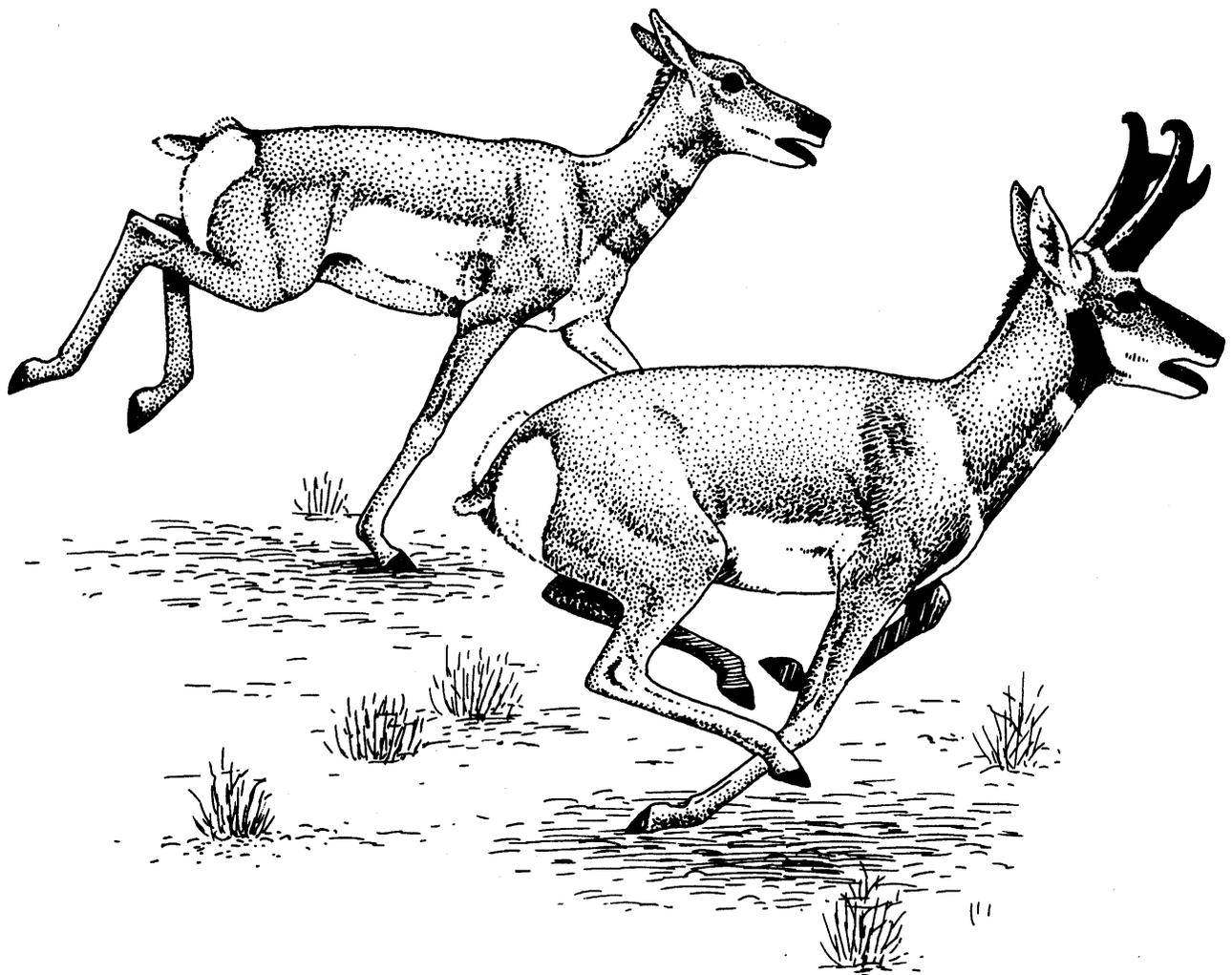


# Environmental Assessment

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*Proposed Jurisdictional Land Exchange Between  
Hart Mountain National Antelope Refuge,  
Fish & Wildlife Service,  
and Lakeview District,  
Bureau of Land Management*

*Draft Amendment, Warner Lakes  
Management Framework Plan*





# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Lakeview District Office  
P.O. Box 151 (1000 Ninth Street S.)  
Lakeview, Oregon 97630

FISH AND WILDLIFE SERVICE  
Sheldon-Hart Mountain Refuges  
P.O. Box 111 (18 South G Street)  
Lakeview, Oregon 97630

IN REPLY REFER TO:  
1617 (015)

December 1, 1998

Dear Public Land User:

We would like to take this opportunity to update you on the Proposed Jurisdictional Land Exchange Between the Hart Mountain National Antelope Refuge, Fish and Wildlife Service (Service), and the Lakeview District, Bureau of Land Management (BLM). In June 1998, an Environmental Assessment (EA#OR-010-97-05) and Draft Amendment to the Warner Lakes Management Framework Plan covering the Proposed Jurisdictional Land Exchange Between the Hart Mountain National Antelope Refuge, Fish and Wildlife Service (Service), and the Lakeview District, Bureau of Land Management (BLM) was made available for public review. The EA and draft plan amendment analyzed the potential environmental impacts of transferring management jurisdiction of about 12,880 acres of BLM-managed lands to the Service and about 7,870 acres of Service-managed lands to the BLM. In addition, it covered a change of management direction on about 11,020 acres of BLM-managed lands. A total of two comment letters were received during the draft review period.

In the summer of 1998, legislation was introduced into Congress to officially transfer management jurisdiction of these lands as described in the EA/draft plan amendment. The BLM and Service continued to prepare a final document during this same time. In late October 1998, President Clinton signed this legislation (Public Law 105.321, Section 4; Oregon Public Lands Transfer and Protection Act of 1998). The legislation makes it unnecessary to complete the plan amendment process. Therefore, a final plan amendment will not be prepared. To complete the NEPA process, we have completed a Finding of No Significant Impact (FONSI). A copy is enclosed for your information. The legislative process does not provide for a protest opportunity.

If you have any additional questions or feel your concerns have not been adequately addressed, please contact one of us.

We thank you for your continued interest in the management of your public lands.

Sincerely,

Scott R. Florence, Manager  
Lakeview Resource Area

Michael L. Nunn, Project Leader  
Sheldon-Hart Mountain Refuges

Enclosure (as stated)

## FINDING OF NO SIGNIFICANT IMPACT

### Jurisdictional Land Exchange Between Hart Mountain National Antelope Refuge, Fish and Wildlife Service, and Lakeview District, Bureau of Land Management Draft Plan Amendment, Warner Lakes Management Framework Plan

BLM EA# OR-010-97-05

The Hart Mountain National Antelope Refuge, Fish and Wildlife Service, and Lakeview District, Bureau of Land Management have analyzed a proposal to: 1) transfer management jurisdiction of about 12,880 acres of BLM-managed lands to the Service and about 7,870 acres of Service-managed lands to the BLM and, 2) change management direction on about 11,020 acres of BLM-managed lands. The Service and BLM have jointly prepared this document in accordance with the Federal Land Policy and Management Act of 1976 and the National Environmental Policy Act of 1969. The proposed transfer is currently not in conformance with the existing BLM land use plan (Warner Lakes Management Framework Plan). This prompted preparation of the EA and plan amendment.

The transfer was proposed to improve the management efficiency of federal lands (by eliminating scattered parcels and utilizing existing roads, fences, and natural barriers as administrative boundaries) and to maximize the protection of upland and riparian habitats important to pronghorn antelope, sage grouse and other wildlife species.

There would be no impacts to air quality, scenic values, paleontology, prime or unique farmlands, wild and scenic rivers, forestry, soils, wild horses, Native American traditional uses, or low-income or minority populations. Potential impacts to other resource values are analyzed in the EA. On the basis of this analysis and all other available information, it is our determination that none of the alternatives analyzed constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an Environmental Impact Statement (EIS) is not necessary and will not be prepared.

	12/1/98		12/1/98
Michael L. Nunn	(Date)	Scott R. Florence	(Date)
Project Leader		Area Manager	
Sheldon-Hart Mountain Refuges		Lakeview Resource Area	



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Lakeview District Office  
P.O. Box 151 (1000 Ninth Street S.)  
Lakeview, Oregon 97630

FISH AND WILDLIFE SERVICE  
Sheldon-Hart Mountain Refuges  
P.O. Box 111 (18 South G Street)  
Lakeview, Oregon 97630

IN REPLY REFER TO:  
1617 (015)

June 9, 1998

Dear Public Land User:

Enclosed for your review is the Environmental Assessment (EA#OR-010-97-05) and Draft Amendment to the Warner Lakes Management Framework Plan covering the Proposed Jurisdictional Land Exchange Between the Hart Mountain National Antelope Refuge, Fish and Wildlife Service (Service), and the Lakeview District, Bureau of Land Management (BLM). The Service is acting as the lead responsible agency in the development of the proposed transfer. The Service and BLM have jointly prepared this document in accordance with the Federal Land Policy and Management Act of 1976, and the National Environmental Policy Act of 1969.

The transfer is being proposed to improve the management efficiency of federal lands (by eliminating scattered parcels and utilizing existing roads, fences, and natural barriers as administrative boundaries), and to maximize the protection of upland and riparian habitats important to pronghorn antelope, sagegrouse and other wildlife species. The purpose of this document is to analyze the potential environmental impacts of transferring management jurisdiction of about 12,880 acres of BLM-managed lands to the Service, and about 7,870 acres of Service-managed lands to the BLM. In addition, a change of management direction would occur on about 11,020 acres of BLM-managed lands. The proposed transfer is related to, but separate from, another on-going proposal developing an allotment management plan for the Beaty Butte allotment (0600).

We would appreciate your comments on this analysis. The following types of comments would be most helpful in the decision-making process:

- 1) Comments that are as specific as possible (include page numbers, section headings, etc. that relate to the comment).
- 2) Comments that address the appropriateness of the alternatives.
- 3) Comments that identify unaddressed issues.
- 4) Comments that provide new information or data.
- 5) Comments that address the adequacy of the analysis (provide references).
- 6) Comments that identify errors in the data or analysis (provide references).

Comments should be submitted in writing to Mr. Michael Nunn, U.S. Fish and Wildlife Service, Sheldon/Hart Mountain Refuges, Post Office Building, Lakeview, OR 97630, no later than AUG 22 1998. Because of recent court rulings, it is very important that you participate during this review opportunity, so that any substantive comments are provided at a time when we can meaningfully consider them.

All comments, including the names and addresses of respondents, will be available for public review at the above address during regular business hours (7:45 am to 4:30 pm), Monday through Friday, except holidays, and may be published as part of the final document. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review, or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comment. Such requests will be honored to the extent allowed by law. Anonymous comments will not be considered. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

If you require additional information concerning this analysis, please contact Paul Whitman at (541) 947-6110 or Tori Roberts at (541) 947-3315.

Sincerely,



Scott R. Florence, Manager  
Lakeview Resource Area



Michael L. Nunn, Project Leader  
Sheldon-Hart Mountain Refuges

Enclosure (as stated)

# Environmental Assessment

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*Proposed Jurisdictional Land Exchange Between  
Hart Mountain National Antelope Refuge,  
Fish & Wildlife Service,  
and Lakeview District,  
Bureau of Land Management*

*Draft Amendment, Warner Lakes  
Management Framework Plan*

*BLM EA #OR-010-97-05*

Prepared by

U.S. Fish & Wildlife Service  
Hart Mountain National Antelope Refuge  
Post Office Building  
Lakeview, Oregon 97630

Bureau of Land Management  
Lakeview Resource Area/Lakeview District  
1000 South 9th St.  
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June 1998

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**ENVIRONMENTAL ASSESSMENT**  
**Proposed Jurisdictional Land Exchange Between**  
**Hart Mountain National Antelope Refuge, Fish & Wildlife Service,**  
**and Lakeview District, Bureau of Land Management**  
  
**Draft Amendment, Warner Lakes Management Framework Plan**  
  
**Lake County, Oregon**

## **CHAPTER 1. PURPOSE OF AND NEED FOR ACTION**

### **Introduction**

The U.S. Fish and Wildlife Service (Service) and the Bureau of Land Management (BLM) propose to exchange various lands within their jurisdictions in southeastern Lake County, Oregon (see Figure 1). The Service would exchange lands within the boundary of Hart Mountain National Antelope Refuge (Refuge) for various Public Lands in the BLM's Lakeview District (District). As part of this proposal, the BLM also would change management emphasis on some Public Lands. This plan amendment and environmental assessment (EA) evaluates the alternatives and environmental effects of the proposed land exchange and the subsequent management shift on transferred lands.

The exchange and shift in resource management objectives would affect approximately 12,860 hectares (31,770 acres) of Federal land. Management on these lands would benefit native fish and wildlife, especially pronghorn antelope, California bighorn sheep, sage grouse, and their associated habitats. Approximately 5,215 hectares (12,880 acres) of land now managed by BLM would be exchanged for about 3,185 hectares (7,870 acres) of Service land. In addition, a change of resource management direction would occur on about 4,460 hectares (11,020 acres) of the BLM-managed Guano Creek Wilderness Study Area (WSA) and lands in the Jacobs riparian pasture along Guano Creek, north of Jacobs Reservoir.

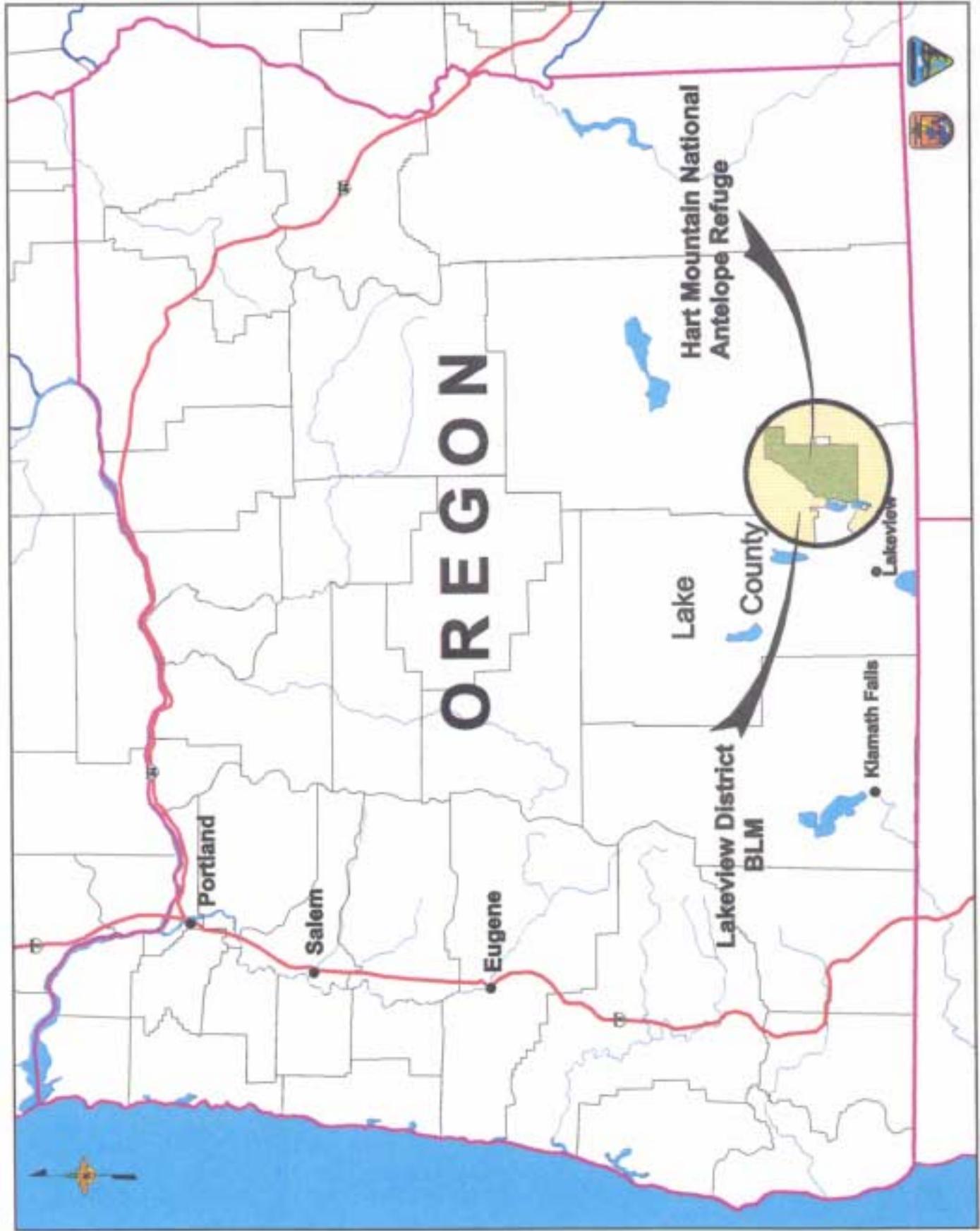
The primary purposes of these actions are to improve the quality of wildlife habitat, thereby benefitting wildlife, and increase the efficiency of managing these lands. The exchange and associated resource management agreements represent a cooperative effort between the Service, the BLM, The Nature Conservancy (TNC), the Beaty Butte Grazing Association, and the Oregon Natural Desert Association to improve the management of Federal lands to benefit wildlife.

### **Background**

Since 1979, the Service and the BLM have entered two Memorandums of Understanding (MOUs) and cooperative agreements dealing with secondary jurisdiction on Refuge and Public Lands. These agreements exchanged secondary management jurisdiction on lands that could be more sensibly and efficiently managed by the other agency.

The purpose of the 1979 MOU was to streamline administration of livestock grazing for Service parcels south and east of the Refuge. All Service lands affected by the agreement were acquired with Migratory

Figure 1. Hart Mountain National Antelope Refuge and Land Management Project Area, Lake County, OR.



Bird Treaty Act funds and were located outside the Refuge boundary established in 1936 by Executive Order 7523. The agreement maintained periodic livestock use on both Refuge and Public Lands.

The purpose of the 1988 MOU, which involved an exchange of secondary jurisdiction of lands along the western border of the Refuge, was to streamline administration and improve management of resource values. This MOU resulted mainly from wetland conservation initiatives undertaken by the BLM in the northern Warner Valley. Unlike lands affected by the 1979 MOU, all Service properties addressed in the 1988 MOU lay within the established Refuge boundary. Initially, the agreements worked well. As time passed, however, management priorities changed and the agreements grew less effective.

In 1994, the Service completed the *Hart Mountain National Antelope Refuge Comprehensive Management Plan* (CMP), which provides long-range guidance for responding to resource management issues. The CMP requires compliance with its management goals, objectives, and standards on Refuge lands. A major component of this plan is the termination of livestock grazing. Continuation of the 1979 MOU arrangement would result in a lack of compliance with CMP standards for properties where the Service has primary jurisdiction, but transferred secondary jurisdiction to the BLM under the MOU (i.e., Jacobs Reservoir and isolated tracts within the Beaty Butte allotment). Lack of compliance would result from continued livestock grazing by BLM permittees on these lands. Consequently, legal challenges would most likely occur because of the maintenance of land uses that are inconsistent with the CMP.

In 1995, the Service, the BLM, and other parties evaluated previous MOUs and cooperative agreements during a series of meetings. Meetings resulted in a conclusion that new alternatives would be required to resolve conflicts between the continued implementation of existing MOUs and the Refuge CMP. Also in 1995, the Sierra Club Legal Defense Fund, on behalf of the Oregon Natural Desert Association, threatened litigation because isolated Refuge tracts surrounded by Public Lands were being grazed by BLM permittees' livestock (1995 SCLDF). Livestock grazing was determined to be inconsistent with the CMP and accompanying environmental impact statement. The proposed jurisdictional land exchange provides a viable alternative and should prevent the threatened litigation.

The location of the current boundaries also presents a wildlife management issue on the northwest Refuge boundary, on the side of the steep escarpment below the Poker Jim Ridge. This area is located outside the Refuge boundary, and hunting is controlled under existing Oregon Department of Fish and Wildlife (ODFW) regulations for the Juniper Hunting Unit. Sheep movements from the Refuge down to this area contribute to a harvest imbalance in the controlled hunts on the Refuge, as regulations for the two areas differ. Refuge sheep populations are not prevented from moving down slope. The proposed jurisdictional land exchange would end this problem by bringing the lower escarpment under the Refuge/ODFW controlled hunts and thereby preventing harvest imbalance.

## **Proposed Action**

The proposed action would 1) transfer full jurisdiction of about 5,215 hectares (12,880 acres) of Public Land to the Service, 2) transfer full jurisdiction of about 3,185 hectares (7,870 acres) of the Refuge to the BLM, and 3) shift the management focus of about 4,460 hectares (11,020 acres) of the BLM-managed Guano Creek WSA by applying the goals and strategies described in the *Hart Mountain National Antelope Refuge Comprehensive Management Plan* (CMP) (Service 1994) to about 94 percent of the WSA (see Figure 2). Livestock would be excluded from areas transferred to Service management, and prescribed burning would be emphasized to restore native vegetation communities. Lands transferred to

the BLM would allow grazing within the Beaty Butte Allotment and would be managed in accordance with the Beaty Butte Allotment Management Plan and Environmental Impact Statement (BLM 1997). Lands transferred to the BLM within the Warner Wetlands ACEC would allow no grazing, in accordance with the Warner Wetlands Area of Critical Environmental Concern Management Plan (BLM 1989, 1990).

### **Management Goals and Objectives**

The project area falls within the Service's Interior Basin Ecoregion. The land exchange for the Hart Mountain National Antelope Refuge would satisfy the following Interior Ecoregion goals:

- Identify, protect, and restore the function, structure, and native species composition of riparian communities, terminal wetlands and lakes, desert communities, and montane communities.
- Conserve sensitive, rare, and candidate species so that listing under the protection of the Endangered Species Act is not necessary.
- Encourage partnership participation in ecosystem planning and assist partners to effectively and efficiently meet ecosystem management goals.
- Protect and improve air and water quality affecting the animal and plant communities.
- Improve public interest in and support for conservation of our living resources.

The Hart Mountain National Antelope Refuge is a unique wildlife conservation unit. It was originally established for the specific purpose of use “. . . as a range and breeding ground for antelope and other species of wildlife . . .” (Executive Order 7523, dated Dec. 21, 1936). The Refuge is managed under five goals:

- Manage for healthy and balanced populations of pronghorn and other species of native wildlife in their natural habitat, to the extent that populations can be influenced on Refuge lands.
- Manage for the conservation and recovery of threatened and endangered species of plants and animals in their natural ecosystems.
- Restore and maintain, on Refuge lands, the structure, species composition, and processes of native ecological communities and ecosystems of the northern Great Basin Region.
- Provide opportunities for wildlife/wildlands-dependent recreation and education oriented to the Great Basin ecosystem while maintaining the rugged, remote, and undeveloped character of the Refuge.
- Provide high-quality nesting and brood-rearing habitat for waterfowl and other migratory birds at the Shirk Ranch area.

### **Conformance with Federal, State, Local, and Tribal Land Use Plans and Policies**

The following section describes how the proposed transfer would conform with existing Federal, State, local, and Tribal land use plans or policies.

#### **Federal Plans**

A number of land use or resource management plans have been developed to govern management within the planning area. The following Federal plans have been identified as applicable to the planning area. Unless otherwise noted, the proposed transfer is believed to conform with these plans. Where appropriate, the management direction and previous management decisions set forth by these documents, and the effects outlined therein, are used to tier the analyses performed in this document, or are incorporated by reference. They are not repeated in detail within this document.

Figure 2. Proposed Land Exchange between the Hart Mountain National Antelope Refuge and the Lakeview District, Bureau of Land Management.



Pertinent decisions already established by these documents are not being revisited here. They are mentioned to give the reader a broad perspective of all management activities occurring within the planning area.

- *Warner Lakes Management Framework Plan* (BLM, 1983): The proposal conforms with this plan regarding land acquisition. Improved management efficiency is achieved by acquiring blocks of mixed ownerships, though the specific parcels proposed for transfer were not identified for exchange. For this reason, a plan amendment has been prepared.
- *Lakeview Grazing Management Final Environmental Impact Statement* (BLM, 1982a) and *Record of Decision* (BLM, 1982b): The proposal conforms with overall grazing administration of lands to be transferred to BLM that have been managed under cooperative agreements in the past.
- *Warner Lakes Plan Amendment for Wetlands and Associated Uplands, Plan Amendment and Environmental Assessment for the Warner Lakes Management Framework Plan and Decision Record* (BLM 1989), *Warner Wetlands Area of Critical Environmental Concern (ACEC) Management Plan and Decision Record* (BLM 1990a, 1990b), and subsequent activity level plans: These plans officially designated the Warner Wetlands area as an ACEC and specified special management direction primarily for the purpose of waterfowl habitat enhancement. The plan includes removal of livestock grazing from the "core" wetland areas (about half of the ACEC), allows predator control if needed to enhance breeding bird populations, and specifies the development of water control structures and capabilities, use of prescribed fire, and mowing as techniques for managing vegetation and habitat. Some small parcels of Refuge lands on the south and east boundary of the ACEC have been managed as part of the ACEC through past agreements with the U.S. Fish and Wildlife Service.
- *Oregon Wilderness Final Environmental Impact Statement* (BLM, 1989a) and *Summary Report to Congress* (BLM, 1991a): These documents evaluated the potential environmental impacts of wilderness designation and recommended that Congress designate certain wilderness areas in the State of Oregon, including the Guano Creek WSA. Pending final designation as wilderness or release from wilderness study by Congress, this WSA is to be managed in accordance with the Wilderness Interim Management Policy (IMP; BLM, 1995b).
- *Integrated Noxious Weed Control Program Environmental Assessment (OR-013-93-03), Lakeview Resource Area* (BLM, 1994a) and associated *Decision Record*: These documents cover the environmental impacts of conducting an integrated noxious weed control plan throughout the Lakeview Resource Area. This plan would be applied to those lands transferred to the BLM from the U.S. Fish and Wildlife Service. This EA is tied to the following three programmatic final environmental impact statements and records of decision: *Northwest Area Noxious Weed Control Program Final Environmental Impact Statement* (BLM, 1985b), *Supplement to the Northwest Area Noxious Weed Control Program Final Environmental Impact Statement* (BLM, 1987), and *Vegetation Treatment on BLM Lands in Thirteen Western States Final Environmental Impact Statement* (BLM, 1991b).
- *Vegetation Treatment on BLM Lands in Thirteen Western States Final Environmental Impact Statement and Record of Decision* (BLM, 1991b): These documents cover the effects of the use of

prescribed fire and mechanical, manual, biological, and chemical methods to treat rangelands to establish desired vegetation types and conditions.

- **National Wildland Fire Policy:** This policy directs development of plans that address prescribed burning and wildfire suppression to meet resource objectives and reincorporate fire as a component in the ecosystem. A fire management plan is being developed to address wildfire suppression within the Lakeview District, BLM, and would be applied to lands transferred to the BLM.
- **Site-Specific Environmental Assessment Tiered to the 1987 *Final Environmental Impact Statement for Rangeland Grasshopper Cooperative Management Program* (APHIS, 1995a):** This document covers the periodic need to control grasshopper outbreaks in various rangeland and agricultural areas within Lake County. Currently, no lands proposed for transfer are identified as needing treatment. However, this could change over time. The lead for this type of action rests with APHIS, but the BLM cooperates when treatment involves lands under its administration. This EA is tiered to the following programmatic final environmental impact statement (EIS) and record of decision (ROD): *Rangeland Grasshopper Cooperative Management Program Final Environmental Impact Statement* (APHIS, 1987).
- ***Environmental Assessment (EA), Wildlife Damage Management in the Roseburg ADC District in Southwestern Oregon and Record of Decision* (APHIS, 1995b):** These documents cover wildlife damage management activities in the Lakeview Resource Area. This document and subsequent annual work plans would be applied to lands transferred to the BLM. APHIS is the lead agency for this action. The BLM served as a cooperating agency in the preparation of this EA and ROD. The ROD requires the preparation of an interagency annual Animal Damage Control (ADC) work plan. This work plan has been completed for fiscal year 1997 and is available in the Lakeview District file. The EA is tiered to the following programmatic final EIS and ROD: *Animal Damage Control Final Environmental Impact Statement* (APHIS, 1994).
- ***Hart Mountain National Antelope Refuge Comprehensive Management Plan FEIS and ROD* (USFWS, 1994a; 1994b):** These documents cover the management of Hart Mountain National Antelope Refuge, including the parcels proposed for transfer. Management activities include the removal of livestock grazing from the entire Refuge and the use of prescribed fire to achieve resource management objectives. Management of lands transferred to the Refuge would conform with this plan.
- ***Healthy Rangelands - The Range Reform '94 Final Environmental Impact Statement and Record of Decision* (BLM and Forest Service, 1994):** This plan, which evolved into what is now referred to as the Healthy Rangelands Initiative, amends current grazing administration and management practices on BLM lands. The ROD required that region-specific standards and guidelines for healthy rangelands be developed and approved by the Secretary of the Interior. In Oregon, several Resource Advisory Councils (RACs) were established to develop the regional standards and guidelines. The Southeastern Oregon RAC was established for this part of the State and it developed standards and guidelines applicable to the project area (BLM 1997). Those lands proposed for transfer to the BLM would be managed to conform to the standards and guidelines (refer to *Beaty Butte Allotment Management Plan and Draft Environmental Impact Statement*, BLM and FWS 1997).

All appropriate Federal agencies are being provided an opportunity to review the plan amendment and transfer proposal and provide comments on its consistency with their plans, policies, and directives.

### **Federal Plans In Progress**

Two other initiatives will eventually amend or guide management direction for lands proposed for transfer to the BLM. These initiatives include the following:

- *Interior Columbia Basin Ecosystem Management Project (ICBEMP) and Eastside Draft Environmental Impact Statement (FS and BLM 1997):* This is a regional, ecosystem-based, interagency planning effort in progress for parts of Oregon, Washington, Idaho, Nevada, and Montana. In addition to the draft EIS, products from this effort include *A Framework for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (Haynes et al. 1996a), *Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (Haynes et al. 1996b), *Status of the Interior Columbia Basin, Summary of Scientific Findings* (FS 1996), and a multitude of individual scientific documents related to characterization of the study area's social and natural environment.

The Eastside draft EIS was released for public review in June 1997. The expected outcome of this effort will be the assessment of cumulative impacts of Federal timber and range management activities across the entire planning area. In most respects, the scientific documents produced to date do not represent new information, but rather a compilation and analysis of existing data on a broad, regional scale. It is unknown how the results of this effort may apply specifically to the proposed transfer. Documents that contain appropriate information have been incorporated by reference in the text.

- *Beaty Butte Allotment Management Plan and Draft Environmental Impact Statement (BLM 1997):* This allotment management plan includes an alternative that evaluates the effects of the management of some of the lands (those south of the Refuge within the Beaty Butte allotment) proposed for transfer. The analysis it contains forms a substantial basis of the environmental effects section of this plan amendment. Therefore, this transfer plan amendment is tiered to this allotment management plan and draft EIS.

### **State Plan**

Oregon's Statewide Planning Goals guide land use planning within the State (Department of Land Conservation and Development; DLCDC 1995). Local governments are required to develop their own comprehensive plans that implement the State's goals on the local level. The Governor and various State agencies are being given an opportunity to review the proposed transfer and comment on its consistency with their goals, policies, and plans.

### **County Plans**

Lake and Harney counties have existing land use plans developed in response to the State of Oregon's requirements. The plans consist of a number of reports, ordinances, and subsequent amendments governing land use practices and policies within the counties. The County Commissioners are being provided with an opportunity to review the proposed transfer and comment on its consistency with their approved plans and policies.

### **Tribal Governments**

Five recognized Tribal governments are known to have an interest in this region: the Klamath Tribes, Confederated Tribes of the Warm Springs Reservation, Burns Paiute Tribe, Fort McDermitt Tribe, and Fort Bidwell Tribe. These Tribal governments have been given opportunities to participate in the preparation of this transfer plan amendment, and to identify Tribal goals, needs, or plans that may conflict with or support any of the alternatives. To date, no formal comments have been received. These Tribes are being provided with an opportunity to review the proposed transfer plan amendment and comment on its consistency with existing Tribal plans or policies.

### **Public Participation and Tribal Consultation**

Public scoping has been conducted with a wide variety of State and Federal agencies, Tribal governments, interest groups, and individuals, including those parties directly involved with the proposal (BLM, Lake County Commissioners, TNC, Oregon Natural Desert Association, Sierra Club Legal Defense Fund, Oregon Natural Resources Council, Oregon Department of Fish and Wildlife, and all affected BLM grazing permittees). To date, no groups or individuals contacted have expressed any significant opposition.

The BLM staff archeologist has talked to various staff of the Ft. Bidwell Paiute, Burns Paiute, and Klamath Tribes; however, no formal presentations to Tribal council members have occurred.

### **Public Scoping Activities**

The following meetings were held with interested individuals and groups.

February 1995: Meeting with Oregon Natural Desert Association Board of Directors and TNC representative to discuss the following issues:

- A. Overview of land exchange
- B. Restoration of Guano Creek
- C. Removal of grazing from WSA
- D. Management of Jacobs Reservoir

May-June 1995: Beaty Butte Allotment Management Plan Meeting to discuss overall exchange and field trip to the Shirk Ranch and exchange area. Groups present were TNC, the BLM, the Service, the Oregon Department of Fish and Wildlife, and grazing permittees. Participants discussed the following issues:

- A. Possible alternatives for management of the Shirk Ranch
- B. Water Rights
- C. Management of Jacobs Reservoir
- D. Guano Creek Restoration

July 1995: Field trip with Lake County Commissioners and County Attorney.

July 1995: Meeting with TNC's Reid Shuler (in Bend) to discuss TNC's agreement with John O'Keefe, which would allow Mr. O'Keefe to graze TNC (Cox) allotment and free up the riparian pasture around Jacobs Reservoir for exchange.

September 1995–May 1997: Several meetings with John Lane from the Beaty Butte Grazing Association to discuss permittees' concerns.

February 1997: Service and BLM met with permittees at Adel and reached verbal agreement on grazing concerns related to land transfer.

February 1997: Service met with Bill Marlette of Oregon Natural Desert Association in Bend.

**Issues discussed at various meetings:**

- A. Deficiencies of present MOUs.
- B. Water Rights.
- C. Management of Shirk Ranch must benefit migratory wildlife.
- D. Number of AUMs available to permittees would not fall below present.
- E. Migratory birds must benefit from grazing on Shirk Ranch.
- F. Lack of sufficient water storage capacity in Jacobs Reservoir to irrigate Shirk Ranch.
- G. Need for new reservoir closer to the Shirk Ranch (may need WSA boundary adjustment).
- H. Cultural resource inventory at the Shirk Ranch.
- I. Restoration of natural flow to Guano Creek.
- J. Public benefits from recognition of boundary by the road to the western side of Hart Mountain.
- K. Benefits to pronghorn, sage grouse, and other wildlife.
- L. Removal of grazing from WSA.
- M. Fencing requirements around south area of Refuge and near Buckaroo Pass.
- N. Effects on tax revenues to Lake County.
- O. Ownership of Hart Bar (Executive Order for Hart includes all Federal lands within the boundary as part of the Refuge; this includes the Hart Bar area of Warner Wetlands, which was purchased, developed, and managed by the BLM).

**Planning Issues and Concerns Raised During Scoping**

In August 1997, about 528 scoping letters were mailed to a wide variety of Federal and State agencies, Tribal governments, interest groups, and individuals. In addition, three public meetings were held in Reno, Nevada, and Lakeview and Bend, Oregon during the scoping period. About 30 letters and phone calls were received in response to the letter. Most respondents offered no comments, but merely wished to remain or be placed on the mailing list. Several respondents were generally supportive of the proposed transfer. A couple of letters required direct response to clarify the proposal and address specific questions.

The following specific issues or concerns were raised in letters or public meetings:

- Allow hunting use as it has occurred historically. A concern exists over the perception of a net loss of open hunting area and loss of hunting rights due to the proposed transfer.
- Allow livestock grazing on lands to be acquired by the U.S. Fish and Wildlife Service where grazing has occurred historically.
- Specific language needs to be placed in the NEPA/planning document to define and clarify the roles and existing agreements between the BLM and the Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS; formerly known as Animal Damage Control), related to how animal population control activities would be conducted on lands involved in the transfer.

- Address off-highway vehicle (OHV) use and the potential for OHV use to increase in the future, particularly for those lands transferred to the U.S. Fish and Wildlife Service.
- Address how cultural sites on BLM lands proposed for transfer would be managed by the U.S. Fish and Wildlife Service. Research and mitigation efforts through partnerships with universities should be allowed to continue.
- How will the Shirk Ranch be managed?
- Could the transfer go forward with little or no additional fencing expense? There was concern about costs to the taxpayer. Could we work with existing fence lines to minimize costs?

**Additional Public Participation Planned**

*The Beaty Butte Allotment Management Plan and Draft Environmental Impact Statement* was released for a 60-day comment period in mid-August 1997. This document is related to the proposed transfer and includes an analysis of the effects of managing some of the lands involved in the proposed transfer. There will also be an opportunity for the public to review the final document and resulting decision.

The proposed transfer plan amendment/EA is being circulated for a minimum 45-day review period. In addition, the final document will be made available for a 30-day review and protest period.

## CHAPTER 2. ALTERNATIVES

This chapter describes and compares the preferred alternative for the land exchange between the Service's Hart Mountain National Antelope Refuge and the BLM's Lakeview District, and a no action alternative. Chapter 4 evaluates the environmental effects of the alternatives.

### Alternative 1 - No Action

Under this alternative, no land exchange would occur between the Service and the BLM. This alternative relies on agency land administration within respective legal boundaries prior to the 1979 and 1989 MOUs (see Figure 3). No MOU for secondary jurisdiction would be in effect; all land administration would remain within the respective agencies' jurisdiction and management. The Service would come into compliance with the *Hart Mountain National Antelope Refuge Comprehensive Management Plan* for all Refuge lands. The BLM would manage Public Lands under the guidance of the *Warner Lakes Management Framework Plan*, *Warner Wetlands Area of Critical Environmental Concern (ACEC) Management Plan*, and *Beaty Butte Allotment Management Plan*. The BLM could no longer manage Refuge lands through cooperative agreements, nor include these lands within its plans. Resource activities now occurring, including grazing, would no longer be allowed on Refuge lands.

The Refuge's western boundary would continue to follow the legal description defined by Executive Order 7523. This boundary, which crosses back and forth on the established County road, would require additional posting so that it could be identified by the public. Both the Service and the BLM would apply respective management to these lands along the boundary. Wildlife-dependent recreational uses would be emphasized on Refuge lands. Recreational pursuits now authorized by the BLM would continue on designated Public Lands.

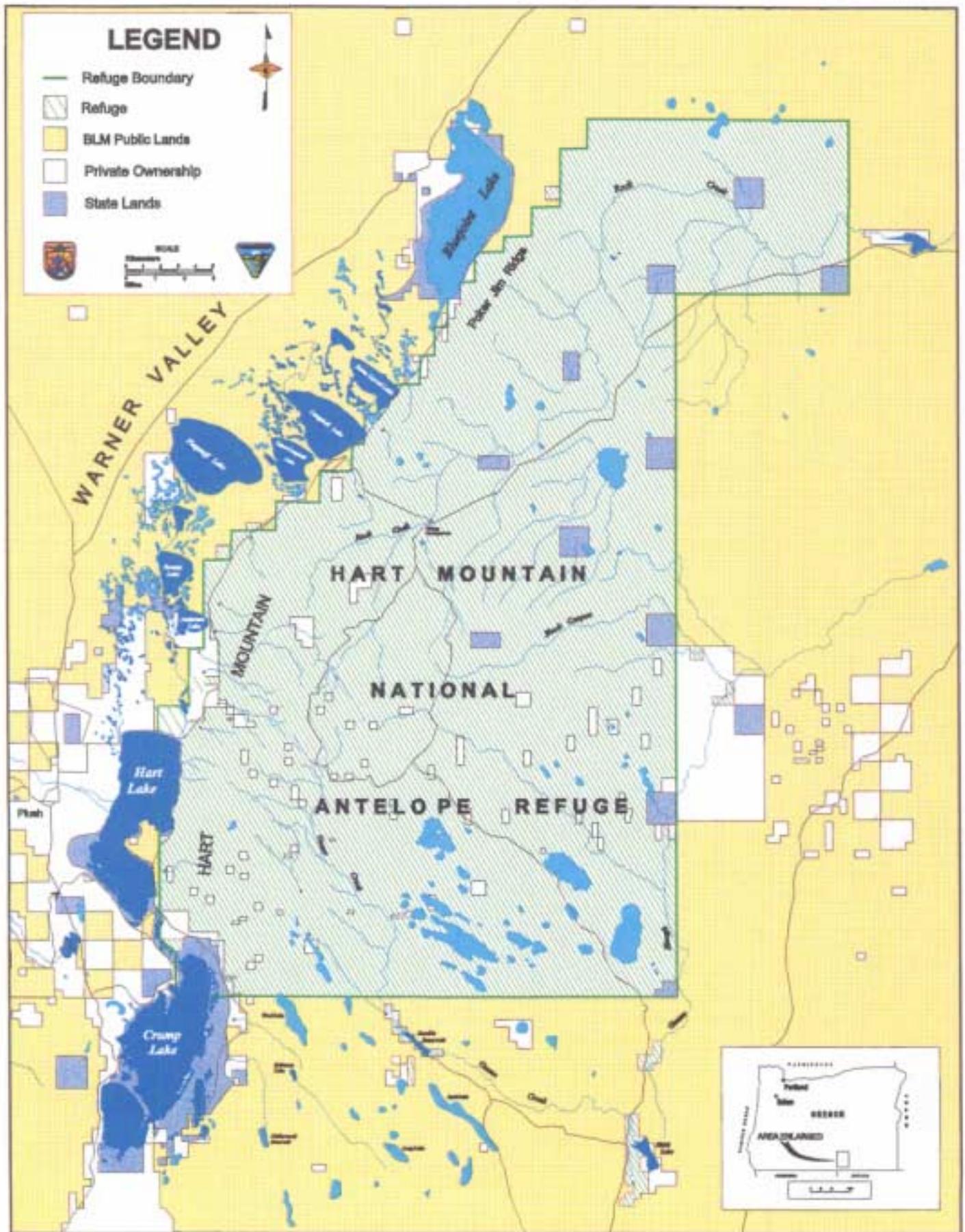
The Hart Bar would come under Service jurisdiction, as all Federal land within the established Refuge boundary would be administered by the Service. The Service would manage this property in cooperation with the BLM to benefit waterfowl. However, no all-terrain vehicles or camping would be allowed. Waterfowl hunting would be closed until determined compatible with the purposes of the Refuge. The interpretive facilities would continue to be used.

The Poker Jim Ridge escarpment would continue to present management concerns. Under existing Oregon Department of Fish and Wildlife regulations for the Juniper Hunting Unit, bighorn sheep would continue to be hunted on Public Land above the 4500-foot contour line. This area is located on the side of the steep escarpment below the Refuge boundary. Sheep movements from the Refuge down to this area would continue to contribute to harvest imbalance in the Refuge/ODFW controlled hunts on the Refuge. Posting would be required to prevent hunters from entering Refuge lands from below. Refuge sheep populations would not be prevented from moving down slope.

The existing western Refuge boundary extends below the remainder of the escarpment area below the 4500-foot contour line. Because the adjacent Public Land is open to grazing, fencing would be required to exclude livestock in accordance with the CMP.

The six small isolated Refuge tracts (including Jacobs Reservoir) outside the established Refuge boundary would require fencing to prevent livestock grazing, which is permitted on adjacent Public Lands surrounding these tracts. Posting of these tracts would also be required to inform the public and resource users of the presence of Refuge lands.

Figure 3. No Action Alternative - Hart Mountain National Antelope Refuge and a Portion of the Lakeview District, BLM.



The entire WSA would be retained under BLM administration and would be managed in accordance with the *Beaty Butte Allotment Management Plan* (BLM 1997) and Wilderness IMP (BLM 1995b).

## **Alternative 2 - Preferred Alternative**

Under this alternative, the BLM and the Service would exchange certain tracts of land and the BLM would begin managing most of the Guano Creek WSA under the goals and strategies of the Refuge CMP. About 8,400 hectares (20,750 acres) would be involved in the transfer (see Figure 2). Figure 4 depicts the proposed revised boundaries. About 4,460 hectares (11,020 acres) would be involved in the change of management direction. The major components of this alternative are listed below.

1. Full jurisdiction of about 5,215 hectares (12,880 acres) of BLM land would be transferred to the Service.
2. Full jurisdiction of about 3,185 hectares (7,870 acres) of Refuge land would be transferred to the BLM.
3. The Guano Creek WSA would remain under BLM jurisdiction, but the BLM would manage about 4,460 hectares (11,020 acres) of the WSA under the goals and strategies described in the *Hart Mountain National Antelope Refuge Comprehensive Management Plan* (CMP) (Service 1994). Livestock grazing would be removed from this area.

These actions would be taken to increase the efficiency of administering these Federal lands and to benefit wildlife and habitat. The reasons for transferring specific lands are listed below.

- Some lands would be transferred to improve administrative efficiency. The Refuge would transfer 1,525 hectares (3,770 acres) to the BLM and the BLM would transfer 1,470 hectares (3,625 acres) to the Refuge for this purpose. These lands are associated with the Warner Wetlands Area of Critical Environmental Concern, Hart Lake peninsula (see Figure 5), Poker Jim Ridge escarpment, and the Frenchglen road area (see Figure 6).
- The Refuge would transfer 1,090 hectares (2,700 acres) to the BLM to allow a consistency of land use in areas where Service tracts are now isolated and surrounded by BLM lands on which multiple uses, including grazing, are allowed (see Figure 6).
- Other lands would be transferred to better protect and manage wildlife resources. The Refuge would transfer 570 hectares (1,400 acres, including the Shirk Ranch) to the BLM, and the BLM would transfer 3,745 hectares (9,255 acres) to the Refuge for wildlife management purposes (see Figure 7).

The land transfer would consolidate Refuge and BLM holdings and establish County Road 3.12 along the base of Hart Mountain as the administrative boundary between the Refuge and Public Lands in the Warner Valley. Lands west of this road and the base of Hart Mountain would be managed in accordance with the Warner Wetlands ACEC management plans. Lands east of this road would be managed in accordance with the Refuge CMP (see Figure 5).

Figure 4. Preferred Action Alternative - Hart Mountain National Antelope Refuge and a Portion of the Lakeview District, BLM.

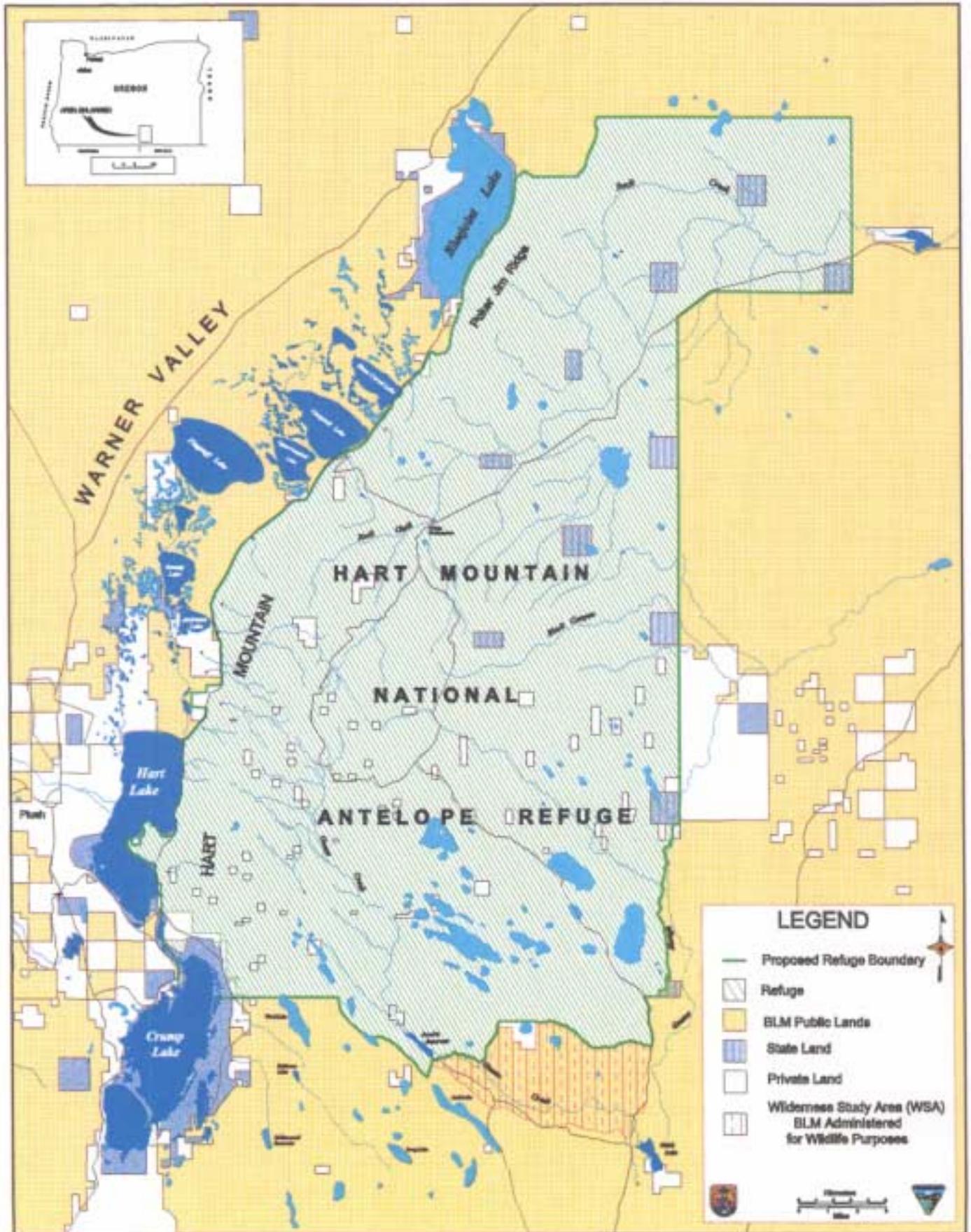


Figure 5. Warner Wetlands Area of Critical Environmental Concern, Refuge/Public Lands Exchange.

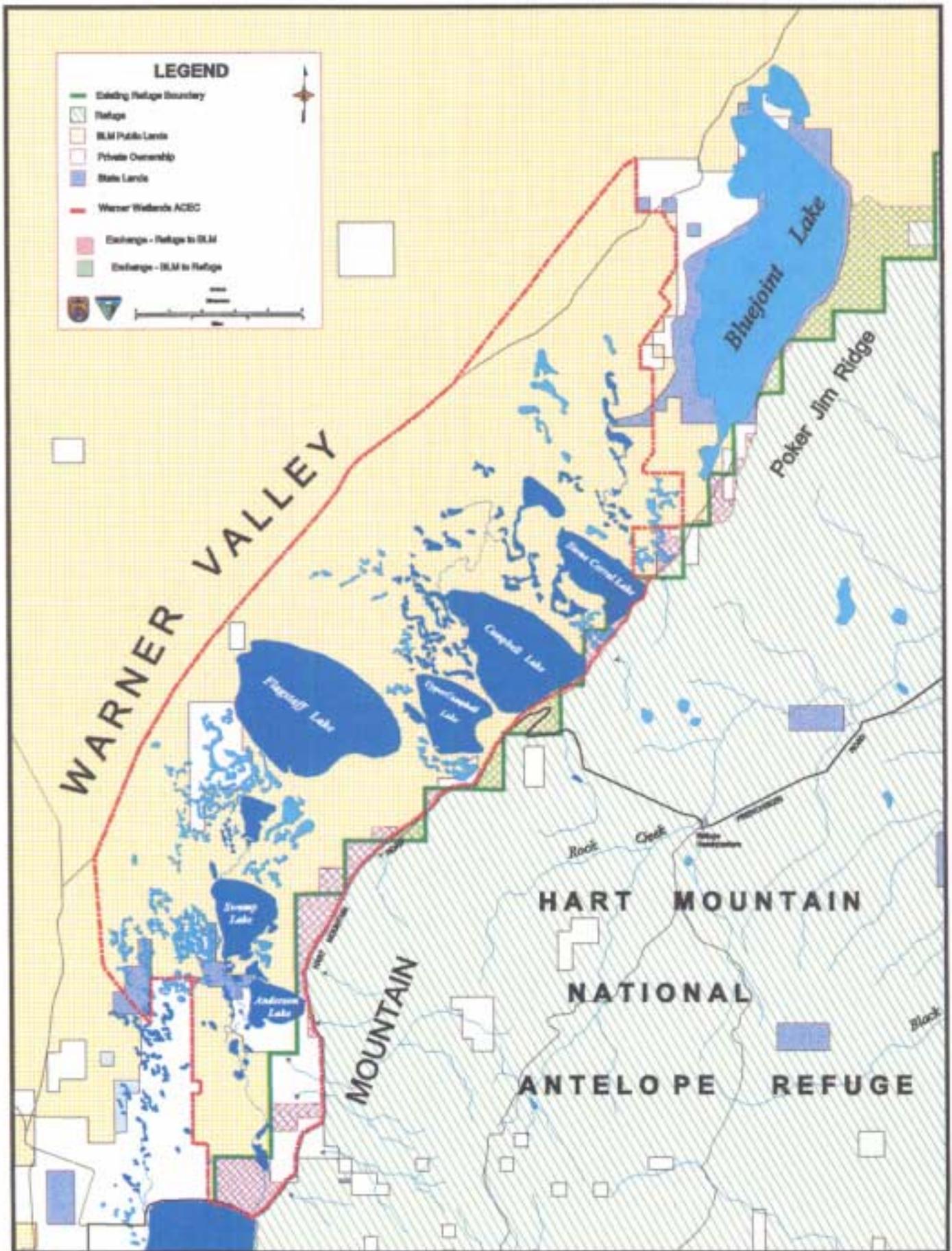


Figure 6. Poker Jim Escarpment - Refuge/Public Land Exchange.

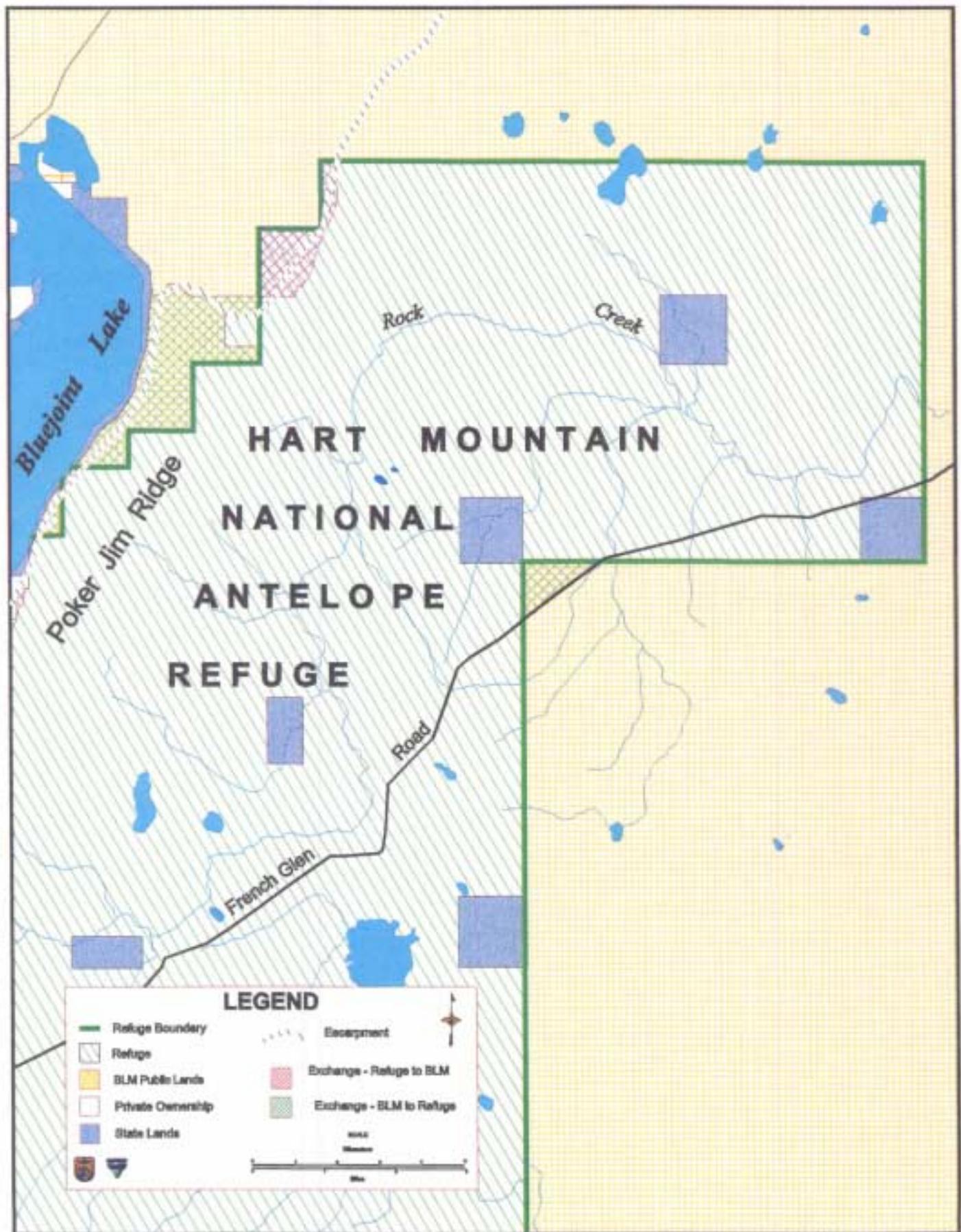
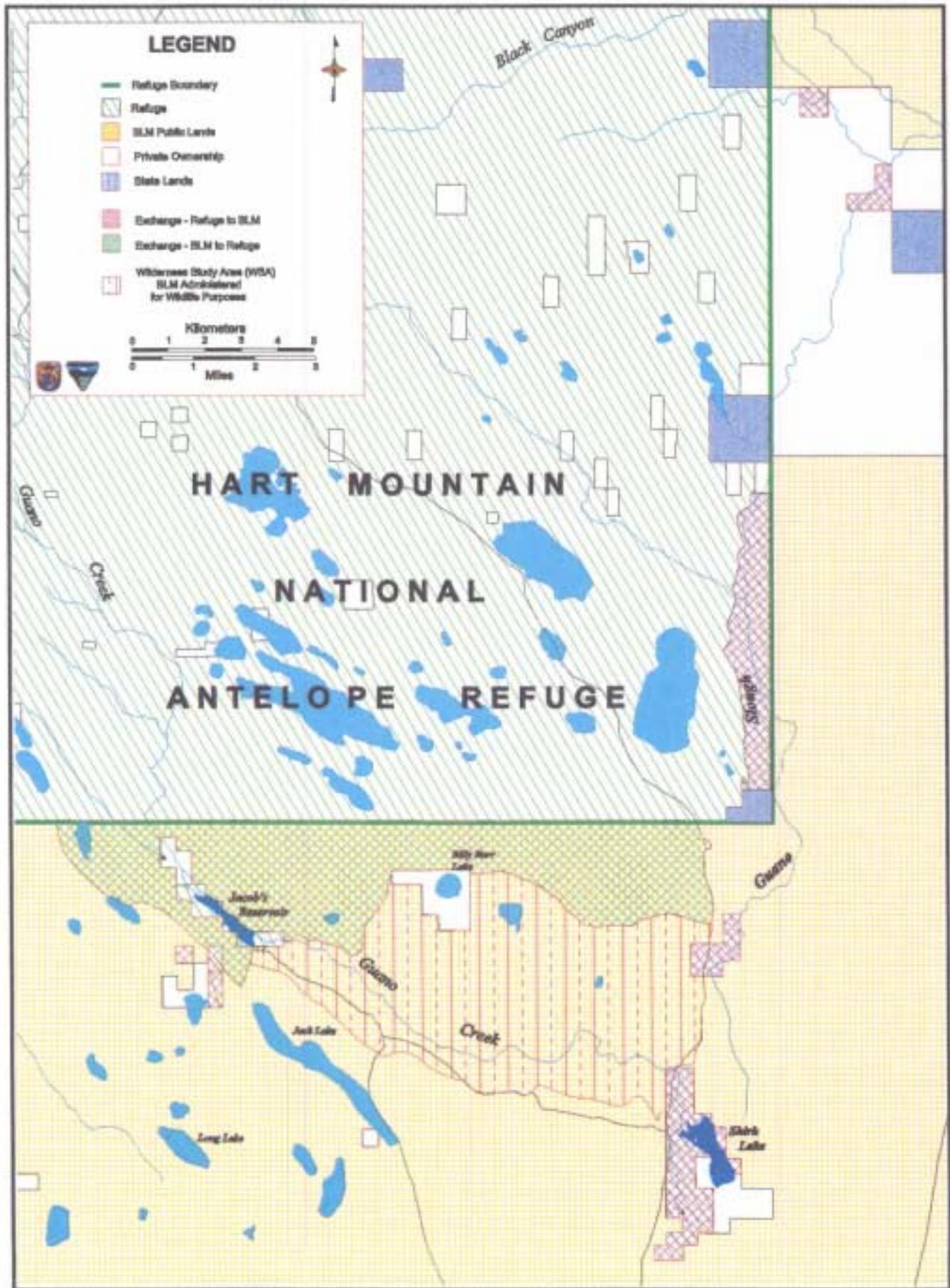


Figure 7. Wilderness Study Area - Refuge/Public Lands Exchange.



Long-term management of the Shirk Ranch and the isolated Refuge tracts would be transferred to the BLM. The BLM would maintain and enhance migratory bird values associated with Shirk Ranch wetland habitats. Migratory birds would be maintained as the core focus of management. Livestock use would not exceed 1,500 animal-unit months (AUMs) annually, unless it was determined that additional grazing treatment was needed to improve wetland habitat. Refer to the *Beaty Butte Allotment Management Plan* for more details.

Water rights for Jacobs Reservoir would pass to the Shirk Ranch and be retained by the BLM. The Service would manage Jacobs Reservoir to allow for irrigation of the Shirk Ranch for an interim period. During this time, the BLM would conduct a feasibility study to construct a new water supply for the Shirk Ranch. If the feasibility study supports construction of a new reservoir, the best location is likely to be located inside the WSA boundary, requiring Congressional modification of this boundary. If a reservoir alternative is not available, Jacobs Reservoir would continue to supply water to the Shirk Ranch. Any construction activity would require additional National Environmental Policy Act (NEPA) compliance.

The Service has permits to store water in the existing Shirk Ranch ponds/reservoirs for wetland wildlife habitat purposes. Around November of 1994, the Service submitted an Application for Permit to Construct a Reservoir to the Oregon Water Resources Department (OWRD) for the existing Jacobs Reservoir. On May 2, 1996, the OWRD responded stating that it was prepared to issue a Certificate of Water Right for the referenced application, but because these structures are already in existence, a set of as-built drawings needed to be prepared and sealed by an Oregon professional engineer or a qualified engineering representative of the Federal Government. Since receiving this letter, the Service has had discussions among its staff regarding a proposal to decommission the reservoir and/or transfer the land to the BLM. Based on these discussions, the Service has decided not to perform the work required by the OWRD until the future of the reservoir is clear.

The application submitted for Jacobs Reservoir only requested storage of 283 acre feet of water for wildlife use (not irrigation). Therefore, any certificate awarded for Jacobs Reservoir from the current application would only allow water to be stored in the reservoir; this water could not be used to irrigate the Shirk Ranch. Use of water for irrigation would require a separate, additional application. The existing application would have to be amended and information about the dam would have to be provided to OWRD.

BLM grazing permittees affected by the land exchange would receive an equal or slightly greater number of livestock AUMs at the Shirk Ranch in exchange for those they would lose in the upland pastures transferred to the Service. The Shirk Ranch would provide higher quality forage in a small, strategically located area that would serve as a fall staging area for moving cattle from summer pastures to wintering areas on private land. One permittee who would lose AUMs in the Jacobs Reservoir riparian pasture would be compensated by a negotiated agreement with TNC for grazing on other BLM land within a TNC allotment that is currently permitted by TNC.

The BLM would continue to manage acreage purchased in the Warner Wetlands. In March, 1989, the BLM acquired private lands inside the approved Refuge boundary. A provision of the Executive Order establishing the Refuge transfers to the Service any publicly acquired land within the approved boundary. The area in question contains the primary water distribution system for the wetlands, and it has been developed by the BLM for public use.

## **Other Alternatives Considered, But Eliminated From Detailed Analysis**

The agencies considered an alternative that would emphasize restructuring and updating the MOUs. Under this alternative, the agencies would continue to manage parcels along the western Refuge boundary for efficiency, yet comply with the Refuge CMP by constructing and maintaining a fence around individual isolated Refuge parcels to prevent livestock trespass. Fencing would also prevent wildlife from using these parcels. The Service and the BLM decided not to pursue this alternative because of the short-term and long-term financial costs and the detrimental impacts upon wildlife that could be caused by fencing.

## **CHAPTER 3. AFFECTED ENVIRONMENT**

This section describes the area's natural environment including vegetation, fish and wildlife resources, and cultural resources. The area's social and economic conditions and land uses that could be affected by the land exchange are also discussed. The *Hart Mountain National Antelope Refuge Comprehensive Management Plan* (Service 1994), the *Warner Wetlands Area of Critical Environmental Concern (ACEC) Management Plan* (BLM 1990) and *Plan Amendment* (BLM 1989), and the *Beaty Butte Allotment Management Plan and Draft Environmental Impact Statement* (BLM 1997) provide detailed descriptions of the area's environmental resources.

### **Physical Environment**

The Hart Mountain National Antelope Refuge is located about 44 kilometers (27 miles) northeast of Lakeview and 155 kilometers (97 miles) east of Klamath Falls, Oregon (Figure 1). The project area, located on about 12,860 hectares (31,770 acres) of Department of the Interior land, is defined as all Lakeview District BLM and Refuge lands involved in previous and proposed jurisdictional agreements since 1979. The project area occurs in two watersheds; lands on the west side of Hart Mountain occur in the Warner Basin, and lands south and east of the Refuge occur in the Guano-Catlow Basin.

Area climate is characteristic for low to moderate elevations in the northern Great Basin (USNRCS 1995). Summers are dry and mild; winters are wet and cold. Annual precipitation ranges from 24 to 32 centimeters (6 to 8 inches) at the northern Warner Valley floor to 55 to 63 centimeters (14 to 16 inches) at higher tableland elevations south of the Refuge and Poker Jim Ridge.

Topography consists of the basin wetlands and uplands of the Warner Valley and Guano Valley, the foothills and escarpments of Hart Mountain and Poker Jim Ridge, and the plateau that extends south and east from the southern boundary of the Refuge to Oregon Highway 140. Elevations range from 1,360 meters (4,465 feet) in the Warner Valley at Bluejoint Lake to 1,910 meters (6,260 feet) on Poker Jim Ridge.

### **Biological Environment**

A diversity of wetland, upland, and non-vegetation habitats (i.e., rock outcrops) characterize Refuge and Public Lands within the project area. Primary influences on the composition of basin and riparian wetland vegetation in the project area include climatic variation, occurrence of irrigation, and history of livestock use. Emergent plant species, such as pondweed, bulrush, cattail, rush, spikerush, and sedges, dominate vegetation in the seasonally flooded basin and playa wetlands. Riparian areas of Guano Creek support a mixture of silver sagebrush and sedge-rush-bluegrass wetlands with small amounts of willow. Silver sagebrush occurs extensively in some intermittent drainages and around the edges of playas.

For additional resource information on the biological environment, refer to the existing land management plans (BLM 1989, 1990, 1997, Service 1994).

Major wildlife values associated with the proposed exchange tracts are located in six affected areas: Warner Wetlands, Hart Lake Peninsula, Poker Jim Ridge, Shirk Ranch, and the Guano Creek corridor and associated uplands south of the Refuge.

### **Warner Wetlands**

The Warner Wetlands portion includes uplands and wetlands in and adjacent to the northern Warner Valley and the foot slope of Hart Mountain. Since 1989, wildlife habitats west of County Road 3.12 have been managed by BLM and wildlife habitats east of the road have been managed by the Service. Wetland management in BLM's identified core wetland management area has emphasized waterbird production over migration because the timing and duration of wetland flooding coincided with the waterbird breeding season (BLM 1990a).

Bighorn sheep, a BLM Sensitive Species, use the foothill and escarpment habitats mainly above 1,524 meters (5,000 feet), where rock outcrops interspersed with other terrain provide escape cover (Payer 1992, Refuge Files). All sex and age classes use the habitat throughout the year. Peak use is associated with sheep movement between Poker Jim Ridge and Hart Mountain during March, June, July, and December. One of the principal lambing and nursery areas is located less than 1.6 kilometer (1 mile) from the BLM parcel situated on the grade road.

### **Hart Lake Peninsula**

Waterbird use of Hart Lake Peninsula wetlands is low during times of drought and lowered water levels at Hart Lake, and high when wetlands are inundated by overflow from Hart Lake. Analysis of a wildlife-habitat relationship model indicated that species richness is highest during breeding seasons and fall migration in emergent wetland habitats that border the Peninsula. This area is also heavily used in the winter by mule deer when there is heavy snowpack on Hart Mountain.

### **Poker Jim Ridge**

The BLM parcels on Poker Jim Ridge provide important habitat for the Refuge bighorn sheep herd. Because much of north Poker Jim Ridge consists of sheer escarpment, its primary value is as escape cover for bighorn sheep. Although sheep use the area year-round, it is especially important as a lambing area. Ewes, lambs, and yearlings intensively use the area for escape cover during winter. Rehabilitation of the trench reservoir in the playa and prescribed burning of the slopes would expand water and food supplies available to bighorn sheep.

Over the years, conflicts between Juniper Unit sheep-tag holders and Refuge hunters have occurred in this area on Poker Jim Ridge, which is adjacent to the unfenced exterior Refuge boundary. This portion of the ridge is outside the Refuge boundary and is technically part of the Juniper Unit. The conflict has resulted in the harvest of more rams than allocated from the Refuge herd.

### **Shirk Ranch**

The Refuge surveyed waterfowl and other wildlife on the Shirk Ranch monthly between 1980 and 1990. Survey results indicated that occurrence and abundance of wildlife species varied seasonally. Species richness peaked in May and again in July and August with the occurrence of migratory birds. Because the area is a seasonal wetland, water supplies are usually depleted by September. In exceptional years, Shirk Lake and various potholes remain inundated and afford habitat for migratory birds in fall. Mule deer, pronghorn antelope, and sage grouse periodically use the site for food and water, when it is available, in late summer and fall.

The importance of the Shirk Ranch to waterfowl was indicated by evaluation of spring use during 1978–1989, a period when spring floods inundated the site each year. Total numbers of coots, ducks, and geese averaged 295–325 during May and June through the ten-year period. In May and June, the composition

of breeding waterfowl was dominated by coots and dabbling ducks such as cinnamon teal, mallard, and gadwall. Due to the remoteness of the Shirk Ranch from the Refuge headquarters, management of these wetlands has been minimal, resulting in waterfowl and waterbird use below the habitat potential.

### **Guano Creek Area**

Public Lands south of the Refuge and in the Guano Creek WSA consist of critical summer range and fawning area for pronghorn antelope, and critical year-round habitat for sage grouse. The area receives considerable use as winter range by up to 250 mule deer.

Monthly aerial composition and distribution surveys conducted between 1991 and 1993 indicated that antelope intensively use Public Land within and north of the WSA. Pronghorn densities averaged twice the levels on the Refuge. Densities fluctuated on a seasonal basis, ranging from a low in the spring to a peak in the fall. This area is actually an extension of the fawning habitat found on the Refuge.

Movement and interchange of antelope occur between the Refuge and Public Land to the south. During the drought of 1992, antelope that normally summered along the southern Refuge (i.e., Cat and Long Lakes) boundary moved south to the vicinity of Jacobs Reservoir where water and food were available. Conversely, the 600–1000 antelope that normally summer south of the Refuge on private and Public Lands have intensively used low sagebrush habitat on the Refuge during mild winters since 1985 (Ron Garner, ODFW biologist, pers. com.).

Sage grouse are an important Refuge management species (Service 1994) and are considered a Sensitive Species by the BLM. They move freely between the Refuge and adjacent lands. The largest segment of the three subpopulations of grouse that use the Refuge consists of birds that winter (November–April) on Public Land in the WSA and summer on the Refuge. During summer (May–October), sage grouse hens on the WSA are believed to nest and rear broods in upland and riparian habitats of the Guano Creek Watershed, on and off the Refuge. Hens usually nest between winter and summer habitat (Crawford et al. 1992), focusing on riparian wetlands but not lake beds during late summer and early fall (Klebenow 1985). There has been a high frequency of summer observations of sage grouse in healthier riparian habitats of Guano Creek.

The importance of the Guano Creek corridor to sage grouse was first noted by Henshaw (1880), who found "astonishing numbers of birds in the vicinity of Guano Creek" during August 1876. The Refuge's comprehensive management plan identifies the historic importance of the Guano Creek corridor to sage grouse (Rouse 1958, Service 1970). Intensive use of Jacobs Reservoir was identified by a count of 1,493 sage grouse during August 1961 (Service 1961).

The mule deer population in the WSA and to the north on Public Land includes both resident and migratory animals. Approximately 10–20 deer use the area year-round. The area between the WSA and the Refuge supports a higher resident deer population. The occurrence of rims, breaks, and wetland habitats associated with Guano Creek provide habitat conditions supporting higher deer populations. Refuge surveys indicate that another 50–150 mule deer that summer on the Refuge move through the WSA or winter in and north of the WSA, depending on population levels and winter snow depths.

## Threatened and Endangered Species

### Animals

The threatened Warner sucker occurs in aquatic habitats within the Warner Wetlands ACEC. Endangered Peregrine Falcons have been seen in the project area, probably as a result from a reintroduction site at Crump Lake. Bald Eagles, listed as threatened, migrate through the area at certain times of the year.

The Sheldon tui chub (*Gila bicolor eurysoma*), proposed for listing under the Endangered Species Act, currently has no Federal status. However, it is listed as critical on the State of Oregon Sensitive Species list. The current BLM policy is to consider it a Sensitive Species.

Past reports indicate the occurrence of tui chub in Guano Creek up until 1934 (Hubbs and Miller 1948). There are few recent records of Sheldon tui chub on the Lakeview Resource Area (Williams and Bond 1981). One observation occurred just below Paiute Reservoir on Paiute Creek; another also occurred on Paiute Creek just above the Beaty Butte Allotment boundary. In 1985, a Refuge biologist found chub in the stomachs of trout caught in lower Guano Creek just above the Shirk Ranch. Paiute Reservoir has since dried up due to a crack in the bottom of the pool. The site below Paiute Reservoir is now being administered by the Oregon Division of State Lands. It is unknown if any chub remain in Paiute Creek.

Under a cooperative agreement with the Oregon Natural Heritage Program, Guano and Paiute Creeks were surveyed in 1993 and 1994 (Stern et. al. 1993, Allen et al. 1994). No chub were found in any of the habitats sampled in Oregon. It is believed that the permanent habitat for the fish is on the Sheldon Refuge. In periods of high water, the fish move into Guano Valley and Paiute Creek, where they survive and reproduce until the next drought.

As mentioned previously, California bighorn sheep and sage grouse are Bureau Sensitive Species. Pygmy rabbits, also considered Bureau Sensitive, occur within the study area. Pygmies prefer habitat islands, usually dense stands of big sagebrush in deep loose soils, and avoid areas of dense herbaceous understory, especially cheatgrass stands. Other Bureau Sensitive Species known or suspected to occur within the study area are those common to the sagebrush/steppe habitats. The list includes the western big-eared bat, ferruginous hawk, and loggerhead shrike.

### Plants

Two plant species that occur within the study area are listed by the BLM as sensitive plant species. Both species are found growing exclusively on ash outcrops. The Lakeview Resource Area is developing a Conservation Agreement with the other BLM Districts and the Service for both grimy ivesia and Crosby's buckwheat to ensure their future protection.

Grimy ivesia (*Ivesia rhypara* var. *rhypara*) is listed on the Oregon Natural Heritage list as critically imperiled globally because of extreme rarity. The State of Oregon lists the plant as a threatened species. Within the Lakeview BLM District, there is one population of 31 plants covering a quarter-acre.

Crosby's buckwheat (*Eriogonum crosbyae*) is listed on the Oregon Natural Heritage list as rare, uncommon, or threatened globally but not immediately imperiled. The BLM lists it as a sensitive species. The State of Oregon lists it as a threatened species. There are four distinct populations within

the State of Oregon; three sites are on Federal land within the Beaty Butte allotment. The species also occurs on land managed by the BLM in Nevada and California.

Other known BLM sensitive species occurring in the study area are four-winged milkvetch (*Astragalus tetrapterus*), Sierra onion (*Allium campanulatum*), Lemmon's onion (*Allium lemmonii*), and thickstemmed wild cabbage (*Caulanthus crassicaulis*). The Oregon Natural Heritage Program lists them as species of concern that are not currently threatened or endangered. The BLM treats all four as tracking species. Policy does not require the BLM to mitigate for tracking species, but does encourage the BLM to track populations so that adequate status determinations can be made.

### **Aquatic Habitat**

Initial review of Service records indicated that no fish were observed in Guano Creek from the Refuge to the Shirk Ranch. Between 1950 and 1970, the Oregon Department of Fish and Wildlife (ODFW) periodically stocked Guano Creek with cutthroat trout and rainbow trout. A population of cutthroat trout has persisted in the creek since stocking ceased in 1978. ODFW fisheries surveys and observations made by Refuge staff indicate that trout population size and distribution fluctuate in response to variation in climate, stream discharge, and habitat condition.

During severe drought, stream flow is reduced and trout are restricted to 3.2 kilometers (2 miles) of upper Guano Creek on the Refuge. During consecutive years of above-normal precipitation, trout are distributed throughout Guano Creek. Emigration of trout from Jacobs Reservoir resulted in establishment of a population in Shirk Lake during 1978 to 1984. Spawning by different-sized cutthroat was observed in the low-gradient reach of Guano Creek immediately upstream from Shirk Ranch. Trout occupy a more restricted distribution during years with a normal range of variation in stream flow and runoff. Trout occur year-round in the upper 12.9 kilometers (8 miles) of Guano Creek except during drought. Fish that overwinter in Jacobs Reservoir migrate up Guano Creek to spawn. Additionally, some of the fish move downstream from Jacobs Reservoir when it overflows in the spring.

Habitat surveys conducted by ODFW from 1980 through 1993 and by BLM in 1991 indicated that the cutthroat trout population could be expanded with improvement in the condition of aquatic and terrestrial habitat along Guano Creek on and off the Refuge.

A stream survey was conducted on Guano Creek above the Shirk Ranch in August and September 1991 (BLM 1991c). Quarter-mile segments were surveyed, and condition ratings were given for each segment based on stream shade, channel movement, percent bank cover, and percent silt.

In summary, 6.5 percent of the banks were eroding in Guano Creek from the Shirk Ranch to the Jack Lake pasture. The stream was in poor condition for .25 mile, fair for 2.25 mile, and good for 1.5 mile. This stretch had been managed by the Fish and Wildlife Service and was rested for a number of years, but was used in 1994.

Almost 50 percent of the banks were eroding in the portion of Guano Creek in the Jack Lake pasture. The stream was in poor condition for 3.5 miles and fair for 1.75 miles. Some segments of the stream had no bank damage, while others had 100 percent damage to both banks. From the photos, it appears that the areas with rocky channels were stable, but the deeper soil sites were in poor shape.

In 1996, a team of BLM and Service specialists surveyed Guano Creek from the Refuge to the Shirk Ranch to determine streamside conditions using the Proper Functioning Condition (PFC) methodology (BLM and FWS 1996). Guano Creek from the Shirk Ranch to Mile 4.1 above the Shirk Ranch was found to be in Proper Functioning Condition. This reach includes all the Guano Pasture and the lower 0.5 mile of the Jack Lake Pasture. Miles 4.1 to 6.0 and miles 8.25 to 9.25, all in the Jack Lake Pasture, were found to be Functioning At Risk with no apparent trend. Miles 6.0 to 8.25, also in the Jack Lake Pasture, were found to be Non-Functional. The reach from the upper end of Jacobs Reservoir to the Refuge boundary, in the current Guano Riparian Pasture, was found to be in Proper Functioning Condition.

## **Social and Economic Environment**

### **Recreation**

Hart Mountain National Antelope Refuge offers a wide variety of wildlife-oriented recreation. Although the Refuge is located far from population centers, visitation is increasing. Approximately 17,200 visitors came to Hart Mountain in 1992. An estimate of visitor origins taken from the visitor register for the past three years suggests that approximately 75 percent of Refuge visitors came from Oregon, including 7 percent from local areas (Lakeview to Burns), and 25 percent came from out of state and other countries. In 1991, visitors came from 35 states and 16 countries. Visitation from local areas may be underestimated because many local visitors do not sign the register. To many visitors, Hart Mountain constitutes a final destination, and to others it is an intended stop on the way to or from Frenchglen and the Steens Mountain.

In the 1992 register, “enjoying nature and wildlife” appeared as a reason for visiting more often than other activities. Camping, hunting, hot springs bathing, photography, hiking, and backpacking were popular activities for visitors who signed the register. Other recreational opportunities offered on the Refuge include fishing, horseback riding, rock hounding, and mountain bike riding.

Hart Mountain's unique geologic features and abundance of wildlife make sightseeing and wildlife observation popular activities. Riparian areas are preferred places for hiking, camping, and visiting. Streamside areas are critical wildlife habitat needing careful management. The steep, rugged canyons on Hart Mountain's west face are also popular places for hiking and observing wildlife. All big-game hunting programs on Hart Mountain are conducted as quality, limited-permit hunts.

There are approximately 360 miles of roads on the Refuge; 243 miles are open to vehicle traffic. Various roads are permanently closed, while several are seasonally closed due to wildlife or weather conditions. In winter, attempts are made to keep the main road open. All other open roads are accessible depending on weather conditions.

Hart Mountain National Antelope Refuge offers two camping areas: the Hot Springs Campground (open year-round), and the Guano Creek camping area (open during hunting season).

The Warner Wetlands ACEC is experiencing increased use by recreationists for camping and for canoeing on the lakes and the interconnected channels. Canoe trails have been proposed, but have been only partially marked to date. Though canoe use numbers are currently low (under 100/year), the

BLM is receiving increased inquiries concerning canoeing opportunities in the area. Use may increase in 1998, as water levels are expected to be high.

Fishing in the Warner Wetlands has not increased as much as expected in the past two rising-water years. During the high-water years of the 1980s, up to 600 people fished for spawning crappie each weekend at Campbell and Stone Corral Lakes. Fish populations remain low in Hart Lake, but if the populations increase and water levels remain high, annual fishing use could rise to as high as 12,000 people, based on 1980s estimates.

Hunter use of the area is moderate, but is especially important to local users, based on responses to the BLM's proposal to implement vehicle restriction outlined in the *Recreation Area Management Plan* (RAMP; BLM, 1990c). On a regional scale, this area is less important for hunting than the Summer Lake Game Management Area, which draws much larger numbers of hunters from the region and more distant areas.

Lands south of the Hart Mountain Refuge are important pronghorn antelope wintering and kidding grounds. Populations are larger on BLM lands south of the Refuge than on the Refuge itself. This has led to high hunting pressure (within the limits of the hunting tags issued by the State) on antelope in the west Beaty Butte unit, specifically around and west of the Shirk ranch.

Hunting use includes deer hunters in the Guano Creek WSA and antelope hunters heavily using the area around Burr Homestead, Coffeepot Reservoir, and other areas south of the Refuge.

### **Socioeconomics**

The Refuge is located in east-central Lake County adjacent to Harney County. The community of Lakeview, with 2,526 people (1990 census), is the largest population center in Lake County. Lake County has a sparse population of 7,186, and encompasses approximately 5,292,800 acres, of which slightly over 75 percent is in public ownership (Riggs 1991).

Wood-products manufacturing, farming and ranching, and Federal, State, and local government provide the greatest number of jobs in Lake County. The largest government employers are the Fremont National Forest and the BLM District office in Lakeview. Per capita income has not kept pace with inflation. It stood at \$14,443 in 1989, compared to \$16,003 for the State of Oregon. Unemployment in Lake County fluctuated between 8.4 percent and 10.6 percent from 1986 to 1990 (Oregon Department of Human Resources 1992:24).

Compared to the average ranch in Oregon, ranches in Lake County are large. Ranches are almost entirely focused on cattle, while farm acreage produces significant quantities of hay and grain.

### **Cultural and Historic Resources**

The study area includes many remnants, both historic and prehistoric, of the land's previous inhabitants.

The Poindexter place is a one-room stone structure located in the Rock Creek drainage in the northern portion of the Refuge. Flook Ranch includes several poorly maintained buildings. The remains of cabins still exist in several other places on the Refuge, such as Deer Creek, Stockade Creek, and near the Hot Springs Campground.

Shirk Ranch, homesteaded in the early 1880s, was one of the earliest ranches established in the vicinity of Hart Mountain (Service 1985:57). The ranch with all of its structures—two-story house, corrals, barn, animal sheds, workshop, an outhouse, a water tower, a root cellar, and a "boot hill" type grave marker— is potentially eligible for inclusion into the National Register of Historic Places.

The Refuge Headquarters buildings were created by the Civilian Conservation Corps (CCC). Because the creation of the CCC represents an important Federal response to the Great Depression, properties associated with the CCC are nationally important (Service 1985:71). In 1985, these Refuge buildings were determined to be potentially eligible for inclusion in the National Register of Historic Places (Service 1985:75).

The proposed transfer area lies within the Northern Great Basin Cultural Area. The prehistoric and historic Native American occupants of the area were hunters and gatherers who subsisted on natural products of the land that could be hunted, fished, or collected. People living in this area did not farm or raise domesticated animals. Their subsistence was based on the yearly, seasonal rounds to different places within the environment that they occupied and exploited as plants or animals became available.

Evidence indicates that Hart Mountain has been a focal point of use for at least 10,000 years. Occupation was often at small lakes and along streams and playas. At the time of Euroamerican contact, the Hart Mountain area was occupied by members of the Surprise Valley Band of the Northern Paiute. This group used Hart Mountain for religious purposes and for hunting, collecting medicinal and food plants, and gathering stone tool material. Some Paiute mythology deals with Hart Mountain and its place in the oral history of the Surprise Valley Band of the Northern Paiute.

Archeological evidence indicates that Northern Paiute were present in the area approximately 500 years ago. It is not known where these people originated, whether the area was abandoned by other groups at that time, or whether the Northern Paiute displaced or assimilated other groups.

Sites throughout the Warner Valley area are important locations within the history of the Northern Paiute. Site occupation shows where the people lived on daily basis. These sites may include winter and summer villages, small temporary campsites, temporary work sites, and special use areas. Ranging in size from less than one acre to 40 acres, sites are indicated by the presence of a wide variety of tools, house pits, stone house rings, plant processing areas, and burials.

Rock art sites are abundant on the Hart Mountain Refuge. Some sites, where a single petroglyph is present, cover less than one square foot of a rock surface. Other encompass thousands of petroglyphs and many acres. Both petroglyphs (carvings on stone) and pictographs (painting on stone) exist on Hart Mountain. Evidence indicates that some of these sites may be as many as 7,000 years old. The function of these sites is unknown. However, they are most often associated with the root-gathering sites and the summer occupation sites associated with the plants. Rock art probably served some function to preserve the social solidarity within the group living at the upland camps.

Hunting sites often contain stone blinds behind which the hunter waited to ambush game. Sites often contain broken projectile points and evidence of the butchering of animals.

The region's rock shelters and caves were used for various purposes including storage, living, and burial. Perishable items such as basketry, nets, and matting can be found in such sites. Because of the extreme

amount of artifact collecting in the area, no undisturbed sites are now known on Hart Mountain. Some sites still contain rock art, which was frequently made in these locations.

## **CHAPTER 4. ENVIRONMENTAL CONSEQUENCES**

This section analyzes and discusses the potential environmental impacts of the two alternatives described in Chapter 2. Each alternative is evaluated from a general resource perspective, and its effects on habitat, fish and wildlife, water resources, and social and economic conditions are discussed. The alternatives analyzed would not affect visual quality, air quality, Native American traditional uses, paleontology, prime or unique farmlands, wild and scenic rivers, forestry, minerals, soils, or wild horses.

### **Alternative 1 - No Action**

Under the no action alternative, the proposed land exchange would not occur. This is not a “status quo” alternative, since management under the current MOUs has come under legal question. Because maintaining the “status quo” has been determined to be unfeasible, the no action alternative would require that management activities revert to the respective agencies.

The no action alternative would not assure the desired long-term habitat protection that could be obtained by more efficient and coordinated resource management resulting from the land exchange. Potential long-term habitat loss and degradation on 5,410 hectares (13,355 acres) could result from continuation of existing management actions of both agencies. The area’s fish and wildlife values could decrease.

### **Warner Wetlands/Poker Jim Ridge Areas**

Complicated boundaries would continue to confuse Refuge and Public Land visitors. Lake County Road 3-12, on the western Refuge boundary, crosses back and forth across agency boundaries. Uses of these lands vary with agency administration, and are guided by different legislative mandates, management plans, and resource management objectives. Unless the boundary changes are posted along the road, the public would not know who administers the land or which uses are permitted. The situation is similar in the Frenchglen Road area, where the main road exits the Refuge onto Public Land and then returns to the Refuge.

### **Guano Creek Area**

Resource uses previously allowed on the remote Refuge tracts administered by the BLM under the 1979 MOU would no longer be allowed. These uses are primarily grazing-related, as most of these small, isolated tracts are completely surrounded by large areas of Public Land with open-range grazing. In compliance with the CMP, these lands would no longer support livestock grazing, and boundaries would require fencing to exclude livestock.

Recent changes in grazing management of the riparian zone directly above Jacobs Reservoir have improved habitat conditions. However, even under improved grazing management, recovery of damaged riparian areas would be delayed by continued livestock grazing.

Below Jacobs Reservoir, recovery would be slower based on current management of livestock during the summer and fall use period (BLM 1989b). However, the Draft Beaty Butte AMP/EIS would modify management of this area if the transfer did not occur. The area would become a riparian pasture with seasons of rest. Riparian conditions would improve, but not as quickly as if grazing was removed from the area (BLM 1997b).

If water impoundment capabilities for the Shirk Ranch are moved, the Service would reduce the storage capabilities of Jacobs Reservoir to a minimum pool and allow the majority of water to flow naturally

downstream. This could contribute to the restoration of the Guano Creek riparian corridor, while allowing water management capabilities at the Shirk Ranch to benefit the wetlands and associated wildlife species. Moving the reservoir closer to Shirk Ranch would reduce the distance water would flow during periodic irrigations, thereby reducing the significant subsurface loss that now occurs. Water conservation would be enhanced throughout this stretch of the Guano Creek watershed, resulting in greater water supplies to the Shirk wetlands.

Climate changes during various years, Service regulation, and pattern of water and sediment discharge from Jacobs Reservoir would contribute to the recovery of riparian habitat downstream in the Clove Pasture. Water discharge in Guano Creek below Jacobs Reservoir would be determined largely by water needs for waterfowl migration and production at the Shirk Ranch. In drought years, water would be retained in Jacobs Reservoir, with little or no water reaching the Clove Pasture riparian area. Conversely, water discharges and sediment from Jacobs Reservoir through the Clove Pasture during years of substantial winter precipitation and spring flooding would be beneficial.

The amount of residual cover available to nesting waterbirds would be diminished by cattle grazing adjacent to Jacobs Reservoir during years following spring grazing. The amount of spring grazing allowed would determine the recovery rate of riparian areas.

Fencing would be required on the Refuge boundary line to exclude cattle from the Refuge and comply with the CMP. This line zigzags in and out of the reservoir area. During the winter and spring, the fence would be in the ice and water. The fence would require extensive maintenance, and operational costs would increase.

Improvements to ecological condition of some upland habitats would continue to be limited by excessive sagebrush cover and the exclusion of fire unless fire is reintroduced. Continued spring use of uplands by cattle would not improve upland ecological condition because cattle do not eat sagebrush. Continued exclusion of fire would result in maintenance of high levels of sagebrush cover on many sites, and increased distribution and density of juniper. Random occurrence of wildfire may or may not improve upland habitat condition, depending on time of ignition, fire behavior, and condition of sites burned. However, prescribed fire could be used in the future to improve upland habitat conditions in some areas.

Some of the isolated tracts south of the Refuge have water during wetter years and seasons. Fencing around these tracts would hinder their use by various species of wildlife. Antelope and deer would need to negotiate these barriers to reach some of the watering areas. Exclusion of cattle from these areas, however, may have some benefit to other species. Fencing these tracts would exclude livestock use that has been occurring under the 1979 MOU, but would also increase the operational costs for the Refuge.

### **Shirk Ranch**

Under this alternative, grazing would not be permitted on the Shirk Ranch. The absence of a well-managed grazing system would contribute to wildlife and wetland values remaining below site potential. Managed grazing would create openings and encourage diversity in what is now a fairly dense and homogenous emergent marsh and meadow complex. The creation of these openings would provide a broad array of high-quality nesting, foraging, brooding, and resting habitat through uneven and diverse patches of vegetation. Lack of managed grazing treatments would contribute to the loss of interspersed emergent aquatics, the decreased availability of invertebrates in the spring, and the deterioration of nesting and brood-rearing habitat for waterfowl and other associated wetland species. Lack of water

management would also contribute to wildlife values being far below the site's potential to support larger, healthier populations.

### **Hart Bar Peninsula**

The Service would manage the Hart Bar area for waterfowl values. This area, acquired by the BLM to enhance management of the Warner Wetlands ACEC, is located within the Refuge boundary. A developed pump provides a stable water source for wetland maintenance. The Service would assume the responsibility of running and maintaining the pumps and paying utility and maintenance costs.

## **Alternative 2 - Preferred Alternative**

### **Warner Wetlands and Frenchglen Road Areas**

The land transfer would simplify boundaries, thereby contributing to better public understanding of land status and the two agencies' permitted uses. Uses of these lands vary with agency administration, and are guided by different legislative mandates, management plans, and resource management objectives. Lake County Road 3-12 would identify agency boundaries on the western side of the Refuge. These boundaries could be easily posted and recognized.

Transfer of the Public Land parcel north of the Frenchglen Road would have similar consequences. Visitors now cross the eastern Refuge boundary twice in a one-mile stretch. With the land transfer, the Frenchglen Road would become the boundary. Visitors could more easily identify whether they are within the Refuge or on Public Land.

### **Guano Creek Area**

Resource uses previously allowed on the remote Refuge tracts administered by the BLM under the 1979 MOU would continue to be allowed. This would include grazing. Transfer of these small, isolated tracts would allow uses to be encompassed in the larger, surrounding Public Land areas with open-range grazing. These tracts would be managed under the Beaty Butte Allotment Management Plan. They would no longer be isolated, and management would be consistent with the surrounding land resource use objectives.

Livestock grazing on these small tracts would contribute to reduced wildlife values. However, antelope and deer would continue to have access to the watering areas, when available, without the hindrance of fencing required under Alternative 1.

Recent changes in grazing management of the riparian zone directly above Jacobs Reservoir have improved habitat conditions. Under this alternative, the area would become part of the Refuge and would be managed in accordance with the Hart Mountain CMP. It would not be grazed. Under an agreement with TNC, the permittee who now grazes here would be accommodated on the Cox Allotment to the west.

The Refuge boundary around Jacob Reservoir would not be fenced, thereby providing wildlife complete access to the reservoir. If the reservoir was removed or the minimum pool elevation was lowered permanently, the existing aquatic and riparian habitat around the reservoir would be lost or reduced in size. Construction of a new reservoir downstream closer to the Shirk Ranch may reduce the effect somewhat by improving riparian habitat conditions along Guano Creek, but would require a separate

NEPA analysis to confirm potential impacts. The restoration of wetlands at the Shirk Ranch would help replace those that may be diminished by reducing the size of Jacob Reservoir. Open water habitat is not in short supply on or adjacent to Hart Mountain. Numerous lakes occur on the Refuge, and thousands of acres of open water habitat occur just a few miles away in the Warner Wetlands. The Hart Mountain CMP identifies lack of healthy streams and their associated riparian corridors as the single most significant habitat deficiency on Hart Mountain. Restoration of the remainder of Guano Creek by removing livestock grazing would help address this deficiency and would be in direct compliance with the CMP.

Water resources would not be significantly affected. Restoration of Guano Creek would improve the overall hydrology of the watershed. Water quality would improve and the quantity of water available for restoring and managing the Shirk wetlands could increase.

### **Shirk Ranch**

The land transfer would give the BLM long-term management of the Shirk Ranch. The BLM would maintain and enhance migratory bird values associated with the Shirk Ranch wetland habitats. Migratory birds would remain the core focus of management. Livestock grazing would be used as a vegetation management tool and would not exceed 1,500 animal-unit months (AUMS) annually, unless it is determined by a team of wildlife biologists from ODFW, Service, and BLM that additional grazing treatments to meet wetland habitat objectives are required. Grazing would create openings and encourage diversity in what is now a fairly dense and homogenous emergent marsh and meadow complex. Uneven and diverse vegetation cover would provide a broad array of high-quality nesting, foraging, brooding, and migratory habitat. This habitat diversity would be further enhanced by operation of the irrigation system during the summer. Nesting and migratory bird use should increase under this alternative. Adaptive management flexibility would be critical for operations at the Shirk Ranch. Depending on wildlife response, the grazing prescription may need to be modified in the future.

The Service would provide irrigation water from Jacobs reservoir to the Shirk Ranch until a new reservoir is constructed or other irrigation water source is provided downstream. During the interim, the BLM and Service would conduct a feasibility study regarding the potential development of other irrigation water sources on or near the Shirk Ranch.

If another water source for the Shirk Ranch is provided, the Service intends to reduce the storage capabilities of Jacobs Reservoir to a minimum pool and allow the majority of water to flow naturally downstream. This change in water management would allow water management capabilities at the Shirk Ranch to benefit the wetlands and associated wildlife species.

### **Poker Jim Ridge**

Under this alternative, the Poker Jim Ridge escarpment would be located entirely within the Refuge boundary. The toe of the escarpment would provide a meaningful boundary to hunters and would help them identify where they can and cannot hunt. Bighorn sheep hunting seasons and areas would be easier to manage. The elimination of hunting on Public Land above the 4500-foot contour line within the existing Juniper Hunting Unit would provide improved regulation of the cooperative Refuge/Oregon Department of Fish and Wildlife Hunt. Bighorn sheep harvest in this area would be controlled by the cooperative hunt. This would result in less public confusion and ultimately, less impact on sheep numbers. Posting on steep hillsides would not be required to prevent hunters from entering Refuge lands. Sheep movements would not be affected.

Refuge lands extending below the 4500-foot contour line in the escarpment area would be transferred to the BLM and would be open to livestock grazing. Like other tracts transferred to the BLM, these areas would function well within the resource use of the surrounding area. Expensive fencing would not be required to exclude livestock, as the steep slope of the escarpment would form an effective barrier to livestock movements onto Refuge lands.

### **Social and Economic Impacts**

The proposed action is not expected to have an adverse effect upon the area's cultural, economic, or social resources. Cultural resources included within Refuge and Public Land boundaries would continue to receive a high level of protection. Any development would be carried out only after a thorough review or survey of possible cultural resources likely to be disturbed, and the preparation of plans for avoiding or minimizing impacts.

Lands being transferred to the Service contain significant cultural sites, and some are actively being researched by area universities. Because the Service operates under the same set of cultural resource laws as the BLM, overall management of these sites would not change. The Service would support ongoing research. The transfer of lands between the BLM and the Service would create shifts in specific cultural site management and funding needs between the two agencies.

The Recreation Area Management Plan (BLM 1990c) for the Warner Wetlands Area of Critical Environmental Concern (ACEC) outlines additional low-key recreation development to provide adequate recreation opportunities for the area. Such development is subject to guidelines for protecting wildlife habitat in the ACEC. For instance, limits on season of use for canoe traffic may be necessary in the future, if numbers increase too sharply.

Increased fishing may require implementation of some of the safety and health measures outlined in the RAMP (BLM 1990c) and could include a boat ramp at Campbell Lake, sanitary facilities, and a minimally developed campground. These facilities would minimize impacts on shoreline habitats.

Waterfowl hunting impacts due to the proposed transfer are expected to be manageable within RAMP (BLM 1990c) guidelines. Road condition and off-highway vehicle use would continue to be monitored and appropriate regulations enforced to protect sensitive habitat areas within the ACEC and WSA.

The closure of Refuge-acquired lands to livestock grazing south of the Refuge would improve native vegetation, and probably, antelope and deer forage. This may lead to some increases in animal numbers and hunting pressure.

### **Administrative Impacts**

The Service would be in compliance with the CMP regarding grazing. Parcels transferred to the BLM could be legally grazed by permitted livestock as this document amends existing BLM land use plans with respect to grazing use.

### **Secondary, Indirect, and Cumulative Impacts**

None of the alternatives analyzed would have any significant secondary, indirect, or cumulative impacts on the human environment.

## **Summary of Impacts**

The following is a summary of impacts of the preferred alternative as compared to the no action alternative. Wildlife and habitat management would gain the following benefits:

- Restoration of approximately 11 kilometers (7 miles) of Guano Creek riparian corridor from the Refuge boundary to the Shirk Ranch would increase biodiversity by providing better-quality riparian habitat.
- An important pronghorn antelope fawning area and important sage grouse habitat would become part of the Refuge.
- Livestock grazing would be removed from approximately 6,880 hectares (17,000 acres) of pronghorn antelope/sage grouse habitat and transferred to the 567-hectare (1,400-acre) Shirk Ranch, where grazing could be used as a management tool to benefit waterfowl and waterbirds. Prescribed fire would benefit the upland areas by reducing the woody shrubs to provide a greater diversity of herbaceous forbs, grasses, and shrubs.
- The number of fences would be reduced as a result of the transfer. Wildlife would benefit from the removal of hazardous barriers.
- Waterfowl and waterbird use at the Shirk Ranch would increase with more intensive management provided by the BLM (including grazing).
- Important California bighorn sheep habitat on Poker Jim Ridge would be added to the Refuge.
- The BLM would continue to lead the management of Warner Valley wetlands for wildlife. Management would continue to focus on improving habitat and maintaining the diversity and quality of wetland habitat available to waterfowl and other wildlife (BLM 1989a, 1990a, 1990b, 1990c).

## **CHAPTER 5. COMPLIANCE, CONSULTATION, AND COORDINATION WITH OTHERS**

This document was prepared by L. Scott McLean, Wildlife Biologist, U.S. Fish and Wildlife Service, with the assistance of Mike Nunn, Refuge Complex Manager, Ron Cole, Deputy Refuge Complex Manager, and the staff at the Hart Mountain National Antelope Refuge, Oregon; and in cooperation and coordination with Scott Florence, Resource Area Manager, U.S. Bureau of Land Management, and the Lakeview District staff.

### **STATEMENT OF COMPLIANCE**

Both agencies are and will be in compliance with the following executive orders and legislative acts:

#### **Executive Orders**

**Establishing the Hart Mountain Game Range (Executive Order 7178 - September 6, 1935).**

**Protection of Wetlands (Executive Order 11990).** The Service's objective is to protect remaining wetlands.

**Intergovernmental Review of Federal Programs (Executive Order 12372).** Copies of this environmental assessment were sent to the Oregon State agencies, local governments, and Federal agencies.

**Protection of Historical, Archaeological, and Scientific Properties (Executive Order 11593).** To comply with this executive order, an archaeological records search of the area was requested from the Oregon State Historic Preservation Office. The results will be filed in the agency's Portland Regional Offices.

**Floodplain Management (Executive Order 11988) and Evaluation of Flood Hazard (Executive Order 11296).** The project area encompasses areas within floodplains. If the construction of structures or facilities becomes necessary, the Service would ensure they are designed so as not to be damaged by or significantly influence the movement of flood waters.

#### **Legislative Acts**

**Section 7, Endangered Species Act of 1973, as amended, (P.L. 93-205).** This Act requires Federal agencies to insure that any action they authorize, fund, or carry out does not jeopardize the continued existence of listed species or modify their critical habitat. As all lands affected in this proposal are administered by Federal agencies and the exchange action does not in itself constitute an action that will jeopardize listed species, no consultation is necessary. Changes in management on the subject lands that affect listed species may require consultation. All management actions affecting these lands have been appropriately addressed in the respective agency's management documents.

**Emergency Wetland Resources Act of 1986 (P.L. 99-645).** The acquisition of wetland habitat supports the purpose of this Act, which is to protect the wetlands of the nation.

**Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (P.L. 91-646).** This Act does not apply.

**Coastal Zone Management Act of 1972 (P.L. 92-583).** Only acquisitions within a coastal zone management area must comply with this legislation. No lands proposed for acquisition are located within a coastal zone management area.

**Section 106 of the National Historic Preservation Act of 1966, as amended, (P.L. 89-665).** This Act requires the Service to evaluate the effects of any of its actions on cultural resources (historic, architectural, and archeological properties) that are listed or eligible for listing in the National Register of Historic Places. In accordance with the regulations under section 106, the agencies must consult with the Oregon State Historic Preservation Officer. The jurisdictional land exchange will not affect the protection afforded by the Federal government in any way. Any agency actions that would affect cultural resources would require consultation.

**Archaeological Resources Protection Act (P.L. 96-95).** This Act establishes detailed requirements for issuance of permits for any excavation and removal of archaeological resources from Federal or Native American lands. Both agencies will conform to this legislation.

**Federal Land Policy and Management Act of 1976, as amended, (P.L. 94-579).** All Public Lands administered by the BLM will conform with this legislation.

**National Environmental Policy Act of 1969, as amended, (P.L. 91-190).** This Act requires all Federal agencies to prepare detailed environmental analysis for their actions affecting the environment. The legislation also directs Federal agencies to employ an interdisciplinary approach in related decision-making and develop means to ensure that unquantified environmental values are given appropriate consideration along with economics and technical issues. Both agencies will conform to this legislation.

**National Wildlife Refuge System Improvement Act of 1997.** This newly enacted legislation provides administrative direction to the Service. The Service will conform with this legislation.

**Wilderness Act of 1964.** This Act establishes procedures for assessing, designating, and managing areas found to exhibit wilderness qualities.

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