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NORTHEAST OREGON
WILDLIFE MITIGATION PROJECT

FINAL ENVIRONMENTAL ASSESSMENT
DOE/EA-1160

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Northeast Oregon Wildlife Mitigation Project Environmental Assessment

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**Bonneville Power Administration and Nez Perce Tribe
Northeast Oregon Wildlife Mitigation Project
Final Environmental Assessment (DOE/EA-1160)**

CHAPTER 1: PURPOSE OF AND NEED FOR ACTION

1.1 Underlying Need for Action

Development of the hydropower system in the Columbia River Basin has had far-reaching effects on many species of wildlife. The Bonneville Power Administration (BPA) is responsible for mitigating the loss of wildlife habitat caused by the Federal portion of this system, as allocated to the purpose of power production. (See Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. 839 *et seq.*, Section 4(h)(10)(A)). BPA needs to mitigate for loss of wildlife habitat in the Snake River Subbasin.

1.2 Purposes

Desired results in satisfying the underlying need for action are:

- Consistency with the Northwest Power Planning Council (NPPC) Fish and Wildlife Program;
 - Potential to achieve sound biological objectives;
 - Administrative efficiency and cost-effectiveness; and
 - Protection and improvement of other environmental resources when it would reduce long-term costs, reduce risk or uncertainty, increase efficiency, or improve BPA's ability to demonstrate compliance with environmental laws and regulations.
-

CHAPTER 2: ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1 Proposed Action: N. E. Oregon Wildlife Mitigation Agreement

BPA proposes to enter into an agreement with the Nez Perce Tribe (NPT) to acquire and manage approximately 6600 ha (16,500 acres) of wildlife habitat in Northeast Oregon and Southeast Washington, on either side of the Lower Grande Ronde River. The NPPC has included this project in its fish and wildlife mitigation program (NPPC, Fish and Wildlife Program Amendment, section 1003(b)(7)(C)). The agreement would provide the NPT funding to acquire the properties and to manage them for wildlife benefit, thus providing mitigation for the loss of wildlife habitat in the Snake River Subbasin of the Columbia River Basin.

Specific BPA actions under this agreement would include.

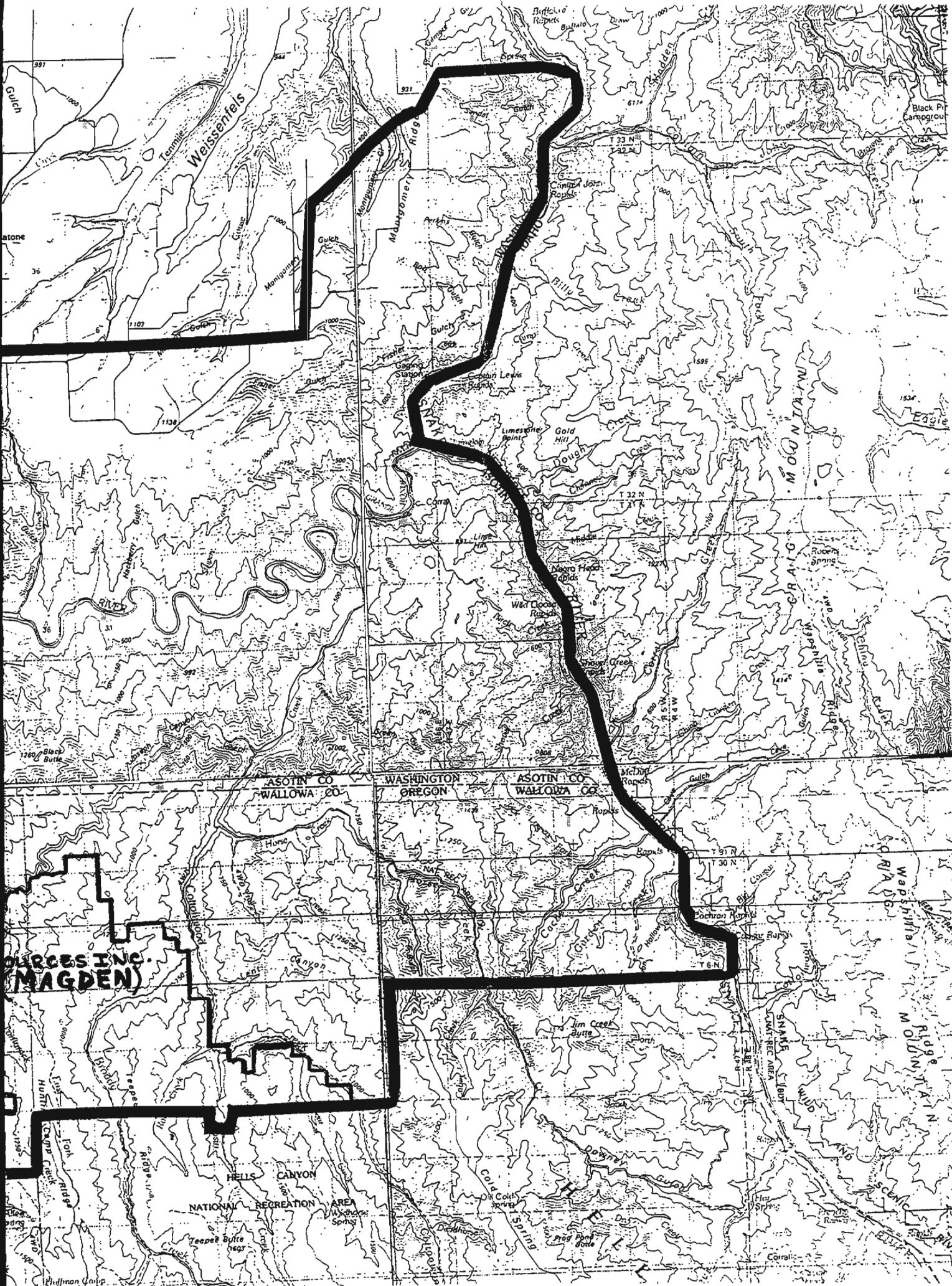
- BPA would provide funds to the NPT to acquire the land and wildlife habitat. (Any of the property acquisition methods described in section 2.1.1 below may be used.) The map on the opposite page shows the area that would be considered for acquisition.
- BPA would also provide funds to the NPT to manage these acquired properties for the protection and enhancement of wildlife and wildlife habitat.

In consultation with affected state and Federal agencies, local governments, nearby landowners, and other affected interests, the NPT would prepare a Project Management Plan for lands under management control. The Project Management Plan would identify a desired future condition, characterize site conditions and trends, establish project goals, and include an action plan for achieving project goals.

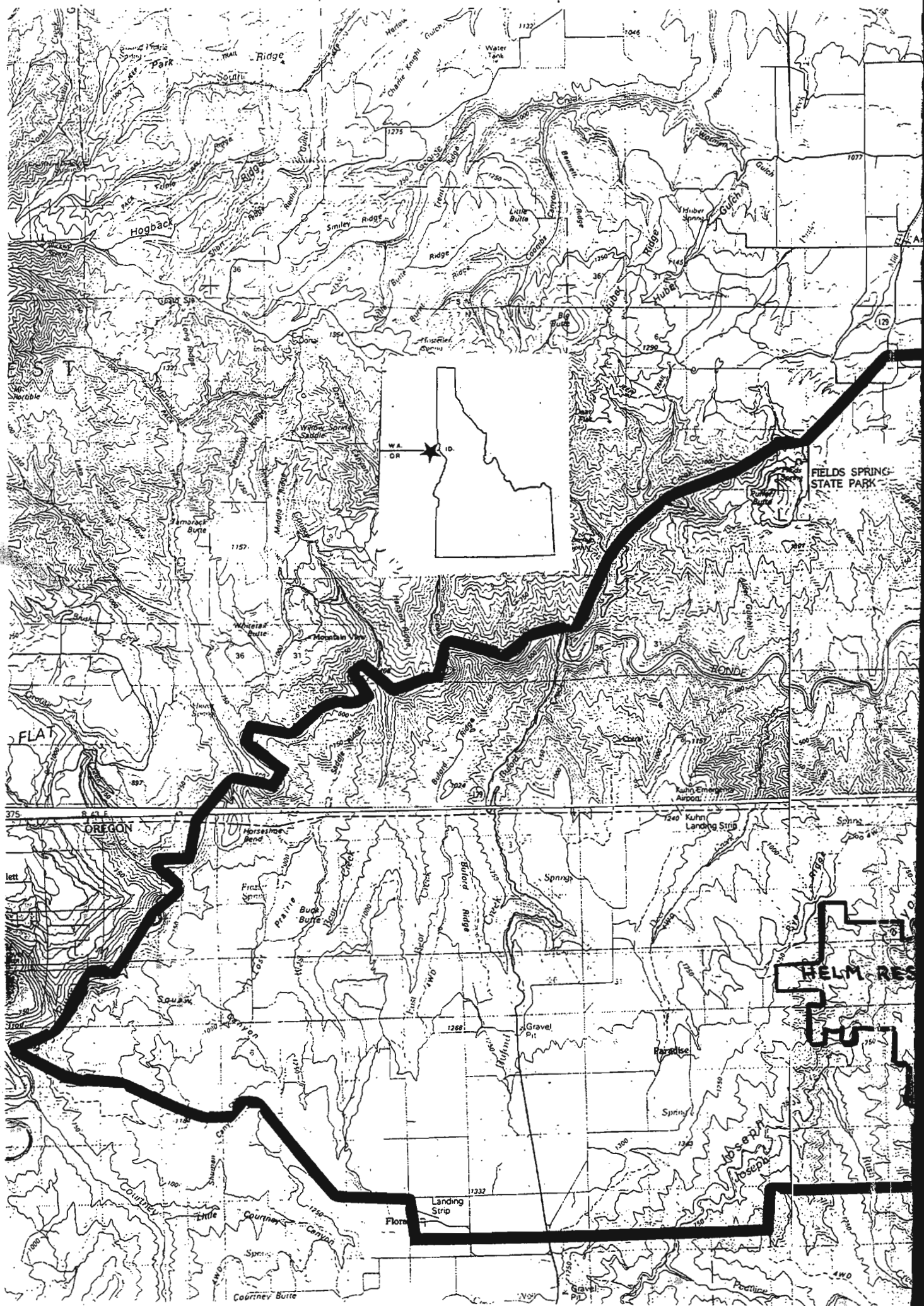
2.1.1 Property Acquisition Techniques

2.1.1.1 Fee Title

The NPT would use funding provided to purchase and enhance approximately 6600 ha (16,500 acres) of wildlife mitigation lands in fee title. About 4120 ha (10,300 acres) of land in Northeast Oregon, owned by Hans and Leif Magden (Helm Resources, Inc.), is currently available for purchase and expected to be the first parcel acquired; an additional 2480 ha (6,200 acres) nearby would be acquired from willing sellers in the future. Specific acquisitions would depend on land availability and owner cooperation, habitat condition, parcel size, and habitat development potential.



SOURCES INC. (MAGDEN)



2.1.1.2 Conservation Easements

Conservation easements, or property rights to ensure management of private land for protection and enhancement of wildlife and wildlife habitat, may be acquired. Such easements would probably be purchased for land next to project lands held in fee title, or other lands with important wildlife value.

2.1.1.3 Land Exchange

To improve administrative efficiency or wildlife benefits, project lands held in fee title may be exchanged with other lands of equal economic and wildlife value.

2.1.2 Wildlife Management**2.1.2.1 Wildlife Habitat and Population Monitoring**

The NPT would evaluate and monitor target wildlife species (i.e., downy woodpecker, song sparrow, yellow warbler, western meadowlark, mule deer, chukar, California quail, and river otter) and other species, and/or their habitat, to determine populations and/or habitat quality on all areas under management control. Information would be used to guide specific management priorities and activities. Those priorities and activities would be documented in site-specific management plans prepared by the NPT with public involvement. At a minimum, the NPT would consult with Oregon Department of Fish and Game, Washington Department of Fish and Wildlife, Bureau of Land Management (BLM) and Forest Service (USFS) regarding cooperative ecosystem management of mitigation lands and intermingled USFS, BLM, and State lands.

2.1.2.2 Wildlife Harvest

Implementation of the agreement would not impact the rights of any Tribe. All applicable Tribal rights would be recognized on wildlife mitigation lands, including treaty rights of the NPT. Non-treaty hunting regulations would continue to be under the direction of the appropriate State agency on mitigation lands; that is, non-Treaty wildlife harvest would be regulated by State jurisdiction. The NPT would reserve the right to control access to the mitigation properties to protect wildlife and their habitats. Access controls would be the same for all people.

2.1.3 Wildlife Habitat Enhancements**2.1.3.1 Vegetation**

Activities may include, planting, seeding, raising crops to feed wildlife, growing hay, food-plot development, pesticide application, tree thinning, selective timber harvest, overstory removal, controlled burns, fertilizing, weed suppression (biological, mechanical, and/or chemical), and grazing. Planting and seeding would emphasize native species, but may also include crops or non-native species benefiting wildlife.

2.1.3.2 Structures

Activities may include creation of snags or artificial structures such as, nest boxes and platforms, islands, watering devices, and fences. Some fences or other structures may be removed or repaired. Buildings may be preserved, built, moved, or razed.

2.1.3.3 Water Features

Ponds or other wetlands may be developed, which may involve excavation of ditches and installation of water control structures such as dikes, levees, gabions, and small impoundments. Streams may be altered with rocks or logs to enhance riparian areas or fish habitat. Erosion control measures may be undertaken.

2.1.4 Public Access

Public access would be permitted when and where compatible with wildlife goals. Activities may include hunting, fishing, hiking, wildlife viewing, photography, environmental education programs, tours, and other activities. Seasonal and area closures may be enacted to protect wildlife and habitat during critical periods. Restricted areas would be signed.

Vehicular traffic would be restricted to existing roads, and some roads may be closed to the public. Viewing blinds, hiking and horse trails, restroom facilities, and parking areas may be developed away from sensitive wildlife areas. Interpretive signs may be located next to viewing areas to provide visitor information on natural and cultural resources.

Site-specific management plans to be prepared by the NPT with benefit of public involvement would address public access opportunities, including for persons with disabilities.

Regulation of access and transportation would apply equally to NPT members, other Tribal members, and the general public.

2.2 No Action

BPA would not enter an agreement with the NPT to provide funds for acquisition of wildlife mitigation lands in Northeast Oregon and Southeast Washington. This alternative would not satisfy BPA's need to mitigate for the loss of wildlife habitat caused by the development of the Columbia River Basin hydropower system.

Table 1: Predicted Performance Summary

	Proposed Action	No Action
Technical/Legal	Consistent with NPPC Fish and Wildlife Plan and all applicable laws and regulations. High-quality habitat capable of achieving wildlife mitigation objectives.	Inconsistent with NPPC Fish and Wildlife Plan.
Cost and Efficiency	Authorized funding available. Project manager (NPT) located in proximity to the project.	Other projects would need to be developed and evaluated to achieve needed mitigation.
Environmental	Slow improvement of surface water quality. Some existing vegetation patterns slowly changed. Increased populations of target wildlife species, with slowly increasing biological diversity. Potential reduced grazing, logging, and farming on up to 4% of study area. Increased protection of cultural resources.	Eventual improvement of surface water quality probable. Eventual vegetation and wildlife changes through natural succession and/or land use.

CHAPTER 3: ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES

Most of the potentially affected area is within the lower Grande Ronde River drainage, and some within the Snake River Drainage. From Troy, Oregon, the area is bordered by the Grande Ronde River to Washington Highway 129, north along Highway 129, to the Montgomery Ridge Road turnoff going east, along the Montgomery Ridge Road down to the Snake River, south along the Snake River to the Washington-Oregon border, then west along the Wallowa-Whitman National Forest boundary, along the northern Forest boundary to Flora, Oregon, then along the Flora - Troy road to Troy, Oregon. A total of about 6600 ha (16,500 acres) would be acquired within the lower Grande Ronde drainage. An initial purchase of 4120 ha (10,300 acres), the Helm Resources, Inc. property, would be acquired between Cottonwood and Joseph Creeks, Hells Canyon National Recreation Area and the Grande Ronde River. The additional 2480 hectares (6,200 acres) would be acquired somewhere within the larger 676 square kilometer (260 square mile) area described.

Table 2: Existing Environment and Impact Analysis Summary

	Existing Environment	Proposed Action	No Action
Water	Some surface waters polluted from wildfire and other reasons; some surface waters good condition.	Revegetation and riparian fencing cause slow improvement of surface water quality.	Slow improvement caused by natural revegetation.
Vegetation	Wide variety of vegetation cover, including grasslands of varying quality, forested land, and riparian shrub; noxious weeds invading.	Some existing vegetation patterns slowly changed by natural succession and management action, with increasing biological diversity.	Slow change by natural succession and/or land use and management.
Fish and Wildlife	Diverse wildlife habitat and species, including bald eagle, peregrine falcon, and Snake River chinook present.	Increased populations of target species. Avoidance of any loss or degradation of habitat.	Slow change by natural succession and/or land use and management.
Land Use	Ranching, farming, some logging, and increasing recreation.	Potential reduced grazing, logging, and farming on up to 2480 ha (6,200 ac), 4% of the study area.	No change foreseeable.
Cultural Resources	Several significant archeological sites in the area and nearby, typically associated with NPT habitation and use.	Increased protection of cultural resources.	No change foreseeable.
Air Quality	Generally good, occasionally degraded by wildfire or controlled burning.	Little or no change. Burning in accordance with local regulations.	No change foreseeable.

3.1 Water Quality

3.1.1 Existing Environment

The Grande Ronde River and its tributary streams suffer from varying degrees of pollution, siltation, and sedimentation problems as a result of various human activities such as farming, ranching, and logging. Where attracted to unfenced riparian zones by water, highly palatable forage, and winter cover, grazing animals adversely affect water quality by reducing ground cover (which may increase erosion and cause siltation), contributing waste, and creating turbidity. However, many riparian areas have been fenced to exclude grazing animals.

The Teepee Butte wildfire of 1988, located in the SE corner of the study area, has also impacted water quality. Lent, Basin, Bear and Cottonwood Creeks burned at low to high intensity. Most of Bear and the upper half of Cottonwood Creeks burned at moderate to high intensity. Increases in sediment, water turbidity, stream water temperature and lower dissolved oxygen occurred post-fire.

Six perennial tributaries flow through or border the Helm Resources, Inc. land: Joseph, Cottonwood, Broady, Tamarack, Basin, and Bear Creeks. Water quality in Joseph, Broady, Tamarack, and Basin Creeks are in moderate to good condition. The Helm Resources, Inc. land contributes little if any negative impacts on water quality because the property has not been grazed in recent years and therefore has good ground cover.

3.1.2 Potential Impacts of N. E. Oregon Wildlife Mitigation Project

In-stream activities may cause temporary increases in turbidity. However, actively managing lands for wildlife conservation would generally improve water quality. Fencing cattle away from riparian areas would limit introduction of cattle waste and reduce turbidity where such conditions exist, if any. Also, riparian vegetation cover would improve, which would reduce stream temperatures, erosion, and associated siltation. Revegetating land burned in the Teepee Butte fire would similarly help to improve water quality. Wetlands are more likely to be enhanced rather than harmed. Most changes would occur over time, as vegetation cover improves.

The NPT would obtain permits for the U. S. Army Corps of Engineers for any work affecting navigable waters or waters of the United States. Although not anticipated, the NPT would also obtain permits from the Oregon Division of State Lands as necessary for removal, filling, or alteration of 38 cubic meters (50 cubic yards) or more of material within the bed or banks of Oregon waters.

3.1.3 Potential Impacts of No Action

Natural revegetation of burned land would slowly improve water quality, although existing grazing impacts, if any, would continue unless private landowners take action to limit cattle access in riparian areas.

3.2 Vegetation

3.2.1 Existing Environment

Landscape variables such as elevation, aspect, and soil depth and type influence vegetation composition. The area along the breaks of the Grande Ronde and the Snake Rivers includes a wide range of physical extremes, and therefore has a wide variety of vegetation cover. Sites of low elevation, and also southerly aspects with dry, shallow soils, are dominated by grasslands and low shrubs. Areas with deeper soils that have been lightly grazed are dominated by perennial bunch grasses, typically bluebunch wheatgrass and Sandberg wheatgrass associations. In places of shallow, disturbed soils and southerly exposures, cheatgrass has become a common invader. Low elevation riparian zones are dominated by chokecherry, bittercherry and hackberry shrubs. White alder and box elder may be found along perennial riparian areas. Cottonwood is also found along the larger streams and rivers. Higher elevations, especially northerly slopes, typically support stands of ponderosa pine and Douglas fir overstory, and a bluebunch wheatgrass/Idaho fescue understory.

Noxious weeds are a continuing concern in the study area and nearby. A recent invader here is yellowstar thistle. It is often found along access roads, slowly dominating dryer sites in the eastern portion of the study area.

The USFWS has indicated that Macfarlanes's four-o'clock (*Mirabilis macfarlanei*), listed as an endangered plant species, may potentially exist in the study area. The closest population known to exist is about 9 km (15 miles) southeast, in the Imnaha River basin (Button 1996).

3.2.2 Potential Impacts of N. E. Oregon Wildlife Mitigation Project

Management of the Helm Resources, Inc. land would focus on preserving the quality of the existing wildlife habitat. Inventories of all mitigation lands would identify sensitive plant communities and weed problems. Most changes would result from a combination of natural succession, weed suppression, and managed livestock grazing. For a more rapid improvement of wildlife habitat in areas which are degraded or critical habitats in need of protection, intensive actions such as planting, seeding, and fertilizing desirable vegetation would expedite natural succession. The NPT would plan weed control activities consultation with local weed control districts.

Although grazing may continue, it would be managed to reduce or avoid adverse impacts on sensitive vegetation communities. Timber production may also continue, if compatible with wildlife conservation objectives, with similar management restrictions to protect sensitive plant communities. Mitigation lands would be monitored to identify trends in habitat quality needing to be addressed.

Overall, with encouragement of desirable plant species (especially native species), discouragement of exotic plant species, and grazing management, biological diversity of plant communities would slowly increase on wildlife mitigation properties.

The Project Management Plan would consider the potential presence of Macfarlanes's four-o'clock and ensure avoidance of adverse impacts to it. Therefore, no impacts on threatened or endangered plant species are expected.

3.2.3 Potential Impacts of No Action

Existing conditions may slowly change by natural succession, depending on land use and management.

3.3 Fish and Wildlife

3.3.1 Existing Environment

The diverse vegetation types in the study area support diverse wildlife species. Mule deer, Rocky Mountain elk, and Rocky Mountain big horn sheep are the primary big game species. Black bear and mountain lion are also present. Ruffed grouse, blue grouse, chukar, California and mountain quail, ring-necked pheasant, mourning dove, gray partridge, snowshoe hare, and mountain cotton-tail are the most common upland game species. Coyotes, raccoons, bobcat, badger and short tailed weasel all inhabit the area. Some mink and an occasional river otter inhabit the perennial streams and rivers. Many species of raptors are present, with hawks, owls, and golden eagles commonly nesting here. Water fowl are less abundant, but Canada geese, mergansers, and Barrows goldeneye ducks may be occasionally present.

The rivers and perennial streams here provide habitat for a wide variety of fish species. Cottonwood Creek and its tributaries provide spawning and rearing habitat for steelhead trout and resident rainbow trout. However, the Teepee Butte fire has reduced the quality of the water and fish habitat in many places. Where unaffected by the Teepee Butte fire, water in the Cottonwood Creek watershed is clear and cold, providing good habitat for trout and low value to non-game species like suckers and dace. Wild steelhead and salmon are found in the Grande Ronde and Joseph Creek.

Several threatened or endangered fish and wildlife species inhabit the study area. Bald eagles (*Haliaeetus leucocephalus*) winter in the area, although there are no known nesting sites here. Although wildlife managers have successfully re-introduced several pair of peregrine falcon (*Falco peregrinus anatum*) nearby, and the study area contains suitable nesting habitat (rock cliffs), no nesting sites are known within the study area; however, nesting is probable here (Holland 1996, and Martin 1996). Snake River sockeye salmon (*Oncorhynchus nerka*) have historically inhabited the Grande Ronde River, none are presently known to inhabit the study area (Bryson 1996). Snake River chinook salmon (*Oncorhynchus tshawytscha*), spring/summer and fall runs, inhabit the Grande Ronde River. Bull trout (*Salvelinus confluentus*) may have once inhabited Cottonwood Creek, but are not known to now be present (Bryson 1996, and Holland 1996).

3.3.2 Potential Impacts of N. E. Oregon Wildlife Mitigation Project

Slow, gradual changes in habitat would have generally beneficial impacts on fish and wildlife. Project Management Plans would be designed to maintain or improve long-term wildlife habitat quality. Habitat modifications may be made to benefit the target species: downy woodpecker, song sparrow, yellow warbler, western meadowlark, mule deer, chukar, California quail, and river otter. Project Management Plans would also incorporate protection of threatened and endangered species and their habitat. Project management consultation with Oregon and Washington State fish and wildlife managers, and with Federal managers responsible for the Wallowa National Forest, the Hells Canyon National Recreation Area, and other nearby public lands would ensure consistency with other, related wildlife management efforts.

3.3.3 Potential Impacts of No Action

Existing conditions may slowly change by natural succession, depending on land use and management.

3.4 Land Use

3.4.1 Existing Environment

Ranching is the predominant land use on private lands in the study area; ranchers mostly graze cattle, and some graze sheep. The Helm Resources, Inc. land has been a working ranch for many years, but has not been grazed for the past few years. Only a limited amount of logging occurs because timber stands cover a small amount of the total area. Recreational use of the area is increasing, especially hunting, fishing, hiking, and camping. The Hells Canyon National Recreation Area borders the study area on the south. Land ownership in the study area includes the State of Oregon and the BLM.

The study area includes lands ceded or reserved by the NPT.

3.4.2 Potential Impacts of N. E. Oregon Wildlife Mitigation Project

Commercial and recreational land activities would continue on wildlife mitigation lands only if the activity is consistent with project wildlife objectives. Most properties in the study area have been used for cattle grazing. Although management of range on wildlife mitigation lands would favor wildlife management goals, grazing may continue as a habitat management technique. Similarly, commercial timber harvest may be used to achieve wildlife objectives. Where presently occurring, agricultural activities may also be continued where consistent with wildlife mitigation goals.

Use of the 6600 ha (16,500 acre) Helm Resources, Inc. parcel would not substantially change because it is not currently in commercial use. However, there would probably be a reduction of grazing, logging and farming use on up to 2480 ha (6,200 acres) of additional land, less than 4 percent of the total 676 square kilometer (260 square mile) study area.

State and BLM lands within the study area may be directly affected if exchanged with private land to be purchased in fee-title. State and BLM participation in developing the Project Management Plan would help to ensure consistency with State and BLM land management goals such as BLM's Baker Resource Management Plan, the Grande Ronde River Wild and Scenic River Management Plan, and the Chief Joseph Wildlife Management Area. Consultation would also ensure consistency with management of the Hells Canyon National Recreation Area.

According to county officials, wildlife conservation would be consistent with local land use plans in all counties potentially affected. (Scheibe 1996; Shetler 1996) Project management activities are not expected to include developments within floodplains.

3.4.3 Potential Impacts of No Action

Existing conditions may continue, or may change depending on future land ownership.

3.5 Cultural Resources

3.5.1 Existing Environment

The lower Grande Ronde River drainage was a well known wintering area for many bands of the NPT. Winter village sites are common along the Grande Ronde River and its tributaries. Fishing sites are also found along the Grande Ronde and many of its tributaries. Upland hunting camps and plant gathering sites can also be found scattered throughout the study area. Several of these sites are on or eligible for the National Register of Historic Places.

3.5.2 Potential Impacts of N. E. Oregon Wildlife Mitigation Project

No adverse effects on cultural resources are expected, because wildlife mitigation activities are generally compatible with cultural resources and because future management plans would take into consideration the protection of any cultural resources found on mitigation property. Project resource inventories would include identification of known properties on or eligible for the National Register of Historic Places. For any such properties, the NPT would ensure their protection by preparing a Historic Properties Management Plan to be approved by BPA and the Oregon or Washington State Historic Preservation Officer. Also, prior to any ground-disturbing activities, the NPT would conduct a cultural resources survey to identify the existence of cultural resources in the area potentially affected by the activity, and would plan the activity to avoid adversely affecting the property.

Overall, bringing land under NPT management control would increase protection of cultural resources.

3.5.3 Potential Impacts of No Action

Present controls to protect cultural resources would continue.

3.6 Air Quality**3.6.1 Existing Environment**

Air quality in the study area is generally good, occasionally degraded by wildfire or controlled burns. There are no communities of significant size near the area to warrant air quality concerns.

3.6.2 Potential Impacts of N. E. Oregon Wildlife Mitigation Project

Management of the N. E. Oregon wildlife mitigation lands may involve controlled burning. Controlled burning is used on the National Forest lands nearby, at the present time. There should be no measurable increase beyond existing programs for the Analysis Area. Management plans would specify that any burning be performed consistent with local regulatory programs for agricultural or forest burning.

3.6.3 Potential Impacts of No Action

Existing conditions would likely remain unchanged, depending on future land use and management.

CHAPTER 4: PERSONS AND AGENCIES CONSULTED

Confederated Tribes of the Umatilla Indian
Reservation
Bureau of Land Management, Vale District
Office
Wallowa-Whitman National Forest
John A. Kitzhaber, M.D., Governor, State of
Oregon
Mike Lowry, Governor, State of Washington
Northwest Power Planning Council
Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife
Wallowa County Commissioners
Wallowa County Court
Wallowa County Planning Department
Asotin County Commissioners
Blue Mountain Elk Initiative
Hells Canyon Preservation Council
Idaho Conservation League

National Audubon Society
National Wildlife Federation
N. E. Oregon Wild Turkey Federation
Oregon Hunter's Association
Oregon Hunter's Association, Union County
Chapter
Oregon Natural Resources Council
Oregon Trout
The Pacific Rivers Council
Public Lands Restoration Task Force
Rocky Mountain Elk Foundation
Charles Woosley, Corvallis, Oregon
Hans Magden, Boardman, Oregon
Roger J. Contor, Ellensburg, Washington
Mike Kemp, La Grande, Oregon
Keith Stonebraker, Juliaetta, Idaho
Jerry Thiessen, Lewiston, Idaho

CHAPTER 5: REFERENCES

Aikens, C. M., 1993. *Archaeology of Oregon*, U.S. Dept. Interior, BLM State Office, OR.
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USFS, 1989. Teepee Butte Recovery Project Draft EIS, Hells Canyon NRA, Wallowa-Whitman
National Forest, p. 661.

Scheibe, D. Personal communication, May 3, 1996.

Shetler, D. Personal communication, May 14, 1996.