

**Bonneville Power Administration
Fish and Wildlife Program FY98 Watershed Proposal Form**

Section 1. General administrative information

Title **Hood River Fish Habitat Project**

Bonneville project number, if an ongoing project 8024

Business name of agency, institution or organization requesting funding
 Confederated Tribes of the Warm Springs Reservation of Oregon

Business acronym (if appropriate) CTWS

Proposal contact person or principal investigator:

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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
Oregon Dept. Of Fish and Wildlife, Mid-Columbia Fish District	3701 W 13th	The Dalles, OR 97058	Jim Newton
Hood River Watershed Group	1222 Lincoln Street	Hood River, OR 97031	Holly Coccoli
USDA Forest Service, Hood River District	6780 Highway 35 South	Mt. Hood-Parkdale, OR 97041	Gary Asbridge

NPPC Program Measure Number(s) which this project addresses.

 7.4L.1, 7.4L.2, 7.4N.1, 7.4N.2, 7.6A(All), 7.6B(All), 7.6C.1, 7.6C.2, 7.6C.5, 7.6D, 7.7A.1, 7.8A(All), 7.8D.1, 7.8F.2, 7.8G.1, 7.10A.2, 7.10A.5, 7.10A.7, 7.10K.1

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

Other planning document references.

CRITFC. 1996. WY-KAN-USH-MI WA-KISH-WIT. The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes. Portland, Oregon. Cited: volume II, page 25.

Department of Natural Resources, Confederated Tribes of the Warm Springs Reservation of Oregon. October 1993. Hood River/Pelton Ladder master agreement. Bonneville Power Administration, Portland, Oregon. Cited: pages 6 and 7.

DOE and BPA (U.S. Department of Energy and Bonneville Power Administration). March 1996. Hood River fisheries project. Draft Environmental Impact Statement (DOE/EIS-0241). Bonneville Power Administration, Portland, Oregon. Cited: pages 3-12, 4-18 and 19, 4-24 and 25.

DOE and BPA (U.S. Department of Energy and Bonneville Power Administration). July 1996. Hood River fisheries project. Final Environmental Impact Statement (DOE/EIS-0241). Bonneville Power Administration, Portland, Oregon.

ODFW and CTWS (Oregon Department of Fish and Wildlife and Confederated Tribes of the Warm Springs Reservation of Oregon). September, 1990. Hood River Subbasin Salmon and Steelhead Production Plan. Cited: pages 27-30.

Northwest Power Planning Council (NPPC). 1992. NPPC approval letter for the Hood River Master Plan to Zane Jackson, Chairman, CTWS. April 16, 1992.

NPPC. 1994. Columbia River Basin Fish and Wildlife Program. Adopted November 15, 1982. Amended December 14, 1994. Northwest Power Planning Council, Portland, OR.

O'Toole, P., and Oregon Department of Fish and Wildlife. 1991a. Hood River production master plan. Final report of the Confederated Tribes of the Warm Springs Reservation and the Oregon Department of Fish and Wildlife (Project 88-053, Contract DE-BI79-89BP00631) to Bonneville Power Administration, Portland, Oregon. Cited: pages 3-5.

USDA Forest Service, Mt Hood National Forest. 1996. East Fork Hood River and Middle Fork Hood River Watershed Analysis. Mt. Hood-Parkdale, Oregon. Cited: chapters 4 and 5.

USDA Forest Service, Mt Hood National Forest. 1996. West Fork of Hood River Watershed Analysis. Mt. Hood-Parkdale, Oregon. Cited: chapters 6 and 7.

Subbasin.

Hood River subbasin

Short description.

Implement habitat improvement actions that will support supplementation efforts within the Hood River subbasin as approved by the NPPC and supported by the BPA Environmental Impact Statement (EIS) for the Hood River Production Program (HRPP).

Section 2. Key words

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

Other keywords.

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
		Round Butte Hatchery production and Pelton Ladder
9500700	Pelton Ladder/Hood River Production	PGE O&M
8805303	Hood River Production Program	CTWS M&E
8805304	Hood River Production Program	ODFW M&E
9301900	Hood River Production Program - Oak Springs, Powerdale, and Parkdale	ODFW Engineering and O&M

Section 4. Objectives, tasks and schedules

Obj	Task

1,2,3	Objective	a,b,c	Task
1	Construct a fish ladder on Evans Creek (Rm 2.5), tributary to the East Fork Hood River, to restore fish passage to anadromous fish past an irrigation diversion.	a	Design fish ladder.
		b	Obtain necessary permits.
		c	Coordination with co-managers (ODFW).
		d	Award contract for construction.
		e	Construction of ladder.
		f	Site stabilization as necessary.
		g	Monitor success of project using existing M&E program.
2	Construct a fish ladder on Evans Creek (Rm 4.0) to restore fish passage to anadromous fish past an irrigation diversion.	a	Design fish ladder.
		b	Obtain necessary permits.
		c	Coordination with co-managers (ODFW).
		d	Award contract for construction.
		e	Construction of ladder.
		f	Site stabilization as necessary.
		g	Monitor success of project using existing M&E program.
3	Design a fish ladder for construction in FY 99 on Tony Creek (Rm 0.5), tributary to the Middle Fork Hood River, to restore fish passage to anadromous fish past a water diversion dam.	a	Design a fish ladder necessary for juvenile and adult fish passage.
		b	Gain project approval from water users.
		c	Obtain necessary permits.
		d	Coordination with co-managers (ODFW).
		e	Seek construction dollars for FY 99.
		f	Seek project cost share dollars.

4	Design a fish screen for construction in FY 99 to the water diversion on Tony Creek (Rm 0.5). This will eliminate direct fish mortality from the unscreened diversion.	a	Design an appropriate fish screen.
		b	Gain project approval from water users.
		c	Obtain necessary permits.
		d	Coordination with co-managers (ODFW).
		e	Seek construction and installation dollars for FY 99.
		f	Seek project cost share dollars.
5	Design a fish screen for construction in FY 99 to an irrigation water diversion on Neal Creek (Rm 4.0). This will eliminate direct fish mortality from the improperly screened diversion.	a	Design a fish screen that is effective and meets state and federal fish screen standard.
		b	Obtain necessary permits.
		c	Coordination with co-managers (ODFW).
		d	Seek construction and installation dollars for FY 99.
		e	Provide cost share support with East Fork Irrigation District.
6	A half-mile of riparian area of Wisheart Creek (Rm 1.0), tributary to the East Fork Hood River, will be fenced to exclude livestock.	a	Purchase and obtain fencing materials.
		b	Design and construct fence.
		c	Design and installation of a supplemental watering source.
		d	Establish initial photopoints for monitoring.
		e	Monitor success of project under existing M&E program.
7	Prepare annual report summarizing activities for FY 98.	a	Summarize and report information in association with the Hood River Production Program M&E component of the project.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	01/1998	09/1998	37.1
2	01/1998	09/1998	37.1
3	01/1998	09/1998	5.2
4	01/1998	09/1998	5.2
5	01/1998	09/1998	5.2
6	01/1998	09/1998	7.0
7	01/1998	12/1998	3.2

Schedule constraints.

Completion date.

Completion dates for objectives mentioned above will only require FY 1998 funding. Objectives 3, 4, and 5 only include design. Construction and installation costs will need funding for FY 1999. In addition, the CTWS, as part of the Hood River Production Program will continue to seek additional funding for habitat opportunities in out years as needed.

Section 5. Budget

Item	Note	FY98
Personnel		5,400
Fringe benefits		1,242
Supplies, materials, non-expendable property		2,000
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		
Indirect costs		3,556
Subcontracts		85,000
Other		
TOTAL		97,198

Outyear costs

Outyear costs	FY1999	FY2000	FY01	FY02
Total budget	117,088	200,000	200,000	200,000
O&M as % of total	0	0	0	0

Section 6. Abstract

The current habitat project consists of several components: design and construction in 1998 of two concrete fish passage weirs, eliminating man-made barriers at irrigation diversions; design work for solving three additional upstream and downstream artificial passage problems for construction in FY 99; and fencing one-half mile of riparian in 1998, allowing recovery from a livestock feedlot. Construction of fish weirs in 1998 will restore five miles of winter steelhead and resident trout spawning and rearing habitat. Riparian fencing will enhance water quality, stabilize streambanks, and reduce sediment in Wisheart and in the East Fork. Landowners have agreed to participate and will except operation and maintenance costs upon completion of the projects. Success of individual projects will be evaluated with the existing CTWS M&E program (project 88-053-03) and reported annually in project reports submitted to BPA. The HRPP is a fish supplementation project in the lower Columbia Basin funded by BPA and jointly implemented by the CTWS and ODFW. The primary goals of the HRPP are to (1) re-establish naturally sustaining spring chinook salmon using Deschutes stock in the Hood River subbasin, (2) rebuild naturally sustaining runs of summer and winter steelhead in the Hood River, (3) maintain genetic characteristics of the population, and (4) contribute to tribal and non-tribal fisheries, ocean fisheries, and the Northwest Power Planning Council's (NPPC) goal of doubling salmon runs in the Columbia Basin. In Section 7 of the 1994 version of the Columbia River Basin Fish and Wildlife Program, the NPPC recommended that implementation of production and habitat actions be fully coordinated (NPPC 1994). In addition, an EIS was completed in 1996 for the HRPP. A record of decision was signed supporting the importance and need of habitat improvements (DOE and BPA 1996).

Section 7. Project description

a. Technical and/or scientific background.

The HRPP is a fish supplementation project in the lower Columbia Basin funded by BPA and jointly implemented by the CTWS and ODFW. The primary goals of the HRPP are to (1) re-establish naturally sustaining spring chinook salmon using Deschutes stock in the Hood River subbasin, (2) rebuild naturally sustaining runs of summer and winter steelhead in the Hood River, (3) maintain genetic characteristics of the population, and (4) contribute to tribal and non-tribal fisheries, ocean fisheries, and the Northwest Power Planning Council's (NPPC) goal of doubling salmon runs in the Columbia Basin (O'Toole, P. 1991a).

In accepting the Hood River Production Master Plan, the NPPC recommended adopting a three-phased approach which included collecting baseline information, project implementation and facilities construction, and follow-up monitoring and evaluation studies. The NPPC also approved development of a habitat restoration and protection plan for the Hood River (NPPC 1992). Comprehensive collection of data began in the Hood River subbasin in late, 1991, including information on the life history and production of anadromous salmonid stocks and habitat availability and inadequacy (CTWS and ODFW 1997). In 1996, an Environmental Impact Statement was completed for the HRPP cooperatively by BPA, CTWS, and ODFW. A record of decision was completed 10 October, 1996 by Randy Hardy (Administer of BPA); and supports the NPPC goals. The decision was to proceed with Alternative 1, because it best meets the need and purposes stated in the Final EIS and has the best potential for re-establishing or rebuilding and sustaining populations of anadromous salmonids in the Hood River subbasin via a combination of supplementation, habitat improvements, and a monitoring and evaluation program (DOE and BPA 1996).

In Section 7 of the 1994 version of the Columbia River Basin Fish and Wildlife Program, the NPPC recommended that implementation of production and habitat actions be fully coordinated (NPPC 1994). The Tribes, in Volume II of the Spirit of the Salmon Plan, support the NPPC in the need for a combination of supplementation and habitat restoration, "Restoration of the anadromous fish populations in the Hood River subbasin will need to incorporate a combination of improved natural fish production and supplementation with cultured fish. Improved natural production could occur through improvements in the screening of irrigation diversions, habitat restoration and passage restoration (CRITFC 1996)."

It is important to recognize that fish habitat restoration is a key component to achieving the goals of the HRPP and fish recovery. Habitat problems and needs of the Hood River subbasin have been identified and are detailed in numerous reports, management plans, and other documents written by The Tribes, ODFW, Hood River Watershed Group (HRWG), NPPC, BPA, PacifiCorp, USFS, and others in response to identified problems (see references, section g). Implemented habitat improvement projects have addressed some of the needs and have been implemented by CTWS, ODFW, USFS, and other user groups within the Hood River subbasin. One major success in 1996 was the screening of the East Fork Irrigation District's (EFID) diversion. The diversion, which had been unscreened for nearly 25 years, diverts a significant portion of the East Fork Hood River (including fry, fingerlings, smolts, and adults). Based on fish salvage in the fall of each year by ODFW, CTWS, USFS, and volunteers, it is believed that this diversion significantly increased the egg-to-smolt mortality rates for the East Fork drainage. In coordination between CTWS, ODFW, and EFID, a Coanda fish screen was approved as long as the mortality rate was below 5% (including losses due to descaling).

CTWS completed one riparian fencing project on Neal Creek (tributary to the mainstem Hood River) in 1996 as part of the Tribal Early Action Projects funded by BPA. One quarter mile of stream was fenced to exclude livestock and 100 cubic yards of rip rap rock was placed. This project will enhance water quality, stabilize the streambanks, reduce

sediment, and provide additional juvenile fish rearing habitat. Besides fish enhancement, this project should encourage other landowners to participate in improving fish habitat within the Hood River subbasin (CTWS and ODFW, 1997). Additionally, in cooperation with ODFW, National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the Department of Environmental Quality, CTWS has worked with PacifiCorp in the relicensing process of Powerdale Dam hydro facility to gain additional water in the mainstem Hood River bypass reach (Rm 1.0-4.0) and replace the inefficient fish screens at Powerdale Dam.

Projects undertaken by the USFS have been designed to mitigate for spawning and rearing habitat degradation in many areas of the drainage. In cooperation with ODFW and CTWS, the USFS between 1988-1993 distributed large woody debris in the upper West Fork and East Fork Hood River, Lake Branch Creek, Clear Branch Creek (above and below Clear Branch Dam), and McGee Creek. The structures created with woody debris have provided fish cover and habitat diversity into the stream. In addition, road closures, removal of culverts and fills, and vegetative replanting have been implemented to lower turbidity levels in the Hood River subbasin. Guidelines for managing riparian buffers along the streams have also gone into affect. The buffer requirements are 300 ft or two perennial tree heights. Having buffer guidelines will further maintain riparian growth, woody debris stream recruitment, shade, and fish cover (ODFW and CTWS 1990).

Future stream habitat projects have been planned by the USFS as part of a Hatfield flood grant. Between 1997-1999. The USFS plans to add additional woody debris in Lake Branch (upstream from raker pit), Clear Branch Creek (between Lawrence Lake Dam and Coe Branch Creek), and in the East Fork Hood River (near Nottingham). In addition, a levee will be removed on the East Fork Hood River near Sherwood Campground which will allow the stream to meander more naturally.

Projects implemented by ODFW have been designed to minimize egg-to-smolt mortality rates and to improve passage both upstream and downstream migrant salmonids. In cooperation with private landowners and the irrigation districts, ODFW has attempted to have diversions properly screened and has eliminated a potential barrier to upstream migrant salmonids at “moving” falls located at Rm 3.7 in the West Fork Hood River (funded by BPA).

In coordination with ODFW, Salmon and Trout Enhancement Program (STEP) volunteers have provided assistance in implementing several projects designed to improve spawning and rearing habitat in tributary streams. Rock structures and log deflectors were placed in Neal Creek (tributary to the mainstem Hood River), and Tony and Clear Branch (tributaries to the Middle Fork Hood River) [ODFW and CTWS 1990].

PROJECT PROPOSAL HISTORY

Although some fish habitat restoration projects have been completed within the Hood River subbasin many opportunities still exist. Aquatic inventory surveys, conducted by ODFW research (Kim Jones) and USFS, identified fish habitat restoration opportunities within the Hood River subbasin. Artificial fish passage barriers were located on Evans and Tony creeks (ODFW 1995 and USFS 1996). Follow up surveys by CTWS M&E confirmed winter steelhead adults are not able to utilize habitat upstream of these barriers.

Currently, Middle Fork Irrigation District has placed Alaska steep pass fish ladders on the two Evans Creek barriers. Because attraction water is insufficient and enters considerably downstream from the barriers, winter steelhead tend to be attracted to the diversion dams instead of the entrance to the ladder.

The Tony Creek diversion draws 3.5 cfs for industrial and irrigation uses. Although this diversion has never been screened, the water users have indicated interest in cost sharing the design and installation of a juvenile fish screen. The Neal Creek irrigation diversion has been screened since 1960 with a rotary fish screen. However, this screen has long been recognized as being inadequate to protect juveniles from the irrigation ditch. Season ending fish salvage by ODFW, CTWS, and volunteers have collected hundreds of salmonids annually. The majority of funding, for the Neal Creek diversion screen, will be assumed by East Fork Irrigation District.

b. Proposal objectives.

- 1) Design and construction of concrete fish ladders at RM 2.5 and 4.0 on Evans Creek, tributary to the East Fork Hood River, restoring five miles of winter steelhead, coho salmon, and resident trout spawning and rearing habitat (Objectives 1 & 2, section 4).
- 2) Complete structure design necessary for upstream fish passage on Tony Creek, tributary to the Middle Fork Hood River. Completion of this project will result in three miles of winter steelhead and resident trout spawning and rearing habitat (Objective 3, section 4).
- 3) Complete fish screen design necessary for downstream fish passage on Tony Creek. Upon installation of the fish screen will reduce direct fish mortality through the unscreened water diversion (Objective 4, section 4).
- 4) Complete fish screen design necessary for downstream fish passage on Neal Creek, tributary to the mainstem Hood River. Upon installation will reduce direct fish mortality through the improperly screened irrigation diversion (Objective 5, section 4).
- 5) Allow one-quarter mile of stream riparian to recover on Wisheart Creek, tributary to the East Fork Hood River, by excluding livestock from the stream (Objective 6, section 4).
- 6) Document results of the project (Objective 7, section 4).

c. Rationale and significance to Regional Programs.

The project meets all known local, state, federal, and tribal laws. The NPPC under the Columbia River Basin Fish and Wildlife Program has approved many similar projects in the state of Oregon, Washington, and Idaho. Several of these projects have been successfully implemented by BPA, including combinations of supplementation and habitat projects within the Umatilla and Yakama Basins, involving state and tribal projects.

This project is consistent with several areas of the NPPC's Fish and Wildlife Program, Section 7.0. Specifically, it is consistent with sections 7.0A, 7.6, 7.7, 7.8, and 7.10 through a combination of supplementation (HRPP, ongoing projects) and habitat restoration, with goals of increasing natural production and survival significantly; cooperative habitat restoration efforts with private landowners; watershed restoration through activities cooperatively undertaken by federal, state, tribal, and private parties; individual project objectives providing necessary passage and screens and water quality and quantity for anadromous and resident fish (NPPC 1994).

The HRPP, intends to integrate hatchery and natural production and increase stock abundance, productivity, and use of available habitat. However, results will be amplified when coupled with the ongoing and proposed habitat improvement actions in the subbasin.

The cumulative effect of the HRPP with habitat improvement projects in the Hood River subbasin will be to increase the chances for recovery of salmonid resources in the subbasin. On a regional basis, successful supplementation and other artificial production projects, together with habitat and passage improvements, will help to achieve the full natural and hatchery production potential of the Hood River subbasin and the Columbia River Basin in general. The cumulative effect will be to amplify the basin-wide shift toward optimum habitat utilization and reduced reliance on traditional hatchery production (DOE and BPA 1996).

All projects have been identified and prioritized using an interdisciplinary team of specialists from the CTWS, ODFW, USFS, and private agency and public representation from the HRWG (resumes, section 9). The focus of this project is to reduce direct fish mortality and increase adult spawning opportunity on tributaries of the Hood River subbasin. On a holistic watershed approach, project efforts rely and build adaptively upon previous and ongoing activities as mentioned earlier (section a).

d. Project history

e. Methods.

- 1) a. Subcontract fish ladder design and construction at two locations on Evans Creek. Design will meet necessary state, federal, and tribal criteria for fish passage.
- b. Obtain state and federal waterway permits.

- c. Coordinate with co-managers and private landowners. Approval has been granted by private landowner with additional cost share.
 - d. Site stabilization as necessary (e.g. grass seeding).
 - e. Consequent to completion, visually inspect operation of weirs.
- 2) a. Subcontract fish ladder design on Tony Creek. Design will meet necessary state, federal, and tribal criteria for fish passage. Construction would be completed in FY 99.
- b. Obtain state and federal waterway permits for construction in FY 99.
 - c. Coordinate with co-managers and private landowners.
 - d. Seek cost share dollars for construction in FY 99.
- 3) a. Subcontract fish screen design for Tony Creek. Design will meet necessary state, federal, and tribal criteria for downstream fish passage. Installation would be completed in FY 99.
- b. Obtain state and federal waterway alteration permits for installation and construction in FY 99.
 - c. Coordinate with co-managers and private landowners.
 - d. Seek cost share dollars for construction in FY 99.
- 4) a. Subcontract fish screen design for Neal Creek. Design will meet necessary state, federal, and tribal criteria for downstream fish passage. Installation would be completed in FY 99.
- b. Obtain state and federal waterway alteration permits for installation and construction in FY 99.
 - c. Coordinate with co-managers and private landowners.
 - d. Provide support to the East Fork Irrigation District and partial cost share dollars for construction in FY 99.
- 5) a. Design and construction of one-half mile of riparian fencing. Will construct four-strand barbwire fencing using 12 and one-half gauge wire.
- b. Construction of a gravity fed water trough used as a substitute watering source for livestock.

c. Will monitor site annually using photopoints.

6) a. Project objectives upon completion and throughout monitoring will be documented within the HRPP annual report, along with the M&E components of the program, submitted to BPA.

f. Facilities and equipment.

The HRPP (CTWS and ODFW) monitoring and evaluation projects have been collecting baseline information on the Hood River subbasin since 1991, and is in the second year of implementation and following completion of the EIS. A project office and office equipment and supplies exist for personnel (e.g. office space, computer, desk and supplies, and vehicle). Existing project biologists will oversee this habitat project contract. No additional capital acquisitions or improvements will be billed directly to this project. Design and construction of concrete fish weirs and screens will be subcontracted to the necessary experts for job completion and will meet state and federal agency standards (Objectives 1-5). Fencing supplies will need purchased for accomplishing the one-half mile riparian fencing project (Objective 6).

g. References.

CRITFC. 1996. WY-KAN-USH-MI WA-KISH-WIT. The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes. Portland, Oregon. Cited: volume II, page 25.

CTWS and ODFW, cooperators. 1997. Annual progress report. Hood River and Pelton Ladder evaluation studies. Annual Progress Report of the Confederated Tribes of the Warm Springs Reservation and Oregon Department of Fish and Wildlife (Projects 89-053-03 and 89-053-04) to Bonneville Power Administration, Portland, Oregon.

Department of Natural Resources, Confederated Tribes of the Warm Springs Reservation of Oregon. October 1993. Hood River/Pelton Ladder master agreement. Bonneville Power Administration, Portland, Oregon. Cited: pages 6 and 7.

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Northwest Power Planning Council (NPPC). 1992. NPPC approval letter for the Hood River Master Plan to Zane Jackson, Chairman, CTWS. April 16, 1992.

NPPC. 1994. Columbia River Basin Fish and Wildlife Program. Adopted November 15, 1982. Amended December 14, 1994. Northwest Power Planning Council, Portland, OR.

ODFW (Oregon Department of Fish and Wildlife). 1995. Aquatic Inventories Project: Physical Habitat Surveys, Fish Surveys, Hood River Subbasin.

ODFW and CTWS (Oregon Department of Fish and Wildlife and Confederated Tribes of the Warm Springs Reservation of Oregon). September, 1990. Hood River Subbasin Salmon and Steelhead Production Plan. Cited: pages 27-30.

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USDA Forest Service, Mt Hood National Forest. 1996. West Fork of Hood River Watershed Analysis. Mt. Hood-Parkdale, Oregon. Cited: chapters 6 and 7.

USDA Forest Service, Mt Hood National Forest. 1996. Tony Creek Stream Survey. Mt. Hood-Parkdale, Oregon.

Section 8. Relationships to other projects

The HRPP is composed of seven separate contracts designed to increase production of wild summer and winter steelhead and to reintroduce and reestablish spring chinook salmon within the Hood River subbasin. The seven separate contracts, approved by the NPPC and funded by BPA, primarily provide funding for three broad categories of activities. These include engineering, implementation, and monitoring and evaluation studies. Funding for the engineering component of the HRPP provides for the design and construction of facilities at Powerdale Dam, Parkdale, and Oak Springs Hatchery that are needed to implement the HRPP. Funding for implementation provides for broodstock collection, holding, fish transport, spawning, rearing, and marking and tagging. Funding for monitoring and evaluation studies provide for the evaluation of the HRPP and any interaction the hatchery program may be having on wild populations of fish.

In Section 7 of the 1994 version of the Columbia River Basin Fish and Wildlife Program, the NPPC reiterated its determination that implementation of production and habitat actions be fully coordinated (NPPC, 1994). In 1996, an Environmental Impact Statement

was completed for the HRPP cooperatively by BPA, CTWS, and ODFW. A record of decision was completed 10 October, 1996 by Randy Hardy (Administer of BPA); and supports the NPPC goals. The decision was to proceed with Alternative 1, because it best meets the need and purposes stated in the Final EIS and has the best potential for re-establishing or rebuilding and sustaining populations of anadromous salmonids in the Hood River subbasin via a combination of supplementation, habitat improvements, and a monitoring and evaluation program (DOE and BPA 1996).

The HRPP, if successful, would integrate hatchery and natural production and increase stock abundance, productivity, and use of available habitat. However, results would be amplified when coupled with the ongoing and proposed habitat improvement actions in the subbasin. The cumulative effect of the HRPP with habitat improvement projects in the Hood River subbasin would be to increase the chances for recovery of salmonid resources in the subbasin. On a regional basis, successful supplementation and other artificial production projects, together with habitat and passage improvements, would help to achieve the full natural and hatchery production potential of the Hood River subbasin and the Columbia River Basin in general. The cumulative effect would be to amplify the basin-wide shift toward optimum habitat utilization and reduced reliance on traditional hatchery production (DOE and BPA 1996).

Upon approval of this project, necessary state and federal waterway permits will be sought. Landowner permission has been granted for all objectives mentioned above. Operation and maintenance costs will be adopted by landowners upon completion of the project.

Section 9. Key personnel

MICK JENNINGS
3430 W 10th Street
The Dalles, OR 97058

EDUCATION

B.S. in Fisheries Science 1965

Dept. of Fisheries and Wildlife
Oregon State University, Corvallis, OR

PROFESSIONAL EXPERIENCE

CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON

The Dalles, Oregon. March, 1995 to present. Salaried-40+hrs/week.

Job Title: Program Coordinator, Hood River Production Program

Duties: This position oversees the Tribal portion of the Hood River Production Program (HRPP), a Bonneville Power Administration funded program which is to restore anadromous fish runs in Hood River. Duties include oversight of project administration, engineering, construction, monitoring and evaluation of Hood River research, habitat evaluation and fish culture. This position updates Tribal Fish and Wildlife Committee, Tribal Council, Northwest Power Planning Council and others on progress of HRPP. This position budgets and administers a \$500,000 monitoring and evaluation contract of Hood River research and supervises a staff of five full-time and three seasonal employees in an office in The Dalles, Oregon.

OREGON DEPARTMENT OF FISH AND WILDLIFE

Portland, Oregon. April, 1990 to February, 1995. Salaried 40+hrs/week.

Job Title: Steelhead Program Leader

Duties: This position directs, guides and assists the regions in the Department to implement a Statewide Steelhead Management program. Major duties consist of providing programmatic direction by coordinating the implementation of the policies, objectives and guidelines contained in the Statewide Steelhead Plan; preparing quarterly program progress reports, annual Steelhead Report, and other special reports and news releases; preparing and monitoring biennial budget; directing the research necessary to implement the Steelhead Plan; directing staff involved in collection and analysis of fisheries data; coordination of projects affecting steelhead resources; and providing guidance to Department personnel responsible for implementing the Steelhead Plan on state-of-the-art steelhead management techniques.

OREGON DEPARTMENT OF FISH AND WILDLIFE

Roseburg-Grants Pass, Oregon

Job Title: **District Fish Biologist**, June, 1982 to March, 1990. Salaried-40+hrs/week.

Assistant District Fish Biologist, November, 1966 to May, 1982. 40hrs/week

Duties: Management biologist responsible developing, planning, supervising, analyzing and completing various fish management programs in the district. Approximately 60 percent of activities involved habitat protection and restoration. A considerable amount of the habitat restoration activities involved adult and juvenile fish passage issues.

Improvements to artificial fish passage barriers that I assisted in design and personally worked on included Little Butte Dam, Fielder Dam, Waters Creek Dam, Savage Rapids Dam, Kane Creek culvert, and Wimer Dam. I was continually evaluating fish passage at the approximately 100 small dams in the Rogue Basin. Also, a major part of my duties was spent supervising the fish screens program in the upper Rogue where over 150 rotary screens were in operation. Coordinated stream habitat restoration projects with the five USFS ranger districts that I worked with were routinely reviewed and evaluated for fishery resource benefits.

PUBLICATIONS/JOB COMPLETIONS

Steelhead Plan, Oregon Department of Fish and Wildlife, Wade M., et al. 1995. This is a comprehensive plan for production and management of Oregon's anadromous steelhead. I was the primary person responsible for its development and completion, including setting up and overseeing technical and public advisory committees, incorporating comments and developing support of co-managers and the public, and finally adoption by the Fish and Wildlife Commission. This process took about 18 months.

Hooton, B., Jacobs S., Jennings, M., Kostow, K., McPherson, B., Nickelson T., Smith, A., Weeks, H. 1995. Biennial report on the status of wild fish in Oregon. Oregon Department of Fish and Wildlife. Portland, Oregon. 217 p.

Lambert, M. B., Jennings, M., O'Toole, P. 1995. Hood River and Pelton Ladder evaluation studies. Annual Progress Report (Project 89-053-03) of the Confederated Tribes of the Warm Springs Reservation of Oregon. In cooperation with Oregon Department of Fish and Wildlife. Report B, pages 173-285 to Bonneville Power Administration, Portland, Oregon.

Lambert, M.B., Jennings, M., McCanna J. 1996. Hood River and Pelton Ladder evaluation studies. Annual Progress Report (Project 89-053-03) of the Confederated Tribes of the Warm Springs Reservation of Oregon. In cooperation with Oregon Department of Fish and Wildlife. Report B, pages 163-257 to Bonneville Power Administration, Portland, Oregon.

MICHAEL LAMBERT
3430 W 10th Street
The Dalles, OR 97058

EDUCATION:

B.S. in Biology 1992

Western Oregon State College, Monmouth, OR

PROFESSIONAL EXPERIENCE:

THE CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON, The Dalles, OR; March 1995 to present. Salaried-40+hrs/week.

Job Title: **Fisheries Project Leader**

Duties: This position reports to the Program Coordinator. This position is responsible for coordinating and implementing field activities for the Hood River Production Program (HRPP) M & E. M & E activities include: determining abundance, distribution, and life history patterns for anadromous and resident fishes; overseeing genetic sampling and developing a comprehensive genetic monitoring and evaluation plan; evaluating ecological interactions of wild/natural fish and hatchery fish; oversee smolt acclimation ponds (setup and operations) and experimental design to determine effectiveness of acclimation of spring chinook salmon and winter and summer steelhead smolts; implement hatchery fish culture monitoring/coordination; and oversee Pelton Ladder (Deschutes River) spring chinook smolt survival studies between the newly modified sections and old established sections of the ladder. Have been overseeing habitat restoration/protection activities on the Hood River. Co-authoring the habitat protection, restoration, and monitoring plan and coordinating with other agencies and co-manager (ODFW). Compile, summarize, and analyze data collected, and prepare monthly/annual reports for the HRPP.

OREGON DEPARTMENT OF FISH AND WILDLIFE, Various locations.

Job Title: **Experimental Biologist Aide - Fisheries**

Hermiston, OR; November 1994 through February 1995; hourly-40hrs/week.

Tillamook, OR; October 1994 through November 1994; hourly-40hrs/week.

Port Orford, OR; October 1993 through January 1994; hourly-40hrs/week.

LaGrande, OR; June 1993 through September 1993; hourly-40hrs/week.

Hermiston, OR; February 1993 through June 1993; hourly-40hrs/week.

Pendleton, OR; June 1990 through September 1990; hourly-40hrs/week.

Pendleton, OR; June 1989 through September 1989; hourly-40hrs/week.

Duties (relevant): Assisted in preparation and construction of a concrete weir built for improving upstream fish passage. Planned, constructed, and maintained riparian fence enclosures. Enclosures built for maintaining and recovery of riparian vegetation from cattle and sheep grazing. Revegetated degraded riparian zones for quicker recovery. Performed habitat surveys measuring habitat parameters important to desired fish species in proposed habitat project areas. Collected abundance, distribution, and life history patterns for anadromous and resident fishes

PACIFIC STATES MARINE FISHERIES COMMISSION, LaGrande, OR; March 1994 through July 1994; hourly-40hrs/week Job Title: **Biological Assistant - Fisheries**

U.S. FOREST SERVICE - LAMBERT & BEEN, ET AL, Pendleton, OR; May 1992 through December 1992 and May 1991 through February 1992; contracted payment-averaged 46hrs/week.

Job Title: **Private Contractor - Stream Habitat And Fish Surveys**

Duties: Completed over 200 miles of stream habitat and fish surveys documenting: stream channel characteristics and morphology; riparian zone vegetation; fish identification, population, location, barriers, and enhancement opportunities; and wildlife existence. Wrote final reports for each stream surveyed, and within each report documented habitat enhancement and rehabilitation opportunities. Management tasks included overseeing \$140,000 budget (between two contracts), negotiating with USFS contracting officers, and training and distributing job duties to staff.

PUBLICATIONS/JOB COMPLETIONS

Completed the FY 1997 HRPP tribal contract for BPA(project number 89-053-03), currently working on the 1997 HRPP Annual Report.

Completed the FY 1995 and 1996 HRPP tribal contracts for BPA(project number 89-053-03). In addition, FY 1995 and 1996 HRPP Annual Reports have been published by BPA.

Lambert, M. B., Jennings, M., O'Toole, P. 1995. Hood River and Pelton Ladder evaluation studies. Annual Progress Report (Project 89-053-03) of the Confederated Tribes of the Warm Springs Reservation of Oregon. In cooperation with Oregon Department of Fish and Wildlife. Report B, pages 173-285 to Bonneville Power Administration, Portland. Oregon.

Lambert, M.B., Jennings, M., McCanna J. 1996. Hood River and Pelton Ladder evaluation studies. Annual Progress Report (Project 89-053-03) of the Confederated Tribes of the Warm Springs Reservation of Oregon. In cooperation with Oregon Department of Fish and Wildlife. Report B, pages 163-257 to Bonneville Power Administration, Portland, Oregon.

Completed a Tribal Restoration Plan riparian fencing and rip rap project on Neal Creek, tributary to the Hood River. Project reported in the FY 1996 Annual Report for BPA.

Completed contractual services for the US Forest Service as mentioned above.

HOLLY COCCOLI
1222 Lincoln Street
Hood River, OR 97031

EDUCATION

M.S. Environmental Engineering and Science 1996

University of Washington, Seattle, WA;
College of Engineering

B.S. in Fisheries Science 1988

University of Washington, Seattle, WA;
College of Ocean and Fishery Science

PROFESSIONAL EXPERIENCE

HOOD RIVER SOIL AND WATER CONSERVATION DISTRICT

Hood River, OR. October 1997 to present. Salaried-40+hrs/week.

Job Title: Watershed Group Coordinator

Duties: Produce a watershed assessment and action plan for the Hood River subbasin. Support and assist member agencies and volunteers with fish habitat restoration and watershed-related projects, including funding applications for projects. Conduct educational activities and monthly meetings.

MUCKLESHOOT INDIAN TRIBE, Auburn, WA.; December 1989 through October 1997. Salaried-40+hrs/week. Job Title: **Water Resources Division Manager**

Duties: Responsible for technical recommendations related to water supply and hydroelectric projects in the Green, Cedar, and White River basins. Analyzed fisheries and environmental impacts of ground and surface water development proposals and water supply plans. Represented tribal fisheries interests in instream flow, fish passage, flood control, reservoir and drought management concerns. Managed projects and consultant contracts for instream flow, fisheries, historical, economic, and hydrogeology research, supervised research biologist and water resource planner. Monitored and responded to state legislation affecting water resources. Coordinated tribal activities for 1995 settlement with City of Tacoma involving historic damages, instream flow, cultural rights and fisheries enhancement. Developed and negotiated an instream flow agreement for the Green River with the City of Tacoma, and numerous settlements with King County water utilities using groundwater. Participated in state legal proceedings related to groundwater and streamflow resource protection. Represented Tribe in negotiations related to instream flow and anadromous fish mitigation for the City of Seattle Cedar River Watershed Habitat Conservation Plan. Formulated a habitat restoration plan for a 7-mile reach of the White River for a successful grant application funded by US Department of Defense.

POINT NO POINT TREATY COUNCIL, Kingston, WA.; May 1988 to November 1989. Salaried-40hrs/week. Job Title: **Watershed Specialist/Habitat Program Coordinator**

Duties: Responsible for environmental protection activities of the Council (Lower Elwha, Jamestown, and Port Gamble s'Klallam, and Skokomish Tribes) in Kitsap, Clallam, Mason and Jefferson Counties. Supervised Hydropower Specialist and coordinated staff activities in the Timber, Fish and Wildlife program. Managed stream restoration projects, including livestock fencing and large woody debris placement. Represented member Tribes in state and regional nonpoint water pollution activities. Reviewed development impacts on fish, shellfish, and wildlife resources. Conducted water quality monitoring activities. Pursued compliance with environmental laws regarding water quality, hazardous waste, land use, and forest practices. Wrote grant applications addressing water quality, hazardous waste, drinking water and sewer problems.

CITY OF SEATTLE DEPARTMENT OF LIGHTING, Seattle, WA; February 1987 to May 1988. Salaried-40hrs/week. Job Title: **Assistant Environmental Analyst**
Duties: Participated in juvenile and adult fish surveys on the Skagit and Tolt river systems. Produced written meeting summaries for fisheries and instream flow negotiations for the South Fork Tolt River Hydroelectric Project Federal Energy Regulatory Commission settlement agreement. Administered a consultant contract for related Bald Eagle study. Conducted literature search of hydropower impacts on fish resources. Wrote annotated bibliography for Skagit River hydro project for federal licensing documents.

PUBLICATIONS/JOB COMPLETIONS

Effects of Springtime Flow Alteration on Side Channel Habitat in the Green River. MS Thesis, Dept. Of Civil Engineering, University of Washington, 1996. 78 pp.

Agreement Between the Muckleshoot Indian Tribe and the City of Tacoma Regarding the Green/Duwamish River System - August 24, 1995. Fisheries Mitigation Team Coordinator and technical lead for instream flows.

Critical Habitat Issues by Basin for Natural Chinook Stocks in the Coastal and Puget Sound Areas of Washington State. S. Bishop and A. Morgan, eds. Northwest Indian Fisheries Commission, January 8, 1996. Co-author of Cedar River/Lake Washington section with A. Morgan. p.10-14.

Technical lead for intervention cases, and expert witness in fisheries biology in a major consolidated water rights appeal proceedings for the Green and Cedar Lake Washington watersheds (*Department of Ecology, Muckleshoot Indian Tribe, and Center for Environmental Law and Policy v. Covington Water District*, and numerous other appellants) Washington State Pollution Control Hearings Board (PCHB) Olympia, Wa. 1996.

Muckleshoot Indian Tribe vs. Ecology and Covington Water District Stipulation and Agreed Order of Dismissal (PCHB) signed Feb 19, 1997. Settlement included withdrawal restrictions and provisions for groundwater monitoring related to hydraulic continuity with Soos Creek and the Green River, King County, Washington.

JIM NEWTON
3701 West 13th Street
The Dalles, Oregon 97058

EDUCATION

B.S. in Wildlife Management 1970

Dept. of Fisheries and Wildlife
Oregon State University, Corvallis, OR.

PROFESSIONAL EXPERIENCE

OREGON DEPARTMENT OF FISH AND WILDLIFE

The Dalles, Oregon, May 1981 to present. Salaried monthly - 40+ hours/week.

Job Title: **District Fish Biologist, Mid-Columbia District.**

Duties: This position is responsible for all fishery management activities within the 5,000 square mile Mid-Columbia Fish District. Specific duties include the overseeing of that portion of the Hood River Production Project dealing with the Powerdale Fish Facility operation and maintenance, project coordination with the CTWS and managers of the Round Butte and Oak Springs fish hatcheries. These duties include oversight for the Powerdale Fish Facility operation and maintenance, fish trapping, broodstock collection and transportation, and broodstock spawning. This position budgets and administers a \$150,000 operation and maintenance contract for the Powerdale Fish Facility and supervises four full time and three seasonal positions in the Mid-Columbia District Office.

OREGON DEPARTMENT OF FISH AND WILDLIFE

Portland, Oregon. September 1979 to May 1981. Salaried monthly - 40+ hours/week.

Job Title: **Habitat Conservation Division Staff Biologist.**

Duties: This position coordinated the review and comments on State Clearinghouse notices of proposed federally funded projects throughout the state. The review and comments on proposed oil, gas, and geothermal energy exploration projects was also coordinated with department field biologists. This position worked with Portland and appropriate field staff to review and comment on county land use plans being developed and amended throughout the state to insure that the state's fish and wildlife resources were adequately addressed and protected.

OREGON DEPARTMENT OF FISH AND WILDLIFE

The Dalles, Oregon. September 1971 to September 1979. Salaried monthly - 40+ hours/week. Job Title: **Assistant District Fish Biologist.**

Duties: This position assisted the district fish biologist with all phases of fishery management within the Mid-Columbia Fish District. Specific duties included: working with research personnel conducting fishery research on the lower Deschutes River; stream habitat restoration planning and implementation; environmental investigations (i.e. Corps,

DSL, Forest Practices, etc); angler use and harvest sampling programs; fish population inventory; and regular and special report preparation.

PUBLICATIONS/JOB COMPLETIONS

Mid-Columbia Fish District Annual Report - 1996, ODFW (unpublished). This is a concise reporting of all fishery management activities occurring within the Mid-Columbia Fish District during calendar year 1996. I was the person responsible for the preparation and completion of this report and distribution within the ODFW. This is an ongoing process that has been greatly facilitated by the preparation of detailed monthly reports. This report provides a concise summary of much of the district's institutional knowledge. 83 p.

Lower Deschutes River Resident Trout Population Inventory Report, ODFW. Newton, James and Leslie Nelson, 1997. This is a report on annual Deschutes River redband trout population inventory in two representative reaches of the lower Deschutes River. I was the person responsible for the initiation and completion of the field inventory, data analysis, and report preparation and completion. This project was completed in cooperation with the CTWS. 32 p.

Annual Progress Report - Lower Deschutes River, Oregon, Fish Population Studies (federal aide report for Sport Fish Restoration funding). Newton, James and Steven Pribyl, 1996. This is a comprehensive summary of lower Deschutes River anadromous fish studies, including harvest and population and spawner escapement estimates. I am the person responsible for the annual inventory program and completion of annual data analysis and progress report completion. This is an ongoing program that provides important biological data that is used as a valuable tool for fish management strategies. 37 p.

Lower Deschutes River Management Plan and Environmental Impact Statement. BLM, et al. 1993. This is a comprehensive plan for recreational use of the lower 100 miles of the Deschutes River. The plan also contains specific management goals and objectives for natural resource management. I was one of the people comprising the technical team that drafted much of the plan dealing with natural resource management within the river corridor. I provided much of the technical support for the fish and wildlife resources covered by this plan. Development of the plan included considerable coordination with other state, federal, and local government agencies, as well as the CTWS, and various river user groups. This plan took more than four years to complete. 160 p.

GARY ASBRIDGE

EDUCATION

M.S. in Fishery Resources 1988

University of Idaho

B.S. in Biology 1984

Montana State University

PROFESSIONAL EXPERIENCE

USDA FOREST SERVICE, MT. HOOD NATIONAL FOREST

Hood River Ranger District, Mt. Hood-Parkdale, Oregon, March 1994 to present.

Salaried monthly - 40+ hours/week.

Job Title: **Zone Fisheries Biologist, Hood Ranger and Barlow Ranger Districts.**

Duties:

-  Fisheries Program Manager, Hood River and Barlow Ranger Districts.
-  Member of Hood River Ranger District leadership team representing fisheries, hydrology, soils, GIS, and computer services.
-  Prepare and track fisheries and watershed budgets.
-  Interdisciplinary team member for project planning including timber sales, flood restoration, and ski area development.
-  Write Biological Assessments and Evaluations to describe project effects on proposed, threatened, and sensitive aquatic species.
-  Design, implement and monitor watershed restoration projects, both riparian and in-stream.
-  Supervise five permanent employees.

USDA FOREST SERVICE, MT. HOOD NATIONAL FOREST

Barlow Ranger District, Dufer, Oregon, February 1990 to March 1994. Salaried monthly 40+ hours/week. Job Title: **District Fisheries Biologist.**

Duties:

-  Interdisciplinary team member for project planning including timber sales, recreation projects, and watershed restoration.
-  Planned, implemented and monitored stream and riparian habitat restoration projects.
-  Prepared and tracked district fisheries budget.
-  Supervised two fisheries technicians.
-  Wrote yearly accomplishment reports for Bonneville Power Administration funded projects.
-  Coordinated baseline and project monitoring program.

PUBLICATIONS/JOB COMPLETIONS

Asbridge, G., J. Dodd, and S. Harte. 1996 (Draft). Mile Creeks watershed restoration monitoring. Final Report 1995-1996. Mt. Hood National Forest, Barlow Ranger District. (This report summarizes an extensive effectiveness monitoring program for a wide range of watershed restoration projects. I was responsible for setting up the monitoring protocol, conducting or overseeing field work, and writing the annual and final report.)

Asbridge, G. and C. Brun. 1992. Fifteenmile basin habitat improvement project, 1992 annual report. Project number 84-11. Bonneville Power Administration, Portland, OR.

Asbridge, G. and T.C. Bjornn. 1988. Survey of potential and available salmonid habitat in the Boise River, Idaho Department of Fish and Game, Job Completion Report, Project F-71-R-10, Subproject III, Job No. 3, Boise, Idaho.

Section 10. Information/technology transfer

Project planning, implementation, and continued monitoring of the project will be summarized within the HRPP CTWS Annual Report for BPA (Project 89-053-03). Project information will be presented to the public and outside agency staff through oral presentations and local newspaper reports.