Bonneville Power AdministrationPower Administration
Fish and Wildlife Program FY99 Proposal

Section 1. General administrative information

Albeni Falls Wildlife Mitigation Project

Bonneville project number, if an ongoing project 9206100

Business name of agency, institution or organization requesting funding
Idaho Department of Fish and Game

Business acronym (if appropriate) IDFG

Proposal contact person or principal investigator:

Name	H. Jerome Hansen
Mailing Address	P.O. Box 25, 600 S. Walnut
City, ST Zip	Boise, ID 83707
Phone	(208) 334-3180
Fax	(208) 334-2114
Email address	jhansen@idfg.state.id.us

Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
Ducks Unlimited	3074 Gold Canal	Ranco Cordova, CA 95670	Mark Biddlecomb
American Public Land Exchange	619 S.W. Higgins, Suite P	Missoula, MT 59803	Bruce Bugbee

NPPC Program Measure Number(s) which this project addresses.
11.2D1, 11.2E.1, 11.3D.4, 11.3D.5

NMFS Biological Opinion Number(s) which this project addresses.

NA

Other planning document references.

The following document refers to need to mitigate for hydropower impacts.

- Bonneville Power Administration Wildlife Mitigation Program Final Environmental Impact Statement (BPA 1997)

The following documents support the need to protect habitat in theAlbeni Falls Project Area.

- Albeni Falls Wildlife Management Plan: Final Environmental Assessment (1996)
- USFWS Pacific Bald Eagle Recovery Plan (1994)
- Conservation Strategy for Northern Idaho Wetlands (Jankovsky-Jones 1997)
- Ecosystem Conservation Strategy for Idaho Panhandle Peatlands (Bursik and Moseley 1995)

Each of the following plans recognize that the federal hydropower system has impacted wildlife habitat in Idaho and calls for mitigation of the net losses:

- An interim report on the fish and wildlife resources affected by Albeni Falls Project, Pend Oreille River, Idaho (USFWS 1953)
- Columbia River System Operation Review: Final EIS (BPA 1995)
- IDFG Wildlife Management Plan 1986-1990 (IDFG 1986)
- Lake Pend Oreille Wetlands Study (Econ, Inc. 1979)
- IDFG Wildlife Species Management Plans, 1991-1995 (IDFG 1990)
- IDFG Wildlife Management Area Plans: Region 1, 1986-1990 (IDFG 1986)
- A Vision for the Future: IDFG Policy Plan 1990-2005 (IDFG 1991)

Subbasin.

Upper Columbia River Basin

Short description.

Protect, enhance, and maintain important wetland and riparian wildlife habitat in the Lake Pend vicinity as on-going mitigation for construction and operation impacts associated with the Albeni Falls hydroelectric project. Activities will be consistent with the Wildlife Mitigation EIS (BPA 1997).

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
	Anadromous fish		Construction		Watershed
	Resident fish		O & M		Biodiversity/genetics
X	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research		Ecosystems
	Climate		Monitoring/eval.		Flow/survival
	Other		Resource mgmt		Fish disease
			Planning/admin.		Supplementation
			Enforcement	X	Wildlife habitat en-
		X	Acquisitions		hancement/restoration

Other keywords.

Section 3. Relationships to other Bonneville projects

If you need more rows, press Alt-Insert from within this table.

Project #	Project title/description	Nature of relationship

Section 4. Objectives, tasks and schedules

Briefly describe measurable objectives and the tasks needed to complete each objective. Use Column 1 to assign numbers to objectives (for reference in the next table), and Column 3 to assign letters to tasks. Use Columns 2 and 4 for the descriptive text. Objectives do not need to be listed in any particular order, and need only be listed once, even if there are multiple tasks for a single objective. List only one task per row; if you need more rows, press Alt-Insert from within this table.

Obj 1,2,3	Objective	Task a,b,c	Task
1	Provide 5,204 Habitat Units (HUs) through the protection and enhancement of 2,834 acres of the highest priority native riparian, wetland and upland habitats in northern Idaho, by September 2003.	a	Complete federal compliance requirements (e.g., cultural resources, hazardous materials, appraisals)
		b	Secure conservation easements and fee-titles and/or provide cost-share funding to other projects
		c	Conduct baseline surveys
		d	Credit HUs in Inter-Governmental Contract with BPA
		e	Develop management plans
		f	Consult and coordinate throughout process with NWPPC, BPA, CBFWA, interagency teams of biologists, local governments, and public.
		g	Implement enhancement actions as

			outlined in management plan
2	Maintain HUs provided in Objective 1 in perpetuity.	a	Using O&M guidelines prepared by the CBFWA Wildlife Caucus, apply appropriate maintenance activities to mitigation sites to protect HUs provided through protection and enhancement actions.
		b	Implement monitoring and evaluation program
		c	Adapt management plan as needed
		d	Coordinate and consult throughout process as under Objective 1.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	10/1998	09/2003	75%
2	10/1998	09/2003	25%

Schedule constraints.

Critical constraints include: funding stability over time, changes in land values, and the availability of willing sellers in the primary mitigation focus areas.

Completion date.

Implementation is expected to be completed in 2020; however, O&M costs will be required beyond 2020.

Section 5. Budget

List FY99 budget amounts for each category. If an item needs more explanation, provide it in the Note column. If the project uses PIT tags, include the cost ($2.90/tag). **Be sure to enter a total on the last line: this is the amount of your budget request.**

Item	Note	FY99
Personnel		37,000
Fringe benefits	33 percent	12,000
Supplies, materials, non-expendable property	Includes misc. supplies, costs for appraisals, surveys etc.	40,000
Operations & maintenance	Includes management activities on existing Albeni Falls mitigation parcels.	65,000
Capital acquisitions or	Includes funds for easements, fee-title	

improvements (e.g. land, buildings, major equip.)	acquisitions, and enhancements.	601,000
PIT tags	# of tags:	
Travel		5,000
Indirect costs	Overhead @ 21.3 percent	35,000
Subcontracts	Design surveys (DU)	5,000
Other		
TOTAL		800,000

Outyear costs

Outyear costs	**FY2000**	**FY01**	**FY02**	**FY03**
Total budget	800,000	810,000	1,020,500	1,008,800
O&M as % of total	25 %	25 %	25%	25%

Section 6. Abstract

Protect, enhance, and maintain wetland and riparian habitat in Lake Pend Oreille vicinity as on-going mitigation for construction and operation of the Albeni Falls hydroelectric project (NWPPC Program Measures 11.2D.1, 11.2E.1, 11.3D.4, 11.3D.5). The overall objective is to provide 5,204 Habitat Units (HUs) by protecting and enhancing 2,834 acres through the acquisition of fee-title and/or conservation easements through the year 2003.

Potential mitigation sites around Lake Pend Oreille were initially prioritized in the mid 1980's by the Albeni Falls Interagency Work Group, an interagency/tribal team of biologists. Priority areas were established by taking into consideration in-place/in-kind opportunities, juxtaposition to other management areas, and availability of protection opportunities. Each individual mitigation parcel is subjected to the CBFWA regional wildlife criteria by the Work Group to ensure that it meets regional wildlife program standards. While the original list of mitigation sites continues to guide mitigation implementation, more local criteria serve as an additional filter to determine whether mitigation parcels meet more contempory wetland conservation strategies.

Mitigation progress will be monitored by measuring standardized target species habitat variables from Habitat Evaluation Procedure (HEP) models (USFWS 1980). Target species population trends also will be monitored to evaluate long-term species-habitat relationships.

Section 7. Project description

a. Technical and/or scientific background.

The human ecology of the Pacific Northwest has been and continues to rely heavily on

the Columbia River system. The development of the Columbia River Basin has provided many modern, social benefits such as hydropower, irrigation, and flood control. These benefits, however, also came with many social costs that were largely ignored for decades. A free-flowing river became a series of reservoirs. The historic salmon and steelhead runs became sparse. The timing and intensity of natural water flows were altered. Riparian corridors and adjacent uplands were inundated. Perhaps most important, yet least understood, were the cumulative impacts on both terrestrial and aquatic systems.

Other land use activities also have impacted native wildlife habitat in the Columbia Basin over the last 100-200 years. Since the 1860's, when mining and farming boomed, wetlands in Idaho have decreased 56%, from about 879,000 acres to approximately 386,000 acres (Dahl 1980).

Although the obvious cost of the hydropower system was the impact on wild salmon and steelhead runs, the cumulative impacts to wildlife also were recognized. As a result of the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Public Law 96-501), the Northwest Power Planning Council (NWPPC) passed the Columbia River Basin Fish and Wildlife Program (FWP) to addresses these impacts and to ensure that wildlife receive equitable treatment in matters concerning the hydropower system. The goal of the FWP wildlife strategy is “to achieve and sustain levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by construction and operation of the federal and non-federal hydroelectric system” (Sec. 11.1, 1995 Amendments).

In 1955, Albeni Falls Dam was completed. Using the standardized Habitat Evaluation Procedure (HEP), a measure of both the quality and quantity of wildlife habitat (USFWS 1980), biologists estimated a net loss of 28,587 HUs for a variety of target species. Construction and operation of the dam resulted in the loss of 6,617 acres of wetland habitat and the inundation of 8,900 acres of deep water marsh. The Albeni Falls Wildlife Mitigation Project is designed to mitigate those losses, in addition to protecting and enhancing critical habitat for a wide variety of species depending on wetland and riparian habitats. In conjunction with the NWPPC and CBFWA’s Wildlife Caucus criteria for ranking wildlife projects, most projects are in-place, in-kind mitigation and all have addressed HUs for target species (see Table 11-4 in NWPPC 1995; USFWS 1980).

In August 1988, the *Albeni Falls Wildlife Protection, Mitigation, and Enhancement Plan* was completed (Martin *et al.* 1988). The largest impacts to wildlife habitat occurred in the Pack River and Clark Fork River deltas. These areas were ranked as the highest priority for mitigation implementation by the 1992 Wildlife Caucus. Habitat losses resulting from the construction and operation of Albeni Falls Dam are ongoing as shoreline erosion and the subsequent loss of native shoreline vegetation have been exacerbated by sustained high water levels. This project was developed to address the need to protect and enhance the long-term quality of wetland, riparian, and upland wildlife habitat in the Lake Pend Oreille vicinity.

The primary threat to the wetland and riparian systems surrounding Lake Pend Oreille is the continuing increase in recreational home development. Fragmentation of critical wetlands serving as buffers from human disturbance poses a significant risk to waterfowl nesting areas and bald eagle breeding and wintering habitat.

b. Proposal objectives.

Objective 1. Provide 5,204 HUs by protecting and enhancing 2,834 acres of wetland and riparian habitats through September 2003. Protection efforts will benefit a variety of target wildlife species, including bald eagle, black-capped chickadee, Canada goose, mallard, yellow warbler, white-tailed deer, and muskrat.

Objective 2. Maintain the HUs provided in Objective 1 through annual management actions that follow the CBFWA Wildlife Caucus Operation and Maintenance (O&M) Guidelines.

c. Rationale and significance to Regional Programs.

The goal of the Wildlife Section of the NWPPC FWP is to "achieve and sustain levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by construction and operation of the federal and non-federal hydroelectric system." (Sec. 11.1, 1995 Amendments).

The specific objectives of the Albeni Falls Wildlife Mitigation Project are to (1) provide 5,204 HUs toward that goal by protecting and enhancing 2,834 acres of high-priority wetland and riparian habitats, and (2) maintain those HUs through appropriate O&M activities. These objectives also meet the preferred alternative (a balanced approach to mitigation) in the Bonneville Power Administration Wildlife Mitigation Program Final Environmental Impact Statement (BPA 1997).

During the project period, we will coordinate closely with the Kalispel Tribe of Indians and the Albeni Falls Interagency Work Group to identify areas in the Lake Pend Oreille vicinity where cost-efficiencies can be realized by combining resident fish and wildlife program activities. We also are dove-tailing with other regional efforts, including the FERC relicensing of Washington Water Power projects on the Lower Clark Fork River.

d. Project history

This project proposal (Project No. 9206100) became effective in 1995 and covers wildlife mitigation activities related to Albeni Falls.

Albeni Falls Dam was completed in 1955, impacting 6,600 acres of wildlife habitat (Martin *et al.* 1988). The impacts were assessed using HEP (USFWS 1980). The *Albeni Falls Wildlife Protection, Mitigation, and Enhancement Plan* (Martin *et al.* 1988)

outlined priorities for mitigation, and the Wildlife Caucus ranked the proposed Clark Fork/Pend Oreille Rivers as one of the highest-priority mitigation projects for the Columbia Basin. The *Albeni Falls Wildlife Management Plan: Final Environmental Assessment* and FONSI were released in 1996 (DOE EA #2939). Progress reports have been submitted to BPA since 1995.

A total of 717.70 HUs have been credited to Albeni Falls wildlife mitigation, and an additional 633 HUs are anticipated to be credited during FY 1998 or FY 1999. Target species benefited include bald eagle, black-capped chickadee, mallard, Canada goose, yellow warbler, white-tailed deer, and muskrat.

- Henderson Ranch, 373.27 HU, 240 acres;
- Carter's Island, 295.50 HU, 97 acres;
- Denton Slough, 49.00 HU, 16.76 acres;
- Ginter (in progress), 250 HUs, 107 acres;
- Hubbard (in progress), 300 HUs, 1,375 acres

Currently, the top priority for Albeni Falls wildlife mitigation is habitat protection in the Clark Fork and Pack River deltas, (in-kind, in-place) adjacent to Lake Pend Oreille. Other properties have been evaluated as potential mitigation sites, including one in the Kootenai River drainage. However, the Clark Fork and Pack River deltas are high-priority areas for protecting black cottonwood communities. The location and popularity of Lake Pend Oreille makes protection of wildlife habitat a top priority for wildlife managers in the area.

Adaptive Management

The original process for implementing mitigation projects was problematic. Potential mitigation sites for Albeni Falls were identified many years ago by the Albeni Falls Interagency Work Group. Lack of personnel looking for willing sellers combined with the difficulty in securing adequate and timely funds has made site protection arduous. We are working hard to embrace agencies, tribes, local land trust organizations, and other partners through our local Work Group. As a result, members are empowered to look for implementation projects and bring them forward to the Work Group. This has enabled us in becoming more effective in seeking projects, although partnerships have been difficult to establish with out-year funding remaining unreliable.

In 1997, the State of Idaho signed an MOA with BPA to establish mitigation guidelines in northern Idaho and to ensure accountability and cost-effectiveness for BPA funds being spent. Finally, the Wildlife Mitigation EIS (BPA 1997) also was completed in 1997.

All of these activites have provided a solid foundation for continued successful mitigation implementation for Albeni Falls over the next several years. While the original list of potential mitigation sites still guides our activities, we also are taking advantage of new conservation site-selection information (Jankovsky-Jones 1997).

e. Methods.

We have used a variety of scientific principles to select focus areas as mitigation projects. Potential mitigation sites in the Lake Pend Oreille vicinity were initially prioritized by an interagency/tribal team of biologists in the mid 1980's. Since then, we have incorporated contemporary conservation site planning in Idaho, including Conservation Strategies for Northern Idaho Wetlands (Jankovsky-Jones 1997) and the Ecosystem Conservation Strategy for Idaho Panhandle Peatlands (Bursik and Moseley 1995).

Project implementation will be consistent with the 8-step process outlined in the Wildlife Mitigation EIS (BPA 1997). When a site-specific parcel has been identified within a focus area, the Albeni Falls Interagency Work Group ranks the parcel with the CBFWA regional criteria to ensure regional wildlife program standards are met. Upon consensus by the Work Group and agreement between the state and Tribes, we pursue the acquisition, conservation easement, or enhancement of existing public lands. A baseline HEP is conducted immediately and an appropriate number of HUs are credited to BPA. A site-specific management plan including a desired future condition is prepared. Habitats are enhanced to maximize HUs using methods consistent with those outlined in the Wildlife Mitigation EIS (BPA 1997). Progress will be monitored by measuring standardized target species habitat variables from HEP models (USFWS 1980) and compared to baseline measured at the time of acquisition. Animal population trends also will be monitored to indicate long-term species-habitat relationships.

Public involvement is essential for a successful mitigation program. Members of the Albeni Falls Interagency Work Group work closely together in performing surveys, HEP inventories, and public open houses. We coordinate on an on-going basis with local governments, non-governmental organizations, and interested citizens to build and maintain productive relationships.

f. Facilities and equipment.

Existing equipment will be used when possible. Enhancing and maintaning existing Albeni Falls mitigation sites will require pick-ups, sprayers, fencing equipment, front-end loaders, tractors, tree and shrub planters, hand tools, etc. In FY 1999, some of this equipment will come from the existing inventory of the IDFG. Additional equipment may be needed as existing equipment wears out, but costs are expected to be low.

g. References. Bonneville Power Administration. 1997. Wildlife mitigation program final environmental impact statement. DOE/EIS - 0246. U.S. Department of Energy, Bonneville Power Administration, Portland, Oregon.

_____. 1996. Albeni Falls wildlife management plan: final environmental assessment. DOE/EA-2939. U.S. Department of Energy, Bonneville Power Administration, Portland, Oregon.

Bursik, R.J., and R.K. Moseley. 1995. Ecosystem conservation strategy for Idaho panhandle peatlands. Idaho Department of Fish and Game. Boise, Idaho.

Dahl, T. E. 1990. Wetlands -- Losses in the United States, 1780's to 1980's. U.S. Fish and Wildlife Service Report to Congress, Washington, D.C.

Econ, Inc. 1979. Lake Pend Oreille wetlands study, Volume 1. Prepared for U.S. Army Corps of Engineers. Contract No. DACW67-79-0019. Seattle, WA.

Idaho Department of Fish and Game. 1986. Wildlife management plan, 1986-1990.

_____. 1986. Wildlife management area plans: Region 1, 1986-1990.

_____. 1990. Wildlife species management plans, 1991-1995.

Jankovsky-Jones, M. 1997a. Conservation strategy for northern Idaho wetlands. Conservation Data Center, Idaho Department of Fish and Game, Boise, Idaho.

Martin, R.C. and H. J. Hansen. 1988. Albeni Falls wildlife protection, mitigation, and enhancement plan. Proj. 87-43. Bonneville Power Administration, Division of Wildlife, Portland, Oregon.

U.S. Fish and Wildlife Service. 1980. Habitat evaluation procedures. Ecological Services Manual 102. U.S. Department of the Interior Fish and Wildlife Service, Division of Ecological Services, Washington, D.C.

_____. 1953. An interim report on the fish and wildlife resources affected by Albeni Falls Project, Pend Oreille River, Idaho.

Section 8. Relationships to other projects

The Idaho Department of Fish and Game is coordinating closely with the Kalispel Tribe of Indians and other agencies represented on the Albeni Falls Interagency Work Group. We currently are working in partnership with those agencies and organizations to implement mitigation projects. The Natural Resources Conservation Service will be a particluarly important partner as we work in conjunction with the Wetland Reserve Program to preserve critically degraded wetland habitats. We are beginning to develop a relationship with the Inland Northwest Land Trust and hope to receive assistance in locating potential projects for implementation.

Ducks Unlimited has performed survey and design assistance with our first acquisition and we hope to continue to work closely with them to develop high quality projects. During this project period, we will work closely with Washington Water Power in the Clark Fork delta to implement cost-effective mitigation implementation of joint project impacts in this critical tributary to Lake Pend Oreille.

Section 9. Key personnel

Idaho Department of Fish and Game

Jerome Hansen - Interstate Resource Data Manager - .50 FTE-Overall project coordination, inclu

Sr. Wildlife Technician - To be filled - Conduct enhancements, conduct O&M activities, prepare reports.

Resumes

H. JEROME HANSEN

Education:
University of West Virginia - M.S. in Wildlife Management - 1982
Thesis - *Wildlife Use of Spring Seeps in Northern West Virginia*
Emporia State University - Emporia, KS. - B.S. in Environmental Biology - 1979

Current Employer and Responsiblities:
Idaho Department of Fish and Game
Interstate Resource Data Manager - 2/1993 to Present
Coordination of the Department's wildlife mitigation and StreamNet programs.
Terrestrial Work Group Chair on Idaho Power FERC relicensing activites.
Wildlife Mitigation Specialist - 6/1986 to 2/1993
Developed wildlife impact assessments and mitigation plans. Evaluated potential impacts of "salmon flow augmentation water" on resident fish and wildlife.

Previous Employment
Kansas Fish & Game - District Wildlife Biologist 9/1985 to 5/1986.
U.S. Fish and Wildife Service - Biological Technician - 4/1985 to 9/1985
Montana Cooperative Wildlife Research Unit - Wildlife Research - 6/1983 to 3/1985
Kansas Fish & Game - Research Assistant - 9/1982 to 5/1983

Certification
Completed Habitat Evaluation Procedure (HEP) training in 1985.

Expertise
Evaluation of land use activities, including hydro, on fish and wildlife resources, development of mitigation and management plans, habitat improvement techniques, fish and wildlife data development and delivery.

Publications
Hansen, H.J. 1983. An evaluation of herbaceous and woody plantings on Marion Wildlife Area. Final Res.

Rept., Kansas Fish and Game. Pratt, KS. 59 p.

Hansen, H.J., and R.C. Martin. 1989. Phase II, Wildlife protection, mitigation, and enhancement plan, Dworshak Reservoir. Final rept., IDFG. BPA Proj. 87-111.107 p.

Martin, R.C., and H. J. Hansen. 1986. Wildlife protection, mitigation, and enhancement plan, Palisades project. Final rept., IDFG. BPA Proj. No. 86-73. 109 p.

Meuleman, G.A., H.J. Hansen, and R.C. Martin. 1987. Wildlife protection, mitigation, and enhancement plans for Anderson Ranch and Black Canyon facililities. Final rept. IDFG. BPA Proj. No. 86-73. 95 p.

Riggin, S.H., and H.J. Hansen. 1992. Phase I water rental pilot project: Snake River resident fish and wildlife resources and management recommendations. Final rept. IDFG. BPA Proj. No. 91-067

Activities

Currently serve as Secretary/Treasurer of the Northwest Section of the Wildlife Society.

Section 10. Information/technology transfer

Information will be included in progress reports, management plans, annual monitoring reports, etc. Project personnel will participate in annual CBFWA public meetings. Information on long-term species/habitat relationships will be compiled and presented at professional Wildlife Society or other appropriate symposiums. Species/habitat relationship data will also be provided to state GAP personnel, to help validate modelled species distributions. Information on habitat response to a variety of management techniques, including biological control of noxious weeds, will be provided to other wildlife and land managers in the region, through publications, presentations. Appropriate standardized project data will also be provided to Idaho StreamNet personnel.