fishery Management Utah State University B.S. Wildlife Management Utah State University	1 year; Soil Conservation Technician; SCS 4 years: Fishery Biologist NMFS 2 years; Fishery Biologist; BLM 9 years; Environmental Coordinator; BLM
Michael Pellant	Range Conservationist	Livestock grazing	B.S. Botany Fort Hays State University M.S. Range Science Fort Hays State University	12 years; Range Conservationist; BLM
Clarence Ouellette	Visual Information Specialist	Cartographics	High School Diploma	23 years; Imagery Interpretation Specialist; USAF 12 years; Visual Information Specialist; BLM
Jerry Taylor	Range Conservationist	Vegetation	B.S. Range Science Montana State University	10 years; Range Conservationist BLM
Teresa Thomason	Editorial Assistant	Word Processing	Oregon State University Kauai Community College Boise State University	9 years; Editorial Assistant; BLM

APPENDIX A
WILDLIFE ENHANCEMENT MEASURES

MEASURES TO IMPROVE MULE DEER HABITAT

Grazing systems would recognize the physiological requirements of key forbs and shrubs needed by mule deer. Utilization of key shrub species by all classes of animals would be limited to 50%. On mule deer winter ranges, utilization of shrubs by livestock would be limited to 30%, thereby leaving 20% of the available annual production for wintering deer.

Vegetative treatments on deer ranges dominated by juniper and big sage sites would be designed to achieve a ratio of 60% forage to 40% cover. Such treatments, also, would not exceed one-fourth mile in width, and the optimum would retain continuous zones of interconnecting cover (600-1,200 feet wide) as well as associated cover patches of six to 26 acres.

MEASURES TO IMPROVE ANTELOPE HABITAT

Vegetative manipulations on antelope ranges would be designed to maintain a 5-20% canopy cover of shrubs.

MEASURES TO IMPROVE SAGE GROUSE HABITAT

Vegetative treatment projects within two miles of known strutting grounds would be limited to practices which also enhance sage grouse habitat since this area constitutes the breeding complex for sage grouse.

The density of the sagebrush canopy cover would be maintained at 20-30% within nesting habitats and at least 20% in known wintering habitats. In brood rearing areas, the sagebrush canopy coverage would not be reduced below 10%.

APPENDIX B
ECONOMICS APPENDIX

In response to public comment this appendix has been added to show:

1. Gross Output Multipliers.
2. Earnings/Gross Output Ratios.
3. An example of the calculations made for one alternative.

Table B-1

Gross Output Multipliers
BEA Economic Area 159 [1/]

Industry	WRC Sector [2/]	Multiplier
Agriculture	(03) Meat Animals, Misc. Livestock	2.662
	(08) Vegetables, Sugar, Crops	2.549
Manufacturing	(19) Meat Products	2.774
	(27) Frozen Meats and Vegetables	2.191
	(29) Prepared Feed for Animals	2.138
	(34) Other Food Products	2.060
	(38) Lumber and Wood Products	2.395
	(46) Stone, Clay, and Glass Products	2.122
Retail Trade	(54) Wholesale and Retail Trade	2.262
Wholesale Trade	(54) Wholesale and Retail Trade	2.262
Services	(56) Services	2.296
Construction	(18) General Contractors	2.022
Finance, Insurance, Real Estate	(55) Finance, Insurance, Real Estate	1.803
Transportation and Public Utility	(53) Transportation, Communication, Public Utility	1.978

Source: U.S. Water Resources Council, 1977.

[1/] Bureau of Economic Analysis Area that includes Owyhee County.

[2/] May include several Standard Industrial Classifications.

Table B-2

Earnings/Gross Output Ratios
Region 159

Industry	Calculation [1/]	Ratio
03	$\frac{1}{2.662}$ (.158) + (1 - $\frac{1}{2.662}$) (.3008)	0.247
08	$\frac{1}{2.549}$ (.511) + (- $\frac{1}{2.549}$) (.3008)	0.383
18	$\frac{1}{2.022}$ (.289) + (- $\frac{1}{2.022}$) (.3008)	0.295
19	$\frac{1}{2.774}$ (.095) + (- $\frac{1}{2.774}$) (.3008)	0.227
27	$\frac{1}{2.191}$ (.138) + (- $\frac{1}{2.191}$) (.3008)	0.227
29	$\frac{1}{2.183}$ (.040) + (- $\frac{1}{2.183}$) (.3008)	0.179
34	$\frac{1}{2.060}$ (.220) + (- $\frac{1}{2.060}$) (.3008)	0.261
38	$\frac{1}{2.395}$ (.239) + (- $\frac{1}{2.395}$) (.3008)	0.275
46	$\frac{1}{2.122}$ (.317) + (- $\frac{1}{2.122}$) (.3008)	0.308
53	$\frac{1}{1.978}$ (.311) + (- $\frac{1}{1.978}$) (.3008)	0.306
54	$\frac{1}{2.262}$ (.513) + (- $\frac{1}{2.262}$) (.3008)	0.395
55	$\frac{1}{1.803}$ (.160) + (- $\frac{1}{1.803}$) (.3008)	0.223
56	$\frac{1}{2.296}$ (.487) + (- $\frac{1}{2.296}$) (.3008)	0.382

[1/] Calculation Routine Described in U.S. Water Resources Council-pg. 18

3. Calculations Made for Sheep Creek West WSA Proposed Action

A. Earnings - Grazing Related

	75	AUM Increase After 20 years
x	$ 20.72	Gross Sales per AUM
	$ 1,544	Gross Sales Increase
x	2.662	Gross Output Multiplier (Meat Animals)
	$4,136.75	Total Gross Output Increase in County
x	.247	Earnings/Gross Output Ratio
	$ 1,022	Earnings Increase/Grazing Related

B. Earnings-Recreation Related

1) Expenditures per 12-Hour Recreation Visitor Day (per 1980 National Survey of Fishing, Hunting, and Wildlife Associated Recreation - Idaho)

		Expenditure Per Day	Gross Output - Retail Trade	Total Gross Output
Non-Consumptive Use	=	$29.40	2.262	$58.80
Big Game Uses	=	$34.92	2.262	$78.99
Upland Game Uses	=	$17.16	2.262	$38.82

2) Earnings per 12-Hour Recreation Visitor Day (RVD).

		Total Gross Output	Earnings/Gross Output Ratios (Retail Trade)	Earnings Per RVD
Non-Consumptive	=	$58.80	.395	$23.23
Big Game	=	$78.99	.395	$31.20
Upland Game	=	$38.82	.395	$15.33

3) Total Earnings Increase at End of 20 years.

	Visitor Day Increase	Earnings Per Visitor Day	Total Earning Increase
Non-Consumptive	125	$23.23	$ 2,903
Big Game Hunting	25	$31.20	$ 780
Upland Game Hunting	0	$15.33	$ 0
Total	150	---	$ 3,683

C. Range Improvement Costs (Installation Only)

Year 7 - $ 0 (estimated year of wilderness designation)
Total $ 0

D. Wilderness Management Costs

Year	Amount
7	$ 1,350
8	$ 3,750
9	$ 1,350
10	$ 1,350
11	$ 2,550
12	$ 1,350
13	$ 1,350
14	$ 2,550
15	$ 1,350
16	$ 1,350
17	$ 2,550
18	$ 1,350
19	$ 1,350
20	$ 2,550
Total	$26,100
Average	$ 1,865

E. Employment - Livestock Related

1) AUMs per JOB
3,558 AUMs/JOB (USFS IMPLAN Model Run Done for Owyhee Canyonlands EIS)

2) Employment Gains
75 AUMs gained - 3,558 AUMs/JOB = .02 Jobs = 0.

F. Employment - Recreation Related

1) Earnings Per Job = $10,770
Total Retail Trade Earnings in Owyhee County 1981 = $2,298,000
WSA Recreation-Related Earnings - Current = $105,542
% WSA of Total = 4.6 percent
Total Employment-Retail Trade, Owyhee County 1981 = 212
212 x 4.6% = 9.8 jobs
Earnings - Jobs = $105,542 - 9.8 = $10,770

2) Earnings Increase = $3,683
Earnings Per Job = $10,770
Total Employment Increase = $3,683 - $10,770 = .3

GLOSSARY

Acronyms

AMP - allotment management plan
AUM - animal unit month
ACEC - area of critical environmental concern
BLM - Bureau of Land Management
EA - environmental assessment
EIS - environmental impact statement
FLPMA - Federal Land Policy and Management Act
IMP - Interim Management Policy
MFP - management framework plan
NEPA - National Environmental Policy Act
NWPS - National Wilderness Preservation System
ORV - off-road vehicle
RMP - resource management plan
SCS - Soil Conservation Service
URA - unit resource analysis
WSA - wilderness study area

Terms

ADEQUATE ACCESS - The combination of routes and modes of travel which will cause the least lasting impact on the wilderness resource, and at the same time serve the reasonable purposes for which the state or private land is held or used.

ALLOTMENT - An area of land where one or more individuals are authorized to graze their livestock. It generally consists of public land, but may include parcels of private or stated-owned lands.

ALLOTMENT MANAGEMENT PLAN (AMP) - A plan that prescribes how livestock operations will be conducted in a grazing allotment.

ALLUVIAL - Pertaining to material that is transported and deposited by running water.

ANIMAL UNIT MONTH (AUM) - The forage required to support one cow and calf for one month.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) - An area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

ARTIFACT - Any object made, modified, or used by man.

BAILEY-KUCHLER ECOSYSTEM CLASSIFICATION - A classification scheme that divides the United States into 240 distinct ecosystems based on distinctive flora, fauna, climate, landform, soil, vegetation, and ecological climax.

BARREN - Areas that are devoid of vegetation and do not have a natural potential to support vegetation.

CANOPY COVER - The uppermost layer consisting of crowns of trees or shrubs which protect the ground.

CHANNEL - The bed of a watercourse that commonly is barren of vegetation and is formed by modern alluvium.

CHEMICAL TREATMENT - The use of chemical agents to change vegetative composition of an area.

CLIMAX PLANT COMMUNITY - The potential native plant community of a site which which is defined by the kind, proportion and amount of plant species. It is determined by such environmental factors as soil type, effective precipitation and climate.

COLLUVIAL - Mixed deposits of soil material and rock fragments accumulated near the base of steep slopes.

CULTURAL RESOURCES - Cultural resources include the fragile and non-renewable remains of human behavior as reflected in sites and the components of sites, such as structures, objects and natural features that were utilized in human events. These are further defined as areas where significant human events occurred, even though evidence of the event no longer remains, and as the environment surrounding the actual resource. Cultural resources are commonly discussed in terms of their prehistoric and historic values.

DIATOMITE - A fine powder formed from diatomaceous earth; used as an abrasive, pottery glaze, etc.

ECOLOGICAL CONDITION - The current state of a site in relation to the climax (natural potential) plant community of that site. It is an expression of the relative degree to which the kind, proportion and amount of plant species in a community have deviated from the potential climax of that community (synonomous with range condition).

ECOLOGICAL SITE - A distinctive kind of rangeland which, in the absence of abnormal disturbance and physical site deterioration, has the potential to support a certain type of native plant community.

EDAPHIC - Pertaining to the soil.

ENDANGERED SPECIES - Any species in danger of extinction throughout all or a significant portion of its range.

ENVIRONMENTAL ASSESSMENT (EA) - The procedure for analyzing the impacts of some proposed action on a given environment and the documentation of that analysis. An EA is similar to an environmental impact statement (EIS) but is generally smaller in scope. An EA may be preliminary to an EIS.

ENVIRONMENTAL IMPACT STATEMENT (EIS) - An analytical document developed for use by decisionmakers to weigh the environmental consequences of a

potential decision. An EIS should accurately portray potential impacts on the human environment of a particular course of action and its possible alternatives.

EPHEMERAL STREAM - A stream that flows only in direct response to precipitation.

EROSION HAZARD CLASS - A rating of soils reaction to the force of water. Soil movement tendancies as determined by inherent soil characteristics and topography.

EXCLOSURE - An area fenced to exclude animals.

EXOTIC SPECIES - A plant or animal species that is not native in the area where it occurs.

FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA) - Public Law 94-579, October 21, 1976, referred to by the Bureau of Land Management as its "Organic Act," which provides most of the BLM's legislated authority, direction, policy, and basic guidance.

FORB - Any herbaceous plant other than those in the grass, sedge, and rush families - i.e. any non-grass-like plant having little or no woody material on it.

GROUND COVER - The percentage of ground covered by living plants or dead parts of plants.

HERBICIDE - A substance used to inhibit or destroy plant growth.

HUNTING BLIND - Small basalt rock structures; presumably built by prehistoric inhabitants to hide from game animals.

IDAHO STATE WATCH LIST - List of sensitive species identified by the Rare and Endangered Plants Technical Committee of the Idaho Natural Areas Council.

IMPRINTS OF MAN - Physical remainders of man's past presence in an area.

INHOLDINGS - State or privately-owned lands inside a wilderness study area.

LACUSTRINE - Produced by or formed in a lake or lakes.

LITTER - The uppermost layer of organic debris on the ground under a vegetation cover.

MANAGEMENT FRAMEWORK PLAN (MFP) - A BLM planning document that outlines multiple use management objectives for an area. Replaced by the Resource Management Plan (RMP).

MULTIPLE USE - Management of the various surface and subsurface resources, so that they are utilized in the combination of ways that will best meet the present and future needs of the public, without permanent impairment of the productivity of the land or the quality of the environment.

MULTIPLIER - The ratio between the increase of income arising from an increment of investment and the investment itself.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) - Public Law 91-190; federal law passed in 1969 that established a national policy requiring all federal agencies to give full consideration to environmental effects in planning their programs.

NATIONAL REGISTER OF HISTORIC PLACES (NATIONAL REGISTER) - A listing of architectural, historical, archaeological, and cultural sites of local, state, or national significance, established by the Historic Preservation Act of 1966, and maintained by the National Park Service. Sites are nominated to the Register by state or federal agencies.

NATIVE SPECIES - Animal or plant species which originated in the area in which they are found - i.e., were not introduced and naturally occur in that area.

OFF-ROAD VEHICLE (ORV) - Any motorized vehicle designed for or capable of cross-country travel.

PERENNIAL STREAM - A stream or reach of a stream that flows continuously throughout the year, and whose upper surface generally stands lower than the water table in the region adjoining the stream. Also known as permanent or live stream.

PERMITTEES (LIVESTOCK) - Livestock operators who are authorized to graze domestic livestock on public lands.

PETROGLYPH - An art figure or symbol cut, carved, or pecked into a stone surface.

pH - A measure of the hydrogen-ion activity in solution, expressed on a scale 0 (highly acid) to 14 (highly basic).

PHENOLOGY - The study of periodic biological phenomenon such as flowering, seeding, etc., especially as related to climate.

PICTOGRAPH - An art figure or symbol drawn or painted on a stone surface.

PRIMITIVE RECREATION - Nonmotorized and nondeveloped types of outdoor recreational activities associated with unroaded land.

RANGELAND DEVELOPMENT - A structure, development, or treatment used in concert with management (1) to rehabilitate, protect, and improve public land and its resources; (2) to arrest rangeland deterioration; and (3) to improve forage condition, fish and wildlife habitat, watershed protection, and livestock production, all consistent with land use plans.

RELICT - Fragments of presently existing flora on areas with a historical record of no disturbance and the plant community is assumed to be in near virgin condition.

RESEARCH NATURAL AREA - A physical and biological unit in as near a natural condition as possible which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features.

RESOURCE AREA - A geographic portion of a BLM district that is the smallest administrative subdivision in the Bureau.

RIMROCKS - Rock outcroppings; used to describe outcroppings that occur adjacent to canyons, basins, or buttes.

RIPARIAN COMMUNITIES - Vegetative communities found in association with either open water or water close to the surface; includes meadows, aspen groves, and other trees and shrubs in association with streams and other water sources.

ROCK ALIGNMENTS - Walls constructed from basalt rubble; presumably built by prehistoric inhabitants to channel game movements during group hunting activities.

SAGEBRUSH STEPPE ECOSYSTEM - Portion of the Intermountain Sagebrush Province which is visually dominated by sagebrush/grass vegetative types.

SALT BLOCK - Blocks of salt placed on the range by livestock operators as a mineral supplement for animals and to improve distribution of livestock.

SALT DESERT SHRUB ECOSYSTEM - Portion of the Intermountain Sagebrush Province which is visually dominated by salt tolerant shrub species.

SCOPING - Early and open public participation process used to identify issues and alternatives during preparation of an Environmental Impact Statement.

SEEDING (RANGE) - The process of establishing vegetation by the artificial dissemination of seed.

SENSITIVE SPECIES - Wildlife species which have been officially designated by the BLM and state fish and game agencies through a Memorandum of Understanding. They are species for which there is concern for their continued existence. Although these species are not in as much jeopardy as endangered or threatened species, further population or habitat declines may result in the more restrictive listing.

SERAL JUNIPER INVASION AREAS - Areas where juniper currently exist but are not part of the climax community.

SITE (ARCHAEOLOGICAL) - A physical location of past human activities or events, that can be used to document human history.

SLASH - The residue left on the ground after timber cutting and/or accumulating there as a result of storm, fire or other damage.

STABILIZATION (ARCHAEOLOGICAL SITE) - Protective techniques usually applied to structures and ruins to keep them in their existing condition, prevent further deterioration, and provide structural safety without significant rebuilding.

STANDING DEAD LITTER - A plant's previous seasons growth that is dead but has not fallen to the ground.

SUITABILITY (WILDERNESS) - Wilderness suitability means that an area is appropriate for wilderness designation based on analysis of existing and potential uses of the land.

SURFACE SCATTERS (ARCHAEOLOGY) - Archaeological sites where artifacts and/or debris from artifact construction are found scattered on the surface.

SUSTAINED YIELD - The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources without impairment of the productivity of the land.

THREATENED SPECIES - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

TOESLOPE - The geomorphic component that forms the outermost, gently-inclined surface at the base of a hillslope.

UNIT RESOURCE ANALYSIS (URA) - A basic source of information on a specific area and its resources; base data used by the BLM in developing it's land use plan for an area. Replaced by the Resource Management Plan (RMP).

VEGETATIVE MANIPULATION - Actions taken that alter the existing natural plant communities to achieve the goals of management in a particular area.

VIGOR - Health of the plant.

VISITOR-DAY - A day in which the visitor-hours contained therein have been spent by a person in any activity except those which are part of or incidental to the pursuit of a gainful occupation. Twelve visitor-hours aggregated by one or more persons constitute a visitor-day.

VISUAL RESOURCE - The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

WASH - The broad, flat-flooded channel of an ephemeral stream.

WAY - A vehicle route established and maintained solely by the passage of motor vehicles.

WILDERNESS AREA - An area formally designated by Act of Congress as part of the National Wilderness Preservation System.

WILDERNESS STUDY AREA (WSA) - A roadless area that has been inventoried and found to have wilderness characteristics as described in Section 603 of FLPMA and Section 2(c) of the Wilderness Act of 1964.

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